Dental Public Health Project/Activity Descriptive Report Form

Please provide a detailed description of your **successful dental public health project / activity** by fully completing this form. Expand the submission form as needed but within any limitations noted.

NOTE: Please use Verdana 9 font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS
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PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM
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SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:
Integration of Oral Health Assessment, Education and Dental Referrals into Perinatal Care

Public Health Functions*: Check one or more categories related to the activity.

"X"	**Assessment**
	1. Assess oral health status and implement an oral health surveillance system.
	2. Analyze determinants of oral health and respond to health hazards in the community
X	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
	Policy Development
X	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
	5. Develop and implement policies and systematic plans that support state and community oral health efforts
	Assurance
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
X	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
	8. Assure an adequate and competent public and private oral health workforce
X	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
X	10. Conduct and review research for new insights and innovative solutions to oral health problems

***ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health**

Healthy People 2020 Objectives: Check one or more key objectives related to the activity. If appropriate, add other national or state HP 2020 Objectives, such as tobacco use or injury.

"X"	**Healthy People 2020 Oral Health Objectives**	
X	OH-1	Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
X	OH-2	Reduce the proportion of children and adolescents with untreated dental decay
X	OH-3	Reduce the proportion of adults with untreated dental decay
	OH-4	Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
	OH-5	Reduce the proportion of adults aged 45 to 74 years with moderate or severe periodontitis
	OH-6	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage
X	OH-7	Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
	OH-8	Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
	OH-9	Increase the proportion of school-based health centers with an oral health component
	OH-10	Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component
	OH-11	Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year

	OH-12	Increase the proportion of children and adolescents who have received dental sealants on their molar teeth
	OH-13	Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water
X	OH-14	Increase the proportion of adults who receive preventive interventions in dental offices
	OH-15	Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips and cleft palates to craniofacial anomaly rehabilitative teams
	OH-16	Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system
	OH-17	Increase health agencies that have a dental public health program directed by a dental professional with public health training

Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:

oral health data, oral health assessments, prenatal, referrals, medical-dental integration, partnerships, access to care, prevention, pregnant women

Executive Summary: Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.

The Before the First Tooth (BTFT) initiative works to integrate oral health into prenatal care by providing oral health education for health providers and expectant mothers and will refer patients to dental services. This initiative was part of the PIOHQI grant supported by HRSA and is housed at Maine Health. Numerous Maine reports have documented barriers in access to care, workforce shortages and a lack of reimbursement for dental services.

This initiative has worked on a state-wide clinical prenatal oral health integration pilot program encompassing the integration of oral health screenings, assessments and dental referrals during OB/medical prenatal visits and collecting data from each pilot site to assess impact, challenges and successes. Each pilot site received a one-hour clinical training and guide to implementation prior to the pilot launch. The initiative established goals, objectives and requirements for data reporting, and how initiative staff would provide support.

The initiative has received positive acceptance of oral health assessments and referrals during prenatal care by the healthcare providers. Preliminary data found that 28% of pregnant women reported seeing a dentist in the previous six months. At the completion of the six-month pilot, sites reported 90% of new prenatal patients received an oral health assessment during a prenatal appointment with 8%, 50% and 48% receiving immediate, early and routine dental referrals. Each pregnant patient receives oral health education materials, recommendations about oral health care during pregnancy and a dental referral if needed from the OB/medical practice. Pilot sites range from FQHCs, co-located dental clinics, and Ambulatory Clinics.

Lessons learned from these sites will instruct other practices that are considering implementing similar activities. Associated costs include staffing, travel, supplies, contractual/consulting work, and support services.

SECTION II: DETAILED ACTIVITY DESCRIPTION

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it's being done. References and links to information may be included.

Complete using **Verdana 9 font.

Rationale and History of the Activity:

1. What were the key issues that led to the initiation of this activity?

   In recent years, oral health has come under increasing focus in Maine. Since 2011, eleven different reports have been issued by Maine government agencies, advocacy groups, private philanthropies and others enumerating problems in access to oral health care, workforce shortages and other challenges. Although Maine has a population of 1.3 million, the land mass is equal to the other five New England states combined, creating challenges to the delivery of oral health care in rural areas. In addition, more than one-third (35%) of Maine households are at or below 200% of the federal poverty level – a factor that particularly impacts Maine's children. Annually, over half of all babies born in Maine are covered by MaineCare, the State's Medicaid program. Although MaineCare covers limited adult dental services, the MaineCare population remains underserved for a variety of reasons; infants and pregnant women are especially vulnerable.

   Since 2008, From the First Tooth (FTFT), a pediatric oral health integration initiative, has focused on increasing children's access to preventive oral health services. FTFT aims to improve the oral health of Maine's children by implementing an evidence-based preventive oral health intervention as the standard of care in primary care settings. FTFT has collaborated with Maine's three largest healthcare systems to improve the oral health of children by incorporating oral health assessments and fluoride varnish applications biannually at well child visits. However, with lessons learned from FTFT, it was apparent that more action was needed to be successful, specifically expanding our reach to pregnant women to improve the subsequent oral health of Maine's at-risk infants.

   In Maine, one out of every five children live in a household below the federal poverty level. Other reports, including Maine's Maternal and Child Health Service's Comprehensive Strengths and Needs Assessment (July 2010), highlighted the disparities and variation in access to oral health care experienced by people in different socio-economic groups. The Centers for Disease Control and Prevention's 2013 report, "Oral Health in Maine" concluded that it can be difficult to access dental care in Maine, even in non-shortage areas. The difference between rural and non-rural counties is stark; for example: in 2011, there was 1 dentist for every 1,219 residents in Cumberland County, but only 1 per 4,352 in Somerset County.

2. What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

   Pregnancy affects oral health. Hormonal changes during pregnancy can increase the risk of gum disease, tooth decay, and the appearance of small round bumps within the oral cavity called pregnancy tumors. Increased stomach acid in early pregnancy may lead to vomiting, which can cause tooth erosion. A pregnant woman's oral health is linked to the health of the baby in utero and may lead to pre-term birth, low birth weight, and other negative birth outcomes. After delivery, a mother or caretaker with gum disease and tooth decay can spread disease producing bacteria to the baby through sharing saliva on utensils, licking a pacifier or other means where saliva is exchanged.

   In Maine, 39% of the population (520,812 people) live in a federally designated dental Health Professional Shortage Area and many general dentists will not see children under three years of age. Medicaid (MaineCare) data reveals that approximately 5% of infants and toddlers access dental care at age 1. Only 14% of pregnant women covered by MaineCare (over the age of 21 years) had a dental claim during their pregnancy and 32% of pregnant women covered by MaineCare (under the age of 21 years) had a dental claim during their pregnancy (2013).

Using metrics and quality improvement processes piloted and refined during the FTFT initiative, our aim was to expand the project's ability to monitor changes in oral health care utilization and outcomes and improve program performance for the prenatal population with the BTFT initiative. Significant outreach was conducted to OB/GYN and family medicine practices that treat prenatal women, in addition to collaborations with community-based and statewide partners to assess readiness on improving the oral health of perinatal women and infants in Maine. A multifaceted approach engaging a broad group of stakeholders was necessary for success and sustainability. Measuring progress toward improved oral health requires resources, expertise and diverse stakeholders with access to varied data sources.

3. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

Year	Milestone
2015	MaineHealth's perinatal oral health initiative –BTFT received Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau funding on 8/1/2015. Established professional service agreements. Collected baseline medical and dental providers' knowledge, attitudes and beliefs regarding oral health for pregnant women. Identified statewide partners.
2016	Identified clinical medical and dental advisors. Recruited and convened BTFT advisory committee. Developed and tested provider, and parent/caregiver education materials. Developed components of a clinical test site pilot. Recruited perinatal medical practices for clinical test pilot sites/providers to integrate the oral health assessment (OHA) into primary care. Trained and provided technical assistance and quality improvement for OHA integration. Identified statewide community service organization partners. Hosted one Dining with Dentists event, aiming to bring dental and medical professionals within a community or a region together to coordinate the medical and oral health care of pregnant women and very young children.
2017	Refined clinical test site pilot components. Submitted two code requests to the state Medicaid office aiming to cover dental prophylaxis and comprehensive examination for pregnant women (denied). Offered continuing education course for facility at the University of New England Dental School, provided dentists with the most current information regarding pregnancy and oral health and discussed the safety of various dental treatments for the pregnant patient. Began a curriculum assessment at three of the Dental Schools in Maine; University of New England - College of Dental Medicine, University of New England - Department of Dental Hygiene, and the University of Maine at Augusta/Bangor - Dental Health Programs. Presented and disseminated initiative findings through various state and national networks, and supported communications and technical assistance between pilot champions for shared learning. Established statewide partnerships to promote collaborations to improve oral health of pregnant women. Hosted one Dining with Dentist event.
2018	Continuation of medical/dental integration activities with primary care providers and community organizations. Developed and launched an Age One Dental Visit Campaign, in addition to provider and caregiver education materials. Hosted two Dining with Dentist events. Conducted dental secret shopper calls to identify status of dental practices: accepting new patients, if the providers treat pregnant women and to what extent, if the providers see age one patients, if the practice accepts MaineCare patients, if the practice offers discounts or payment plans. Developed oral health education components for community service organizations; online oral

	health learning module, handheld guided conversation flipbook resource and dissemination plan for Head Start, MaineFamilies and WIC.

The sections below follow a logic model format. For more information on logic models go to: W.K. Kellogg Foundation: Logic Model Development Guide

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES

1. What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)

- Staffing: 1 FTE program manager, .25 FTE program manager, .50 FTE coordinator and .50 FTE director.
- Partnerships to promote collaborations to improve oral health of pregnant women: Advisory Board, National Advisors, Prenatal Service Line, Birthing Centers, participating OB and family medicine practices, Maine CDC/ME DHHS, MaineCare Services, Maine Perinatal Leadership Coalition, Maine Lactation Consultants, Maine Oral Health Coalition, Maine Section of the American College of Obstetricians and Gynecologists (ACOG), Partnership for Children's Oral Health, Perinatal Infant Oral Health Quality Improvement (PIOHQI) Learning Collaborative, Perinatal Quality Collaborative for Maine (PQC4ME), University of Southern Maine, MaineCare Dental Advisory Committee, and Clinical Champions. Community Service Organizations: Head Start, Maine Families and WIC
- Funding: HRSA

INPUTS	**PROGRAM ACTIVITIES**	OUTPUTS	OUTCOMES

2. Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.

- Identify number of OB/GYN and Family Medicine practices who treat and care for pregnant women.
- Develop components of a clinical test site pilot: readiness assessment, baseline practice survey, quality improvement tools, MOA, monthly data requirements, monthly infographic for practice, clinical champion outline, and post pilot survey.
- Develop outreach methods and tools to engage with provider practices and establish clinical champions.
- Launch and support sixteen clinical test pilot sites across Maine's eight public health districts; eleven OB/GYN practices and four family medicine practices and one Centering Pregnancy program. Each pilot ran a minimum of six months, each site works to test and implement the oral health assessment within prenatal clinical workflow, each new pregnant patient is provided patient education materials, recommendations about oral health during pregnancy and a dental referral if needed.
- Develop tools for provider practices: clinical prenatal pilot training, provider oral health assessment, local referral methods and patient education materials.
- Currently in-process of developing online clinical training module for OB providers (Spring 2019).
- Regionally research dental providers accepting Medicaid patients and new patients.
- Identify community service organizations level of oral health information provided to prenatal women, parents/caregivers.
- Develop community service organization online oral health learning module and guided conversation flipbook resource. The training module can help address challenges relating to staff turnover and access (including geographic spread). The virtual training module will be used with the flip book to reinforce consistent oral health messaging among community service organizations, OB, family medicine and pediatric providers.
- Develop and implement an "Age One" campaign to promote the age-one dental visit to clinicians, parents and caregivers, as well as recognize dental providers within the community who are actively seeing children from birth to age one. The goal of the campaign is to increase the percentage of infants that receive their first dental visit by age one and utilizes the American Academy of Pediatric Dentistry's (AAPD) guidance on the importance of dental care during the first year of life.

- Conduct dental secret shopper calls to identify status of dental practices: accepting new patients, if the providers treat pregnant women and to what extent, if the providers seeage one patients, if the practice accepts MaineCare patients, if the practice offers discounts or payment plans.
- Monitor pilot site data, MaineCare and Pregnancy Risk Assessment Monitoring System (PRAMS) surveillance data sets.

INPUTS	PROGRAM ACTIVITIES	**OUTPUTS**	OUTCOMES

3. What outputs or direct products resulted from program activities? (e.g., number of clients served, number of services units delivered, products developed, accomplishments, etc.)

   Development of the following products: Maine OB/GYN and family medicine practice list to assist in outreach and engagement, provider materials: clinical oral health training, oral health assessment and provider checklist. Patient education materials: prenatal oral health kit (toothbrush, toothpaste, infant finger brush, oral health education), prenatal oral health postcard and bifold – what to expect during pregnancy. Infographic highlighting attitudes and beliefs of dental providers treating pregnant women, Age One campaign materials for both dental/medical providers and parents/caregivers, community service organization online learning module and handheld guided conversation flipbook.

INPUTS	PROGRAM ACTIVITIES		OUTPUTS	**OUTCOMES**

4. What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, caredelivery system, impact on target population, etc.) Please include the following aspects:
   a. How outcomes are measured
      - Measure the % of pregnant women who receive dental care during pregnancy (PRAMS & Medicaid claims data)
      - Measure the % of pregnant women who receive preventive dental care (PRAMS & Medicaid claims data)
      - Measure the number of primary care practices providing preventive oral screenings (internal tracking)
      - Measure the % of infants who receive preventive dental care by age one year (Medicaid claims data)
      - Integrate preventive oral health into primary care settings including; oral health assessment, oral health education and dental referrals within prenatal care - measured on a monthly basis by each individual clinical pilot site. The pilot site is responsible for tracking: total number or pregnant women seen, number of providers performing OHAs, OHAs completed, number of patients that have seen a dentist in the last six months, dental insurance type, referral type and number of dental referrals made

   b. How often they are/were measured?
      - PRAMS – annually, with two calendar year (CY) lag
      - Medicaid claims data (medical and dental) – annual, with one CY lag
      - Clinical test site integration OHA - monthly

   c. Data sources used
      - PRAMS
      - Medicaid claims data (medical and dental)
      - OHA integration - internal tracking methods

   d. Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years)
      - Intermediate

Budgetary Information:
NOTE: Charts and tables may be used to provide clarity.

1. What is the annual budget for this activity?
   $250,000

2. What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)
   Example average annual breakdown:
   - Staffing: $171,799 (with fringe)
   - Instate travel to medical practices, community organizations, coalition meetings, and

stakeholder meetings. Learning collaborative out of state travel required for grant: $7,500
- Supplies: $703
- Contractual and consulting: $27,800
- Support services, provider/patient education material printing: $7,877

3. How is the activity funded?
   Grant funded

4. What is the plan for sustainability?
   - Currently staff are providing individual in person clinical trainings which is challenging due to the rural geographic location of our state. To sustain provider education the initiative is in the process of developing an online clinical training module for medical staff who treat prenatal women. This online training module will be roughly 45 minutes in length, will include evaluation questions and offer continuing medical education (CME) once the learner has completed the module and test.
   - A goal for sustainability is to embed the OHA into an EHR system for consistency. Initiative staff are in the early stages of working with MaineHealth, (the largest health system in the state) Information Systems (IS) to imbed the OHA system wide. Clinical test sites report - adding this OHA into the screening section of new prenatal visit clinical workflow would be ideal.
   - As the initiative works to develop a standards of care document and implementation guide we continue to obtain critical information from each clinical test pilot site to inform a statewide rollout for the adaption of OHA, education and referrals into prenatal care visits in diverse settings as lessons learned to guide the development of a standards of care document. This document will include state specific findings, Maine oral health guideline, examples of clinical workflows, process maps, quality improvement examples, along with endorsements from: Maine Academy of Family Physicians, Maine Association of American College of Nurse Midwives, Maine Chapter of the American Academy of Pediatrics, Maine Chapter of the American Congress of Obstetricians and Gynecologists, Maine Medical Association, Maine Osteopathic Association, Maine Primary Care Association Board.

Lessons Learned and/or Plans for Addressing Challenges:

1. What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?

   - Many of the pilot sites found patients were uninsured/underinsured and unable to afford dental care. When faced with an immediate or urgent dental need, these patients experienced delayed care or had to be seen at the emergency room due to restricted access to care. In evaluation interviews, most patient stories were shared by women who had been in pain for months or sometimes even years, who had lost fillings and not had them replaced, or had abscesses that went untreated due to a lack of dental insurance. Patients reported they were happy their medical provider asked them about their oral health, gave them information and resources, and encouraged them to get the care they needed. Many were grateful to receive oral health education that they could pass along to their children.
   - Clinical test sites varied from practice to practice. For instance, the type of staff conducting the OHA and how the OHA were completed. This makes comparability challenging. Some sites had a provider (physician, CNM, NP & PA), RN, or medical assistant complete the assessment at initial visits, others have administrative staff prepare assessment paperwork for the provider every time. Each site had to find the best way to integrate the OHA and documentation into their particular setting.
   - Do not launch a clinic test pilot in middle of an EHR change or any other large systems change. EHR transitions can take a toll on a system/practice, these transitions are often disruptive, incredibly time consuming, expensive and often result in stress at all levels of the impacted healthcare system. Launching a new pilot during a systems change could lead to delay of the roll out, no roll out, and or increased stress for practice staff.
   - Ideally, it would utilize pilot champions and providers to train their peers (provider to provider) to discuss how the OHA is quick, easy, and not a burden. Yielding positive benefits from sharing information with patients about oral health care is often the best

way to get buy-in from providers. Future sites might be asked to participate in a shared learning experience with peers from other healthcare practices.
- Due to gaps in the referral process, case management is essential. One site successfully utilized a community health worker to facilitate communication between medical and dental areas.

2. What challenges did the activity encounter and how were those addressed?

- The goal is to have every test site systematically integrate the OHA and education in their clinical workflows. The pilot phase provides an opportunity to identify issues that need to be addressed and determine action steps to full implementation, to assure the least possible disruption when full implementation occurs. Implementing and instituting change within a primary care setting is challenging. Staff have worked individually with each clinical test site to attempt small examples of change and implement evidence-based practices to improve the oral health of perinatal women, infants and children.

  A best practice goal is to embed the OHA into an EHR system, however incorporating assessments into an EHR as a discoverable field (reportable data) is typically a lengthy and challenging process within many health systems. Sites have done IS work arounds (which is typical for add-on documentation) by flagging for oral health in the patient's electronic health record. Unfortunately, flags are not linked to any reports, so charts must be reviewed individually to check for OHA status. One initial pilot site adapted a SMART phrase imbedded into their prenatal EHR visit, yet the information obtained in this process is not discoverable (reportable data) when running data reports from the EHR.

- Staff turnover was experienced throughout the project. Therefore, orientation about the project is a key component of onboarding. The initiative is in the process of developing a clinical oral health online training module and has already launched a community service organization online module to help address challenges relating to staff turnover and access (including geographic spread).

- The most challenging cases were patients who were in need of immediate care that were uninsured or underinsured. The goal was to link patients to local dental offices instead of accessing the emergency department due to dental pain, abscess or infection. This became challenging due to limited access and lack of Medicaid coverage for pregnant women over the age of 21.

  The initiative began building relationships with low-cost, sliding fee scale dental clinics and worked to open lines of communication between medical and dental clinics to accept referrals from local pilot sites. Initiative staff continue to refine the referral processes, including raising awareness of the importance and safety of oral health care during pregnancy, as well as closing the loop in the referral system. What happens after the referral from medical was made. Was an appointment scheduled? Did the client receive comprehensive dental care services? A few sites reported success stories they heard from patients at subsequent doctor visits which they really enjoyed hearing. This enhances overall patient satisfaction and provides rich programmatic evaluation impact data.

Available Information Resources:

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.

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