



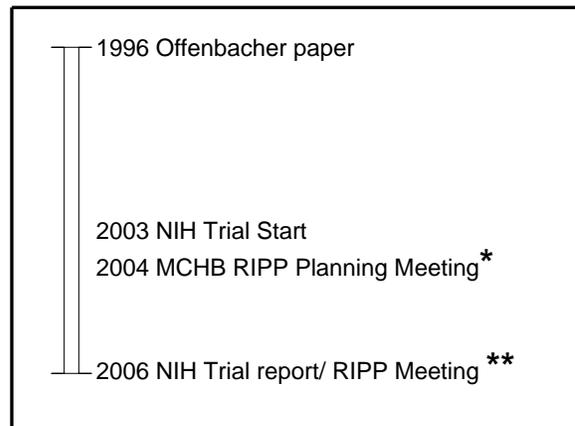
## **Public and Private Sector Efforts to Improve the Oral Health of Pregnant Women**

Burton L. Edelstein DDS MPH, Columbia University  
Karen VanLandeghem MPH, Health Policy Consultant

### **Charge**

Describe  
- a sampling of policies,  
programs, and practices  
- in the public and private  
sectors  
that typify how agencies have  
built upon the putative perio-  
preterm relationship.

## **Timeline**



\* First report of policies, programs, and practices: to 2004

\*\* Second report of policies, programs, and practices: 2004 -2006

## **Methods**

### Web searches

Sites: Google, Firstgov

Terms: PD, Preterm,  
Pregnancy, Low Birth Weight,  
Combinations

### Observations & recruitment

#### State searches

Title V Info System

AMCHP "Ask the Expert"

CDHP Oral Health Plans Tool

SOCHS Grantees

Phone interviews

**Findings**



Insurers



Manufacturers



Health Professionals



Consumer Advocates



Lay Press



Think Tanks



Federal Government



State Government



*Insurers*

# Wall Street Journal Summary

Ounce of Prevention		
Some insurance plans that are covering more preventive dental services for some patients, amid evidence it improves overall health:		
INSURERS	COVERED MEMBERS	ENHANCED BENEFITS
<b>Aetna Inc.</b>	13.4 million dental members in all states. Employers include Costco Wholesale.	Starting next year a free additional regular deep-cleaning and periodontal maintenance for diabetes and heart disease-management patients, as well as pregnant women. Implants available under some plans.
<b>Blue Cross Blue Shield of Michigan</b>	1.1 million dental members in Michigan area. Employers include Ford Motor Co. and Kellogg Co.	Pilot program covers an additional regular cleaning annually (over the usual limit of 2) for pregnant women, diabetics and heart patients, through year-end. Implants covered at 50% if employees pay for plan that includes them.
<b>Cigna Corp.</b>	5.5 million members with joint medical and dental coverage. Employers include Amet Inc.	100% coverage for scaling and root planing and periodontal maintenance for pregnant members or those in a disease-management program for diabetes or heart disease. All pregnant women can receive an extra regular cleaning. Implants covered if employer pays for benefit.
<b>Guardian Life Insurance Co. of America</b>	7 million plans in all 50 states.	Implants covered since June 2005 in PPO and indemnity plans for employers who pay for this benefit. Enhanced coverage for adult fluoride treatments expected in 2007.
<b>MetLife Inc.</b>	20 million covered for group dental and self-insured employer plans.	Implants covered if employer decides to provide for them. Adding fluoride varnish for adults as well as children (used to limit to age 19) in plans where employers decide to provide it reducing routine X-rays.
<b>Principal Financial Group Inc.</b>	1.93 million dental members.	In 2007, will introduce additional periodontal and regular cleanings for pregnant women and those in disease-management programs. Also, will introduce rider for employers that want it that covers cosmetic dentistry and implants.
<b>Washington Dental Service</b>	2 million members; employers include KCIS Public Television, and Pacific Research Laboratories.	Expanded tooth-sealant coverage for children and adults; antimicrobial mouth rinse for pregnant women; and prescription-strength toothpaste. But routine X-rays now covered annually instead of every 6 months.

Source: the companies.



## Periodontal Disease and Pre-Term Low Birth Weight Monograph for Dental Network Providers

## Research Studies with Columbia University

## Intelihealth website

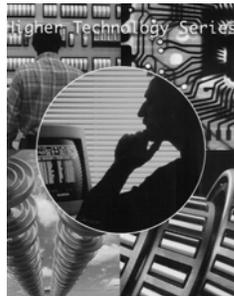
The screenshot shows the 'simplesteps' website interface. At the top, there is a search bar and a navigation menu with three main sections: '1 Prevent Problems', '2 Understand Conditions', and '3 Explore Treatments'. Below the navigation, there are several content cards:

- Periodontal Disease and Pregnancy:** A Columbia dentist says it's too early to tell whether periodontal disease increases the risk of premature birth.
- Dental News:** People of all ages can experience a dry mouth, which can increase risk for tooth decay.
- Parents' Guide:** Teaching dental visits. fluoride, cavities and much more - it's all here in our Parents' Guide.
- Interactive Tools, Illustrations, Videos:** You'll enjoy our original illustrations, cool tools and videos.
- Ask the Dentist:** Ask a question of dental professionals or read answers to questions submitted by others.
- Fun for Kids!** Watch a video, play games, and find other fun stuff about keeping your teeth and mouth healthy.

On the left side of the interface, there is a sidebar menu with categories like 'Oral Health Made Simple', 'PREVENT PROBLEMS', 'CONDITIONS', and 'TREATMENTS', each with a list of sub-topics and checkboxes.

## Drivers of Insurer Adoption

- Limiting erosion of Employer Sponsored Dental Insurance
- Reducing medical costs through dental care
- Market distinction at little potential liability with little marginal cost
- Oral-systemic health interaction promotion
- Wellness promotion
- Evidence-based care promotion



*Consumer  
Products  
Manufacturers*

## Butler Campaign

- Cites Offenbacher study for PD-Preterm along with other health conditions



## Listerine

- Print Campaign: Listerine bottle draped in stethoscope

**LISTERINE**  
ANTISEPTIC

**Healthy Mouth Healthy Body**

Taking care of your mouth may be more important than you ever imagined. The Surgeon General agrees, the 2005 report on Oral Health states that "oral health is essential to general health and well-being."

As of today, physicians and dentists aren't yet sure about the exact way the health of your mouth and the health of your body are connected. But many theories exist and dozens of studies are underway. Even if this connection is never fully explained by science, one thing is clear: a healthy mouth and a good oral care routine can only lead to good things.

**EXPLORE THE CONNECTION**



Emerging science suggests an association between periodontitis (advanced gum disease) and broader health problems, but a cause and effect relationship has not been established. Listerine® Antiseptic is not indicated to treat periodontitis.

# Tom's of Maine

## Reproductive Tract

Women with advanced gum disease are more likely to give birth to underweight, preterm babies.

Also, oral microbes may cross the placental barrier and expose the fetus to infection.

Healthy Body Health Mind  
PBS Segment on Oral Health



# Colgate & ADA





## *Professional Associations*

## AMA-ADA Media Briefing

Thursday, February 23, 2006  
AMA/ADA Meeting  
Oral Health Media Briefing  
Oral and Systemic Health: Exploring the  
Connection

***Pregnancy Risks  
Associated with  
Periodontal Disease***

Steven Offenbacher, DDS, PhD, MMSc  
James D Beck PhD

Center for Oral and Systemic Disease  
Department of Periodontology  
School of Dentistry  
University of North Carolina at Chapel Hill

A vertical column of logos on the left side of the briefing slide. From top to bottom: the UNC-CH seal, the OSU logo, the OCAP logo, the CCID logo, and the UNC DENTISTRY logo.



# GDA Call for Medicaid Coverage of Pregnant Women

**GDA** GEORGIA DENTAL ASSOCIATION  
 400 Peachtree Building 17 • 7000 Peachtree Dunwoody Road N.E. • Atlanta, Georgia 30328-1655  
 (404) 634-7525 • (800) 433-4337 • Fax (404) 433-3943

## Medicaid Dental Care for Adult Pregnant Women - FY07 BUDGET

**Position:** The more than 1,100 members of the Georgia Dental Association support funding basic prevention services and minor restorative treatment for adult pregnant women (\$3.6 million). Numerous studies show that women with periodontal (gum) disease may be up to seven times more likely to deliver a premature, low birth weight baby. Dental treatment for all adult Medicaid recipients is currently limited to emergency extractions only. Specifically, the pregnant women in the adult population have no access to preventive, diagnostic and restorative services.

The GDA would like to propose the following additional procedures to the program for adult pregnant women only:

- D0120 - periodic oral evaluation
- D0180 - comprehensive oral evaluation
- D0184 - comprehensive periodontal evaluation
- D1110 - adult prophyl
- D1204 - topical application of fluoride - adult
- D2140, 2150, 2160, 2181 - amalgam restorations
- D2230, 2331, 2332, 2333, 2361, 2362, 2363, 2364 - composite restorations
- D4240 - gingival flap procedure - 4 or more contiguous teeth/quadrant
- D4241 - gingival flap procedure - 1-3 contiguous teeth/quadrant
- D4341, 4342 - periodontal scaling and root planing
- D4910 - periodontal maintenance
- D7220 - biopsy of oral tissue - soft
- D9110 - emergency treatment of dental pain
- D9215 - local anesthesia

# NYS Consultation Form

Consultation Form for Pregnant Women to Receive Oral Health Care

Referred to: \_\_\_\_\_ Date: \_\_\_\_\_

Patient Name (Last, First, Middle): \_\_\_\_\_

DOB: \_\_\_\_\_ Estimated delivery date: \_\_\_\_\_ Week of gestation today: \_\_\_\_\_

**KNOWN ALLERGIES:** \_\_\_\_\_

**PRECAUTIONS:**  NONE  SPECIFY (if any): \_\_\_\_\_

This patient may have certain dental evaluations and care, including but not limited to:

- Oral health examination
- Dental prophylaxis
- Scaling and root planing
- Extractions
- Dental x-ray with abdominal and neck lead shield
- Local anesthesia with epinephrine
- Root canal
- Endodontics (root canal or composite) filling crowns

Patient may have (Check all that apply):

- Acetaminophen with codeine for pain control
- Ibuprofen pain control/anti-inflammation (Ibuprofen)
- Penicillin
- Amoxicillin
- Chlorhexidine
- Cephalosporins
- Erythromycin (Diet restriction issue)

Presonal Care Provider: \_\_\_\_\_ Phone: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DO NOT HESITATE TO CALL FOR QUESTIONS**

**DENTIST'S REPORT**  
(for the Presonal Care Provider)

Diagnosis: \_\_\_\_\_

Treatment Plan: \_\_\_\_\_

NAME: \_\_\_\_\_ Date: \_\_\_\_\_ Phone: \_\_\_\_\_

Signature of Dentist: \_\_\_\_\_



### Premature Births: Know the Facts and Stats

- Note: Recent studies have shown that women with periodontal disease are at three to five times greater risk of preterm birth than those who are periodontally healthy.
- In 2001, the preterm birth rate was 11.9%, reflecting more than 476,000 newborns and the highest rate ever reported for the U.S. This represents 1 in 8 babies in the U.S. born prematurely.
- The rate of preterm birth increased 27% between 1981 and 2001 from 9.4% to 11.9%.
- On an average day in the U.S., 1,305 babies are born preterm (before 37 weeks), 213 are born very preterm (before 32 weeks).
- **Women with periodontal disease are at three to five times greater risk of preterm birth than those who are periodontally healthy.**



#### Oral Health Information for the Public



Print Page



E-mail Page



#### Baby Steps to a Healthy Pregnancy and On-Time Delivery

- How pregnancy affects teeth and gums
- Why periodontal disease is linked to preterm low birthweight babies
- What to do about periodontal disease during pregnancy
- How to reduce the risk of premature births
- Links to more info on oral health and pregnancy

# American College of Nurse Midwives

## QuickInfo



### Oral Health

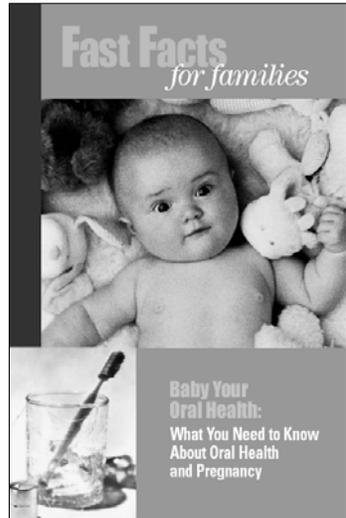
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Oral health plays an important role in maternal and child health; animal and population-based studies have demonstrated an association between periodontal diseases and adverse pregnancy outcomes.(1, 2) Though further research is needed to determine the extent to which these associations are causal or coincidental, it is clear that oral health is an important component of providing comprehensive women's health care.

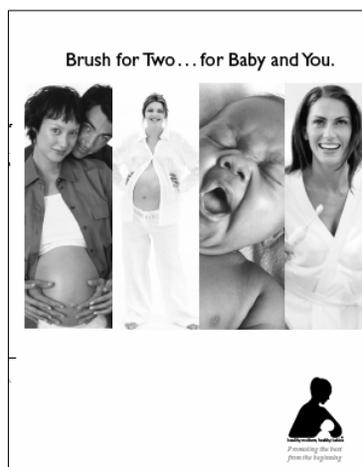


*Consumer  
Advocates*

## HMHB – Sunstar Butler



## HMHB - Sonicare



# State Oral Health Collaborative

METTEL, LAY BARDI - QUOTE

### LA SALUD BUCAL Y TU BEBÉ SANO

Mi amiga Mary estaba feliz cuando supo que estaba embarazada de su segundo hijo. Su primer bebé nació un día después de la fecha probable de parto y pesó 5 libras y 2 onzas. Con el primer bebé, todo salió perfecto.

Durante su cuarto mes de embarazo, Mary notó que sus dientes delanteros inferiores le dolían y sangraban cuando los cepillaba. Se lo dijo al médico. El médico le dijo a Mary que fuera al dentista. El dentista le dijo que tenía una enfermedad de las encías, (enfermedad periodontal) y que necesitaba ayuda. El dentista estaba contento de que Mary hubiera sido porque:

- Los gérmenes de la enfermedad de las encías pueden hacer que los bebés nazcan demasiado pronto y que sean demasiado pequeños (prematuros, bebés con bajo peso al nacer). ¡Aun más que si se fuma o bebe alcohol!
- Si un dentista o higienista dental trata la enfermedad de las encías hay muchas posibilidades de que un bebé nazca demasiado pronto y sea demasiado pequeño.

El dentista le dijo: "No te asustes. Consultar a un dentista o a un higienista puede ayudarte a tener un bebé sano". Ellos limpiaron sus dientes. Mary continuó cepillando y pasando hilo dental a sus dientes durante el resto de su embarazo. Tuvo un bebé saludable que pesó 7 libras y 14 onzas.



Colorado Oral Health Network  
2005. No copyright. Copy and distribute freely.  
Thanks to the Colorado Dental Association Charitable Fund for supporting this project.



*Lay Press*

## Los Angeles Times

### Gum disease bad for pregnancy

June 19, 2006 – letter to the editor

Re: "Get Healthy, Then Get Pregnant" [June 5]: I am disappointed that your article never advised women who are planning to get pregnant to get a dental examination to ensure that there is no **periodontal** [gum] **disease**.

**Periodontal disease** is caused by a chronic bacterial infection that can increase the risk of **preterm** birth. Overall, studies have concluded that pregnant women who have moderate to severe **periodontal disease** may be seven times more likely to deliver a premature child than women with healthy gums.

## THE DENVER POST

### Bright Smiles for Kids

June 22, 2006

Karen Cody Carlson, chief executive officer of Dental Aid, says, "Studies show that if a pregnant woman has dental disease, the bacteria which cause that disease may travel through the blood stream, cross the placenta and contribute to the **birth** of a premature or low **birth-weight** baby."



## Bleeding gums linked to many diseases

June 23, 2006

Bleeding gums may indicate more than an oral health problem; U.S. studies have linked **gum disease** to heart attacks, strokes, pneumonia and diabetes.

Women with gum problems have more trouble because studies show that pregnant women with bleeding gums -- a common occurrence due to hormonal changes during **pregnancy** -- are seven times more likely to give birth prematurely, as well as deliver low-birth-weight babies.



## HEALTH PLAQUE ATTACK

September 19, 2006

Periodontitis and other gum diseases have now been linked to premature **birth**, low **birth weight**, higher sugar levels, diabetes, immune problems, anaemia, respiratory disease, liver and cholesterol problems and rheumatoid arthritis, as well as stroke and heart disease.



## **Mom's Oral Health Affects Newborn's Health**

September 4, 2006:

Staying healthy begins at your mouth - not just the food you eat, but how you care for your teeth and gums.

Emerging science suggests a link between a healthy mouth and a healthy body. That's why paying attention to oral health can improve the health of mothers, their families and even their newborn babies.



*Think Tanks &  
Scholarly Efforts*

# IOM Preterm Birth Study

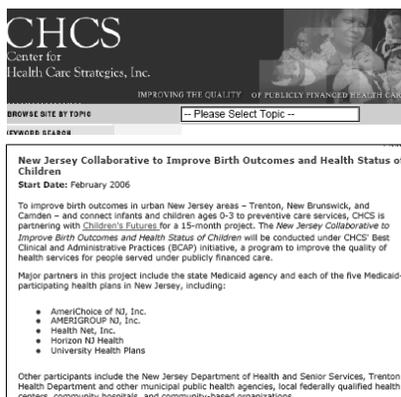


**Preterm Birth: Causes, Consequences, and Prevention**

Richard E. Behrman, Adrienne Stith Butler, Editors,  
Committee on Understanding Premature Birth and  
Assuring Healthy Outcomes

ISBN: 0-309-10159-X, 570 pages, 6 x 9, hardback (2006)

## Center for Health Care Strategies *Best Clinical and Administrative Practices*



**CHCS**  
Center for  
Health Care Strategies, Inc.  
IMPROVING THE QUALITY OF PUBLICLY FINANCED HEALTH CARE

BROWSE SITE BY TOPIC

REVISED 8/2006

**New Jersey Collaborative to Improve Birth Outcomes and Health Status of Children**  
Start Date: February 2006

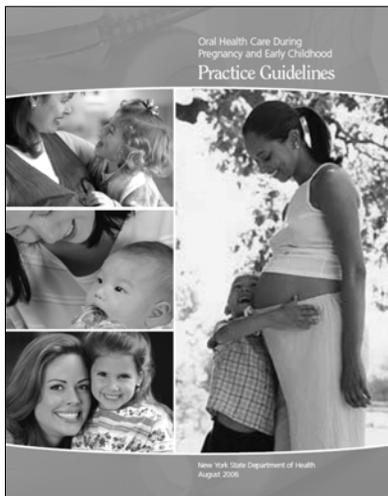
To improve birth outcomes in urban New Jersey areas – Trenton, New Brunswick, and Camden – and connect infants and children ages 0-3 to preventive care services, CHCS is partnering with *Children's Futures* for a 15-month project. The *New Jersey Collaborative to Improve Birth Outcomes and Health Status of Children* will be conducted under CHCS' Best Clinical and Administrative Practices (BCAP) initiative, a program to improve the quality of health services for people served under publicly financed care.

Major partners in this project include the state Medicaid agency and each of the five Medicaid-participating health plans in New Jersey, including:

- AmeriChoice of NJ, Inc.
- AMERIGROUP NJ, Inc.
- Health Net, Inc.
- Horizon NJ Health
- University Health Plans

Other participants include the New Jersey Department of Health and Senior Services, Trenton Health Department and other municipal public health agencies, local federally qualified health centers, community hospitals, and community-based organizations.

# NYS DOH Practice Guidelines



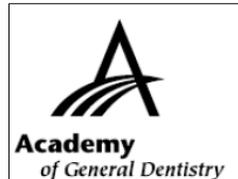
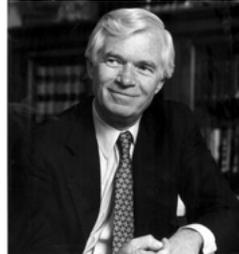
*Federal  
Agencies*

## U.S. Senate Resolution 483

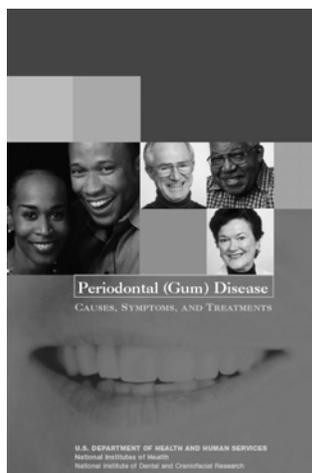
May 2006: Senator Cochran (R-MI)

“Whereas the Surgeon General has identified numerous oral-systemic disease connections, including possible associations between chronic oral infections and diabetes, heart and lung diseases, stroke, **low-birth-weight**, and premature births; ... Whereas oral health diseases, including dental caries and **periodontal disease**, are largely preventable; Whereas the effective treatment and prevention of those diseases are substantially aided by access to highly trained dental primary care professionals;...

Now, therefore, be it Resolved, That it is the sense of the Senate that...access to oral health care services and the prevention of oral health care disease is integral to achieving and maintaining good health; ...



## NIDCR Periodontal Disease Brochure



# CDC Preconception Project

Maternal Oral Health Status  
DOI: 10.1007/s12026-010-9105-1

ORIGINAL PAPER

### Oral Health in Women During Preconception and Pregnancy: Implications for Birth Outcomes and Infant Oral Health

Kim A. Rogers · Barbara L. Eckstein

© Springer Science+Business Media, Inc. 2010

**Abstract** The mouth is an obvious portal of entry to the body, and oral health reflects and influences general health and well-being. Maternal oral health has significant implications for both outcomes and infant oral health. Maternal periodontal disease, that is, a chronic infection of the gingiva and supporting tooth structures, has been associated with preterm birth, development of pre-eclampsia, and delivery of a small-for-gestational-age infant. Maternal oral flora is transmitted to the newborn infant, and increased carriage from the mother predisposes the infant to the development of caries. It is intriguing to consider preconception, pregnancy, or immediate postpartum oral health conditions as a mechanism to improve women's oral and general health, pregnancy outcomes, and their children's dental health. However, given the relationship between oral health and general health, oral health care should be a goal in its own right for all individuals. Regardless of the potential for improved oral health to improve pregnancy outcomes, public policies that support comprehensive dental services for vulnerable women of childbearing age should be expanded so that their own oral and general health is safeguarded and their children's risk of caries is reduced. Oral health promotion should include education of women and their health care providers regarding general oral disease from screening, and referral for dental services when disease is present.

**Keywords** Oral health · Pregnancy · Infant caries

**Introduction**

A woman's preconception and pregnancy experience with the two most prevalent diseases of the mouth—periodontal disease and dental caries—can only influence her own oral health status but also may increase her risk of other diseases such as atherosclerosis [1,2], rheumatoid arthritis [3], and diabetes [4], impact pregnancy outcomes [5–7], and her offspring's risk of developing tooth and crown dental caries [8–11]. Although largely preventable through evidence-based interventions, both periodontal disease and caries are women of childbearing age on highly prevalent, particularly among low-income women and members of racial and ethnic minority groups. In addition, both periodontal disease and caries are typically asymptomatic for long periods of time with only intermittent painful exacerbations. The combination of high prevalence, multiple treatment cases, minimal preventive opportunities, and intervention expenses led the US Surgeon General to publish a report in 2001 on oral health in America characterizing dental and oral disease as a "hidden epidemic" [12]. The report noted, however, lack of resources to pay for care, barriers to access to care, and lack of public understanding of the importance of oral health and effective self-care practices of represent underlying reasons cited for observed disparities in oral health.

An important oral condition affecting many pregnant women is periodontal disease. Periodontal disease is a chronic inflammatory condition of the gingiva and bone that supports teeth. It is most commonly associated with a

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New York, NY

Springer

# CDC MMWR on Preconception Care

www.cdc.gov/mmwr

CDC — Morbidity and Mortality Weekly Report

## MMWR

Recommendations and Reports

April 23, 2010 • 59(WR16) 1–13

### Recommendations to Improve Preconception Health and Health Care — United States

A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care

Prepared by:  
Kim Johnson, MD<sup>1</sup>; Tamek F. Prosen, PhD<sup>2</sup>; Jane Britton, MD<sup>3</sup>; Just F. Cordero, MD<sup>4</sup>;  
Hani K. Arash, MD<sup>5</sup>; Christopher S. Patten, PhD<sup>6</sup>; Sharon Berlin, DPH<sup>7</sup>; Michele G. Curtis, MD<sup>8</sup>; Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire  
Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC  
National Center for Human Factors, New York  
Office of the Director, National Center on Birth Defects and Developmental Disabilities, CDC  
University College of Obstetrics and Gynecology, Philadelphia, PA

The material in this report is prepared in the National Center on Birth Defects and Developmental Disabilities, Just F. Cordero, MD, Director, and the Office of Program Development, Hani K. Arash, MD, Associate Director, and the National Center for Chronic Disease Prevention and Health Promotion, Sharon Berlin, PhD, Director, and the Division of Reproductive Health, Kim Johnson, Director.

Corresponding prepared: Tamek F. Prosen, PhD, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, 4770 Buford Hwy, NE, Atlanta, GA 30349; Telephone: 770-488-1326; Fax: 770-488-4815; E-mail: [tprosen@cdc.gov](mailto:tprosen@cdc.gov)

**Summary**

This report provides recommendations to improve both preconception health and care. The goal of these recommendations is to improve the health of women and couples before conception of a child or subsequent pregnancy. Since the early 1980s, guidelines have recommended preconception care, and reviews of previous studies have assessed the evidence for interventions and documented the evidence for genetic interventions.

CDC has developed these recommendations based on a review of published research and the opinions of specialists from the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. The 12 recommendations in this report are based on preconception health care for the U.S. population.

See [www.cdc.gov/mmwr/preview/mmwrhtml/rr5916a.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5916a.htm) for full text.



## State Agencies

## Over 1-in-4 States Report OH Activities for Women



Agencies involved: Title V, Oral Health, Medicaid, Healthy Start

## Range of Policy & Programmatic Activities

### 1. Data collection, monitoring, and tracking

- Inclusion of performance measure in state Title V MCH Services Block Grant
  - “Number of women who receive at least one dental visit during the second trimester of pregnancy.”
- Tracking of oral health services for pregnant women
  - 21 states with oral health supplement in PRAMS
- Inclusion of question on state birth certificate



## Range of Policy and Programmatic Activities

### 2. Medicaid program initiatives

- Coverage and expansions
  - Coverage of oral health services for pregnant women
  - Medicaid coverage of oral health services for adults, including pregnant women
  - Inclusion of oral health coverage expansions in state Medicaid reform proposals
- Contract requirements
  - to provide oral health and promotion activities (e.g., video, brochure)
- Identification of dentists to serve pregnant women in Medicaid



## Range of Policy and Programmatic Activities

### 3. Oral health promotion and education

- Public service announcements
- Videos
- Brochures
- Health fairs
- “Community baby showers”



## Range of Policy and Programmatic Activities

### 4. Provider education and awareness initiatives

#### Activities:

- Professional guidelines
- Surveys of dentists to establish databases for physician-to-dentist referrals
- Development and distribution of anticipatory guidance

#### Targets:

- Providers: dentists, OB/GYNs,
- Programs: e.g. WIC, Early Head Start)
- Systems: e.g., local health departments

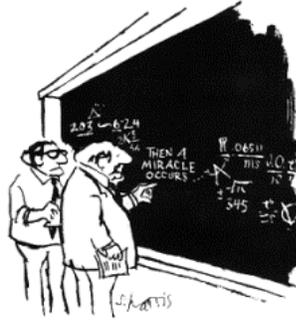


## Range of Policy and Programmatic Activities

### 5. Research

Medicaid Evaluation Study  
Utah review of Medicaid  
Records for Utilization

Healthy Start Data Analysis  
West Virginia review of  
Healthy Start Data for  
Pregnancy Outcomes



"I think you should be more explicit here in step two."

## Drivers of State Efforts

- Varies by state
- Reasons cited:
  1. Direct response to early research
  2. Increase access to oral health services for pregnant women
  3. Indirect response to early research
    - Address oral health of young children by targeting pregnant women

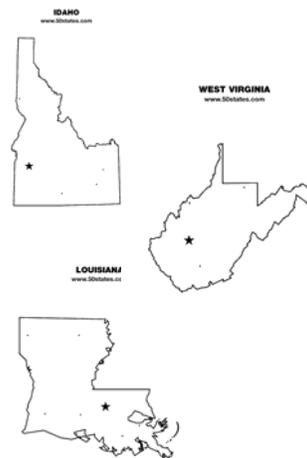
## Impact of NICDR Study on States' Efforts

- Too soon to tell
- Not likely to dramatically change direction
- Some possible impact on policy activities (e.g., Medicaid expansions) but not on programmatic activities
- States indicate that promotion of oral health for pregnant women is an important goal for its own sake.



## Case Studies

- Idaho Perinatal Oral Health Project
- Louisiana Medicaid and the State Title V MCH Programs
- West Virginia Healthy Start Program
- Alabama Medicaid "Maternity Care" Program



## Consumer Web Search Simulation



## Consumer Information on the Web

Googled "Periodontal disease AND preterm birth"

Hits: 137,000

Top 10:

- 6 target public, 4 target professions
- Public sites all updated in 2005 or 2006
- Recommendations to consumers
  - Preconception attention to oral health
  - Pregnancy care inclusion of dental visits
  - Claims that perio treatment "may" "will" and "will not" reduce unfavorable birth outcomes



## “Scientific” Claims 1: Definitive Relationship

1. “research indicates that pregnant women benefit from early periodontal care”
2. “studies have shown that women with PD are at 3 to 5 times greater risk of preterm birth than those who are...healthy”
3. “progressive PD during pregnancy causes greater risk of preterm delivery”
4. “studies have shown a relationship between PD and preterm, low birth weight babies...proper periodontal treatment can have a beneficial effect on the health of ...babies”
5. “bacteria responsible for PD can enter a woman’s bloodstream and easily spread to her developing fetus...can trigger ... prostaglandin, which is believed to cause premature labor.”
6. “because of the direct links between a mother’s oral health and her offspring’s risk for dental caries, dental interventions can reduce the risk of prematurity and low birth weight”

## “Scientific” Claims 2: Potential Relationship

1. “delay in necessary [dental] care during pregnancy could result in significant risk to the mother and indirectly to the fetus”
2. “even infections far away from the reproductive organs, such as PD, may contribute to premature delivery”
3. “periodontal treatment during pregnancy may reduce premature birth”
4. “mounting research indicates an increased probability of preterm birth for those with gum disease”
5. “studies are ongoing to determine if there is a link between PD and an increased risk of delivering preterm, low birth weight babies. In the meantime, it’s a fact that controlling periodontal disease can save your teeth – a very good reason to take care of your teeth and gums.”

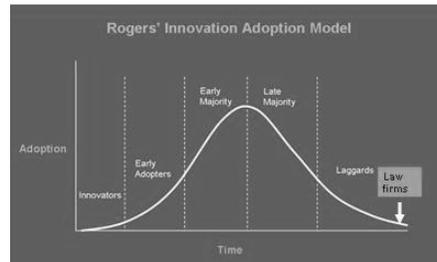
### “Scientific” Claims 3: Equivocal Relationship

1. research “suggests that gum disease...can lead to premature and low birth weight babies and increase the chance of toxemia in expectant mothers”
2. “good oral health habits affect the health of your unborn child”
3. “when you are pregnant, what you do to take care of your own...oral health affects the health of your developing baby”

### Framing for Public Promotion

- |   |  |               |
|---|--|---------------|
| o | “Healthy Pregnancies: Healthy Babies”                  | CIGNA         |
| o | “Premature Births: Know the Facts and Stats”           | ADHA          |
| o | “Baby Steps to Healthy Pregnancy and On-time Delivery” | AAPerio       |
| o | “Want a Healthy Body? Start with a Healthy Mouth”      | MI DA         |
| o | “Healthy Gums, Healthy Life”                           | Butler        |
| o | “Do it for your mouth. Do it for life”                 | Listerine     |
| o | “Healthy Mouth, Healthy Body”                          | Colgate       |
| o | “Brush for Two – For Baby and You”                     | Sonicare      |
| o | “Healthy Teeth for You and Your Baby”                  | AL            |
| o | “Bright Smiles for Bright Futures”                     | Dental Aid CO |

# Roger's Model



Alternative hypothesis: Progression of adoption would be suspended pending additional & definitive studies.

Finding: Hypothesis rejected

## Key Themes and Observations

1. Perio-preterm is framed within "oral-systemic health" paradigm
2. Public awareness of perio-preterm/oral-systemic may be increasing
3. Professional belief in perio-preterm is increasing
4. "Science" is sometimes corrupted / sometimes respected
5. Commercial competition & marketing are driving public awareness
6. Few campaigns attend to oral health for its own sake
7. Except in XIX, populations at risk for PD are not frequently targeted
8. Absence of professional guidelines hinders adoption
9. Public & private sectors won't await research & may not be significantly impacted by current Michalowicz study

## Authors' Recommendations

1. Conduct additional perio-preterm research
2. Promote maternal oral health for its inherent value to women
3. Develop and promote authoritative clinical guidelines by key professional organizations (ACOG, ADA)
4. Conduct a RIPP meeting to assess current views
5. Identify & promote state-level best practices on women's oral health
6. Issue a authoritative federal statement (e.g. from Chief Dental Officer / USPHS / or DHHS multi-agency) with input from key professional groups on the current status of the literature – and particularly the implications of the first NIDCR intervention trial.

