“Too Many Pregnant Women are not getting timely dental care.”

-The New York Times
The Midwifery Profession
Frontline Providers of Oral Health Care for Women and Newborns

Judith Haber, PhD, APRN, BC, FAAN
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Oral Health
Essential
Documents

Oral Health in America: A Report of the Surgeon General

Improving Access to Oral Health Care for Vulnerable and Underserved Populations

Advancing Oral Health in America

ORAL HEALTH LITERACY

WORKSHOP SUMMARY
Oral Health: An Essential Component of Primary Care

White Paper

ASK about oral health risk factors and symptoms of oral disease

LOOK for signs that indicate oral health risk or active oral disease

DECIDE on the most appropriate response

ACT offer preventive interventions and/or referral for treatment

DOCUMENT as structured data for decision support and population management

www.QualisHealth.org/white-paper
Increased Oral and Overall Health Outcomes

Leading Health Topics

- Access to Health Services
- Clinical Preventive Services
- Environmental Quality
- Injury and Violence
- Maternal, Infant, and Child Health
- Mental Health
- Nutrition, Physical Activity, and Obesity
- **Oral Health**
- Reproductive and Sexual Health
- Social Determinants
- Substance Abuse
- Tobacco
Putting the Mouth Back in the Head: HEENOT to HEENOT

Improving oral health is a leading population health goal; however, curricula preparing health professionals have a dearth of oral health content and clinical experiences. We detail an educational and clinical innovation transforming the traditional head, ears, eyes, nose, and throat (HEENT) examination to the addition of the teeth, gums, mouth, tongue, and palate examination (HEENOT) for assessment, diagnosis, and treatment of oral-systemic health. Many New York University dentistry, dental, and medical faculty and students have been exposed to interprofessional oral health HEENOT classroom, simulation, and clinical experiences. This was associated with increased dental-primary care referrals. This innovation has potential to build interprofessional oral health workforce capacity that addresses a significant public health issue, increases oral health care access, and improves oral-systemic health across the lifespan.

Judith Habel, PhD, MPH, BC, Erin Herbst, DNP, CPNP, BC, Kenneth Allen, DDS, MSA, Dennis Halas, PhD, CPNP, BC, Caroline Geremi, MSN, RN, BC, Julie Long-Shafran, DNP, CNP, BC, Madeleine Lloyd, MS, RN, BC, PMRN, BC, Ewelina Thomas, DNP, ANP, BC, and Dorothy Whalen, DNP, ANP, BC, PCNP, BC

DURING THE DECADE FOLLOWING the publication of the Surgeon General’s Report, Oral Health in America, health professionals, physicians (MD), nurse practitioners (NP), nurse-midwives (NM), and physician assistants (PA) began to align with the dental professions to heed Natcher’s call to “view the mouth as a window to the body.” The most significant interprofessional movement that followed this report occurred with family practice and pediatric physicians coming together to work on preventive oral health initiatives for children in which those professionals would provide screenings, fluoride varnishes, and referrals for children to find dental homes. Mobilization of the overall health community to work collaboratively has been slower. Development of “Smiles for Life: A National Oral Health Curriculum” represented an important interprofessional “jumping point” for engaging health professionals focused on treating populations across the lifespan in considering oral health and its relationship to overall health as an integral component of their practice. Yet, evidence from national databases monitoring oral health data continue to reveal a high incidence and prevalence of dental caries, especially in lower socioeconomic and minority group populations. Data from the 2009–2012 National Health and Nutrition Examination Survey reveal that approximately one in four children (1.4%) aged 3 to 5 years living at the poverty level have untreated dental caries. The survey data further reveal that 19% of non-Hispanic Black children aged 3 to 5 years and 28% of Hispanic children aged 6 to 9 years had untreated dental caries compared with non-Hispanic White children aged 3 to 5 years (1.1%) and 6 to 9 years (1.4%). Although national statistics show an improvement in access to oral health care for children aged 3 to 4 years, in the adult population, oral cancer morbidity and mortality rates have not declined over the past 10 years, at least in part related to absent or inadequate oral examinations, and human papillomavirus is associated with the recent rise in the incidence of oropharyngeal cancer among primary care providers have been challenged by the Institute of Medicine to play a significant role in improving these oral health disparities by building interprofessional oral health workforce capacity. One important component of the problem is that the majority of curricula for preparing health professionals are a dearth of oral health content and clinical experiences. Approximately 70% of medical schools include 4 hours or less on oral health in their curricula. 50% have no oral health content at all. Similarly, NPs and NMs have also not had a defined oral health curricular knowledge base nor a set of oral health clinical competencies. The PA programs have generally followed medical school curricula and have not required curricular oral health content or competencies. The recent publication of several important national reports, two oral health reports by the Institute of Medicine, the turning of oral health as one of the Healthy People 2020 Leading Health Indicators, the release of the Health Resources and Services Administration document “Integration of Oral Health and Primary Care Practice,” and the dissemination of “Oral Health Care During Pregnancy: A
Smiles for Life: A National Oral Health Curriculum

Smiles For Life produces educational resources to ensure the integration of oral health and primary care.

LEARN ONLINE

TEACH CURRICULUM

Answering the Call: Joining the Fight for Oral Health

Watch this informative and inspiring video which outlines both the challenge and progress in improving oral health as a vital component of effective primary care. Click the full screen icon in the bottom right hand corner of the video thumbnail to view it full-sized. This video is approximately seven minutes in length.

An extended version (21 minutes) of this documentary is also available.
References


Today’s Overview

• Oral Health in Pregnancy
• Early Childhood Oral Health
• Early Childhood Oral Healthcare Integration into Education
• HPV & Oral Cancer
“Giving birth to my sons was the most important event in my life.”

-Ruth Lubic
Oral Health in Pregnancy

Susan D. Altman DNP, CNM
Program Director, Midwifery
Clinical Assistant Professor
NYU Rory Meyers College of Nursing
REALITY

A pregnant woman’s physical and oral health are key to responsible health planning and promotion.
GOAL

Ensure that every pregnancy is a healthy pregnancy.
• Nearly 75% of pregnant women receive prenatal care in the first trimester of pregnancy (with an additional 20% receiving care beginning in the second trimester) from a midwife or physician (primary care or specialist)

• 76% of pregnant women surveyed had oral health problems such as bleeding gums or toothaches

• Yet only about half with a dental issue report a dental visit during pregnancy

• Cigna Corporation (2015) conducted a national survey of 801 pregnant women, only half of whom had dental insurance

• Only 44% said providers talked to them about oral health during their prenatal visits

• Women whose providers talked to them about oral health were twice as likely to have a dental checkup during pregnancy
Barriers to Oral Health Care Access

• Lack of understanding of the importance of oral health
• Fear of painful procedures
• Provider Attitudes (primary care and dental)
  • Time
  • Education
  • Payment

(Le et al., 2009 & Qualis, 2015)
Barriers to Oral Health Care Access

- Lack of dental insurance coverage
- Shortage of dentists who accept Medicaid
- High Cost, Transportation, Time

(Le et al., 2009)
Oral Health Care Myths

- You shouldn’t have any dental work done during pregnancy.

- The fetus will be harmed by x-rays or medications used during dental visit.

- For every pregnancy, you lose a tooth.
Oral Health Care Facts

• Studies show a possible association between periodontal infection and negative pregnancy outcomes.
• When a mother has untreated caries, her child’s odds of having untreated dental caries almost doubles.
• Periodontal treatment is SAFE for pregnant women.
  • Avoids the adverse consequences of periodontitis for the mother
  • Not associated with any negative infant or maternal outcomes

(Berkowitz, 2006; Wrzosek & Einarson, 2009)
Stages of Periodontal Disease

- An inflammatory disease that affects the soft and hard structures that support the teeth
- Increased plasma levels of pregnancy hormones and poor oral hygiene can contribute to a decline in periodontal health status

(ADA, 2006; Wu, Chen, & Jiang, 2015)
Gingivitis

- The early stage of periodontal disease
- Occurs when the gums become swollen and red due to inflammation
- Approximately 60-75% of pregnant women have gingivitis

(ADA, 2006; Wu, Chen, & Jiang, 2015)
Periodontitis

- The most serious form of periodontal disease
- Occurs when the gums pull away from the tooth and supporting gum tissues are destroyed
- Although varying numbers have been reported for the prevalence of periodontitis in pregnancy, almost half of adults in America have this condition

(ADA, 2006; Wu, Chen, & Jiang, 2015)
Untreated Periodontal Disease

• Bacteria from the mother’s mouth can reach the systemic blood stream and consequently reach the baby. When left untreated, it may be associated with:
  • Preterm Labor
  • Preterm Birth
  • Poor glycemic control
Enamel Erosion and Pregnancy Granulomas

- **Enamel erosion**: Caused by vomiting or reflux & can be reduced by having woman rinse with water or water with baking soda after vomiting.

- **Granuloma**: 5% of pregnant women are affected (Clark et al., 2010)
  - Usually resolves itself after delivery
  - If bleeding or problems with chewing occur, refer for removal

- **Caries**: Mothers with high rates of caries are more likely to have children with high rates of caries.
Overcoming Barriers to Oral Health Care Access

- Reframe Provider Attitude
- Time
  - It takes approximately 2 minutes to perform an oral health screen (Qualis, 2015)
- Education
  - Smiles for Life, HRSA Oral Health Competencies
- Payment
  - Advocacy/Policy Changes (Le et al., 2009)
What’s a Midwife to do?

Address **oral health** as a part of well women health

- **Ask**-take a history-”listen to women” Include questions on oral health on patient-intake form or initial visit
  - Recognize fear--Motivate

- **Look**-Include HEENOT exam every trimester
  - One to two minutes, hygiene, obvious caries, saliva, mucosa, lesions

- **Decide**-Assess the situation

- **Act**-Make a plan with the woman

- **Document**-Oral Health Findings
What’s a Midwife to do?

- Reassure patients that prevention and treatment of oral conditions including dental x-rays (with abdominal shielding) and local anesthesia (lidocaine with or without epinephrine), are safe during pregnancy.

- Encourage oral health practices.

- Provide toothbrushes, floss, toothpaste.

- Integrate oral health topics in prenatal classes.

- Provide ongoing nutritional support.

- Provide support for smoking cessation.

- Provide culturally sensitive resources.

- Establish community partnerships—educate oral health care providers.
What’s a Midwife to do?

(Oral Health Care During Pregnancy Expert Workgroup, 2012)
HRSA Oral Health Core Competencies

- Demonstrate inclusion of oral health in the HEENT components of the comprehensive history and physical exam (HEENOT)
- Develop a risk profile that includes oral and/or oral-systemic health problems
- Include oral health in management plan
- Collaboration and Referral
Develop a patient-centered management plan that includes oral health interventions related to overall health

- Smoking Cessation
- Tooth Brushing and Flossing
- Fluoride Varnish Application
- Oral Cancer Screening
- Engaging Patients in Behavioral Change using Motivational Interviewing
- Parental Anticipatory Guidance
  - Lifestyle Counseling
  - Eating Disorders
  - Diabetes
  - Hypertension
  - Sexually Transmitted Diseases
  - Dentures
- Symptom Management
  - Xerostomia
  - Mucositis
  - Oral Lesions
Key Points

• Keep the pregnancy healthy by keeping the pregnant mouth healthy!

• Early, consistent and regular dental visits are key especially important during pregnancy.

• It is not only safe to see the dentist, it is the right choice for mother and baby!

• Get to know the dentists in your area and refer all pregnant women!

• Be an oral health advocate!
References


Early Childhood Oral Health

Erin Hartnett  DNP, APRN-BC, CPNP
Program Director
Oral Health Nursing Education and Practice (OHNEP)
Teaching Oral Systemic Health (TOSH)
- Dental caries (tooth decay) is the single most common chronic childhood disease (Surgeon General, 2000)
- It is 5x more common than asthma and 7x more common than hay fever (Surgeon General, 2000)
- One in four children living in poverty has untreated dental caries (Dye, 2012)
- 50 million school hours per year lost b/c of oral health related illness (pain, infection) (Surgeon General, 2000)
- 50% of all children have never visited a dentist (Dye, 2007)
Stages of Early Childhood Caries
### Who’s at Risk?

<table>
<thead>
<tr>
<th>Children at High Risk for Early Tooth Decay</th>
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</thead>
<tbody>
<tr>
<td>• Children on Medicaid</td>
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<tr>
<td>• Children whose mother or primary caregiver has cavities</td>
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<tr>
<td>• Children with siblings who have cavities</td>
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<tr>
<td>• Premature or low birth weight children</td>
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<tr>
<td>• Children with special health care needs</td>
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<tr>
<td>• Children who use a bottle after 15 months of age or have sweets and starchy snacks more than 3 times a day</td>
</tr>
</tbody>
</table>
The Five Basics of Oral Health

1. Baby Teeth Are Important
2. Water between meals
3. Tooth Healthy Foods
4. Brush, Floss, Swish
5. Going to the Dentist
Baby Teeth Are Important

- Speech
- Feeding
- Dental and jaw growth
- Socialization
Oral Health Affects Overall Health

- Pain and infection
- Premature tooth loss
- Higher risk of new carious lesions in primary and permanent dentition
- Trouble eating, speaking, sleeping, learning
- Risk for delayed physical growth and social development
- School absence and poorer academic performance
- Increased days with reduced activity
- Diminished oral health-related quality of life
- Hospitalizations and emergency room visits for advanced disease
- Increased treatment costs
What Causes Cavities?

Germs + Food = Acid Attack
How Does Infection Occur?

- Transmitted mainly from mother or primary caregiver to infant

- Window of infectivity is first 2 years of life

- Earlier child colonized, the higher the risk of caries
ECC – A Balancing Act

- Cariogenic bacteria
- Frequent snacking
- Inappropriate bottle use

- Early intervention
- Fluoride exposure
- Low frequency diet
Lift the Lip

Cavities

White spots
# 2
Water Between Meals

BYE BYE BOTTLE
Sippy Cup Syndrome
# 3 Tooth Healthy Foods

Dietary Risk Factors

- Sticky/retentive foods
- Slowly dissolving
- Sugary, starchy snacks
- Sugar-sweetened liquids
- Simple sugars
- Frequent pro-longed intake
- Between meal snacks & beverages
#4 Brush, Floss, Swish

Infant Cleaning and Positioning

- Clean washcloth
- Gauze
- Finger tender
- Infant toothbrush

Wipe gums
Use only water
Toothpaste

- Smear when teeth appear
- Pea at 3
5- Going to the Dentist

http://insurekidsnow.gov/
## Summary of Recommendations and Evidence

<table>
<thead>
<tr>
<th>Population</th>
<th>Recommendation</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Children From Birth Through Age 5 Years</td>
<td>The USPSTF recommends that primary care clinicians prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride.</td>
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<tr>
<td>Children From Birth Through Age 5 Years</td>
<td>The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.</td>
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<tr>
<td>Children From Birth Through Age 5 Years</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine screening examinations for dental caries performed by primary care clinicians in children from birth to age 5 years.</td>
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# Recommendations for Preventive Pediatric Health Care (2017)

![Image of the Recommendations for Preventive Pediatric Health Care chart]

Each child and family is unique; therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion. Developmental, nutritional, and chronic disease issues for children and adolescents may require frequent counseling and treatment visits separate from preventive care visits. Additional visits also may become necessary if circumstances support variations from normal.

These recommendations represent a consensus by the American Academy of Pediatrics and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care. Refer to the specific guidance by age as listed in the Bright Futures Guidelines (Bloom, J.S., Dunn, J.S., Duncan, P.A., et al. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2017).

The recommendations in this statement do not indicate an exclusive course of treatment or standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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### Table: Recommendations for Preventive Pediatric Health Care

<table>
<thead>
<tr>
<th>AGE</th>
<th>Prenatal</th>
<th>Newborn</th>
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<th>By 1 mo</th>
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Note: The table above provides a comprehensive overview of preventive care recommendations for children from birth to 6 years of age. Each column represents a specific age group, and the symbols indicate the frequency and nature of recommended health checks and screenings. Further details can be found in the original document.
Parental education during the newborn/ maternal postpartum period is the ideal time to begin primary prevention strategies to prevent early childhood caries.
References


HPV & Oral Cancer
HPV Facts

• HPV is the most common sexually transmitted virus and infection in the US

• Every day in the US, about 12,000 people ages 15 to 24 are infected with HPV

• 9 HPV strains are known to cause cancers, and another 6 are suspected of causing cancers

• You can have HPV without ever knowing it because the virus often produces no signs or symptoms that you will notice

• A person can have HPV for many years, even decades, before it is detected or it develops into something serious like a cancer
HPV & Oral Cancer Facts

- Approximately 26 million Americans on any given day have an oral HPV infection.
- HPV is a leading cause of oropharyngeal cancer (the very back of the mouth) and a very small number of front of the mouth, oral cavity cancers.
- In oral cancers we are primarily concerned with HPV16 which is also associated with cervical, anal, and penile cancers.
- HPV16 manifests itself primarily in the posterior regions (the oropharynx) such as the base of the tongue, the back of the throat, the tonsils, the tonsillar crypts, and tonsillar pillars.

(Oral Cancer Foundation)
Oral HPV Risk Factors

- Number of sexual partners
- Engaging in oral sex
- Tobacco
- Alcohol
- More research is needed to understand exactly how people get and give oral HPV infections

(Oral Cancer Foundation)
Oral Cancer Signs & Symptoms

- An ulcer or sore that does not heal within 2-3 weeks
- A red, white, or black discoloration on the soft tissues in the mouth
- Difficult or painful swallowing. A sensation that things are sticking in the throat when swallowing
- A swollen but painless tonsil. When looking in the mouth, tonsils on both sides should be symmetrical in size
- Pain when chewing
- A persistent sore throat or hoarse voice
- A swelling or lump in the mouth
- A painless lump felt on the outside of the neck, which has been there for at least two weeks.
- A numb feeling in the mouth or lips
- Constant coughing
- An ear ache on one side (unilateral) which persists for more than a few days

(Oral Cancer Foundation)
Obvious Lesion
Carcinoma of soft palate and tonsillar area-
Asymptomatic, pebbly erythematous area
Tonsillar Cancer
Squamous Papilloma (Wart)

(J. Basile)
Vaccine Recommendation

• Both Gardasil and Cervarix protect against HPV16 associated with oral cancers

• Recommended for girls and boys at the target age of 11–12 years

• Catch-up for females and males through age 26

(CDC, 2015)
The Role of Midwives in Screening for HPV Associated Oropharyngeal Cancer

- Examination
- Prevention
- Advocacy
- Referral
References


A Natural Combination!

Integrating Oral-Systemic Health Competencies in a Midwifery Education Program

Judith Haber, PhD, APRN, BC, FAAN
The Ursula Springer Leadership Professor in Nursing
New York University Rory Meyers College of Nursing
OHNEP: Resource Hub

www.oh nep.org
How to Begin

Read
Putting the Mouth back in the Head: HEENT to HEENOT

Identify
Oral Health Champions

Implement
faculty & preceptor development workshops

Pick & choose assignments from the Midwifery Template
The OHNEP
Interprofessional Oral Health
Faculty Toolkit
Nurse Midwifery Program

CURRICULUM INTEGRATION OF INTERPROFESSIONAL ORAL HEALTH CORE COMPETENCIES:

- Midwifery Health Assessment of Women & Gynecology
- Midwifery Care During Pregnancy
- Midwifery Care of Women During Labor, Birth, Postpartum & Care of Newborns
- Resources

www.ohnep.org/faculty-toolkit
Midwifery Health Assessment of Women & Gynecology Course

Midwifery Care During Pregnancy Course

Midwifery Care of Women During Labor, Birth, Postpartum & Care of Newborns Course
How are you planning to include oral health into your midwifery practice and/or program when you come home?
Prevention of ECC through:
• fluoride  
• proper hygiene 
• diet  
• appropriate dental referral