Perinatal and Infant Oral Health Quality Improvement Expansion Program
H47-18-002
FY 2019 Final Progress Report

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Project Title: Children’s Oral Healthcare Access Program
Organization Name: MaineHealth
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I. PROGRESS

This initiative works to integrate oral health assessments, education and referrals into prenatal care, as well as improve cross-professional communication amongst medical and dental providers in an effort to improve the oral health of Maine’s pregnant women and infants.

Before the First Tooth has four initiative strategies:

1. Establish new tools and processes to monitor the oral health of pregnant women in medical and dental settings
2. Integrate preventive oral health care services into primary care settings for perinatal women
3. Promote adoption of patient care workflow and referral processes for dental practices in partnership with the OB/PCP learning lab sites with the goal of improving oral health outcomes for referred pregnant women
4. Promote collaborations with community organizations with the goal of consistent messaging across patient points of care on the importance of perinatal and infant oral health

Over the grant period, 1,312 pregnant women have received an oral health screening and assessment, reflecting 88% of new OB patients seen in participating learning lab sites and just under 10% of the live birth annual cohort for the state of Maine. Over 200 community service organization staff members from WIC, HeadStart/Early HeadStart and Maine Families have been trained throughout the state to provide consistent oral health messaging for perinatal and infant oral health. Over 90% of community service organization staff surveyed after completing the projects oral health virtual training noted they felt confident to highly confident in delivering the Before the First Tooth (BTFT) oral health messages to clients.

a. Project Advisory Board

The Advisory Committee was revamped and expanded in the final year of the grant from eleven members to eighteen plus grant staff. Prior to June 2018, several of the original advisory committee members had changed roles, left positions, or not participating and therefore not actively engaged with the committee. Members were recruited based on their organizations’ involvement with perinatal and infant oral health and the network population’s impact on perinatal and infant health issues. Formalized
goals and explicit requests on how to support the achievement of stated goals were presented to the members in an effort to maximize opportunities during the remaining grant period. New members included key stakeholder groups that had not previously been included such as executive/director level staff representing each of the community service organizations, new clinical champions at both the clinical staff and provider level, and the Executive Director for the newly formed Partnership for Children’s Oral Health (PCOH) to ensure activities were strategically aligned with future efforts for sustainability and long-term impact. The revised committee (see Appendix A) met three times during the final ten months of the grant and provided on-going endorsement, guidance and networking opportunities to champion the support of grant activities. Bi-monthly email activity updates were provided to the Advisory Committee in the final year to strengthen communication and provide feedback and progress on key activity and goals along with personalized communication to enhance collaboration and partnership on relevant components of the grant work.

Members of the Advisory Committee provided representation for key components of the grant activity including data and monitoring, oral health leadership and partners, clinical expertise in dental, pediatrics and obstetrics (Appendix B). In addition to providing support and guidance, members of the committee also helped to leverage networking opportunities throughout the state of Maine. The following organizations were represented by the initiative Advisory Committee:

- Head Start/EHS
- Maine Center for Disease Control
- Maine Dental Association
- Maine Department of Education
- Maine Families
- Maine General Health System
- Maine Health System
- Maine Perinatal Leadership Coalition
- Maine Primary Care Association
- Maine Oral Health Coalition
- MaineCare Services
- Partnership for Children’s Oral Health
- Private Dental and OB practices
- University of New England (UNE)
- Women, Infants and Children (WIC)

b. Accomplishments

The MaineHealth/BTFT PIOHQI team has continued to work toward positive progress within four original strategies of the work plan. Below summarizes key accomplishments during the final year with summary data noted, focusing on the following elements: 1.) primary care providers, 2.) dental care providers, 3.) collaborations with community organizations, and 4.) Policy.

1. Primary Care Providers

*Family Medicine & Pediatrics – infants and children:*

From the First Tooth (FTFT), pediatric preventive oral health initiative, continues to work on sustainability planning, identifying critical programmatic functions, focused on the integration and documentation of fluoride varnish applications for all Maine children ages zero through age five in primary care settings. FTFT has been funded exclusively by the Sadie and Harry Davis Foundation since 2008 and as of the 2019 calendar year, the funding was reduced to a level that allows ongoing programmatic functions to be maintained. BTFT staff continues to work collaboratively with FTFT staff whenever possible, with the shared goal of increasing the number and % of infants who see a dentist before age one. During this reporting period perinatal and pediatric staff collaboratively maintained an “Age One Champion” campaign.
The Age One Campaign is designed 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 is modeled after a similar project implemented by the Rhode Island COHSII team and utilizes the American Academy of Pediatric Dentistry’s (AAPD) guidance on the importance of dental care during the first year of life.

Obstetrics – pregnant women oral health screening and education, infant oral health care education: In the final year of the grant the clinical integration learning labs expanded from three of the eight state public health districts to seven public health districts, including the most rural and underserved counties of Washington and Aroostook. Goals for each learning lab site include:

- Six complete sets of data to assess the implementation of oral health screenings and assessments during prenatal visits
- An oral health assessment rate of 80% or better for new OB patients
- Provide education for both pregnant women and infant’s oral health along with a perinatal oral health care package
- For those patients that do not have an established dental home or are in need of dental services encourage the learning lab to make a referral to a local dentist

Initiative staff worked with each site prior to the launch of the clinical training and learning lab implementation to establish a memorandum of understanding which outlines the goals, objectives and requirements for site reporting, in addition to how initiative staff will support the practice during the learning lab. Each learning lab site was selected intentionally to differ in the way they deliver services (an FQHC with co-located dental services, critical access clinics, private practice and health-system affiliated and member practices, multi-location practice) to ensure the lessons learned from these sites are instructive for all types of OB practices.

Learning lab components included materials for recruitment and onboarding, engagement, training, implementation and reporting resources as well as post-learning lab follow up surveys and reports. Resources and materials developed to support the learning labs included:

- Process Map for Learning Lab Recruitment/Onboarding (Appendix C)
- Engagement Components
  - Learning lab initiative general information
  - Clinic readiness assessment (completed prior to initial training session)
  - Memorandum of understanding (contract)
- Training Components
  - Participant sign-in sheets
  - Baseline survey (completed prior to training)
  - Power point slides
  - Learning lab project timeline
  - Oral health assessment
  - Oral health kits
  - Data reports protocol (Appendix D)
  - Referral form template – to be used with identified dental referral site
  - Customized local dental referral list
  - National Consensus Statement, relevant medical articles – reviewed, available on request
- Implementation/Reporting Period Components
• Site specific data reporting spreadsheet
• OB site specific process map, dental process for direct referral site if applicable (sample, Appendix F)
• PDSAs as necessary
• Monthly feedback infographic (sample, Appendix G)
• Oral health patient education kit – 1 per patient provided at time of OHA

• Post-Learning Lab Components
  o Exit interview
  o Post-learning lab survey – same survey as above at start of the learning lab, ideally conducted with initial trained practice staff
  o Roll up report

Learning labs were recruited in four cohorts that mirrored the respective grant year as shown in the table below.

<table>
<thead>
<tr>
<th>Learning Lab</th>
<th>Cohort/Year</th>
<th>Total IOBs Conducted</th>
<th>Total OHAS Conducted</th>
<th>Number of IOBs in Final Month</th>
<th>OHAs Conducted in Final Month</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMP Portland and Falmouth</td>
<td>1</td>
<td>53</td>
<td>45</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>CMMC</td>
<td>2</td>
<td>46</td>
<td>46</td>
<td>8</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Elsmore Dixfield</td>
<td>2</td>
<td>31</td>
<td>31</td>
<td>4</td>
<td>4</td>
<td>100%</td>
</tr>
<tr>
<td>MGMC Centering</td>
<td>2</td>
<td>43</td>
<td>43</td>
<td>10</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>Swift River</td>
<td>2</td>
<td>18</td>
<td>17</td>
<td>4</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>MGMC Dartmouth</td>
<td>3</td>
<td>38</td>
<td>31</td>
<td>5</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>MGMC OB Clinic</td>
<td>3</td>
<td>217</td>
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<td>29</td>
<td>100%</td>
</tr>
<tr>
<td>Waldo</td>
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<td>108</td>
<td>84</td>
<td>13</td>
<td>11</td>
<td>85%</td>
</tr>
<tr>
<td>Coastal</td>
<td>4</td>
<td>286</td>
<td>267</td>
<td>53</td>
<td>51</td>
<td>96%</td>
</tr>
<tr>
<td>Downeast</td>
<td>4</td>
<td>107</td>
<td>63</td>
<td>21</td>
<td>7</td>
<td>33%</td>
</tr>
<tr>
<td>Franklin</td>
<td>4</td>
<td>60</td>
<td>60</td>
<td>16</td>
<td>16</td>
<td>100%</td>
</tr>
<tr>
<td>Pen Bay</td>
<td>4</td>
<td>86</td>
<td>73</td>
<td>16</td>
<td>16</td>
<td>100%</td>
</tr>
<tr>
<td>Pines</td>
<td>4</td>
<td>126</td>
<td>90</td>
<td>24</td>
<td>22</td>
<td>92%</td>
</tr>
<tr>
<td>Southern Maine</td>
<td>4</td>
<td>63</td>
<td>58</td>
<td>63</td>
<td>58</td>
<td>92%</td>
</tr>
<tr>
<td>St. Mary’s</td>
<td>4</td>
<td>148</td>
<td>134</td>
<td>45</td>
<td>43</td>
<td>96%</td>
</tr>
</tbody>
</table>

Self-reported data from 15 OB learning labs currently reflects that only 38% of new OB patients receiving an oral health screening had seen a dentist in the previous six months while 36% of those screened needed either immediate or early (within 60 days) dental care. Insurance coverage varied considerably by site location with two sites having over 80% of patients with private insurance and, in stark contrast, one site with 50% of its patients reported as MaineCare insured. MaineCare, the state’s Medicaid program, does not currently provide coverage for preventive and routine dental services for pregnant women over age 21. Prior authorizations are required for certain services such as scaling, while urgent care in the form of infection or abscess is typically covered upon presentation.

The following section provides an overview of progress in each previously unreported clinical learning labs along with a summary for completed and previously reported learning lab sites.

**Coastal Women’s HealthCare** – Scarborough, Cumberland County, Public Health District Two

Coastal Women’s Healthcare is a large, privately owned site located in the greater Portland area. The Clinical Champion on-site was also the Clinical Advisor for the Advisory Committee in the final year of the grant and actively participated and promoted the implementation of oral health assessments practice-wide as well as championed the initiative with the local ACOG chapter and various medical
boards. The learning lab for this site was conducted from October 2018 to March 2019. Over the six month time frame, 267 new OB patients received an oral health assessment, over 80% of patients screened had a dental home and no immediate referrals were identified, which was unique compared with all the other learning labs, yet this site also has the highest percentage of privately insured patients and the lowest percentage of MaineCare patients.

Key findings include:

- 93% of pregnant women were assessed for oral health status
- 0% of the patients assessed required immediate dental care, 33% required early and 67% routine
- 0% had MaineCare insurance for adults under the age of 21*
- 1% were on MaineCare insurance for adults over the age of 21*
- 83% had private dental insurance*
- 26% had no insurance*

*Data inconsistency resulted in percentages adding to greater than 100%.

DownEast Women’s Healthcare – Machias, Washington County, Public Health District Seven

DownEast Women’s Healthcare is a critical access site in an isolated area of the state. Patients travel throughout the county for OB services in this region, an area three times the size of Rhode Island, on rural winding roads. Many of these patients lack a reliable means of transportation and over 40% of the adult population are MaineCare members. There is one dentist located in town who does not see MaineCare patients. There are four FQHCs in the county that provide varying levels of dental care, each a minimum of 40 minutes travel time from the OB site. All four FQHCs have agreed to partner with the learning lab to provide support for OB patients requiring dental services.

DownEast Women’s Healthcare has two OB providers and a CMW on staff. The CMW has championed the learning lab yet buy-in from her two colleagues has been lackluster and follow through on the oral health assessments and patient education has fallen entirely to the CMW. The organizational structure of the site is siloed in nature, formal workflow and processes are not in place to effectively support or enhance QI initiatives. This site would have benefited from more face to face technical support from initiative staff yet this was not feasible due to the geographic distance. Technical support was primarily provided through phone and email correspondence with the Clinical Champion CMW which was not as effective as face-to-face to expand buy-in to the other two providers. This site has the highest percentage of patients requiring immediate dental care with the most restricted access to dental services based on lack of insurance and ability to travel to distant locations.

Key findings include:

- 59% of pregnant women were assessed for oral health status
- 8% of the patients assessed required immediate dental care, 27% required early and 65% routine
- 6% had MaineCare insurance for adults under the age of 21*
- 13% were on MaineCare insurance for adults over the age of 21*
- 5% had private dental insurance*
- 6% had no insurance*

*Incomplete insurance data provided resulting in percentages totaling less than 100%.
Franklin Women’s Health— Farmington, Franklin County, Public Health District Three
The learning lab for Franklin Women’s Health started in February 2019 and will be completed in July. In three months the site has provided 60 oral health assessments, effectively implementing the oral health assessment for 100% of the new OB visits. One reason for the site’s success is that new OB patients are scheduled for a one hour visit with the OB RN, as it is always the same RN who provides these in-depth first visits, it is easy to ensure consistency in providing an oral health assessment as well as reporting. This was the first of three learning labs that partnered with a local dental system, Community Dental, which has six locations throughout southern and central Maine. Community Dental’s Farmington office is co-located in the same medical plaza which is attached to the local hospital. While warm hand offs are a bit tricky, the OB and dental teams communicate frequently with one another on patient care. Outcomes data is reported back to the OB site when patients have received dental services in the form of patient notes that are then scanned into the patient’s chart so that the medical team can follow up.

Key findings include:
• 100% of pregnant women were assessed for oral health status
• 0% of the patients assessed required immediate dental care, 4% required early and 96% routine*
• 7% had MaineCare insurance for adults under the age of 21
• 27% were on MaineCare insurance for adults over the age of 21
• 42% had private dental insurance
• 25% had no insurance

*Not all pregnant women receiving OHA received referral classification. Percentages indicate percent of patients receiving mentioned referral classification.

Pen Bay Women’s Health Center – Rockland, Knox County, Public Health District Four
Pen Bay is a community clinic located on the Pen Bay hospital campus and part of the MaineHealth system. The dental referral process was unique in that this site worked with Knox County Dental which provides free and sliding scale services to patients for routine care. For more intensive dental care patients are referred to Waldo County Dental Clinic which is located across the street from Waldo County Women’s Health, a distance of 30 miles yet due to the winding coast the route takes 50 minute to drive. Additionally, the Clinical Champion for this site was also on staff at Waldo County Women’s Health and a member of MaineHealth’s Epic (EMR) Optimization Team which has the goal of enhancing the system’s EMR applications. As such, the clinical champion quickly added a smart / dot phrase, which was originally created by the very first BTFT learning laboratory. The BTFT Epic oral health smart / dot phrase allows for the user to insert data or text into a note within Epic, but does not have the capability to pull reports for this data. The system contains thousands of smart / dot phrases. Initiative staff is working with the Epic team to build in the oral health assessment system wide for all Epic users as part of the routine prenatal clinical workflow within Epic as part of the sustainability plan.

Key findings include:
• 85% of pregnant women were assessed for oral health status
• 47% of the patients assessed required immediate dental care, 12% required early and 41% routine*
• 5% had MaineCare insurance for adults under the age of 21**
• 30% were on MaineCare insurance for adults over the age of 21**
• 64% had private dental insurance**
• 18% had no insurance**

*Not all pregnant women receiving OHA received referral classification. Percentages indicate percent of patients receiving mentioned referral classification.

**Data inconsistency resulted in percentages adding to greater than 100%.

Pines Women’s Health – Caribou, Aroostook County, Public Health District Eight
The learning lab was conducted at Pines Women’s Health a FQHC, from October 2018 to March 2019. Over this six month span, 126 pregnant women were seen by the practice. In total, 90 women, or 71% of patients seen, received oral health assessments (OHA). Notably, the learning lab reached a screening rate of 92% in the last month of the learning lab, exceeding the screening rate goal of 80%. Pines’ practice was uniquely positioned with an on-site dental clinic and a joint practice manager who undertook significant quality improvement (QI) measures to improve the clinic’s OHA rate from a low of 32% to a high of 92% by the conclusion of the learning lab. Indeed, QI measures implemented resulted in a 56% assessment rate increase in just one month, from December 2018 to January 2019. Throughout the learning lab, Pines’ staff embraced the project’s goal and were even interviewed by local media, testifying to the importance of the learning labs’ goals.

QI efforts undertaken by Pines included walking OB patients in need of a dentist to the Pines dental clinic to schedule a visit, working directly with OB practitioners to develop a routine for conducting OHAs during the initial OB visit (IOB), and regularly checking patients’ charts to ensure OHA was done routinely as part of the IOB. Pines dental clinic undertook efforts to ensure that OB patients in need of a dental visit were seen within 4-6 weeks of the IOB appointment and to ensure scheduling occurred at the time of IOB. Final QI steps are reflected in the process map in Appendix F.

Key findings include:
• 71% of pregnant women were assessed for oral health status
• 4% of the patients assessed required immediate dental care, 26% required early and 70% routine*
• 12% had MaineCare insurance for adults under the age of 21
• 33% were on MaineCare insurance for adults over the age of 21
• 27% had private dental insurance
• 28% had no insurance

*Not all pregnant women receiving OHA received referral classification. Percentages indicate percent of patients receiving mentioned referral classification.

Saint Mary’s Women’s Health – Lewiston, Androscoggin County, Public Health District Three
St. Mary’s Women’s Health is located in a hospital-based medical building and is an affiliate of the MaineHealth system. St Mary’s is partnering with the Lewiston based Community Dental site and has established an effective closed-loop referral system. The learning lab began in February 2019 and will be completed in July, with 134 patients receiving oral health assessments in the first three months. The Lewiston area population is made up of a significant number of new to America individuals, many of which have never received dental services due to their native culture. English as a Second Language (ESL) and perception of the need for oral health care are significant barriers to accessing dental services in this area. Community Dental has been instrumental in addressing these concerns and works closely
with the St Mary’s OB care team to ensure these patients have access to services as soon as possible as there is a several month wait list for routine dental services.

Key findings include:
- 91% of pregnant women were assessed for oral health status
- 7% of the patients assessed required immediate dental care, 21% required early and 72% routine
- 10% had MaineCare insurance for adults under the age of 21
- 40% were on MaineCare insurance for adults over the age of 21
- 43% had private dental insurance
- 7% had no insurance

Southern Maine Women’s Health – Biddeford (two sites), Sanford, York County, Public Health District One
Also working closely with the Biddeford-based Community Dental team and part of the MaineHealth system, SMWH started the learning lab in April 2019. In its first month the team completed 58 oral health assessments in its two locations and has had a seamless uptake in both providing the OHA and reliably reporting the data. Over 60% of patients assessed needed early or immediate dental care.

Key findings include:
- 92% of pregnant women were assessed for oral health status
- 5% of the patients assessed required immediate dental care, 60% required early and 34% routine
- 5% had MaineCare insurance for adults under the age of 21
- 24% were on MaineCare insurance for adults over the age of 21
- 48% had private dental insurance
- 21% had no insurance

Waldo County Women’s Health (WCWH) – Belfast, Waldo County, Public Health District Four
WCWH is part of Waldo County General Hospital, a member of the MaineHealth system. Initiative staff and a registered dental hygienist conducted clinical staff training at the WCWH practice in January 2018 and the learning lab was completed in March of 2019. While the learning lab is established as a six month test site the Director provided on-going support with face to face meetings during the extended pilot period, in an effort to fully vet the direct referral process for OB/dental providers. Process maps and PDSAs for this site have all been previously reported.

Key findings include:
- 78% of pregnant women were assessed for oral health status
- 10% of the patients assessed required immediate dental care, 13% required early and 77% routine*
- 18% had MaineCare insurance for adults under the age of 21
- 21% were on MaineCare insurance for adults over the age of 21
- 30% had private dental insurance
- 33% had no insurance

*Not all pregnant women receiving OHA received referral classification. Percentages indicate percent of patients receiving mentioned referral classification.
While significant progress has been made within the OB setting to implement oral health assessments, deliver patient education and provide referrals to patients in need of a dental home or services, there remain significant barriers for these patients actually receiving care. Barriers include the lack of affordable dental resources throughout the state of Maine, lack of coverage for preventive and routine dental services for pregnant women over age 21 by MaineCare, restrictions on when/if a dental provider will provide care for an OB patient, and transportation issues.

A best practice goal for sustainability within the clinical setting is to embed the oral health assessment into an EHR system, however incorporating assessments into an EHR as a discoverable field is typically a lengthy and costly process within many health systems. Sites have done IT work around (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 of the run reports so charts have to be reviewed individually to check for oral health assessment status. The oral health assessments are being completed on paper forms which can be scanned into the medical record or outcome typed into patient notes.

Previously completed learning lab sites summary table:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Central Maine Medical Center</th>
<th>MMP Portland and Falmouth Family Medicine</th>
<th>MGMC Centering</th>
<th>Swift River</th>
<th>Elsemore Dixfield</th>
<th>MGMC Dartmouth</th>
<th>MGMC OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Pregnant Women Receiving OHA</td>
<td>100%</td>
<td>85%</td>
<td>100%</td>
<td>94%</td>
<td>100%</td>
<td>82%</td>
<td>98%</td>
</tr>
<tr>
<td>% Immediate Care</td>
<td>4%</td>
<td>11%*</td>
<td>8%*</td>
<td>6%*</td>
<td>3%</td>
<td>29%</td>
<td>2%</td>
</tr>
<tr>
<td>% Early Dental Care</td>
<td>11%*</td>
<td>9%*</td>
<td>3%*</td>
<td>71%*</td>
<td>61%</td>
<td>26%</td>
<td>55%</td>
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<td>% Routine Dental Care</td>
<td>85%</td>
<td>81%*</td>
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<td>12%</td>
<td>0%</td>
<td>6%</td>
<td>5%</td>
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<td>5%</td>
<td>24%</td>
<td>23%</td>
<td>3%</td>
<td>19%</td>
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</tbody>
</table>

*Not all women receiving OHA received referral classification. Percentage indicates percent of referred patients in each classification category.

NOTE: Percentages rounded to the nearest tenth.
sites have adapted a smart / dot phrase yet the information obtained in this process is not discoverable when running data reports from the EHR.

2. Dental Care Providers
FQHCs with dental services and the Community Dental network provided the greatest opportunity for establishing a direct, and preferably close-looped, referral system with the learning labs. Most of the dental practices we approached had restrictions as to what point in the pregnancy they would provide various dental services to OB patients.

Our collaboration with the UNE School of Dental Medicine continues, after the initial CE given in November of 2017 the mindset shifted in the Oral Health Center and are regularly treating pregnant patients without issue or pushback from the faculty. It helped that the oral surgeons were also champions of the topic. This information has also been included specifically into the student’s curriculum. In addition, UNE provides training to all extern site preceptor dentists during last summer’s preceptor annual training sessions. Moving forward UNE will continue to have the BTFT key messages built into the curriculum, and provide CE if interest arises or we are seeing indication of dentists denying care.

Restrictions, combined with the lack of MaineCare reimbursement for routine services, prior authorizations requirements for others, as well as a general lack of comfort in billing for MaineCare dental services, resulted in a substantial number of patients requiring dental services not receiving the care they were counseled or referred for. Two key components in overcoming these barriers in the future are:

- Providing comprehensive education to dental providers to overcome concerns as to treating an OB patient.
- MaineCare reimbursement at a flat annual rate regardless of service rendered, similar to what Rhode Island and Colorado currently provide, would eliminate dental provider confusion on what is/isn’t covered and reduce the burden of administrative support to complete prior authorization (PA) forms and the wait time in treatment as the PA is processed.

3. Collaborations – Community Service Organizations
Before the First Tooth (BTFT) works with community organizations to educate pregnant women, parents, and caregivers about preventing and treating dental disease. To assist community organization staff to deliver important messages about the oral health of mother and baby, initiative staff developed a virtual training. A guided conversation book is also available for community organizations to use with clients to assist with having a guided conversations on the importance of a healthy mouth from pregnancy to infancy. Downloadable resources, including “Dental Health during Pregnancy” bi-fold and the “Pregnancy and Dental Health” postcard are available as patient / client education material, on the From the First Tooth/Before the First Tooth website.

For dissemination of the virtual training and resource book, a three tiered approach was taken by initiative staff with the first level engaging and gaining commitment from senior level staff at each of the partnership organizations, HeadStart/EHS, Maine Families and WIC. Executive level staff from each of these organizations then held mid-level management meetings that allowed initiative staff to present to managers throughout the state and essentially “pitch” the project and request commitment to engage and participate. Follow up surveys were provided to determine how best to have staff view the virtual training at each location, providing flexibility for local teams and still ensuring that participants received
the full training and support in how to use the resource flip book in guided conversations with clients. Initiative staff then tracked participation and followed up with feedback to each local level manager.

The ‘flip book’ and the virtual training were completed in July 2018 and the roll out to Community Service Organizations began in October, 2018. Since launch, 27 out of 30 CSO locations have participated with over 200 CSO staff have taken the virtual training throughout the state and are using the resource book in conversations with clients and families. By organization, 100% of Maine Families sites have completed the training, WIC at 86% and HeadStart/EHS currently at 73% with two locations scheduled for staff trainings in August, 2019.

Pre and post training surveys show that 95% of participants feel confident to highly confident in addressing perinatal and infant oral health with clients as compared with 45% prior to viewing the training. Comments from participants included: “I like how clear and direct the messaging was”, “Enjoyed the bulleted points. Provides easy go-to messages to share with clients”, and “Very informative! Lots of great information!”

All three organizations have agreed to add the virtual training web-link to their staff on-boarding resources so that as new staff are hired the messaging and resource book will continue to be utilized. Additionally, both WIC and MaineFamilies credit participating staff with 0.5 hours towards their annual professional learning requirements. Please see Appendix X for the resource page used for Community Service Organization outreach.

4. **Policy**

The Partnership for Children’s Oral Health (referred to hereafter as the Partnership) has been established as a network of Maine organizations and individuals united by a shared mission to eradicate dental disease in Maine children, funded by the Sadie and Harry Davis Foundation, the private family foundation that has supported From the First Tooth for more than a decade in Maine. The Partnership is a broad network designed to catalyze collaboration and innovation, utilizing action teams to lead implementation of priority strategies, coalesce and increase available financial resources to support shared goals, information and build relationships across the network. The Executive Director for the Partnership agreed to participate as a member of the Advisory Committee during the final grant year and has been working closely with initiative staff and key stakeholder groups to pursue policy change to support priority strategies, mobilize family and community support, and coordinate efforts with related advocacy networks.

Initiative staff attended two full day stakeholder meetings led by the Partnership and actively participated in breakout sessions designed to identify key strategy areas for the future work of the Partnership. The Partnership Executive Director has also co-presented with initiative staff at multiple state level leadership meetings with the community service organizations, HeadStart, Maine Families, and WIC, as well as various coalition meetings on the topic of oral health and perinatal care.

Maine’s recent gubernatorial election resulted in new agency level leadership within the final reporting quarter. During the grant period, The Title V Maternal Child Health Block Grant (MCHBG) action plans at the Maine Center for Disease Control and Prevention (Maine CDC) include a state performance measure for sealants on teeth by third grade. While the health of women of child bearing years is a priority, the state does not have a specific goal for prenatal oral health. Several important administrative changes occurred in the last 3-4 years for the Maine CDC MCHBG including 1.) Implementing a new and more focused set of measures and action plans under new guidance by HRSA, and 2.) The Maine CDC MCHBG moved its Oral Health Program to the Rural Health agency within the DHHS. During the four year grant time period Maine DHHS had three different commissioners and three different MCHBG Directors. The
team at MaineHealth and the team at the Maine CDC MCHBG have good working relationships and expect to continue to collaborate as time, resources, and priorities allow.

c. Participation in COHSII Activities

During the final grant year of reporting staff participated in the following COHSII activities:

- Attended eight COHSII learning collaborative session webinars – provided resources, feedback and comments for each session
- Participated in ten PIOHQI QI Interest Group learning sessions
- Attended two in-person PIOHQI meetings and presented formal updates on grant activity and progress to date
- Joined five team support and partnership learning conference calls that reviewed current activity, opportunities for enhancing WIC and Head Start partnerships, network mapping and resource sharing for medical/dental learning labs.
- Hosted a two day Altarum site evaluation visit in which multiple partners and stakeholders met with the Altarum team to review the Maine PIOHQI initiative and grant activity.

Previous COHSII activity is summarized below:

- Attended and participated in 18 monthly learning collaborative webinars and eight webinars with AMCHP staff
- Attended four in-person technical assistance meetings
- Participated in 13 technical Assistance “Buddy Calls” prior to their discontinuation
- Attended four PIOHQI QI Interest Subgroup meetings

d. Contributions to the Strategic Framework

<table>
<thead>
<tr>
<th>PIOHQI Framework</th>
<th>Before the First Tooth</th>
</tr>
</thead>
</table>
| i. Profile population needs, resources, and readiness to address the problems and gaps in service delivery | - Staff completed “secret shopper” calls to general dentist offices within each of the eight health districts of Maine to identify:  
  - If the practice is taking new patients  
  - Does the practice treat pregnant women – if so, are there any exceptions to services during pregnancy  
  - The earliest age child can be seen for dental care  
  - Availability of MaineCare coverage and if they are accepting new MaineCare patients  
  - Does the practice offer discounts or payment plans  
- Needs/gaps in service delivery remain:  
  - Gaps in the referral process between medical to dental  
  - the need for case management to facilitate referrals is essential  
  - Dental provider education - specifically around the process for submitting Prior Authorizations for MaineCare coverage of certain dental services |
- Education and promotion about well water testing for fluoride in rural areas of Maine at all points of contact across the care continuum
- Educate dental providers on current treatment recommendations for pregnant women and infants up to Age 1
- Educate OB/Primary Care providers on importance of oral health to overall health and how to educate patients, perform an oral health assessment and importance of direct referral and open communication channels with dental community

**ii. Mobilize and/or build capacity to address needs**

Staff focused on building capacity in three domains: 1) Dental providers, 2) Medical providers, 3) Community-based organizations. Between medical/dental - there is a need for a closed-loop referral system. OB sites would like to know what happens after the dental referral was made, such as if the appointment was scheduled and if the client received dental care services.

**Dental Providers:**

- To address barriers identified in years 1-2, BTFT initiative staff developed strong partnerships with Waldo County Dental Care, Kennebec Family Dentistry, Community Dental and rural FQHCs with dental services. All dental sites accept referrals from local learning labs, accept MaineCare, and work with initiative staff to refine referral processes.
- There is opportunity to make improvements and clarify the process, yet the majority of providers in the learning labs are now connected to their local dental care offices as a result of working with this initiative. This includes raising awareness of the need for oral health care during pregnancy with dental professionals and debunking myths about pregnant women and oral health care that persist in the dental field.
- The initiative continues to have a strong partnership with their dental advisor and OB clinical advisor.

**Medical providers:**

- Staff hosted a webinar featuring information about the importance of the age one dental visit titled “Importance of Age One Dental Visits, How Medical Providers and Dental Providers Can Work Together!” Dr. Jeffery Stone co-hosted our webinar alongside of Dr. Rachel King on the importance of the Age One Dental visit and provided guidance to medical providers on encouraging patients to take their children to the dentist by age one. This webinar
was designed for both medical and dental providers. We had 97 individuals register for the webinar and 73 attend.

- Staff continued to outreach to OB/GYN and Family Medicine sites statewide to participate in clinic test project and engage with these practices for a statewide roll out by the end of the project.
- Initiative staff continued to meet regularly with participating clinic test site staff to provide technical assistance around quality improvement for integrating oral health into prenatal care.

**Community Organizations:**
- The 20 minute virtual training with supporting flip book resource was successfully disseminated statewide to all 3 identified community service organizations with over 200 community service staff participating to date.

### iii. Develop a strategic approach for implementation that utilizes a health care delivery system with statewide reach

- On-going work during the no-cost extension will be the development of a standards of care document assessing the impact, quality improvement approaches used, lessons learned and referral guidance based on the learning lab results.
- Staff engaged an additional eight learning labs in the final year of the grant for a total of 15 sites. Lessons will be compiled and added to the standard of care document (above).

### iv. Implement evidence-based prevention policies, programs and practices and infrastructure development activities

- From the First Tooth (pediatric) continues to utilize the ASTDD best practice approach: prevention and control of early childhood tooth decay, utilizing the strategic framework for improving the oral health of infants.
- The clinic test project in medical practices continues to incorporate the ACOG recommendation of integrating oral health assessments into OB/GYN primary care. The findings and lessons learned from the implementing practices will inform the statewide roll out.
- The state prenatal oral health and clinical guidelines will be inserted in the NCS and will provide Maine focused data and recommendations.

### v. Monitor the approach, evaluate effectiveness, sustain effective programs/activities, and improve or replace those that fail

- Initiative staff continued to utilize quality improvement tools, specifically BAR/AARs to evaluate learning lab effectiveness.
- Process maps are used to evaluate the effectiveness of referral processes from medical sites to dental sites. Staff continue to use this tool to document active processes and spread to additional sites statewide.
II. SIGNIFICANT CHANGES:
The new 1.0 FTE perinatal program manager began in July 2018. In January 2019, the program coordinator resigned and February 2019 was replaced with temporary staffing of 0.4 FTE. A full time coordinator was hired in April 2019 to provide 0.25 FTE support to the PIOHQI grant.

III. EVALUATION

a. Increase opportunities for access to oral health care
The learning labs differ in the way they deliver services (a group setting, community clinic in hospital setting, a single midwife practitioner, entire practices in various rural settings), therefore the valuable lessons learned from these sites were instructive for other practice types considering adding oral health assessments in their prenatal visits. Similarly, there are lessons learned in availability, access, and insurance coverage for oral health care. The majority of the sites found many of their patients were uninsured and unable to afford dental care, often faced with an immediate need yet without immediate access to dental services that resulted in delayed care or a trip to the emergency room. In evaluation interviews with cohort three learning labs, the majority of patient stories were about women who had been in pain for months or years, who had lost fillings and not had them replaced, or had abscesses and caries that went untreated. The practices sought solutions for their patients and offered as much support and information that they were able to provide, with many offices going above and beyond to connect patients to dental homes. The patients reported that they were happy their doctor or other medical professional 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 dental hygiene information that they could pass along to their children. Being a large rural and geographically challenged state, it was important to include a diverse group of learning lab sites and to not rely on a one size fits all approach. By engaging with various practice types and making the process flexible while adhering to the fidelity of the model, BTFT was able to maximize reach and impact across the state.

In addition to the 15 learning lab sites, access to oral health care resources and messaging where disseminated throughout a number of statewide public and community-based organizations including Maine’s WIC programs, Maine Families Home Visiting programs, and Head Start/Early Head Start.

<table>
<thead>
<tr>
<th>Site Type</th>
<th>Number of Testing (Learning Laboratory) Sites</th>
<th>Number of Other Intervention Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federally qualified health center; please list OB, pediatric, and dental clinics separately</td>
<td>1 site - Pines Health Services (FQHC) with OB, pediatric and dental</td>
<td></td>
</tr>
<tr>
<td>WIC</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Home visiting (Maine Families)</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Community clinic</td>
<td>14 total (Hospitals, Community Clinics, Women’s Health Centers/OB), listed in order of engagement:</td>
<td></td>
</tr>
</tbody>
</table>
b. Increase opportunities for training on oral health care, including training on oral health clinical competencies.

**Learning Lab Site Staff Trainings:**
One of the first steps in the prenatal pilot project is to increase awareness on the part of obstetrics healthcare staff and providers on the importance of an oral health assessment, develop a best practice protocol for pregnant women and then help staff to implement the process with technical support and quality improvement (QI) tools. Before the First Tooth has a training curriculum that provides education to staff on oral health issues for pregnant women and infants, how to conduct an oral health assessment, and a quality improvement process. The training is delivered in-person by the program manager and at times a hygienist (who is also the program manager for From the First Tooth). Each of the learning labs participated in the training and was asked to complete follow-up surveys.

Overall, the respondents consistently rated the training design and delivery with very high marks. Respondents felt the training provided them the necessary information and knowledge to complete the work, and that the training met the stated training objectives. All medical and office staff at the learning labs were offered and encouraged to participate in the trainings. Baseline surveys across all learning labs reported rarely discussing oral health care topics with pregnant patients. Of those that completed close out surveys, all reported that they now routinely incorporate oral health care education and screening in their OB process and that they will continue to do so.
Recommendations for process improvement would be to streamline the documentation process, as tracking training attendees and survey responses on paper led to missing and incomplete data collection.

In all, 324 OB clinic staff participated in the PIOHQI learning labs to support the implementation of an oral health assessment, provide patient education and referrals for a dental home and/or services as needed. See the table below for cumulative numbers on type of staff participating in the learning labs.

<table>
<thead>
<tr>
<th>Type of Provider</th>
<th>Medical Assistants</th>
<th>Registered Nurses</th>
<th>Nurse Practitioners, Physician’s Assistants</th>
<th>Midwives</th>
<th>MDs, DOs</th>
<th>Residents</th>
<th>Other Staff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number receiving training</td>
<td>84</td>
<td>49</td>
<td>15</td>
<td>26</td>
<td>58</td>
<td>29</td>
<td>63</td>
<td>324</td>
</tr>
</tbody>
</table>

**Community Service Staff Virtual Training:**
In response to the request for perinatal and infant oral health education for community organizations, the BTFT team developed an approach to training that meets the needs of our partners in WIC, Head Start and Maine Families home visiting programs. A 20-minute educational video, in tandem with a hand-held ‘flip book’, will be used to help community educators in conversations about maternal and infant oral health with caretakers/families and pregnant women. These training modalities are designed to address challenges relating to staff turnover and access (including geographic spread) as well as ensuring consistent messaging for oral health across all point of patient contact in the care continuum for perinatal and infant oral health care.

The virtual training was developed in a collaborative manner. The content was refined and published utilizing the expertise of our clinical advisor, community partners and regional experts. Community partners were asked to provide input on both the content as well as the manner in which it was to be delivered. Given the geographic spread of CSO locations across the state, the opportunity to educate staff online saves staff time and increases the opportunity for all community organization staff to participate in this educational effort.

A handheld “Flip Book” was designed to be a discussion tool. The goals were to provide accurate and consistent information, to start conversations about oral health, and to prompt questions that new parents or pregnant women may have about good oral health during pregnancy or in the first years of life. This portable resource book has one side (mostly images) facing the consumer; and the other side (all text side) facing the educator. The educator can read directly from the page to share key facts about oral health habits. Additional resources for the educator are included for reference in the event that the client (Mom, caretaker, family member) has additional questions.

The content for this discussion guide was initially developed in collaboration with the BTFT dental advisor. As part of the process, two rounds of feedback were incorporated from community partners. The first round requested input on the general topics covered; and the second round was a review of the graphic designer’s draft, that included photos and the final layout.
Since October 2018 over 200 community partners have completed the virtual training. On a scale of 1-5, with 1 being not at all confident and 5 being highly confident, perinatal confidence for the three community organizations went from an average of 3.49 in the pre-training survey to 4.47 in the post training survey. Newborn confidence in the three community organizations went from an average of 3.77 to 4.56 in the post training.

c. **Increase opportunities for outreach and oral health education**

For this learning lab project the oral health educational component was delivered during the patients visits with their OB/Midwife/Nurse practitioners and was incorporated into the regular obstetrics services being provided. Women were not surveyed or tracked pre/post, but rather information was gathered through success stories, lessons learned, and feedback from the providers. Every patient receiving an OHA also received oral health education from the clinical staff and a perinatal oral health care kit. These kits included a brochure containing key messages for both Mom and infant’s oral health care, a toothbrush and toothpaste for Mom and an infant gum swab. For patients needing a dental home or dental services, providers provided a dental referral and, when available, would fax or email the referral directly to the designated dental team. Please see section d, below, for summary findings.

d. **Increase opportunities for utilization of oral health care**

The learning laboratories exceeded the project’s goal of assessing 80% of the target population at their initial OB visit, with a final overall oral health assessment completion rate of 88%. The initiative highlighted the need for dental resources and services, as only 38% of pregnant women reported having seen a dentist in the past 6 months and 44% had MaineCare (State Medicaid program with minimal dental coverage) or no dental insurance. Importantly, 5% of this population required immediate dental care (in pain, visible decay) at the time of their initial OB visit - a critical need during pregnancy.

<table>
<thead>
<tr>
<th>Overall Findings</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pregnant Women During the Entire Project for an Initial OB Visit</td>
<td>1,493</td>
<td></td>
</tr>
<tr>
<td>Oral Health Assessments Completed</td>
<td>1,312</td>
<td>88%</td>
</tr>
<tr>
<td>Number of Patients That Had Seen a Dentist in Past 6 Months</td>
<td>568</td>
<td>38%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dental Insurance</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaineCare &lt;21 Years Old</td>
<td>79</td>
<td>7%</td>
</tr>
<tr>
<td>MaineCare &gt; 21 Years Old</td>
<td>191</td>
<td>16%</td>
</tr>
<tr>
<td>Private Dental Insurance</td>
<td>676</td>
<td>57%</td>
</tr>
<tr>
<td>No Dental Insurance/Self Pay</td>
<td>250</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referral Classification</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Dental Care</td>
<td>59</td>
<td>5%</td>
</tr>
<tr>
<td>Early Dental Care</td>
<td>370</td>
<td>33%</td>
</tr>
<tr>
<td>Routine Preventative Maintenance</td>
<td>705</td>
<td>62%</td>
</tr>
</tbody>
</table>

e. **Telling Your Story**—Three examples of activities at a learning lab

**Name:** Pines Health Services, FQHC  
**Location:** Aroostook County, Maine, Public Health District Eight  
**Target Population:** Individuals and families – low income
Services: Obstetrics and Dental, along with Pediatrics, Primary, Specialty, Gynecology, and Behavioral Health Care

Implementation Process: See Appendix C for recruitment and implementation process, Appendix F for site specific workflow and process map

Results: Over the six month span, 126 pregnant women were seen by the practice. In total, 90 women, or 71% of patients seen, received oral health assessments (OHA) and patient education. Notably, the learning lab reached a screening rate of 92% in the last month of the learning lab, exceeding the screening rate goal of 80%. Over 4% of patients screened needed an immediate referral for dental services with 45% of patients being on MaineCare and another 28% without any type of dental insurance (self-pay).

Success Story/Quotes (2):
These two stories show the need for access to oral health care and dental providers, and the need for more education on oral health amongst the medical community. Being able to participate in the learning lab program has helped all the nursing staff/providers and dental team grow their knowledge about oral health and how to integrate this into care.

Story 1:
An obstetrics patient who frequently visits, not only for appointments but for the social component, came in for an initial obstetrics appointment and it was determined she needed to see a dentist. We wanted to get her on the list for dental cancelations, but she would be unable to be seen at late notice that day or that week due to unreliable transportation issues. The patient had excruciating tooth pain and ended up in the Emergency Department that evening. When she came in for a scheduled obstetrics appointment the next day, we happened to have a dental cancellation and we were able to squeeze the patient in to be seen by our dental team. The dental team did their assessment and determined she needed a tooth extraction. The following day the dental team found room in the schedule to be able to perform the extraction for the patient. The patient was so thrilled to be able to get this taken care of so quickly, and relieved to not be dealing with the issue anymore. She came over to the office and thanked all the nursing staff and providers in the obstetrics, with gauze still in her mouth, for helping her get seen and the extraction done so quickly. Never having dental care in the past, she is now a patient at Pines Dental, and follows up for routine care. She has also brought her first child to be seen and plans to do the same with her new baby once born and able to start care. The patient was super thankful for the kit and information from Before the First Tooth and stated oral health will be a priority for her and her kids, so that they hopefully don’t have the dental issues she did growing up.

Story 2:
Another story is about a patient who came in for her initial obstetrics appointment and the oral health screening was performed. This patient had not seen a dentist in many years but had set up her children to be seen at Pines Dental. After the screening was done on the patient, it was determined she had no urgent dental needs but needed to establish with a dental provider. We suggested the patient schedule with Pines Dental, and the patient was thrilled. She had not even thought about her own oral health when she was in the process of trying to take care of her kids. This patient was able to be seen at the same time as her kids the following week, the hygienist performed more education with the patient regarding her own oral health, the oral health of her kids and of her newborn baby once born. The patient was more than satisfied with all the information she received, from both the obstetrics provider and the dental hygienist, and made a comment that she wishes she had the access and known this much about oral health care as a child and with her prior pregnancies. She said she would now always make oral health a priority for her and her children.
Next Steps: The OB practice has agreed to continue warm-hand-off of patients to the co-located dental team when the need for a dental home has been identified. An oral health assessment as well as patient education on the importance of oral health throughout pregnancy and for newborns will continue to be a routine part of the initial OB (IOB) visit. The dental staff will continue to promote the scheduling of OB patients for dental services at the time of the IOB visit. If patient is in need of a dental home and routine services, patient will be scheduled for a limited exam at a minimum within four weeks if scheduling is booked out beyond that point.

Name: MaineGeneral Midwifery Services  
Location: Augusta, Maine  
Target Population: Maternity and Pediatrics  
Services: Obstetrics, Gynecology, Midwifery, Parenting education, Breastfeeding support and lactation services  
Implementation Process: The Centering program has completed all 6 data sets, the practice data summary can be found at the end of this report - attachment 2. This learning lab site experienced delays in conducting the Centering program and canceled several sessions due to low participation. Feedback from staff was that integrating the learning lab into the existing oral health curriculum covered at session two (weeks 16-20) was easy. The oral assessment was done at the beginning of the session, along with the OB vitals, i.e., BP, belly measurements and weight. The program coordinator had to do some “chasing” to assure completed oral assessment monthly data was obtained from the midwives as they would often forget to leave them for the coordinator. Once the coordinator received the oral health assessment data she gave them to the nursing manager who entered the data and submitted it monthly to initiative staff. The site mentioned that the data was helpful as the Centering program had never collected the information before. Staff found the information about whether women were seeing the dentist and their referral classification helpful in framing the education they provided to the women.  
Results: The program saw 33 pregnant women during the learning lab timeframe, 33 (100%) of those were assessed for oral health status. The number of pregnant patients attending the monthly group varied from 6-8 when the group session was not canceled due to weather or low attendance. Surprisingly, with a 94% private dental insurance rate, 9% of the patients assessed required immediate dental care.  
Success Quote: Quote from the Midwife running the Centering Program, “I was so relieved to have the resource of the Before the First Tooth Program for our pregnant patients. Quite a few of them are working poor with no health insurance or MaineCare that does not cover dental care. They have active cavities, gum disease, and pain. The opportunity to address this in pregnancy is critical as the evidenced-based literature clearly shows women with gum disease are at increased risk of preterm delivery. Whoever runs this program for Maine General, thank you, thank you!”  
Next Steps: Staff found the information about whether women were seeing the dentist and their referral classification helpful in framing the education they provide to the women in the program. Staff continue to promote oral health care in learning sessions and provide oral health assessments to participants in the Centering Program.  

IV. Impact  

Over the grant period, 324 clinical staff participated in the learning labs and supported the implementation and reporting of the number of new OB patients receiving an oral health assessment, patient education, and referral for dental services as needed. One thousand three hundred twelve (1,312) pregnant women received an oral health screening and assessment, reflecting 88% of new OB
patients seen in participating learning labs. As the grant progressed, recruitment of learning labs and uptake of routine oral health assessment and screenings gained momentum as noted in the chart below:

Five learning labs are still active and those that have completed the learning lab phase are still providing oral health assessments and patient education on their own volition. If the initiative could be sustained at the current OHA levels, in one calendar year over 10% of Maine’s live birth cohort would receive an oral health assessment and education with only these 15 OB sites participating. Please see Appendix E for break out of live births by county and learning lab site.

Additionally, over 200 community service organization staff members from WIC, HeadStart/Early HeadStart and Maine Families have been trained throughout the state to provide consistent oral health messaging for perinatal and infant oral health to clients both in the home and community support locations. Over 90% of Community Service staff that participated in the on-line training when surveyed post-viewing of the virtual training noted they felt confident to highly confident in delivering the BTFT-directed oral health messages to clients.
Implementing this multi-pronged approach helped to ensure that pregnant women and caretakers of newborns received consistent oral health messages across the care continuum that were reinforced by providers, birthing centers, and community service organizations at all points of contact. Please see Appendix J for summary findings on reach and expansion of OH assessments and messaging.

Self-reported data from 15 OB learning labs currently reflects that 56% of new OB patients receiving an oral health screening had seen a dentist in the previous six months while 28% of those screened needed either immediate or early (within 60 days) dental care.

Additional Partnerships and Collaborations:

Curriculum Road Map for three Universities
UNE- CE Certificate for Faculty
Maine Breast Feeding Coalition
Maine Perinatal Leadership Coalition
MaineHealth Pediatric Service Line Prenatal Education Workgroup
MaineHealth Birthing Centers – four Hospitals
MaineGeneral Birthing Center
Partnership for Children's Oral Health
As noted previously, the Advisory Committee’s work was crucial to the development and implementation of this project Maine is large in rural geography, yet small in population. It is a state with stressed resources and limited public health infrastructure and funding. This can often lead to fragmented programming and staff burnout on state or healthcare led initiatives. However, it also means that our most valuable resource is the relationships we build and the collaboration that is required for tangible progress. When called to action, the Advisory Committee was able to:

- Oversee the curriculum development and implementation of statewide oral health messaging
- Assist in dissemination of an online community virtual training module to over 200 people within multiple organizations, and counting
- Disseminate consistent messaging to community workers through flipbook materials to be used during family visits
- Provide real time expert guidance on challenges and barriers in the Learning Laboratories
- Review and approve reporting documentation, infographics, and presentations

In the final quarter of the final grant year, the Advisory Committee came together one final time to review progress and celebrate successes. It was a motivating day and reinforced the important work happening in Maine due to their commitment and the networks that were created and leveraged through this initiative. At the conclusion of the meeting we asked participants to complete an end of project survey for some qualitative feedback and lessons learned. We wanted to know if they felt that this project was able to move the needle in oral health care and if the progress made would be sustained.

<table>
<thead>
<tr>
<th>Advisory Committee Survey, N=8</th>
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</table>

**Overall Experience**
Participants Strongly Agreed / Agreed with the following statements:

- This project was a good use of my time
- This project helped move the needle on oral health outcomes in Maine
- This project had a positive impact on my work
- The project goals are sustainable beyond the conclusion of the grant

**REACH:** Over 22 organizations were reached by the project messaging through Advisory Committee Member Networks, which reached 1,644 people with direct messaging.

### V. Plans for No-Cost Extension

Below is an outline for a no-cost extension of unobligated funds beyond budget year four. A formal request within the EHB will officially be submitted by 6/25/19 and is in accordance with planned activities that will not be completed in the current project period. Funds allocated to program activities that were not utilized did not derail achievement of programmatic goals. This no-cost extension request will focus on completing original goals of year four, does not include any new activity and aligns with the approved budget. Once we receive approval for the no-cost extension, dollars will be used to fulfill originally approved objectives focused on the following:
- **Personnel and Fringe Categories:**
  - Program Director to fulfill programmatic activity below
- **Contractual & Consulting:**
  - The NCE will be used to work with established audio visual firm to develop an online training module completed the clinical online training module for statewide perinatal dissemination. 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 module will focus on education for clinical staff on oral health care during pregnancy, oral health assessment and patient education. This module will facilitate consistent messaging, sustainability of the initiative and also meet the demand of practices experiencing a high rate of staff turnover. This online training module will be roughly 60 minutes in length, will include evaluation questions and offer continuing medical education (CME) once the learner has completed the module and test.
- **Other:**
  - Continued funding for the Clinical Advisor and Dental Advisor to provide clinical expertise, scripting, filming, and guidance on the production of our clinical virtual training. We will work closely with both advisors on the development accreditation / CME certification of an online clinical training module as we prepare for statewide dissemination. Both advisors will be asked to assure the module is consistent with current medical literature and evidence-based clinical guidelines. Advisors will be asked to endorse and assist in the roll out of the standard of care document for statewide dissemination as well.
  - Development of the perinatal 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 adoption 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.
  - Support and close out of existing learning labs sites and development of site summary reports and evaluation of community and clinical based trainings.
Supporting Documents - Appendices

- A: Revised Advisory Committee
- B: Advisory Committee Network Map
- C: Process Map for Learning Lab Site Recruitment/Onboarding
- D: Data Process: Example Tracking Form For Learning Labs
- E: Learning Labs OHA Trend Compared with County Level Live Birth Rates
- F: Example Process Map: Pines Co-located Dental and OB FQHC
- G: Example Monthly Learning Lab Feedback Report (Pines)
- H: Resources for Community Service Organizations
- I: Example of Community Service Organizations Infographic
- J: State Infographic – Dissemination of OH Assessment and Messaging
# Appendix A

## Advisory Committee List as of 5/24/2019

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angela Cole Westhoff</td>
<td>Executive Director</td>
<td>Maine Dental Association</td>
</tr>
<tr>
<td>Anne Rogers</td>
<td>Data and Research Manager</td>
<td>Department of Health and Human Services</td>
</tr>
<tr>
<td>Jean Zimmerman</td>
<td>Health Education and Physical Education Consultant</td>
<td>Maine Department of Education</td>
</tr>
<tr>
<td>Kalie Hess</td>
<td>Policy Program Manager</td>
<td>Maine Primary Care Association</td>
</tr>
<tr>
<td>Laura Mrazik</td>
<td>Director of Accountable Care</td>
<td>Maine General Health</td>
</tr>
<tr>
<td>Wendie Lagasse</td>
<td>Public Health Specialist</td>
<td>Maine General Medical Center, Thayer Center for Health</td>
</tr>
<tr>
<td>Becca Matusovich</td>
<td>Executive Director</td>
<td>Partnership for Children’s Oral Health</td>
</tr>
<tr>
<td>Gillian Roy</td>
<td>Technical Assistance Coordinator</td>
<td>Maine Families</td>
</tr>
<tr>
<td>Ginger Roberts-Scott</td>
<td>Director</td>
<td>Maine WIC Nutrition Program</td>
</tr>
<tr>
<td>Judith Feinstein</td>
<td>Coordinator, Maine Oral Health Coalition</td>
<td>Maine Oral Health Coalition</td>
</tr>
<tr>
<td>Kelley Bowden</td>
<td>Perinatal Outreach Nurse Educator</td>
<td>Maine Medical Center</td>
</tr>
<tr>
<td>Lindsay Gannon</td>
<td>Evaluation Associate</td>
<td>Market Decisions Research</td>
</tr>
<tr>
<td>Pat Hart</td>
<td></td>
<td>Hart Consulting</td>
</tr>
<tr>
<td>Rachel King</td>
<td>Assistant Clinical Professor</td>
<td>University of New England</td>
</tr>
<tr>
<td>Rebecca Maranda</td>
<td>Provider Specialist</td>
<td>Office of MaineCare Services</td>
</tr>
<tr>
<td>Wendy Alpaugh</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B – Advisory Committee Network Map

BTFT Advisory Committee

Data & Monitoring Support
- Lindsay Gannon
- Pat Hart
- Anne Rogers

Policies & Systems Support
- Kallie Hess
- Wendie Lagasse
- Rebecca Maranda
- Laura Mrazik
- Angela Westhoff
- Jean Zimmerman

Community Service Orgs
- Ginger Roberts-Scott
- Gillian Roy
- Angela Wight/Norma Larocque

OH Leadership/Partners
- Kelley Bowden
- Judy Feinstein
- Becca Matusovitch

Medical/Dental
- Wendy Alpaugh, DDS
- Rachel King DDS
- Erin Dawson, MD
- Natalie Aylward, RN
Appendix C – Process Map for Learning Lab Onboarding

### BEFORE THE FIRST TOOTH

**RECRUITMENT**
BITF Program Manager makes contact with potential practice via E-introductions, email on

**INITIAL SCREENING**
Phone conversation with Practice Manager &/or Clinical Champion to describe program

**Clinical Practice Manager or Champion**
get permission from leadership (level varies by org structure)

**AGREEMENT**
MOU signed

**Clinical Questionnaire Readiness Assessment**
Form completed and training scheduled

### ENGAGEMENT & TRAINING (non-CME)

In-person meeting with all practice staff, including identified champion
BITF OB Pilot Training:
Review of BITF program, how to conduct an oral health assessment, practice process flow, materials, oral health kits, & referral resources provided

### IMPLEMENTATION

Process in place for screening, assessment, and referral.

- Dental referral process in place with feedback loop and monthly reporting to BITF
- Linked with Dental Practice?

### DATA COLLECTION

- Pilot(s) practice sends monthly data to BITF

### CLOSE OUT

- After 6 months of data has been collected, BITF staff creates a roll up report for pilot practice, performs exit interview with practice staff for final feedback and plans for sustainability
- 3 month follow-up survey to practice managers and providers after pilot closeout

### TECHNICAL ASSISTANCE

BITF staff provides TA and Quality improvement support during monthly check ins, phone calls and site visits as needed, monthly feedback for pilot(s) staff
Appendix D – Data Process: Example Tracking Form for Learning Labs

Purpose:

- To determine the proportion of pregnant women who receive an oral health assessment during the initial pre-natal visit.
- To determine the proportion of pregnant women who have a dentist and receive regular dental care.
- To determine the proportion of pregnant women who have dental insurance who are classified as: MaineCare < 21 years old, MaineCare > 21 years old, Private dental insurance, and No dental insurance/Self pay.
- To determine the proportion of pregnant women who are classified by dental referral classifications: Immediate, Early, and Routine dental care.

Measurement Period: Six months of monthly measures once workflow implemented

<table>
<thead>
<tr>
<th>Name of Practice:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period of Report:</td>
</tr>
<tr>
<td>Number of pregnant women seen during the reporting time period with an initial prenatal visit:</td>
</tr>
<tr>
<td>Number of providers (MD, NP, PA &amp;/or Midwives) performing assessments:</td>
</tr>
<tr>
<td>Oral Health Assessment Completed:</td>
</tr>
<tr>
<td>Number of patients that have seen the dentist in the past 6 months</td>
</tr>
<tr>
<td>Dental Insurance:</td>
</tr>
<tr>
<td>MaineCare &lt; 21 years old</td>
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<tr>
<td>MaineCare &gt; 21 years old</td>
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<tr>
<td>Private dental insurance</td>
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<tr>
<td>No dental insurance/Self Pay</td>
</tr>
<tr>
<td>Referral Classification:</td>
</tr>
<tr>
<td>Immediate Dental Care</td>
</tr>
<tr>
<td>Early Dental Care</td>
</tr>
<tr>
<td>Routine Preventive Care</td>
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### Appendix E – Learning Labs Oral Health Assessment Trend Compared with County Level Live Birth Rates

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>Pilot</th>
<th>2018 Live Births</th>
<th>Total Number of IOBS Conducted by Pilot Site</th>
<th>Average Monthly IOBs Conducted by Pilot Site</th>
<th>Total Number of OHAs Conducted by Pilot Site</th>
<th>Average Monthly Number of OHAs</th>
<th>Births Per Year Based on Monthly Average of IOBS</th>
<th>Estimated Percent of Live Births Per County Seen by Pilot Site</th>
<th>Potential Percent of County Pregnant Population Receiving OHA from Pilot Site</th>
</tr>
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<tbody>
<tr>
<td>Androscoggin</td>
<td>Central Maine Medical Center</td>
<td>1,235</td>
<td>46</td>
<td>8</td>
<td>46</td>
<td>8</td>
<td>92</td>
<td>7%</td>
<td>6%</td>
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<tr>
<td>Cumberland</td>
<td>Coastal Maine Women's Health</td>
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<td>286</td>
<td>48</td>
<td>287</td>
<td>48</td>
<td>572</td>
<td>21%</td>
<td>17%</td>
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<tr>
<td>Oxford</td>
<td>Ellesmore Dixfield Family Medicine</td>
<td>471</td>
<td>31</td>
<td>5</td>
<td>31</td>
<td>5</td>
<td>62</td>
<td>13%</td>
<td>11%</td>
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<tr>
<td>Kennebec</td>
<td>Maine General Centering</td>
<td>421</td>
<td>43</td>
<td>7</td>
<td>43</td>
<td>7</td>
<td>86</td>
<td>20%</td>
<td>16%</td>
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<td>Kennebec</td>
<td>Maine General Dartmouth</td>
<td>421</td>
<td>38</td>
<td>6</td>
<td>31</td>
<td>5</td>
<td>76</td>
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<td>Aroostook</td>
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<td>Kennebec</td>
<td>**Maine General Family Medicine OB/GYN Clinic</td>
<td>421</td>
<td>217</td>
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<td>212</td>
<td>35</td>
<td>434</td>
<td>103%</td>
<td>82%</td>
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<tr>
<td>Washington</td>
<td>Down East Womens Health Center</td>
<td>306</td>
<td>107</td>
<td>21</td>
<td>63</td>
<td>13</td>
<td>257</td>
<td>84%</td>
<td>67%</td>
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<tr>
<td>Franklin</td>
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<td>236</td>
<td>60</td>
<td>20</td>
<td>60</td>
<td>20</td>
<td>240</td>
<td>102%</td>
<td>81%</td>
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<tr>
<td>Penobscot</td>
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<td>1,375</td>
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<td>73</td>
<td>18</td>
<td>258</td>
<td>19%</td>
<td>15%</td>
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<tr>
<td>York</td>
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<td>63</td>
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<td>58</td>
<td>756</td>
<td>41%</td>
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<td>134</td>
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<td>592</td>
<td>48%</td>
<td>38%</td>
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<td>Statewide Totals</td>
<td></td>
<td>14,860</td>
<td>1430</td>
<td>325</td>
<td>1274</td>
<td>291</td>
<td>3896</td>
<td>26%</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Explanatory Note:** Chart based on data from Maine.gov for total number of live births per county, and from pilot site data from BTFT. Chart attempts to assess potential reach and impact of pilot if continued beyond grant period and assuming each pilot site were to conduct OHAs on 80% of IOBs at site.

**Care center for high risk individuals from surrounding area, statistics may include IOB visits from residents of surrounding counties.**

Yellow highlights indicates still active pilot programs.
Appendix F – Example Process Map for Learning Lab Referrals

Dental Referral Process Map
Pines OB and Dental Clinics
2/28/19

IOB visit

CNM/MD performs the screening & completes paper copy of form

MA enters information into EMR via SMART phrase and scans form into patient’s chart

Identify referral type and resources needed

Has Dental Home and seen dentist in last 12 months: No need for referral

Needs referral: Early or Immediate /Urgent

Needs routine or dental home: referral: Not Urgent

Care coordination assists in applying for Access to Care

Referral coordinator sends to DOS to schedule or put on Quick Call list

Dental care coordinator calls patient to schedule a visit

Patient receives comprehensive dental exam, outcome notes documented in medical chart

Refer patient to Pines Dental
Appendix G – Example of Learning Lab Monthly Feedback Form

Perinatal Oral Health Pilot

Goals:
#1- 80% of new prenatal patients will receive oral health screening and assessment at first prenatal visit.

#2- Patients needing a dental home or services will be referred to Pines Dental or patient’s dental home.

Pines Women’s Health
Oct 2018 - Mar 2019

New OB patients seen to date: 126
OB patients who received an oral health assessment: 90

Pilot Site Comparison
% New OB Patients Receiving Oral Health Assessment Pilot Start to Present

Goal is 80%

Referral Classification Type

Provider Breakdown - % Assessments Performed To Date

Goal is 60%

Clinical Champions:
Traci Rogers & David Lavasseur, DMD
Appendix H – Resources for Community Service Organizations

Before the First Tooth (BTFT) works with community organizations to educate pregnant women, parents and caregivers about preventing and treating dental disease. To assist community organization staff in educating families about the importance of a healthy mouth from pregnancy to infancy, BTFT has created the following training and educational materials:

**Virtual Training:**

This 20-minute online training, narrated by pediatric dentist Dr. Rachel King of UNE, provides:

1. Basic oral health education from pregnancy to age 6
2. The importance of preventive oral health
3. Key messages to use with clients or patients

**Guided Conversation Book:**

This 28-page small, portable book is a valuable visual to illustrate tips for a healthy mouth for both mom and baby. Clients view vibrant photography while staff reviews the important information outlined on the back side of each page. Key content includes:

1. Changes that occur in the mouth during pregnancy
2. Tips to care for oral health during pregnancy
3. Information about fluoride
4. How to care for baby teeth

**Educational Materials:**

1. The “**Dental Care During Pregnancy**” bi-fold is intended to educate pregnant women on the changes that occur in their mouth and how to best care for the mouth and gums during pregnancy.
2. The “**Pregnancy and Dental Health**” postcard is a resource informing pregnant women on good oral health care.

All materials are available both to order and download at [www.fromthefirsttooth.org](http://www.fromthefirsttooth.org) under “Resources for Community Organizations.”
Appendix I – Example of CSO Data Infographic

CSO Perinatal Oral Health
Training Partnership

Goal: 80% of Maine Families sites will have viewed Before the First Tooth Virtual Training and appropriate Maine Families staff will have participated in a guided discussion with the flip book client resource tool

Outcome: Maine Families staff will feel confident in providing consistent perinatal and infant oral health messages to clients and families

Maine Families

Number of Staff Trained Statewide 85
Statewide Percentage of Sites Trained 100%

Percent of Sites Trained for Participating CSOs

Staff Comments

On the Virtual Training
"Training was clear and concise."
"It was good to learn that woman should rinse mouth after vomiting, and wait 1/2 hour before brushing"
"Loved the flip book"

On Obstacles to Treatment
"...MaineCare doesn't approve preventative dental care for prenatal moms..."
"Money, time, insurance, transportation, shame"
"Access to dentists who accept MaineCare and accept children younger than 3 years of age"

Most common obstacles mentioned were lack of transportation and access to affordable care.
Appendix J – Statewide Infographic

Before the First Tooth
Perinatal & Infant Oral Health (OH)
Statewide Dissemination of OH Assessment and Messaging

% Community Service Organization Sites Trained Statewide
- 7 of 8 Sites Trained (87.5%)
- 12 of 12 Sites Trained (100%)
- 9 of 11 Sites Trained (81.8%)

202 Staff Trained Statewide
- Maine Families (21.79%)
- WIC (47.49%)
- Head Start (30.73%)

OB Clinical Pilot Sites
OH Assessment Rate
- 88% (331 OH assessments conducted out of 382 OH pilots (~10% of annual live birth cohort)

Dental Referral Classifications
- Routine Dental Care (61%)
- Early Dental Care (31%)
- Immediate Dental Care (17%)

Site Performance
- 12 of 15 sites exceeding OH assessment goal of 80% in final month of pilot

Reach/Expansion Of OH Assessment & Messaging
- Year 1
- Year 2
- Year 3
- Year 4

Additional Partnerships, Collaborations
- Curriculum Road Map for 3 Universities
- UNE Faculty CE Certificate
- Maine Breast Feeding Coalition
- Maine Perinatal Leadership Coalition
- MaineHealth PDI Prenatal Edu Workshop
- MaineHealth Birthing Centers - 4 Locations
- Maine General Birthing Center
- Partnership for Children’s Oral Health
- New England Rural Health Round Table
- Maine Public Health Nurses
- Maine Oral Health Coalition

Conclusion
Pregnant women now receiving OH assessments and messages across the care continuum throughout the state, including initial OB visit, birthing classes, visiting nurses, and community support services.