



Dental Public Health Project Descriptive Report Form

Please provide a description of your organization’s successful dental public health project by completing this form. Add extra lines to the form as needed but stay within **word limits**.

Please return the completed form to Lori Cofano: locofano@astdd.org

Name of Project
Perinatal Oral Health Program
Executive Summary (250-word limit)
<p>Oral health during pregnancy is crucial for both maternal and child well-being. Pregnancy may increase the risk of certain oral health conditions, such as gingivitis. There is a growing body of evidence to suggest that periodontal disease may be linked to preterm and low birth-weight babies.¹ Furthermore, poor oral health can have a broader impact on systemic health, contributing to chronic conditions like cardiovascular disease and diabetes. For these reasons, pregnant individuals should prioritize regular dental visits, practice good oral hygiene, and consult with their dental provider to address any oral health concerns.</p> <p>The Perinatal Oral Health Program, part of North Carolina's Division of Public Health, is proudly housed within the state's Oral Health Section—working to support healthier smiles for moms and babies alike. The Perinatal Oral Health (POH) program aims to improve the overall standard for care for pregnant women by educating healthcare providers on the importance and safety of dental care during pregnancy and interprofessional collaborative practice to improve maternal-child oral health outcomes. This one-hour educational program is targeted towards medical, dental and pregnancy support service providers. The Oral Health Section is comprised of 20 regional public health dental hygienists who recruit and deliver perinatal oral health trainings each fiscal year.</p>

¹ Corbella S, Taschieri S, Del Fabbro M, Francetti L, Weinstein R, Ferrazzi E. Adverse pregnancy outcomes and periodontitis: a systematic review and meta-analysis exploring potential association. *Quintessence Int.* 2016;47(3):193–204. doi: 10.3290/j.qi. a34980

Name of Program or Organization Submitting Project

North Carolina Oral Health Section: Perinatal Oral Health Program

Essential Public Health Services to Promote Health and Oral Health in the United States

Place an "X" in the box next to the Core Public Health Function(s) that apply to the project.

X	Assessment
X	Policy development
X	Assurance

<http://www.astdd.org/state-guidelines/>

Project submissions will be categorized by the Core Public Health Functions on the ASTDD website.

Healthy People 2030 Objectives

List Healthy People 2030 objectives related to the project.

Healthy People 2030 Oral Health Conditions
Reduce the proportion of adults with active or currently untreated tooth decay (OH-03)
Increase the proportion of children, adolescents, and adults who use the oral health care system (OH-08)
Reduce the proportion of people who can't get the dental care they need when they need it (AHS-05)
Increase the proportion of persons with dental insurance (AHS-02)
Increase the proportion of persons served by community systems with optimally fluoridated water systems (OH-11)
Reduce the consumption of calories from added sugars by persons aged 2 years and over (NWS-10)

This information will be used as a data resource for ASTDD purposes.

Keywords for sorting the project by topic.

Provide **three to five** keywords (e.g., access to care, children, coalitions, dental sealants, fluoride, policy, Medicaid, older adults, pregnant women, etc.) that describe the project. Keywords are used to categorize submissions.

Pregnant Women (prenatal/perinatal) services, Oral Health Workforce, Interprofessional Collaboration, Prevention, Access to Care, Oral Health Education

Detailed Project Description

Project Overview

(750-word limit)

1. What problem does the project address? How was the problem identified?

In 2016, North Carolina reported that 30% of pregnant women had untreated tooth decay. Additionally, 60% of pregnant women stated that their medical provider asked if they had a

dentist, while only 17% reported visiting a dentist during their pregnancy. These issues were highlighted by the results of the North Carolina assessment of pregnant women in 2016. Surveillance of special populations, including pregnant women, is typically conducted on a five-year rotation. However, due to the COVID-19 pandemic, the surveillance of pregnant women was not carried out as scheduled.

2. Who is the target population?

Medical providers- Physicians, Nurse Practitioners, Physician Assistants, Midwives, Nurses, Medical Assistants.
Dental providers- Dentists, Dental Hygienists, Dental Assistants, Patient Care Managers.
Pregnancy Support Service Professionals- WIC, Childbirth Educators, Pregnancy Care Centers, Doulas.

3. Provide relevant background information.

In 2016, North Carolina expanded its surveillance system of vulnerable populations to include pregnant women. The 2016 assessment results, referenced in Section One, highlighted the need to educate medical, dental, and pregnancy support service providers about the importance of oral health during pregnancy. The initiative was designed to assess the oral health status of pregnant women. The surveillance was completed using the Basic Screening Survey (BSS) method. The assessment involved a visual exam, and a questionnaire focused on various aspects of oral health related behaviors. In addition, providing perinatal oral health educational trainings to medical providers and pregnancy support service providers could help address low utilization of dental services by pregnant women.

The visual exam portion was comprehensive, covering:

1. Number of natural teeth (including root fragments)
2. Presence of partial dentures or full dentures
3. Untreated decay
4. Severe gingival inflammation
5. Need for periodontal care
6. Presence of Lesions
7. Treatment urgency

The 24-item questionnaire aimed to gather self-reported data on:

- Oral health practices
- Smoking behavior
- Exposure to sugary foods and drinks

4. Describe the project goals.

The North Carolina Oral Health Section is dedicated to eliminating disparities and improving the oral health and well-being of all North Carolinians. This is achieved through monitoring the public's oral health, providing preventive services and education, increasing access to care, and strengthening the oral health workforce. The Perinatal Oral Health Program

encompasses the full scope of the Section’s work, aiming to improve the standard of care for pregnant women. Its goal is to educate healthcare providers and pregnancy support professionals on the importance and safety of dental care during pregnancy, while also contributing to the development of a stronger oral health workforce and improving access to care.

Resources, Data, Impact, and Outcomes

(750-word limit)

1. What resources were/are necessary to support the project (e.g., staffing, volunteers, funding, partnerships, collaborations with other agencies or organizations)?

- Staff: One Perinatal Oral Health Coordinator and twenty public health dental hygienists from the Oral Health Section.
- The Perinatal Oral Health Advisory Committee: This committee is composed of six dental providers, three medical providers, and five members of community organizations. The committee’s primary function was to provide guidance for the creation of the POH program. The committee continues to meet quarterly to obtain program updates and make recommendations for program improvement.
- Partnerships: The Oral Health Section partnered with the National Maternal and Child Oral Health Resource Center to adapt the Oral Health Care During Pregnancy: National Consensus Statement for the state of North Carolina (Oral Health Care During Pregnancy: North Carolina Collaborative Practice Framework).

2. Resources, Data, Impact, Outcomes (a) What process measure data are being collected (e.g., sealants placed, people hired, etc.)?

Data for the Perinatal Oral Health program is available on the North Carolina Scorecard. Participants are administered a pretest prior to the delivery of the educational program. Upon completion of the program, those who attended received a posttest along with an evaluation form. The current set of questions is designed to assess overall program performance.

The evaluation form includes the following questions:

1. Is this your first time attending this program?
2. Was the program content easy to understand?
3. Did you gain knowledge that is applicable to your job?
4. Would you recommend this program to others?
5. What was the most valuable part of this program for you?
6. How can this program be improved?
7. How do you plan to implement a Perinatal Oral Health program in your facility?

The number of medical, dental, and pregnancy support providers trained in perinatal oral health is currently tracked and displayed on the Oral Health Section’s internal scorecard. Additional performance measures that assess program impact are in development and will be incorporated soon.

To further evaluate program effectiveness—particularly in terms of participant outcomes (e.g., “Is anyone better off?” from question #3) and overall satisfaction (e.g., “How well is the program working?” from question #4)—select responses from the evaluation form will be used as key performance indicators. These metrics will ultimately be integrated into the North Carolina (NC) Scorecard to support ongoing program monitoring and quality improvement.

The percentage of pregnant individuals in North Carolina who utilize dental services under Medicaid for Pregnant Women is tracked by the North Carolina Division of Health Benefits. Additionally, the percentage of pregnant individuals in the state with untreated tooth decay was 30% and determined through the [2016 surveillance study](https://www.dph.ncdhhs.gov/media/285/download?attachment) of pregnant women that was mentioned earlier.
<https://www.dph.ncdhhs.gov/media/285/download?attachment>

(b) What outcome measure data are being collected (e.g., improvement in health)?

Additional performance measures include evaluating the reach and effectiveness of the program, specifically focusing on the number of medical, dental, and pregnancy support service providers trained. The percentage of medical, dental, and pregnancy support professionals who would recommend the training to others is assessed, as well as the percentage who report gaining knowledge that is useful to their work. These metrics help to understand how much impact the program has and whether it is improving the overall health of those involved.

Due to staffing capacity limitations, the Oral Health Section (OHS) is not currently able to collect outcome data such as the number of referrals provided to pregnant women, or the number of dental appointments scheduled. However, data on the number of women eligible under the Medicaid for Pregnant Women (MPW) program, the number of MPW beneficiaries receiving any dental services, and the number receiving preventive dental services is available through the North Carolina Division of Health Benefits.

Approximate outputs: 2022-2024

Number of facilities trained: 379.

Number of medical, dental and pregnancy support professionals trained: 2,930.

(c) How frequently is data collected?

Data from the pre-test and post-test evaluation form is collected following each training. See question #2 for details regarding program evaluation questions. There are nine true or false pretest questions that measures key perinatal oral health themes prior to the training.

Sample questions include:

1. Dental treatment for the pregnant woman should occur only in during the third trimester.
2. There is a potential link of oral bacteria to adverse pregnancy outcomes.
3. Dental treatment during pregnancy should be limited to preventive care.

The same questions are utilized in the posttest to measure the gain in knowledge following the presentation. This information is then used to make program changes for the next fiscal year.

Surveillance for the program is conducted on a five-year rotating basis. The last set of surveillance data was collected in 2016. Due to covid, our surveillance program has lagged in special populations to include pregnant women. Some of the data collected through our surveillance program can be found in the relevant background section of this report.

3. How are the results shared?

Contact NC OHS.

- NC Oral Health Section website:
<https://www.dph.ncdhhs.gov/programs/oral-health>
- Perinatal Oral Health Data Brief:
<https://www.dph.ncdhhs.gov/media/269/download?attachment>

Budget and Sustainability

(500-word limit)

1. **What is/was the budget for the project?** \$545,935
2. **How is the project funded (e.g., federal, national, state, local, private funding)?**

- State appropriations: 28%.
NC Medicaid, Division of Health Benefits: 61%
- Maternal and Child Health Block Grant: 11%

3. **What is the sustainability plan for the project?**

The Oral Health Section incorporated Perinatal Oral Health Coordinator duties into the existing role and expanded training responsibilities to include all Oral Health Section public health dental hygienists statewide, ensuring long-term sustainability of the project. Feedback surveys have been incorporated to show the value of the program which hopefully will ensure financial sustainability.

The Perinatal Oral Health Advisory Committee, composed of representatives from statewide and organizations, continues to support policy change, advocacy, and research.

Lessons Learned

(750-word limit)

- (a) **What lessons were learned that would be useful for others seeking to implement a similar project?**

- Key to success of the perinatal oral health program includes motivated public health dental hygienists with expertise in perinatal oral health. Partners have provided feedback that encompasses: 1) target audience to include pregnant women, 2.) offering toothbrushes and toothpaste as an incentive, and 3.) providing informative videos within the program. The videos will be used as part of program expansion of target audiences to include pregnant women.

- (b) **Any unanticipated outcomes?**

Public health dental hygienists faced challenges in recruiting and securing perinatal training for medical providers. Some of the challenges presented are:

- 1.) Medical providers do not have time for training,
- 2.) Medical providers may want an on-demand option.

(c) **Is there anything you would have done differently?**

N/A

Resources

List resources developed by this project that may be useful to others (e.g., guidelines, infographics, policies, educational materials). Include links if available.

Information about the Perinatal Oral Health Program is located on the NC OHS website at <https://www.dph.ncdhhs.gov/programs/oral-health/tips-and-education#PerinatalOralHealth-263>

Contact for Inquiries	
Name:	Stacey Solomon
Title:	Perinatal Oral Health Coordinator
Agency/Organization:	NC Department of Public Health/NC Oral Health Section
Address:	5505 Six Forks Road, Building 1 1910 Mail Service Center Raleigh NC 27699
Phone:	(919) 214-1257
Email:	Stacey.solomon@dhhs.nc.gov
Second Contact for Inquiries	
Name:	Dr. Patrick Roberson
Title:	State Dental Director and Oral Health Section Chief
Agency/Organization:	NC Department of Public Health/Oral Health Section
Address:	5505 Six Forks Road, Building 1 1910 Mail Service Center Raleigh NC 27699
Phone:	(919) 707-5488
Email:	Patrick.roberson@dhhs.nc.gov

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