Teeth for Two: Oral Health & Pregnancy

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Commentary

Improving Oral Health During Pregnancy: A Call to Action

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pregnancy; these numbers are even lower for women of color."

A major barrier is the cost and affordability of dental care.5

Moreover, Medicaid oral health coverage during pregnancy is

significantly lacking in many states (Tables 1,2).3 States are re-

quired to provide dental benefits to children covered by Med-

icaid and the Children's Health Insurance Program (CHIP).

However, states can decide whether or not to provide dental

benefits for adults, and there are no minimum requirements

The importance of oral health during pregnancy has gained

increased global attention and recognition during the past

decade on the part of educators, clinicians, policy makers.

and national organizations that address whole person care

needs.26-8 Oral health and its links to overall health are re-

garded as key factors that contribute to the health of preg-

nant parents, their infants, and young children.9.10 In 2012,

a landmark report, Oral Health During Pregnancy: A Na-

tional Consensus Statement, identified the importance of in-

tegrating oral health into prenatal care including oral health

for adult dental coverage.

BACKGROUND

INTRODUCTION

Improving the health and wellness of all children begins with comprehensive prenatal care and optimal oral health during pregnancy.1 Associations between oral health, pregnancy outcomes, and children's oral health are compelling. Evidence supports the standpoint that the parent's oral health status is a predictor of their child's oral health.2 Furthermore, poor oral health in childhood can lead to poor educational and social outcomes for the child, as well as long-term overall health effects into adulthood.3 Poor oral health during pregnancy is also associated with more immediate negative birth outcomes including low birth weight and prematurity.3 Equally important, people deserve to have their oral health preserved, as poor oral health can lead to pain, loss of employment, poor quality of life, and worsening of chronic health conditions such as diabetes and heart disease. Common oral health conditions affected by hormonal changes especially during pregnancy include gingivitis, oral lesions, loose teeth, tooth erosion, periodontitis, and dental caries.3 With these important health issues at stake for parent and child, increased attention to oral health is warranted throughout the life span and particularly during the prenatal period.4

The purpose of this commentary is to inform clinicia educators, and policy makers about the imperative for panded dental benefit coverage during pregnancy and abo the role midwives can play to improve oral health care acc for pregnant individuals, particularly for people of color a those who are poor and/or underserved.

PROBLEM STATEMENT

In 2000, the Surgeon General's report, Oral Health in Am ica, highlighted the relationship of oral health to pregnar outcomes and recommended the provision of dental heat benefits for all Americans.1 Two decades later, pregnant dividuals continue to face barriers that prevent access to a health care despite evidence supporting the importance of o timal oral health during pregnancy.3 For example, accord to data from 2017, only 46% of women in the United States port having an oral health prophylaxis (tooth cleaning) duri

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Improving Access to Dental Care for **Pregnant Women through Education**, Integration of Health Services, Insurance Coverage, an Appropriate Dental Workforce, and Research

Date: Oct 24 2020 | Policy Number: 20203

al students

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Key Words: Pregnancy, Dental Health, Oral Health, Insurance Coverage

Abstract

Oral health is integral to overall health and a healthy pregnancy. Periodontal disease (gum disease) during pregnancy increases the risk for delivering a preterm and/or low birth weight infant. Only 46% of U.S. women have an oral prophylaxis (dental cleaning) during pregnancy. Routine prophylaxes reduce the potential for periodontal disease. In addition, rs with unt

Integrating **Oral Health Care** into Primary Care A Resource Guide

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Prepared by Ruth Barzel, M.A. Katrina Holt, M.P.H., M.S., R.D., FAND

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Journal of Midwifery & Women's Health **Original Research**

Integrating Oral Health Curricula into Midwifery Graduate Programs: Results of a US Survey

Judith Haber¹, PhD, APRN, Maria C. Dolce², PhD, RN, CNE, Erin Hartnett¹, DNP, PPCNP-BC, CPNP, Judith A. Savageau³, MPH, Susan Altman^{1,5}, CNM, DNP, Julia Lange-Kessler⁴, CM, DNP, Hugh Silk^{3,5}, MD, MPH

Introduction: Midwives are a significant segment of the US maternal and primary health care workforce and play a pivotal role in addressir women's oral health care needs during pregnancy and throughout their life span. The purpose of this research was to assess oral health curricular integration in midwifery programs and examine factors that influence integration and satisfaction with graduates' level of oral health competence Methods: A cross-sectional, national survey of midwifery programs was conducted using an electronically distributed 19-item, self-administered naire completed by the Directors of Midwifery Education. Data analysis included univariate and bivariate statistics

Results: All of the responding midwifery programs (N = 33) were educating their graduates about oral health: however, less than a guarter (22.6%) of program directors were satisfied with their graduates' competency. Significant factors promoting integration were routine teaching by a dental professional and a formal relationship with a dental school, dental residency, or dental hygiene program. Programs with 4 or more hours of oral health curriculum were more likely to have a faculty oral health champion, use simulation in evaluation of their learners, and inc interprofessional oral health education.

Discussion: With adequate oral health education, midwives are ideally positioned to integrate oral health in pregnancy care as well as well woma care throughout the life span, thereby expanding access to oral health care I Midwifery Womens Health 2019;64:462-471 © 2019 by the American College of Nurse-Midwive

Keywords: education, nursing, graduate, midwifery, curriculum, health care team, oral health, oral examination, pregnancy, prenatal

maternal-child health services

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INTRODUCTION

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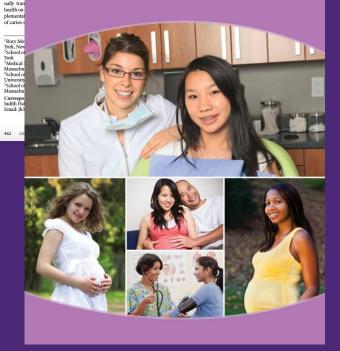
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In 2000, the US Surgeon General's report, Oral Health in America,1 was the first national policy report to call attention to the association between oral health and adverse preg-nancy outcomes. A decade later, publications from the Institute of Me

A subsequent report, Improving Access to Oral Health Care for Vulnerable and Underserved Populations,3 focused on the barriers pregnant women experience in accessing dental care, namely, lack of insurance coverage and the fact that many dentists are unwilling to treat patients dur-

Oral Health Care During Pregnancy: A National Consensus Statement



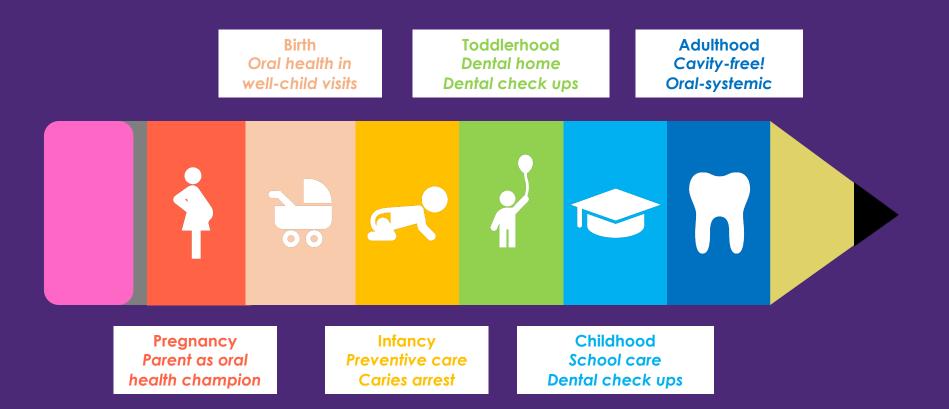


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Advances and Challenges



Oral Health Across the Lifespan







Healthy People 2030 Leading Health Indicators

- Addiction
- Arthritis
- Blood Disorders
- Cancer
- Chronic Kidney Disease
 Overweight & Obesity
- Chronic Pain
- Dementias •
- Diabetes •
- Foodborne Illness
- Health Care-Associated Infections
- Heart Disease & Stroke
- Infectious Disease

- Mental Health & Mental Disorders
- Oral Conditions
- Osteoporosis
- Pregnancy & **Childbirth**
- Respiratory Disease
- Sensory or Communication Disorders
- Sexually Transmitted Infections







Prevention and Management of Pregnancy & Oral Health Calls for an *Interprofessional* Team

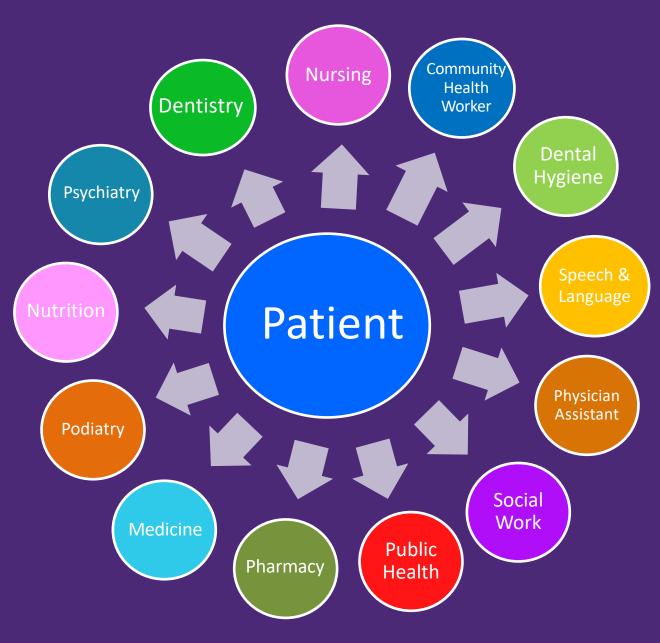


- 4.2 million RNs
- 355,000 NPs
- 13,000 MWs
- 1 million MD/DO
- 149,000 PAs
- 201,000 DDS/DMD
- 195,000 dental hygienists
- 150 dental therapists





Whole Person Care







Social Determinants of Health (SDOH)



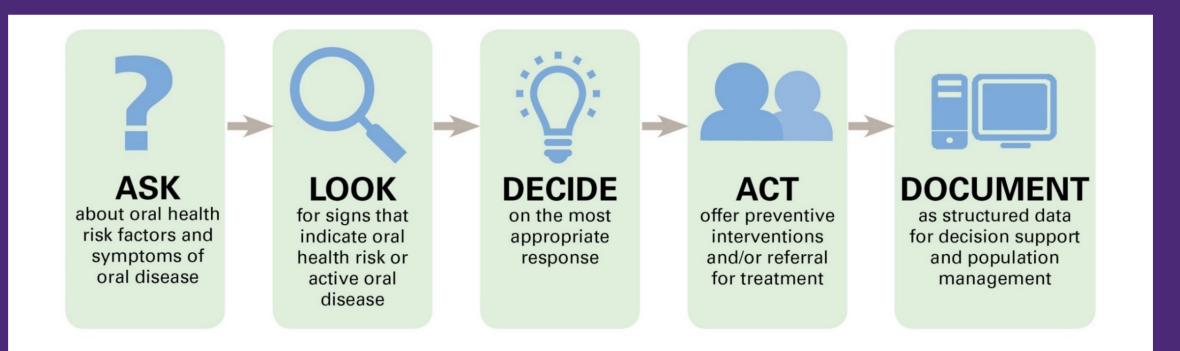


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Oral Health Delivery Framework (2015)



Available at: <u>www.QualisHealth.org/white-paper</u>



HEENT to HEENOT – Putting the Mouth Back in the Head





COMMENTARIES

Carbone Database Syst Res. 2012;7: CD007458.	NL Ling X, Wang Q, Yang X, et al. Effect of mobile phone intervention for diabetes on glycarenic controls a meta-analysis.	 Partie JD, Mendess-Austanes MD, Milton DC, Lange L, Fajarda R. Assess to mildle communication technology and 	a cloud-computing model for chronic illness off-care capped in an underde- veloped country. Am J Free Med. 2011;
78. Gay R, Hosting J, Wand H, Statt S,	Diske Mel 2011;28(4):455-463.	willingness to participate in automated before latter calls among departurely if	40(9)(20-632)
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creasing chinic attendance? A meta-	Smaking constion support delivered via	2010/06/06/030-1041.	
analysis and systematic review.	mobile plane lest messaging (hthdop)s	83. Piete JD, Mendoza-Avelanes 503,	
Health Serv Res. 2012;43(2)	a single-bland, randomized trial. Concert	Gamere M, Michamed M, Maximee N,	

Putting the Mouth Back in the Head: HEENT to HEENOT

Judith Haber, PHD, APRN, BC, Edin Hammett, DHP, CFMP, BC, Kenneth Mann, CDS, MBA, Doma Hallas, PHD, CFMP, BC, Candine Donsen, MSH, FMP, BC, Julia Lange-Kessler, DMP, CM, FM, Mohleine Lloyd, MS, FMP, BC, PMMMP, BC, Studige Thomas, DMP, AMP, SL, and Donrby Hindham, DMP, AMP, BC, PCMP, BC noroving oral health is a leading population health goal: however, curricula preparing health professionals have a dearth of oral health

DURING THE DECADE FOLLOW- incidence and prevalence of dep- challenged by the Institute of content and clinical experiing publication of the Surgeon tal caries, especially in lower so- Medicine to play a significant role documentic and minority group General's Report, Oral Health in in improving these oral health We detail an educational populations.^{3,4} Data from the disparities by building interpro-America, health professionals, and clinical innovation transi-2009-2012 National Health and festional oral health workforce tioning the traditional head, physicians (MDs), name practitioners (NPd, name-midwives Natrition Examination Survey⁸ capacits." ears, eyes, nose, and throat (HEENT) examination to the (NMs), and physician assistant reveal that approximately one in One important o addition of the teeth, gums, (PAs) begas to align with the four children (14%) aged 3 to 5 the problem is that the majority mucous, tongue, and palate deutal profession to heed Satcher's years living at the poverty level of curricula for preparing health examination (HEENOT) for call to "view the mouth as a vinhave untreated dental caries. The professionals have a dearth of oral assessment, diagnosis, and dow to the body." The most signifservey data further reveal that health content and clinical emeritreatment of oral-systemic icart interprolemical movement. 19% of non-Humanic Black chilences, Approximately 70% of health, Many New York Unithat followed this report occurred dres aged 3 to 5 years and 20% medical schools include 4 hours or versity numino, dental, and with family practice and pediatric of Hispanic children aged 6 to 9 less on oral health in their carriemedical faculty and students have been exposed to in- physicians coming together to years had untreated dental caries ukan; 10% have no oral health terprofessional oral health work on preventive and health compared with non-l'hopanic content at all¹⁰ Sendarly, NPs and HEENOT classroom, simula- initiatives for children in which White children aged 3 to 5 years NMs have also not had a defined tion, and clinical experiences. those professionals would provide (11%) and 6 to 9 years (14%).* oral health curricular knowledge This was associated with in- screenings, fluoride varnish, and Although national statistics show base nor a set of oral health creased dental-primary care referrals for children to find dental an improvement in access to one clinical competencies, their The health care for children aged 5 hones PA programs have generally fol-This innovation has po- Mobilization of the overall years and older, the data reveal lowed medical school curricula and tential to build interprofeshealth community to work collabsignificant departies in access to have not required curricular oral sional oral health workforce oratively has been slower. Develcare for children ared 2 to 4 health content or competencies. capacity that addresses a opment of "Smiles for Life: A pears.7 The recent publication of sevsignificant public health is-In the adult population, oral National Oral Health Curriculum⁴² eral important national reports. sue, increases oral health represented an important interprocancer morbidity and mortality two-oral health reports by the care access, and improves fessional "tipping point" for engagrates have not declined over the Institute of Medicine,²⁰⁴⁶ the Intoral-systemic health across the lifespan. (Am J Public ing health professionals focused part 10 years, at least in part ing of oral health as one of the Health. 2015;102:437-441. dot on treating populations across the related to absent or inadequate Healthy People 2020 Leading 10.2105/AJPH.2014.3024959 lifespan in considering oral health oral examinations," and human Health Indicators,¹⁸ the release of and its relationship to overall peoplementrus is associated with the Health Resources and Services health as an integral component the recent rise in the incidence of Administration document "integration of Oral Health and Priof their practice. oropharyngeal cancer." Among Yet, evidence from national da- adults aged 65 years and older, mary Care Practice,"20 and the tabases monitoring oral health only 30% have a dental benefit.²⁰ dimensionation of "Oral Health Primary care providers have been Care During Prognancy: A data continue to reveal a high

March 2015, Val 305, No. 3 | American Journal of Public Health

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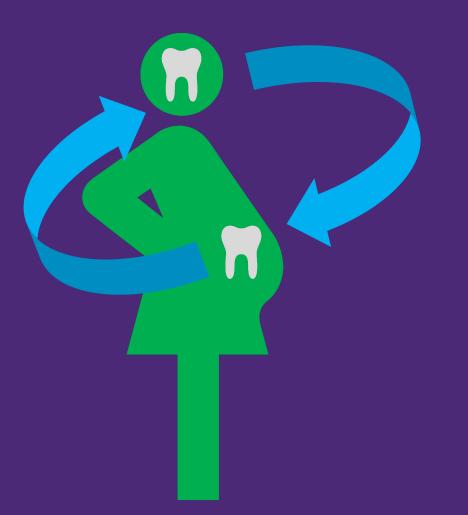
referrals.

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American Journal of Public Health. 2015

Oral Health & Pregnancy: The Oral-Systemic Connection





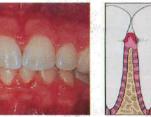
Oral Health Nursing Education and Practic

Pregnancy & Oral Health



- 56% did not visit a dentist during pregnancy
- 60% did not have their teeth professionally cleaned during their last pregnancy
- 41% of pregnant persons experience cavities
- 60-75% of pregnant persons are affected by gingivitis
- 30% of people of child-bearing age have periodontitis
- Even when an oral problem occurs, only 50% seek treatment















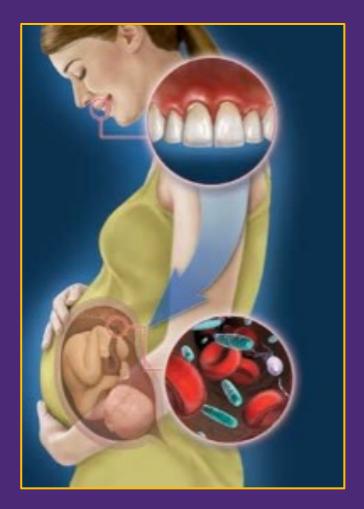
The Oral-Systemic Connection



Bacteria from the mouth can reach the blood stream, and consequently reach the baby.

Oral health problems when left untreated may be associated with:

- Pre-Term Labor
- Pre-Term Birth
- Poor glycemic control

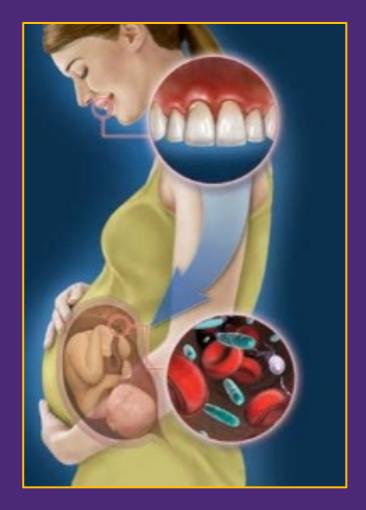




The Oral-Systemic Connection



- Optimal oral hygiene during the perinatal period may decrease the amount of cavity-producing oral bacteria transmitted to the baby
- NO research demonstrates negative effects of periodontal treatment, dental xrays, or medications during pregnancy
- You do not have to lose a tooth for every pregnancy!





Parents as Oral Health Champions



To protect baby's health, parents need to...
Implement positive oral health practices
Eat and drink healthy foods & beverages
Get dental check-ups
Wipe infant's gums & teeth with damp washcloth/xylitol wipes

□Brush 2x per day with fluoride toothpaste

A smear when they appear and at 3 the size of a pea!





How an Interprofessional Health Team Can Make a Difference

- **Think** about how oral health affects the oral and overall health of parent and child
- Screen patients for dental and oral hygiene needs
- Educate patients on the importance of good oral health practices
- Manage oral bacteria levels and inflammation by providing coaching about good oral hygiene behaviors
- **Document** oral health assessment findings and interventions, and provide referrals







Pharmacological Considerations for Pregnant Women

The pharmacological agents listed below are to be used only for indicated medical conditions and with appropriate supervision.

Pharmaceutical Agent	Indications, Contraindications, and Special Considerations	
Analgesics		
Acetaminophen	May be used during pregnancy. Oral pain can often be managed with non-	
Acetaminophen with Codeine, Hydrocodone, or Oxycodone	opioid medication. If opioids are used, prescribe the lowest dose for the shortest duration (usually less than 3 days), and avoid issuing refills to reduce risk for dependency.	
Codeine	lisk for dependency.	
Meperidine		
Morphine		
Aspirin	May be used in short duration during pregnancy; 48 to 72 hours. Avoid in	
Ibuprofen	1st and 3rd trimesters.	
Naproxen		
Antibiotics		
Amoxicillin	May be used during pregnancy.	
Cephalosporins		
Clindamycin		
Metronidazole		
Penicillin		
Ciprofloxacin	Avoid during pregnancy.	
Clarithromycin		
Levofloxacin		
Moxifloxacin		
Tetracycline	Never use during pregnancy.	
Anesthetics	Consult with a prenatal care health professional before using intravenous sedation or general anesthesia. Limit duration of exposure to less than 3 hours in pregnant women in the third trimester.	
Local anesthetics with epinephrine (e.g., Bupivacaine, Lidocaine, Mepivacaine)	May be used during pregnancy.	
Nitrous oxide (30%)	May be used during pregnancy when topical or local anesthetics are inadequate. Pregnant women require lower levels of nitrous oxide to achieve sedation; consult with prenatal care health professional.	
Antimicrobials	Use alcohol-free products during pregnancy.	
Cetylpyridinium chloride mouth rinse	May be used during pregnancy.	
Chlorhexidine mouth rinse		
Xylitol		

From Oral Health Care During Pregnancy: A National Consensus Statement—Summary of an Expert Workgroup Meeting © 2012 by the National Maternal and Child Oral Health Resource Center, Georgetown University. Table updated 2017. Permission is given to photocopy this publication or to forward it, in its entirety, to others.



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Smiles for Life Continuing Education \sim Resources V About Us V SFL Media Contact Us My Account Login Click a Course Below to Get Started ORAL SYSTEMIC The Relationship of Oral and Child Oral Health Adult Oral Health Systemic Health **0% COMPLETE 0% COMPLETE 0% COMPLETE**

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References

Acharya A, Powell V, Torres-Urquidy MH, et al. Integration of Medical and Dental Care and Patient Data. 2nd ed. 2019. doi: 0.1007/978-3-319-98298-4

American Academy of Nurse Practitioners. (2019). NP Fact Sheet. Retrieved from: https://www.aanp.org/about/all-about-nps/np-fact-sheet

American College of Nurse-Midwives (ACNM). (2019) Midwives & birth in the United States. Accessed December 21, 2020.

https://www.midwife.org/acnm/files/cclibraryfiles/filename/00000007531/EssentialFactsAboutMidwives-UPDATED.pdf.

American College of Nurse Midwives. Core Competencies for Basic Midwifery Practice. American College of Nurse-Midwives. 2020. Accessed July 9, 2021.

https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/00000000000000050/ACNMCoreCompetenciesMar2020_final.pdf.

American College of Obstetricians and Gynecologists Women's Health Care Physicians Committee on Health Care for Underserved Women. Committee opinion no. 569: oral health care during pregnancy and through the lifespan. Obstet Gynecol. 2013;122(2 Pt. 1):417-22. doi: 10.1097/01.AOG.0000433007.16843.10.

American Dental Association. (2020a). Supply and Profile of Dentists. Retrieved from <u>https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists</u>.

American Dental Hygienists Association. ADHA Fact Sheet. Accessed February 1, 2021. https://www.adha.org/resources-docs/72210 Oral Health Fast Facts & Stats.pdf.

American Midwifery Certification Board. Certified Nurse-Midwives/Certified Midwives by State. Research Report. May 2021. Accessed July 9, 2021.

https://www.amcbmidwife.org/docs/default-source/reports/number-of-cnm-cm-by-state---may-2021.pdf?sfvrsn=d11af62c_4

American Public Health Association. Improving Access to Dental Care for Pregnant Women through Education, Integration of Health Services, Insurance Coverage, an Appropriate Dental Workforce, and Research. American Public Health Association; 2021. Accessed July 9, 2021. https://www.apha.org/Policies-and-Advocacy/Public-Health-Policy-Statements/Policy-Database/2021/01/12/Improving-Access-to-Dental-Care-for-Pregnant-Women

CareQuest Institute. The Connection Between Oral Health and Mental Health. Accessed Ma4 24, 2022. https://www.carequest.org/resource-library/connection-between-oral-health-and-mental-health

Centers for Disease Control and Prevention. Pregnancy and oral health. Updated February 19, 2019. Accessed July 9, 2021.

https://www.cdc.gov/oralhealth/publications/features/pregnancy-and-oral-health.html.

Gupta N, Vujicic M. Main Barriers to Getting Needed Dental Care All Relate to Affordability. American Dental Association; 2019. Accessed July 9, 2021.

https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0419_1.pdf?%20la=en.

Haber, J., Hartnett E., Hallas D., Dorsen, C., Lange-Kessler J., Lloyd, M., Thomas E., Wholihan D. (2015). Putting the Mouth Back in the Head: HEENT to HEENOT. American Journal of Public Health. March 2015, Vol. 105, No. 3, pp. 437-441.

Haber J, Dolce MC, Hartnett E, et al. Integrating oral health curricula into midwifery graduate programs: results of a US survey. J Midwifery Womens Health. 2019;64(4):462-71. doi:10.1111/jmwh.12974.

Haber J, Hartnett E, Hille A, et al. Promoting oral health for mothers and children: a nurse home visitor education program. Pediatr Nurs. 2020;46(2):70-76. Hartnett E, Haber J, Krainovich-Miller B, et al. Oral health in pregnancy. J Obstet Gynecol Neonatal Nurs. 2016;45(4):565–73. doi:10.1016/j.jogn.2016.04.005. Hummel J, Phillips KE, Holt B, H. C. (2015). Oral Health: An Essential Component of Primary Care. Qualis Health. Retrieved from

http://www.safetynetmedicalhome.org/sites/default/files/White-Paper-Oral-Health-Primary-Care.pdf

Oral Health Care During Pregnancy Expert Workgroup. Oral Health Care During Pregnancy: A National Consensus Statement. National Maternal and Child Oral Health Resource Center; 2012. Accessed July 9, 2021. https://www.mchoralhealth.org/PDFs/OralHealthPregnancyConsensus.pdf

