

Share & Learn: Medical-Dental Integration During Pregnancy

November 16, 2023

Speakers

Jay Kumar, OOH

Lisa Berens, COHTAC, UCSF

Monica MacVane-Pearson, La Clínica de La Raza

Ana Coutinho, La Clínica de La Raza

Facilitator

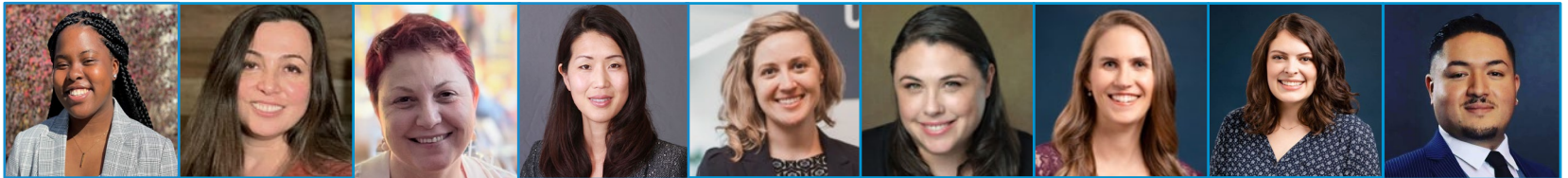
Aubri Kottek, COHTAC, UCSF

Housekeeping

- Meeting is being recorded and will be posted on the COHTAC website and YouTube channel – follow up materials and a link to the recording will be emailed
- Questions are welcomed in the chat box and will be answered at the end of the presentations – please stay muted until called on
- Comments, resource sharing, and other discussion are also welcomed in the chat box
- As always, we appreciate your feedback – please take a minute at the end to complete our evaluation survey

COHTAC

- **What?** Providing technical assistance and developing resources to support local oral health programs (LOHPs) in meeting their work plan objectives
- **How?** Share & Learns, in-person meetings, group technical assistance, website resources, manuals, 1:1 support
- **Who?**



Khadijat Alli

Bahar
Amanzadeh

Sepideh
Banava

Lisa Berens

Katie
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Learning Objectives & Agenda

Objectives

- Understand the importance of oral health during pregnancy and the value of medical-dental integration
- Learn from a case study in medical-dental integration: La Clínica de La Raza and the Consortium for Oral Health Systems Integration and Improvement (COHSII)
- Discuss ways in which to implement learnings in your local oral health programs

Agenda

- Why focus medical-dental integration during pregnancy?
[Jay Kumar](#)
- Background on pregnancy and oral health
[Lisa Berens](#)
- La Clínica de La Raza case study
[Monica MacVane-Pearson & Ana Coutinho](#)
- Q & A
- Small group discussion: breakout rooms
- Large group discussion

Oral Health Care during Pregnancy

JAYANTH KUMAR, DDS, MPH
STATE DENTAL DIRECTOR

California Department of Public Health
Center for Healthy Communities
Office of Oral Health



Disclosure

The findings and conclusions in this report are those of the authors and do not necessarily represent the views or opinions of the California Department of Public Health or the California Health & Human Services Agency.

Priority Population—Pregnant Women

- ▶ Pregnancy may affect oral health
- ▶ Infants acquire caries-causing bacteria from caregivers
- ▶ Studies suggest an association between periodontal disease and adverse pregnancy outcomes



Oral Health Care during
Pregnancy and Early Childhood
Practice Guidelines



New York State Department of Health
August 2006

Oral health

During Pregnancy
& Early Childhood:

Evidence-Based
Guidelines for
Health Professionals

February
2010

Oral Health Care During Pregnancy: A National Consensus Statement



Journal

CALIFORNIA DENTAL ASSOCIATION

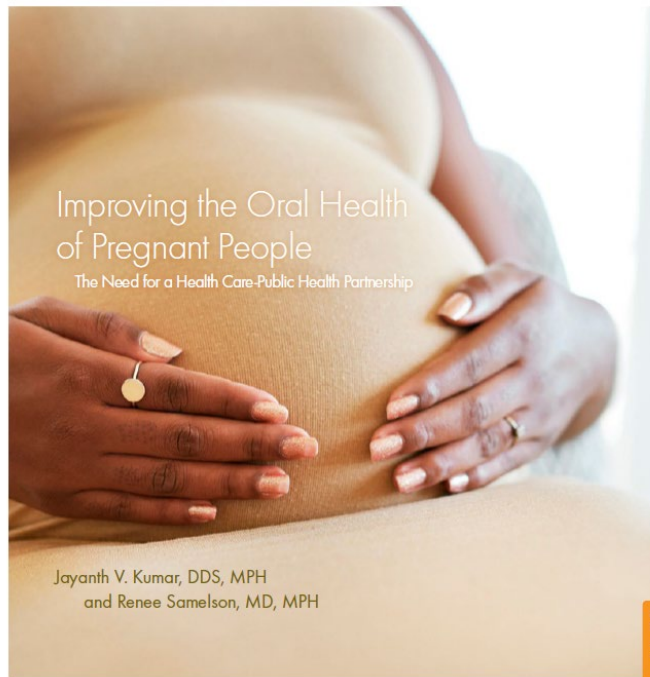


April 2022

Dental Care During Pregnancy
Adults and Infants Oral Health
Preconception Intervention

Improving the Oral Health of Pregnant People

The Need for a Health Care-Public Health Partnership



Jayanth V. Kumar, DDS, MPH
and Renee Samelson, MD, MPH

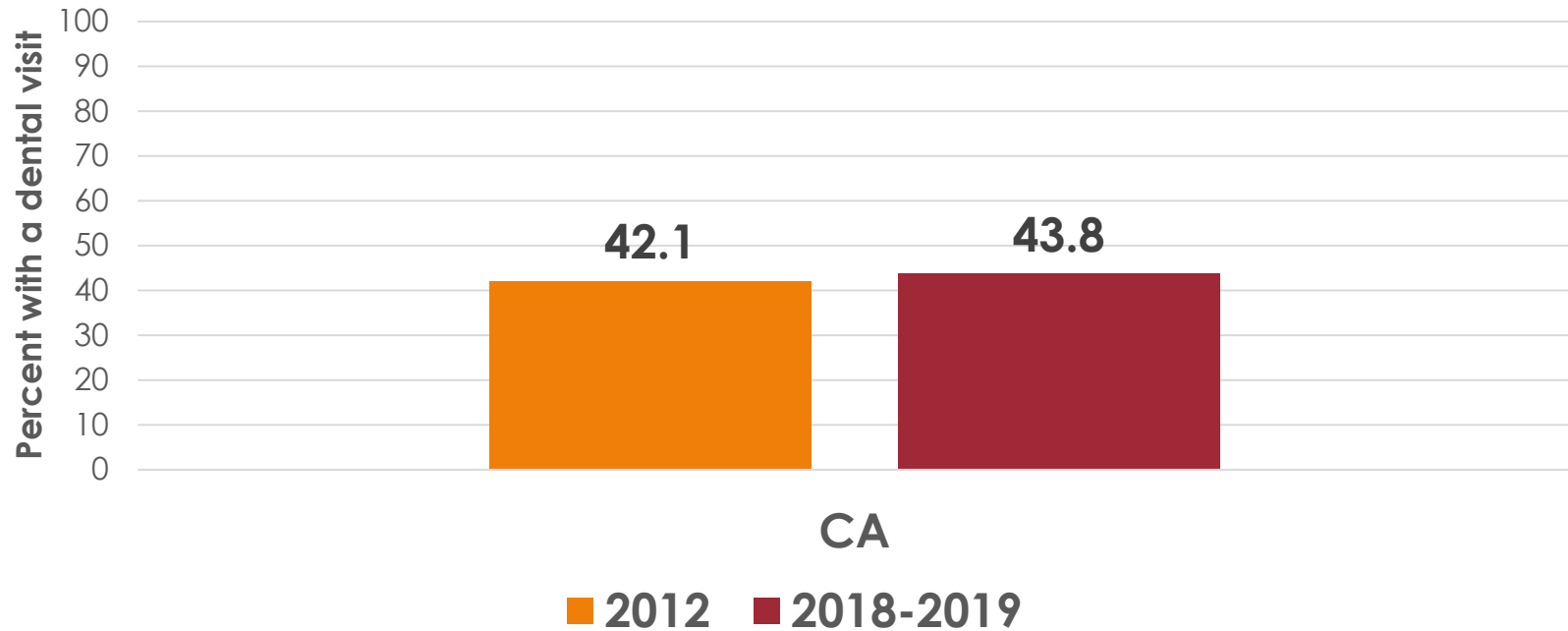
APRIL 2022
VOLUME 4

Policy, System and Environmental Change Recommendations

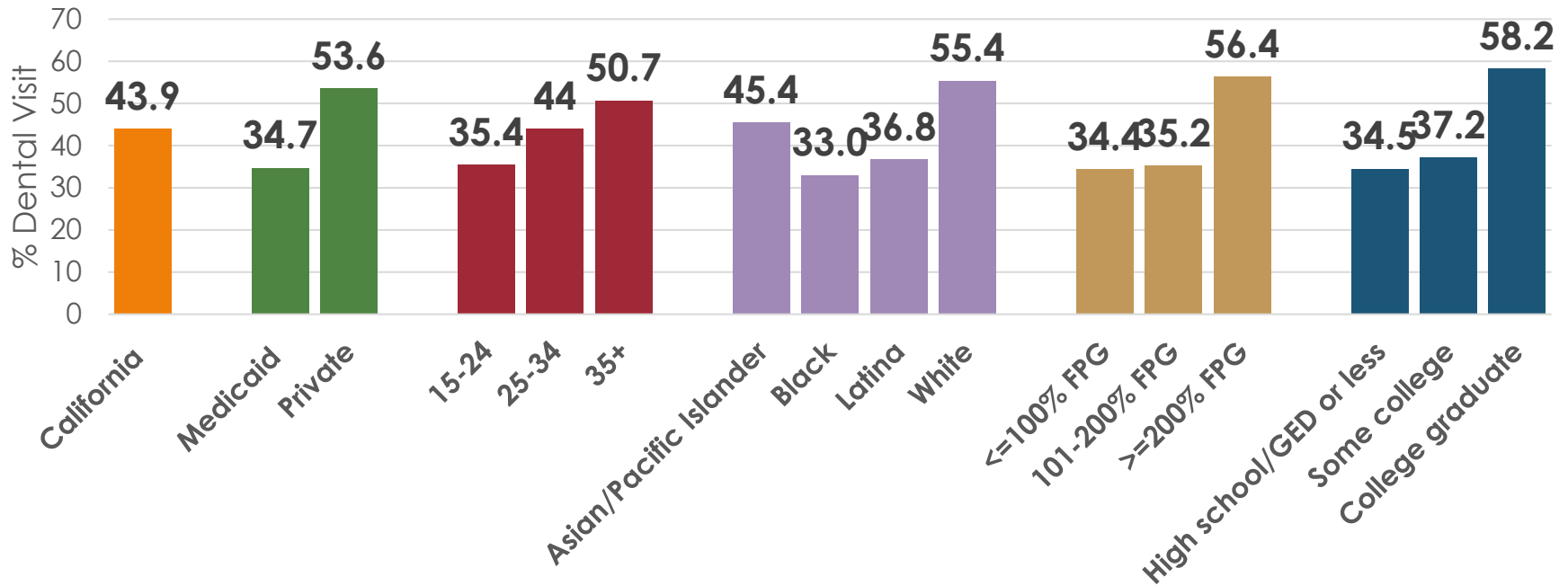
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- ▶ Promote professional guidelines
- ▶ Expand insurance coverage
- ▶ Track MCH Block Grant Title V performance measures
- ▶ Promote Medical-Dental Integration
- ▶ Increase oral health literacy

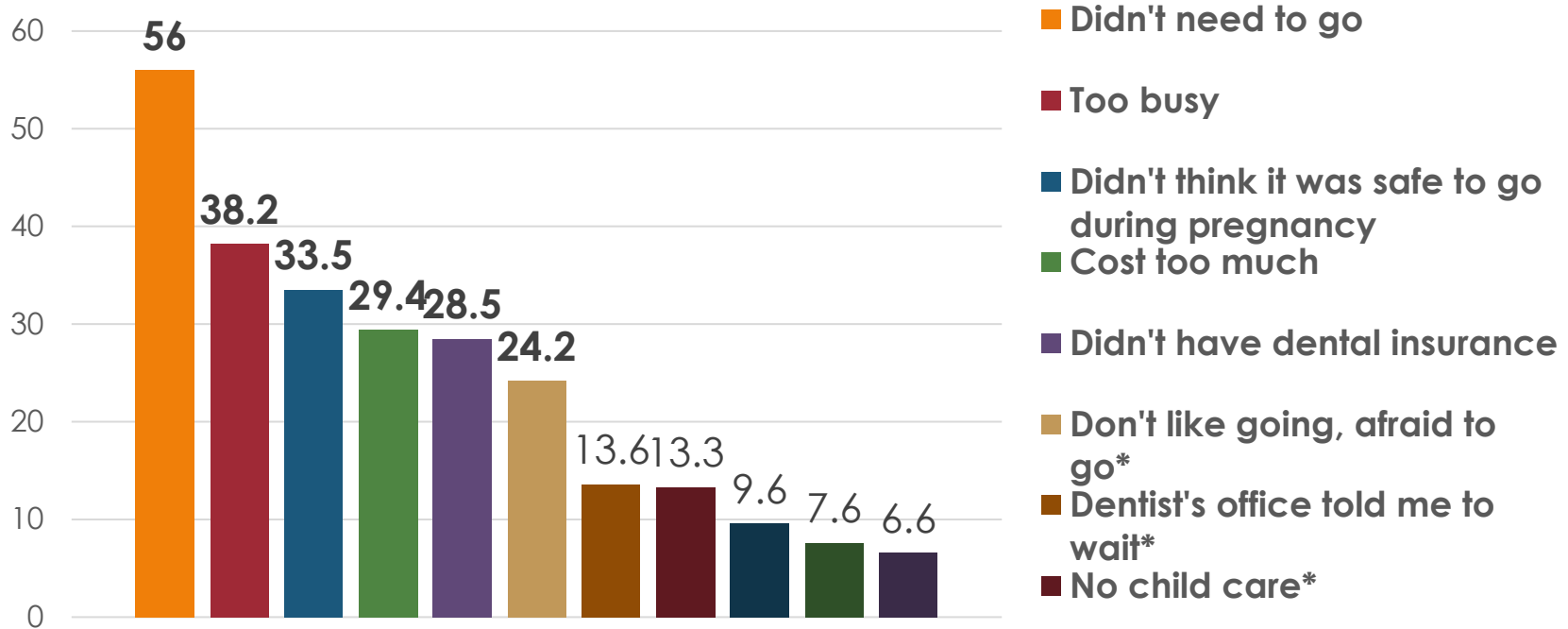
Changes in dental visit rates during pregnancy among California women with a recent live birth, Maternal and Infant Health Assessment (MIHA) Survey, 2012 and 2019-2020



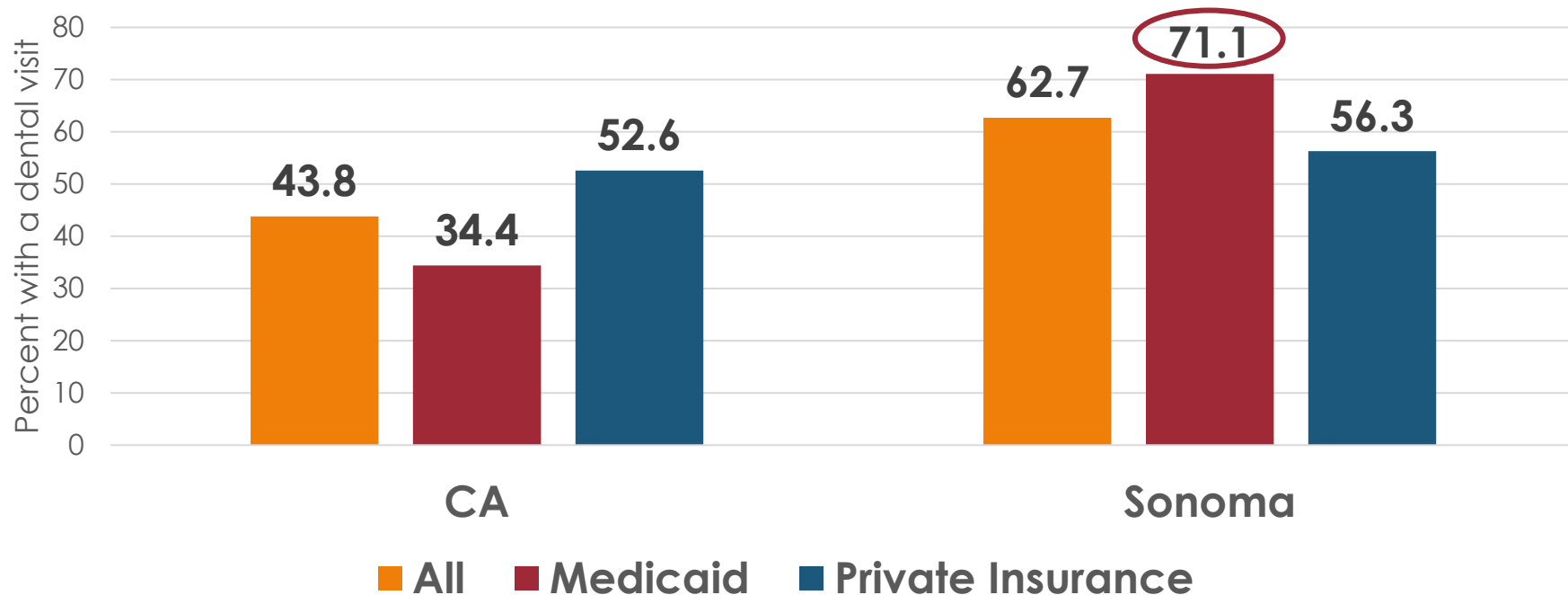
Receipt of dental visit during pregnancy among California women with a recent live birth, Maternal and Infant Health Assessment (MIHA) Survey, 2017-2018



Reasons for not visiting a dentist, MIHA 2019



Dental visit during pregnancy among California women with a recent live birth, Maternal and Infant Health Assessment (MIHA) Survey, 2019-2020



Thank you

Medical-Dental Integration

16 November 2023

COHTAC Share and Learn

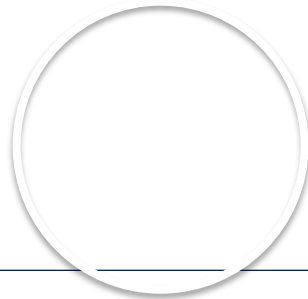
Lisa Berens DDS, MPH

11/16/2023

Why Maternal Oral Health?

OH problems
common
during
pregnancy

- inflamed gums
- tooth mobility
- tooth erosion

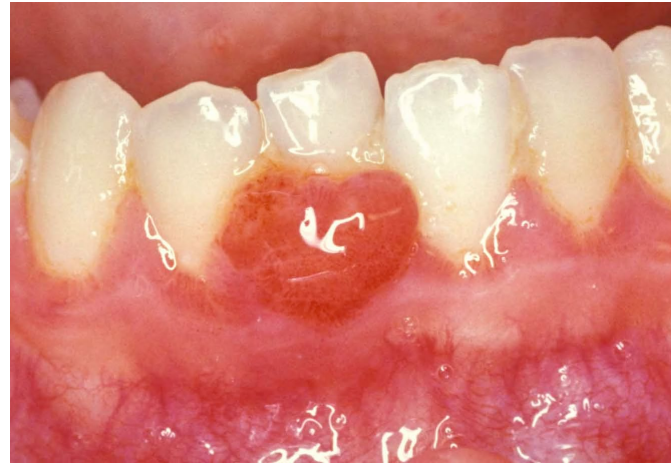


Pregnancy → Oral health

- Any oral health problems prior to pregnancy can become worse during pregnancy



7 months pregnant



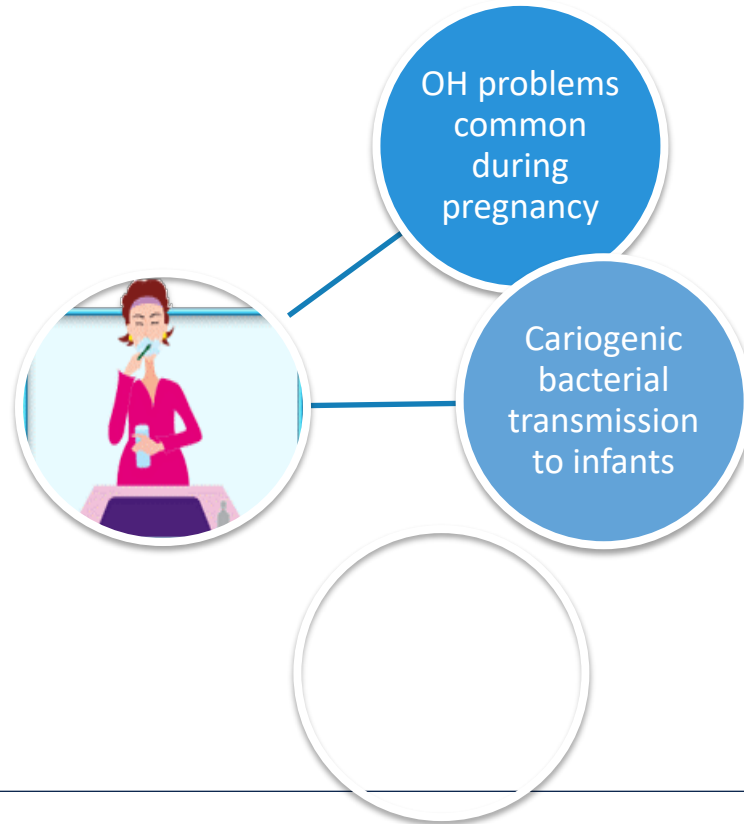
8 months pregnant

Pregnancy → Oral health

- Acid erosion of teeth



Why Maternal Oral Health?



Vertical transmission

- Maternal transmission of cariogenic bacteria
 - Infants are not born with these bacteria
 - Infants mainly acquire cariogenic bacteria from mothers through salivary transmission¹
 - Mothers with high levels (>10⁵ CFU/ml) are more likely to transfer bacteria to infants²

1. Tanzer JM, Livingston J, Thompson AM. The microbiology of primary dental caries in humans. J Dent Educ. 2001;65(10):1028-37. Epub 2001/11/09. PubMed PMID: 11699974.

2. Thorild I, Lindau-Jonson B, Twetman S. Prevalence of salivary Streptococcus mutans in mothers and in their preschool children. Int J Paediatr Dent.

Maternal influence on child's OH

- Maternal levels of cariogenic bacteria
 - Diet
 - Oral hygiene home care
 - Caries
- Maternal-infant behaviors
 - Pre-chewing food
 - Sharing utensils
 - Cleaning pacifier in mouth

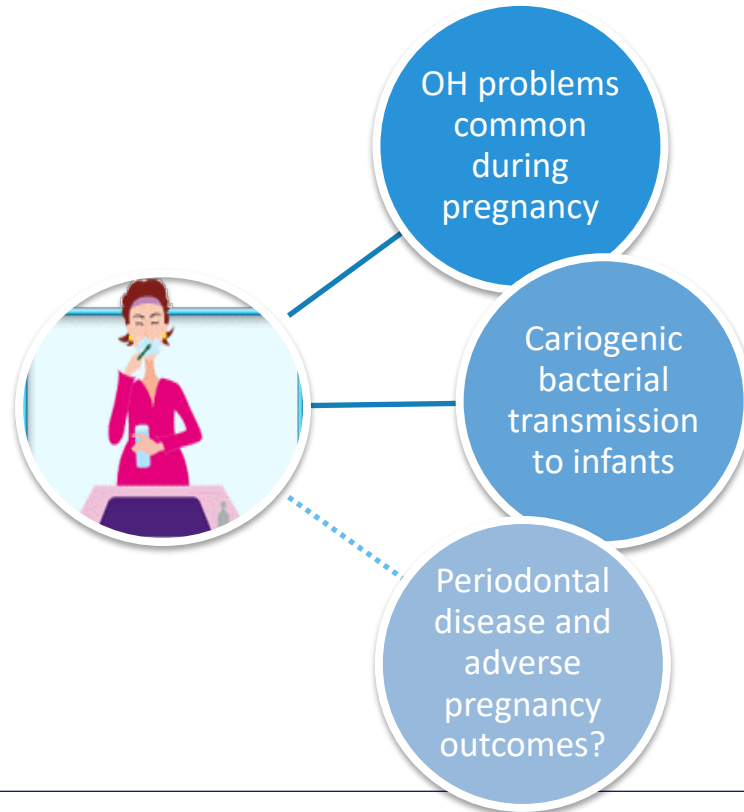


Dental Caries in children

- Most common chronic disease in children
- Caries affects 21.4% of U.S. children aged 2-5 years old³



Why Maternal Oral Health?



Why Maternal Oral Health?



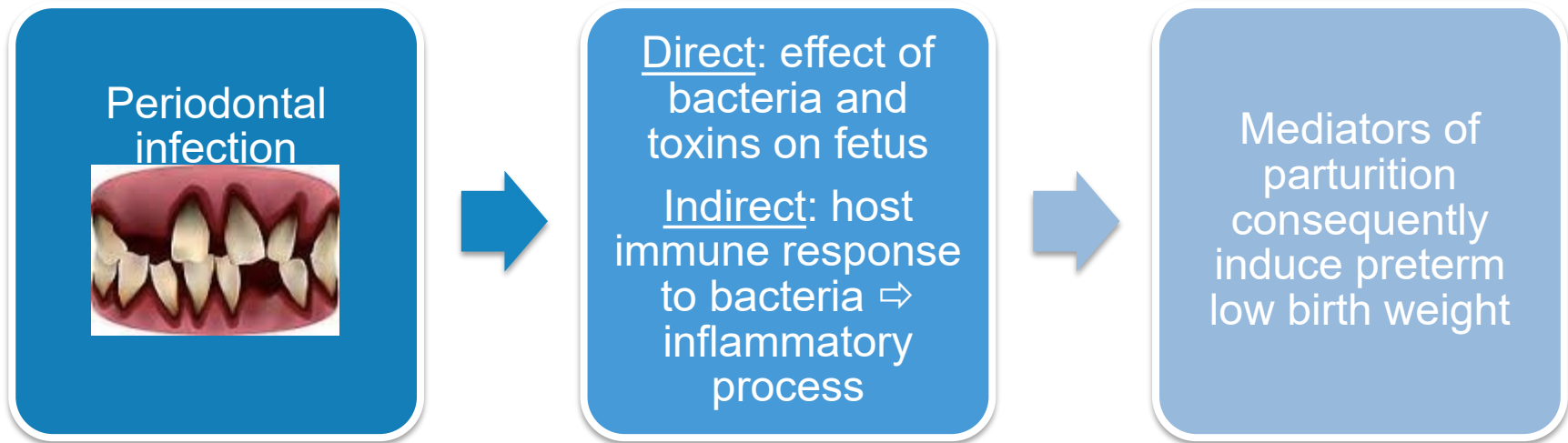
Periodontal
disease and
adverse
pregnancy
outcomes?

Maternal periodontal disease and birth outcomes

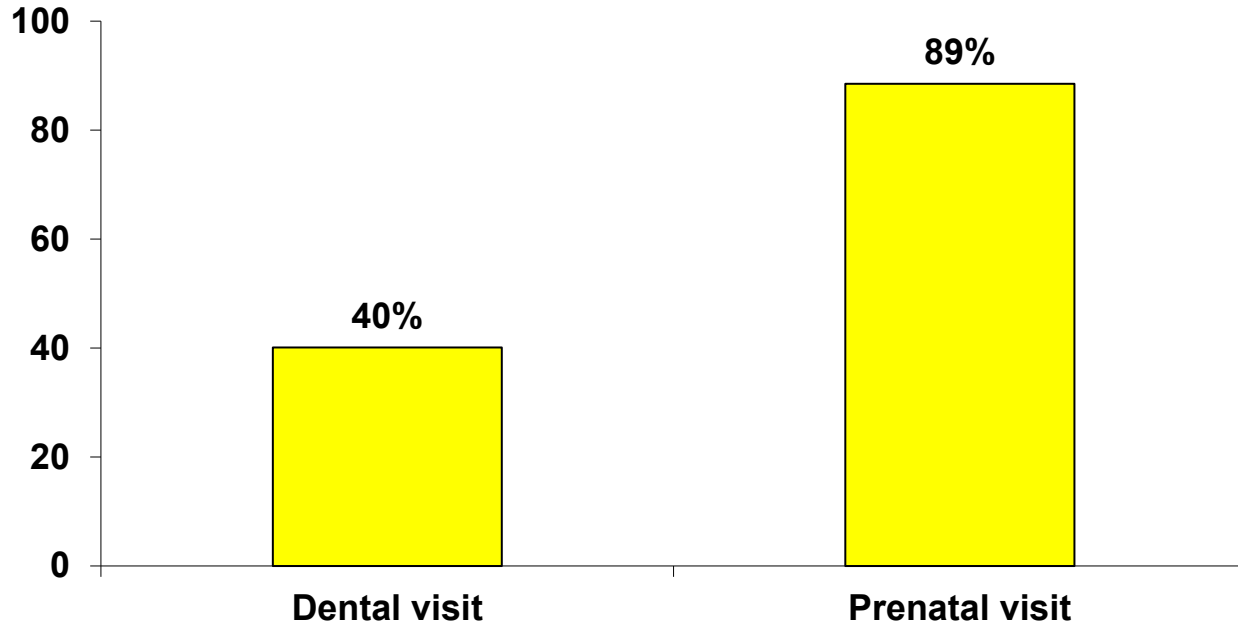
– research evidence

- Observational studies are mixed
 - Positive association: largely conducted in the US with large proportions of African American patients
 - No association: international; somewhat larger
- Experimental studies
 - Majority fail to establish a causal link between periodontal disease and adverse pregnancy outcomes
 - Demonstrated safety of dental care during pregnancy

Maternal periodontal disease and birth outcomes – proposed mechanism



More frequent prenatal care visits during pregnancy



2011 IOM report highlights:

Improving Access to
Oral Health Care for
Vulnerable and
Underserved Populations



INSTITUTE OF MEDICINE AND
NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

Continued separation of oral
health from overall health



Negative impact on underserved
– pregnant women

*“Non dental health care
professionals need to take a role
in oral health care”*

Clinical guidelines for perinatal oral health



- New York, California, South Carolina
- National support: The Maternal and Child Health Bureau; The American College of Obstetricians and Gynecologists
- Evidence-based strategies for both dental and non-dental clinicians

Clinical guidelines for perinatal oral health

For prenatal care providers:

- Assess and refer
- Promote
 - Oral hygiene and dietary practices
 - Importance and safety of dental care
 - Anticipatory guidance for infant: cleaning, feeding, saliva-sharing
- Provide assistance - insurance and referrals

Interprofessional Collaboration: Integrating Dental Referrals into Prenatal Care Workflows

Integrating Oral Health Care and Primary Care Learning
Collaborative: A State and Local Partnership



Poll



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Integration and Improvement**

ASTDD | DQA | OHRC

- What role do you have in your organization?
- Where are you in the process of your dental-medical integration?

HRSA

Health Resources & Services Administration

NN^{•••}HA

National Network for Oral Health Access

OHRC

National Maternal and Child Oral Health Resource Center

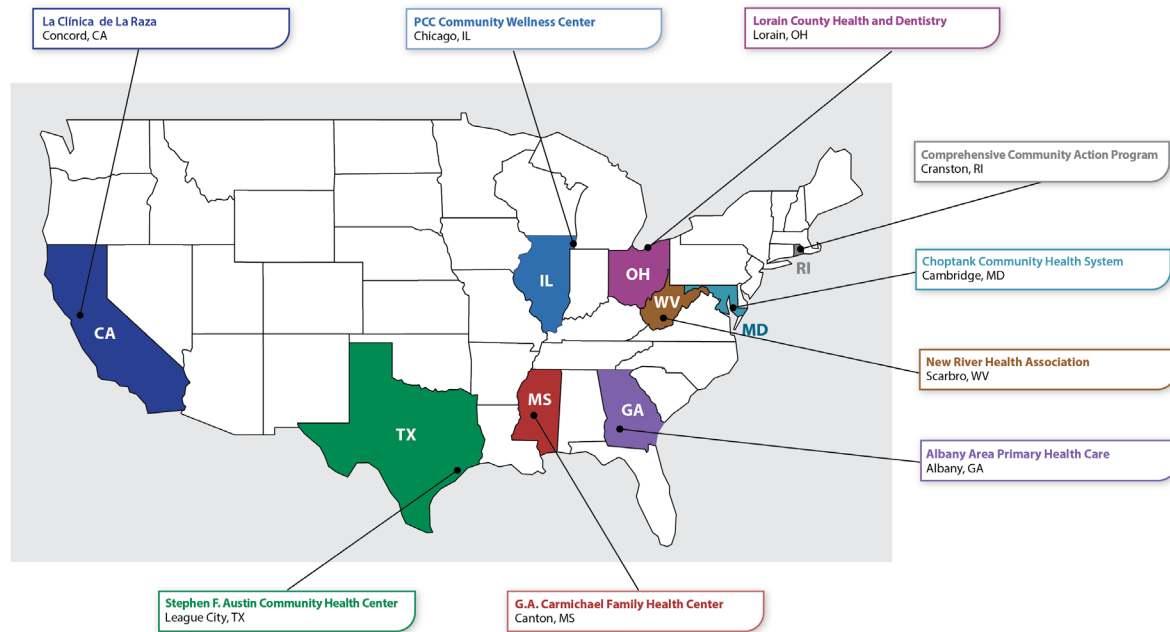
GEORGETOWN UNIVERSITY

COHSII

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Integrating Oral Health Care and Primary Care: A Learning Collaborative



Five Domains



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Interprofessional Oral Health Core Clinical Domains



Risk Assessment



Oral Health Evaluation



Preventive
Interventions



Communication and
Education



Interprofessional
Collaborative Practice



National Network for Oral Health Access

1. Risk Assessment: by the primary care team



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- During CPSP¹ Orientation Appointment:
 1. Do you currently have a dentist?
 2. Have you had your teeth cleaned in the last 12 months?
 3. Would you like to be referred to our La Clinica Dental Team?
 - If no, ask: Can we share some information with you about the importance of oral health in pregnancy?
 4. Do you have any swollen or bleeding gums, a toothache, mouth pain, problems eating or chewing food, or other problems in your mouth?
 5. Do you have any questions or concerns about oral health care or getting oral health care while you are pregnant?

- If YES to any of the #4 triggers >> 'Urgent' dental referral.

1. <https://www.cdph.ca.gov/Programs/CFH/DMCAH/CPSP/Pages/default.aspx>

2. Referral Process (Interprofessional Collaboration)



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- How do you determine the need for a referral?
 - Risk Assessment questions during the CPSP Orientation appointment let's our prenatal coordinator know to place a referral, as well as which type: routine versus urgent.
- What member(s) of the primary care team creates the dental referral?
 - Prenatal Supervisor (CPSP Orientation)
 - Provider (if misses CPSP Orientation or status changes)
- How does the dental referral get to the dental clinic?
 - Referral placed through EMR (Epic Workqueue)

Dental Referral Workflow



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Insurance: O/P MEDICAL / O/P MEDICAL RESTRICTED

General

Referral # Type Priority Class Referral Reasons

Referral Status


Status Auth Reason Auto Assign


Last Updated: 9/7/2023

Dates

Referred On

Referred By/To

Referred By  AKERA, CHIKA
LCDLR MONUMENT MEDICAL
LCDLR Monument

Referred To  LCDLR MONUMENT DENTAL
Dental

Open Reason

Reason

Reason for open

Dental Referral Workflow

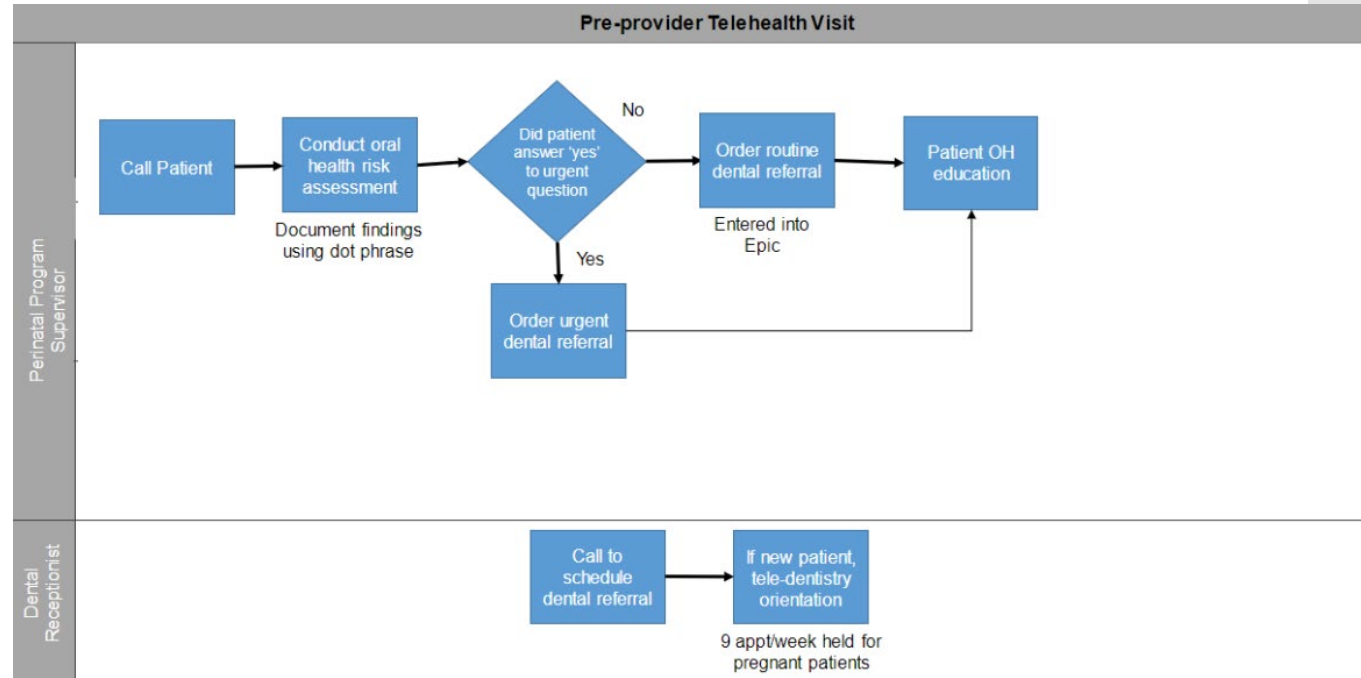


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- Who schedules the dental appointment for patients with a referral and how?
 - Dental staff review Epic Workqueue and contact patient
 - First visit Telehealth or in-office
- How does the dental clinic prioritize dental referrals for pregnant patients?
 - Appt schedule blocked to reserve space for prenatal pts.
- How does the prenatal provider know they made it to the dentist?
 - Dental staff will change the status of the referral in Epic.

Dental Referral Workflow



Dental Referral Workflow: Closing the Loop



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- What criteria are used to close a dental referral?
 - Patient declines to schedule appt with dental
 - Once the patient has completed the dental exam
 - If three attempts to contact the patient with no response
 - If the patient no-shows to appts three times

3. Patient Education

- Throughout Pregnancy
 - CPSP Orientation Appointment
 - Patient Waiting Room
 - Provider Visits
 - During Dental Telehealth
 - During Dental Visit
 - Postpartum / Pediatric Visit

3. Patient Education



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- **Education Basics:**
 - Oral health of Mom affects health of baby
 - Poor weight gain, preterm delivery
 - Basics of when to call the dentist: warning signs
 - X-rays are safe during pregnancy
 - Certain anesthesia are safe during pregnancy
 - Bacteria in parents mouth can be transferred to baby before they even have teeth!
 - Health dental practices: brushing, flossing, fluoride, regular dental cleanings!

To whom it may concern,
Advice for Dentists,

@NAME@ is under our medical care for pregnancy. Pregnant patients should have all necessary dental prevention and treatment, including procedures, performed, albeit with appropriate precautions.

Oral health - prevention, diagnosis, and treatment - is crucial during pregnancy and poor oral and dental health can be associated with adverse pregnancy outcomes. For example, abscesses and periodontal disease, are associated with preterm deliveries, low birth weight newborns, and poorer obstetrical health outcomes.

Routine radiographs, if needed, may be done at any time during the pregnancy and should be performed with shielding of the abdomen and thyroid.

Routine procedures, such as scaling/root planning, restoration (amalgam or composite), extractions, or root canals are not harmful to the fetus. If not otherwise contraindicated, she may receive local Category B anesthetics and pain medications at any point in her pregnancy. Inhalation anesthesia (NO) is safe in pregnancy and sedatives may be used with proper monitoring. NSAIDs should be avoided, particularly in the third trimester (after 28 weeks of pregnancy).

Antibiotics may be used during pregnancy. However, flouroquinolones and tetracyclines are contraindicated in pregnancy. Pregnant patients do not require antibiotic prophylaxis for pregnancy alone.

Please call our office with any concerns and thank you for supporting our mutual patient with the health of their pregnancy.

Sincerely,
@ENCOUNTERPROVIDER@

4. Oral Health Evaluation:

by the prenatal provider

- Oral examination by PCP
 - Training / building confidence via dental in-service at OB staff meeting with 3-month refresher
 - Documentation
 - Created a dot phrase to help provoke providers to remember the components
 - Other sites and EHRs have macro prompts in the same vein



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PRIMARY CARE PROVIDERS' RAPID DENTAL REFERENCE

Dr. Richa Singhania, DPH Resident UCSF • Dr. Monica MacVane - Pearson

4. Oral Health Evaluation

HEALTHY

Healthy Features:
 1. Color: Pale pink to brown (as per skin pigmentation)
 2. Consistency: Firm and resilient
 3. Texture: Stippling, Orange peel appearance
 4. Contour: Knife-edge margins

Healthy Gums & Teeth



Concerning Features (look for):
 1. Redness of gums
 2. Swelling
 3. Red/White patches on soft tissues
 4. Asymmetry

PERIODONTITIS

Gingivitis/Periodontitis



Moderate Periodontitis



Advanced Periodontitis



CARIES

Dental Caries



Advanced Caries



Decayed tooth (Root stump)



OTHERS

Pregnancy Granuloma



Parulis/Fistula



Healthy Tongue



Oral Lichen Planus



References:

1. *McIntosh Dental* (2016, August 27). Parulis/Fistula: Dental Abscess Treatment and Symptoms. *McIntoshDental.com*. Retrieved March 7, 2023, from <https://mcintoshdental.com/parulis-fistula-dental-abscess-treatment-and-symptoms/>.
 2. *Prim, M., Cooke, L., Linden, S., Kemp, Ivank, C.* (1997). Dental manifestations of pregnancy. *The Obstetrician & Gynaecologist*, 9(2), 21-26.
 3. *Immediata Implant Placement by Intraoperative Bone Drilling before Maxillary Extraction: Clinical Case Report with One-Year Follow-Up.* • *Zou, J., Wang, M., Luo, C. S., Ren, Y., & Wang, Z.* (2019). Common dental diseases in children and malocclusion. *International Journal of Oral Sciences*, 16(1), 7.
 4. (2019, December 4). 5 Things You Should Know About Gum Disease (Periodontitis). *ExhaleDental.com*. Retrieved March 7, 2023, from <https://www.exhaleDental.com/5-things-you-should-know-about-gum-disease-periodontitis/>.
 5. (2021, July 20). The Risk Of Dental Caries From COVID-19. *Yonge Eglington Dental*. Retrieved March 7, 2023, from <https://www.yongeginglingdental.com/2021/07/20/dental-caries-covid19/>.
 6. (n.d.). Periodontitis. *Smiles For Life*. Retrieved March 7, 2023, from <https://www.smilesforlifehealth.org/periodontitis/>.
 7. (n.d.). Tongue Disorders. *Medline Plus*. Retrieved March 7, 2023, from <https://medlineplus.gov/tongue-disorders.html>.



User SmartPhrase – ACEXAMORALPREG [1571183]



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Do not include PHI or patient-specific data in SmartPhrases.

Calibri Light 11 B Insert SmartText Insert SmartList

1 2 3 4 5 6 7 8 9 10 11 12 13

Mouth: no*** evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no*** abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and ***no broken or missing teeth, pain not*** noted on exam

- healthy stippling
- localized inflammation/bleeding
- generalized inflammation/bleeding

User SmartPhrase – ACEXAMORALPREG [1571183]

Do not include PHI or patient-specific data in SmartPhrases.

Calibri Light 11 B Insert SmartText Insert SmartList

1 2 3 4 5 6 7 8 9 10 11 12 13

Mouth: no*** evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no*** abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and ***no broken or missing teeth, pain not*** noted on exam

- no
- mild
- moderate
- severe

Calibri Light 11 B Insert SmartText Insert SmartList

1 2 3 4 5 6 7 8 9 10 11 12 13

Mouth: no*** evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no*** abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and ***no broken or missing teeth, pain not*** noted on exam

- no
- mild
- moderate
- severe

5. Prevention Intervention:

fluoride varnish
application by medical
assistants

● Fluoride Varnish Application

- Not clear evidence that this is effective for fetal benefit
- Benefit for adults in low-income settings
 - 15-18 weeks of pregnancy, unless late to care, where the MA will apply at the first visit
- By medical assistant
- Dental in-service and demo/practice at OB staff meeting with refreshers and pop quizzes
- Incentives for MAs to apply
- We bill Medical for this through a procedure code



Medical Assistant Fluoride Script



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Directions for Fluoride After Care for Pregnant Women

Fluoride varnish was applied to your teeth today. This treatment safely delivers fluoride through a protective coating to the surface of the teeth. Fluoride helps YOU to support strong, healthy teeth, preventing cavities and decay in the future. Decay can cause bacteria to be passed to your baby during kissing and caretaking, which can cause tooth issues in baby as a child. Additionally, fluoride is passed to YOUR BABY through the bloodstream. Baby's teeth are already forming during pregnancy, so this fluoride helps YOUR baby create strong, healthy teeth. To obtain the maximum benefit, please follow these recommendations:

- Do not brush or floss for at least 4-6 hours.
- If possible, wait until tomorrow morning to start brushing and flossing again
- Eat a soft food diet for the rest of today.
- Avoid hot drinks and products containing alcohol for the rest of today.
- You will be able to feel the varnish on your teeth. Once brushing or flossing is re-started, the varnish will be removed from the tooth surface over the next several days.

+ ADD ORDER



After Visit Procedures

Name	Code	Type	Section	Pref List	Re
Application Topical Fluoride Varnish By PHS/QHP	99188	Procedures	Other	SA186 PROCEDURES	

During Visit Orders

Application Topical Fluoride Varnish By PHS/QHP

Priority: Routine | ASAP | STAT | After office visit | After xray | Today | Routine | Wet Read

Status: Normal | Standing | Future

Class: Normal | Normal | Outside | Back Office | Internal Referral

Quantity: 1 | The maximum orderable quantity for this procedure is 999

Comments: [Text area]

CC Results: + My List + PCP + Other

Dx association: [Text area] + Add

Additional Order Details

Next Required

Encounter for prophylactic administration of fluoride

Z29.3- Encounter for prophylactic fluoride administration

Need for prophylactic fluoride administration

Preferred

Z29.3- Encounter for prophylactic fluoride administration

Encounter for prophylactic fluoride administration

Preferred

Z29.3- Encounter for prophylactic fluoride administration

Prophylactic fluoride administration

Z29.3- Encounter for prophylactic fluoride administration

Prophylactic fluoride treatment

Z29.3- Encounter for prophylactic fluoride administration

Standard

After Visit

Application Topical Fluoride Varnish, By BHC/OLP
Routine, Normal, Qty-1, Dx: Encounter for prophylactic fluoride administration

Select a pharmacy

Name	IMO Clin-Term	ICD-10 Codes
Declined dental fluoride treatment		Z53.20- Procedure and treatment not carried out because of patient's decision for unspecifi...
Dental fluoride treatment declined		Z53.20- Procedure and treatment not carried out because of patient's decision for unspecifi...

Goals and progress



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	Baseline (2021)	Goal	Aug 2023
Oral risk assessment by primary care team	0%	80%	100%
Oral evaluation by primary care team	0%	10%	9%
Fluoride application by primary care team	0%	10%	34%
Oral health education by primary care team	0%	80%	100%
Dental referrals completed (dental exam)	57%	70%	63%*

*11 individuals referred, 7 individuals seen. There is a delay....

Discussion



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- What makes referral process work well?
 - Medical and Dental providers are eager for interprofessional collaboration
 - Referrals are sent and received electronically through a system shared by Medical and Dental
 - Dental provided several in-services with Medical
 - Dental and Medical are co-located
- Challenges:
 - Medical team can't see Dental's notes/schedule
 - No mechanism for Dental to respond to medical provider for quick concerns, e.g. chats
 - Medical Assistants questioned their role in oral health
 - Medical Assistants' reluctance to do fluoride application
 - PCP buy-in and completion of oral exam (and documentation)

LOHP Work Plan Objectives

- **Objective 3:** By June 30, 2027, work with partners to promote oral health by developing and implementing prevention and health care policies and guidelines for programs, health care providers, and institutional settings (e.g., schools) including **integration of oral health care and overall health care**
- **Objective** and **care coordination systems** and resources, including workforce development, **lan4.2.c:** Partner with community health workers (CHWs), FQHCs, and health educators to develop guidelines to **integrate oral health into chronic disease prevention and control activities**
- **Objective 5:** By June 30, 2027, coordinate outreach programs; implement education, health literacy campaigns and **promote integration of oral health and primary care**
- **Objective 6:** By June 30, 2027, assess, support, and ensure establishment of effective oral healthcare delivery guage services, collaborations, and processes that support continuous quality improvement to serve underserved areas and vulnerable populations



Thank you!