The purpose of the performance narrative is to summarize the project activities and accomplishments for the grant period.
Grant Number: H47MC28479
Project Title: Children's Oral Healthcare Access Program
Organization Name: Colorado Department of Public Health and Environment
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Performance Narrative

I. PROGRESS

Definitions

CDPHE	Colorado Department of Public Health and Environment
CO MDI	Colorado Medical Dental Integration (grant through Delta Dental of Colorado)
CF3	Cavity Free at Three Program
HCPF	Health Care Policy and Finance
OHU	Oral Health Unit
RAE	Regional Accountable Entity

In the last four years of the grant period, Colorado has made promising progress toward the long-term goal to increase the proportion of pregnant women in Colorado who receive oral health care. The Colorado team utilized the PIOHQI approach to develop, test, refine, and spread a model of best practices across six different clinical sites in three unique health care systems. Preliminary results indicate that implementing a model of education, screening, and referral into prenatal care results in approximately four times as many patients receiving oral care during pregnancy (see Evaluation section). The general response has been overwhelmingly positive, and the Colorado team looks forward to continuing this work.

The long-term goal to increase the percentage of infants who receive preventive oral health care has been the core of Cavity Free at Three (CF3) program work since the program's inception. Recent evidence shows that significant progress has been made. Results from the 2016-2017 Basic Screening Survey (BSS) showed that fewer Colorado children have cavities than they did 10 years ago when the program was founded. The percentage of infants who were less than a year old and received a dental service from any provider type billed through Medicaid, more than doubled from 2009 to 2017 (approximately 4 to 10%). In 2017, about one third of 0-2 year olds covered by Medicaid received a dental service. Nevertheless, there is still much work to be done. Exciting new developments in the Colorado landscape, specifically in regard to Medicaid Managed Care incentives and phase 2 of the state's Accountable Care Collaborative (ACC), offer new opportunities to expand this work even more broadly.

Over the course of the grant, key personnel offered continuity to the project even as other staff turnover proved challenging. The Dental Director has lead the CF3 program in policy and state-wide strategy and served throughout the grant as the Network Liaison. The Data/Evaluation Specialist supervisor has been consistent, even though staff beneath her have rotated on and off the project. Finally, the CF3 coordinator and quality improvement specialist who took the task of managing the prenatal learning laboratories joined in early 2016 and continues in that role. The CF3 supervisor who originally began PIOHQI, possessed a wealth of knowledge from her dental background and many years with the program, while her recent replacement offers the program new leadership and direction.

The project team has also benefited from the expertise of the CF3 Advisory Board, other staff, oral health experts, and partners on an ad hoc basis.

a. **PIOHQI Expansion Project Advisory Board**

The goal of the CF3 advisory board is to offer an array of perspectives, expertise, and community connections to advise the program and develop strategic partnerships. Members include individuals who have been involved in the Cavity Free at Three project since its inception 10 years ago to those in the perinatal community with whom CF3 team has recently formed relationships.

Although not without its initial growing pains, the Advisory Board has proven a valuable addition to give direction and broader reach to the CF3 program. This board was formed as a directive of the PIOHQI grant, yet will continue to meet and advise the program for the foreseeable future. As a testament to its success, advisory board members were key in establishing relationships with 5 out of 6 of the learning laboratory clinical sites. Additionally an advisory board member made the initial introduction to the Medicaid Managed Care organization in the metro Denver area. As a result, CF3 is serving as a main point of contact for primary care pediatric sites interested in addressing the dental key performance indicator (KPI) for new Medicaid incentive payments as part of phase 2 of the ACC. Among other things, the advisory board members have also validated the strategic direction of the program while also encouraging the program to branch into new spaces to promote child oral health. They have supported goals around oral health policy initiatives, helped the program keep a pulse on other oral health initiatives in the state, and voted to revise the CF3 Caries Risk Assessment.

Members of the board include the former CDC Division of Oral Health Interim Director Dr. William Bailey; the American Academy of Pediatric Regional Representative and CF3 External Evaluator Dr. Patricia Braun; the Dental Outreach Coordinator from the Colorado Department of Health Care Policy and Financing; the Director of Colorado's Head Start Collaboration Office; the Vice President of Planning and Evaluation from a major Health foundation and other influential partners.

b. **Accomplishments and Progress to the Statewide Plan**

Below are the activities that have led to the accomplishments and improvements achieved during the grant period as they relate to the state work plan and objectives.

Objective A: By July 31, 2019, Colorado Department of Public Health and Environment (CDPHE) will expand access to direct oral health services for pregnant women and young children (birth to age five).

A-1: Conduct a community assessment to examine oral health access within Colorado.

This activity was completed. Program staff continue to update and monitor these data to understand program impacts in communities that CF3 serves and to target state counties most in need of oral health services for infants, toddlers and pregnant women. Data is collected and visualized in a dashboard using Tableau software. Results of this assessment are continually disseminated to partners, with a focus on MCH and local public health agency partners, and with the goal of including these data in other assessment and planning processes.

A-3: Support the identified health systems through the provision of technical assistance and quality improvement to expand capacity that decreases access barriers for oral health services.

Throughout the grant period, CF3 has collaborated with other organizations that are also working to expand access to direct oral health services for at risk children and pregnant women. These Colorado initiatives are positively impacting their projects by leveraging the efforts of CF3. With these partnerships, CF3 is able to support oral health service delivery and access to care while minimizing duplicative efforts. Examples of partner state initiatives include:

- *Delta Dental of Colorado Foundation: Colorado Medical/Dental Integration (CO MDI) project*
- *DentaQuest Foundation's Medical ORal Expanded care (MORE) project through Colorado Rural Health Center*

Delta Dental of Colorado Foundation: Colorado Medical/Dental Integration (CO MDI) project. CO MDI integrates dental hygienists into primary care medical settings and school-based health centers. The project

aims to reach children who have limited access to dental care due to location, insurance status, as well as transportation issues and includes a few sites expanding their reach to include pregnant patients. All 16 previously awarded sites have completed a CF3 training. To further nurture collaboration, the foundation's project officer serves on the CF3 Advisory Board. In 2018, 10 new organizations were awarded CO MDI grants to begin a second wave of grantees. For this new wave, CF3 is taking a different approach. The CF3 team is training the integrated hygienists embedded within sites to become certified CF3 Master Trainers and serve the ongoing training needs within that integrated health system. CF3 is hopeful that this new model of embedded Master Trainers increases the sustainability of the CF3 program, and builds on the partnership with CO MDI and the natural role the integrated hygienist plays as an oral health champion in that organization. During this reporting, one health system (Melissa Memorial Hospital) received a CF3 training, and 5 integrated hygienists have been trained as certified Master Trainers. Plans for additional trainings are in place for the end of June 2019.

Additionally, CO MDI has served as an important partner in the prenatal learning laboratories. It was through a partnership at the first learning laboratory with Denver Health Eastside Clinic that our program was able to leverage the integrated dental hygienist as a natural champion. While waiting for her operatory equipment from the CO MDI grant to arrive, the hygienist played a leadership role in testing new and improved care processes between the co-located medical and dental clinics. After she began seeing patients, she continued in this role and provided permanent built-in dental capacity to prioritize pregnant patients. Her ongoing position will ensure the sustainability of the learning laboratory goals well beyond the grant period.

After serving as a learning laboratory for approximately a year, Denver Health Westside Clinic applied and received the same grant to receive a CO MDI hygienist. The integrated hygienist at this site began seeing patients in January 2019 with an exclusive focus on serving pregnant women. Her supervisor is the same prenatal nurse manager that implemented the learning laboratory system changes at Eastside. This is a testament to the impact the learning laboratory had on the supervisor who decided to seek additional ways to support dental access for patients at the second clinic she supervises.

Colorado Rural Health Center: Medical ORal Expanded Care (MORE Care) Project
As previously reported, DentaQuest Institute awarded Colorado Rural Health Center (CRHC) grant funding to implement MORE Care. The project aims to provide primary and secondary preventive oral health services in primary care medical offices to underserved populations in rural Colorado. CRHC staff work with each of the five grantee clinics to coach quality improvement methodology and effectively implement strategies into clinic processes, such as scheduling, workflow, and EMR implementation. CRHC leveraged CF3 expertise as part of their MORE Care project and specifically requested CF3 provide clinical training to providers and staff at the three MORE Care clinic pilot sites. The CF3 Education Coordinator served on the project advisory group to share valuable information and facilitate program success. Unfortunately, funding for the MORE Care project was not renewed and difficulties around CRHC's ability to bill for dental services makes continuation of the project a challenge. The project remains unfunded and inactive as of July 2018.

A-4: Offer continuous training, technical assistance, quality improvement, and resources to health systems, health care providers, and oral health advocates.

Technical Assistance
As previously reported, Freshdesk is an online customer support helpdesk that allows CF3 staff to streamline technical assistance and training needs. This helpdesk allows the CF3 team to collaborate, resolve issues, categorize and prioritize needs, and run reports on several metrics.

During this last period of grant, CF3 staff processed 69 requests. The top two ticket field categories were training requests (n= 35, 51%), and billing (n=6, 9%). There were also many tickets labeled "other" (n=18, 26%) that included: questions about becoming a Master Trainer and how to get involved.

Throughout the grant period, CF3 staff continued to improve implementation of oral health services by improving the technical assistance the CF3 team offers. The CF3 team used the Freshdesk platform to

understand the barriers our partners experience and address these accordingly. This led to the decision to provide specific billing guidance and help with all the details around implementation for practice manager staff.

From conversations with CF3 partners, it has been reported that more private insurance carriers are now reimbursing for the fluoride varnish application alone using the CPT code. Although not as generous a reimbursement as the Medicaid CDT codes that include reimbursement for the screening/risk assessment and counseling of caregiver for children under age 3, this is still a major win as this has been a reported barrier in the past. Specifically, many practices complained that because private insurers were not consistent in reimbursing oral health services in the medical setting, the Cavity Free at Three model did not make sense in a practice with mixed payer sources. Thus the CF3 team has taken steps to alert our partners of this new development. The hope is that it will result in greater uptake of the model, more universal application of oral health services for all children, and greater sustainability overall. With a change in governor in Colorado, there are also potential opportunities in the new administration's strategic plan to possibly include state enforcement of commercial medical coverage for oral health services up to age five (currently required under state and federal law).

Communication
During the duration of this grant the CF3 team has enlisted the CDPHE communications unit expertise. The section below highlights areas of progress.

CF3 Updated Materials and Branded Look
With the help of communications, CF3 program updated the patient-facing materials provided to clinics as part of CF3 training. This included pamphlets covering child and prenatal oral health at an appropriate reading level, with a new modern branded design and look. These materials have proven especially helpful for the prenatal learning laboratories, included in the prenatal information packets given to each expecting mother. Staff at the learning labs report high satisfaction with being able to reference the brightly colored sheets which have oral health information clearly laid out as part of their prenatal education.

CF3 Newsletter
Since 2016, CF3 has distributed fourteen quarterly, electronic newsletters to partners and individuals who have attended program trainings. With help from communications, the CF3 program updated the look and feel of the newsletter to provide seamless communication with relevant topic areas newsletter recipients could expect to see each time. Topic areas included new and relevant research updates related to perinatal and children's oral health, program updates and changes, billing updates and changes, partner communications, grant opportunities, training opportunities and other need-to-know topics related to perinatal and children's oral health in the state of Colorado.

The newsletter was sent to everyone who had been trained in CF3 including healthcare students and providers, partners and stakeholders of CF3 and oral health advocates in Colorado. The CF3 program tracked the open rate of the newsletters and would evaluate the content that had higher open rates. Recipients would click on research and billing updates most frequently. Training and grant opportunities tended to have a slightly lower click-rate. Partner communications and program updates (staffing changes and job opportunities) tended to have lower click-rates.

CF3 Website
As previously reported, an update was completed in January 2018 to improve the ease-of-use of the CF3 website. Specifically, the update made the website more mobile-friendly; added a resource filter for users to better search and filter through resources; updated the Medicaid Calculator tool to project how Medicaid reimbursements may affect a dental practice's income; re-organized tabs to better direct diverse users to get the information they need; and added a Google analytics account to track website usage and better tailor it to users' needs.

Between August 1, 2018 and May 19th, 2019, there have been 2,642 users, with 2,611 new users and 3,388 sessions. The home tab received the most views (n=2,707, 35%) *Resource* tab in second (n=1,884, 24%)

followed by *How To Implement* (n= 707, 9%). The number of users and sessions has continued to grow as compared to the last reporting period (2,642 compared to 1,527 users last reporting period).

This increase in website traffic supports the hypothesis that the improvements in user interfaces, such as becoming mobile-friendly and improving readability and searchability of the site, would increase the ability for partners to find and use CF3 resources. Colorado plans to continue to use the website as a tool to boost partner engagement and CF3 implementation sustainability.

A-5 Increase the number of primary care medical and dental professionals in identified health systems who can provide oral health education and services for pregnant women and young children.

During the lifetime of the grant (2015-present) CF3 provided trainings to 2,103 individuals. Of those individuals:

- Total medical providers: 378
- Total dental providers: 245

A-6 Increase the number of health professional students trained in CF3 that results in increased workforce readiness. Identify the proportion of students who implement the CF3 model into their practices.

During the lifetime of the grant (2015-present) a total of 738 students were trained in the CF3 model. As previously reported, it was not feasible to track the proportion of students who implement the CF3 model into their practices due to a variety of reasons including difficulty tracking those students over time (response rates and contact information), a good proportion of students practicing out of state, and the low locus of control many students have when first practicing as health professionals in a new practice. During the grant period the CF3 Advisory Board members advised the CF3 team to not expend resources and energy in this objective but rather to focus on other opportunities for supporting sustainable implementation.

A-7 Collaborate with Colorado's Primary Care Office to train new Colorado Health Service Corps and Dental Loan Repayment Program loan recipients in CF3 that results in increased workforce readiness.

Colorado primary care providers working in designated health professional shortage areas can receive funding to repay qualifying educational loans. CDPHE's Primary Care Office (PCO) manages both the Colorado Health Service Corps (CHSC) and the Dental Loan Repayment Program (DLRP). The contracted health care professionals serve high-risk populations, making them ideal candidates for CF3 training.

As previously reported, all new loan repayment awardees receive CF3 information in their "Welcome Email" and are added to the CF3 newsletter distribution list. In addition, CF3 training information is included in PCO's quarterly newsletter, which is distributed to approximately 1,500 individuals. CF3 collaborated with PCO to present to student groups together to promote workforce readiness and help providers identify opportunities to work in communities with a shortage of providers. CF3 will continue to work with PCO on presenting a newly developed curriculum (previously reported) to dental hygiene programs.

As an example of our collaboration, a CF3 partner recently reported that one of their only dental providers who take Medicaid had stopped accepting new patients. PCO manager offered to reach out to dental providers in the area and provider information on dental loan repayment plans as the area was a health professional shortage area.

Colorado Health Service Corps (CHSC)

CHSC awardees deliver primary health care services in a public or nonprofit clinic that accept public insurance and offer discounted services to low-income, uninsured patients on a sliding fee scale. The

Colorado Health Service Corps uses HRSA state loan repayment program funds as match funds for loan repayment awards.

Currently, CHSC maintains 333 active contracts of which 53 contracts are with oral health providers or 16.4% of total program field strength. There are active contracts with 34 DDS/DMD and 19 RDHs.

Dental Loan Repayment Program (DLRP)
Eligible DLRP providers include general dentists, pediatric dentists and dental hygienists. The providers must work in a public, nonprofit, or private dental practice in Colorado and serve some patients receiving public insurance and/or who are uninsured. Applicants are ranked on a scale from 0-100, with seven points granted to applicants who have completed CF3 training. The DLRP manager validates CF3 training participation with the CF3 program's training participants report spreadsheet. Currently there were active contracts with 39 DDS/DMD and 4 RDH, 25 of which are CF3 trained.

National Health Service Corps (NHSC)
NHSC physicians and dentists commit to providing primary health care in the HPSAs with the greatest need. Currently there were 173 NHSC clinicians practicing in Colorado. Of this active field strength, 36 are dental clinicians (20 DDS/DMD, 16 RDH), 11 of which are CF3 trained.

Objective B: By July 31, 2019, CDPHE will increase delivery of best practices of oral health care for pregnant women and young children (birth to age five).

B-1 Utilize QI processes to make rapid and incremental changes to revise CF3 training curriculum to incorporate: more engaging materials and presentation methods; current best practices for delivering culturally appropriate oral health services; current best evidence-based practices; and information about facilitators and barriers to the CF3 intervention.

During the lifetime of the grant, the CF3 team has learned significantly from PIOHQI approach. The resources and training provided by Frameshift group and others have guided the CF3 team to systematically identify areas for improvement (root cause of the problem), and test solutions on a small scale to determine what leads to improvement. The CF3 team has adopted the use of specific tools to help follow this approach both for internal improvements and work with our stakeholders. For example, the Before Action Review and After Action Review (BAR/AAR) is a tool useful for being explicit about intended results. The questions in the guide prompt thought about what intended results will look like and the underlying assumptions held about how to get there. The tool also encourages important reflection on what actually caused the results, and on what to sustain or improve in the future. It has guided the CF3 team on everything from how to improve the quality of our meetings, to updating the CF3 curriculum, and making better use of CF3 Advisory Board members.

As an example of how the CF3 team uses the PIOHQI approach to continually evaluate program and processes, in May 2019 the CF3 team spent a half day of dedicated time to QI for program evaluation and improvement. This included completion of a SWOT analysis and a customer journey mapping exercise to evaluate the communication tools and processes used when scheduling a training and providing technical assistance to pediatric medical practices. As a result, the CF3 team plans to make specific improvements to improve customer experience, follow-up and the sustainability of implementing preventive oral health services in this setting. This includes 1) updating CF3 readiness assessment, 2) development of charter or agreement to implement if a clinic/practice requests training, 3) setting the expectation for additional follow up contact with CF3 team after training to monitor implementation, and 4) providing a menu of QI/Technical Assistance options that a CF3 team member can provide to clinic needing additional help.

B-2 Administer and manage a system to evaluate the impact of CF3 training on providers' behaviors and practices.

CF3 Evaluation Data Collection
As previously reported, the CF3 evaluation includes a pretest that collects robust baseline data about training participants' current delivery of eight oral health services in their practices and their demographic

information, and follows up with a post-test to measure the impact the training had on the trainees' behaviors and practices (See Evaluation Section). CF3 has been collecting pre/post data since July 2015. The most recent post-test data analysis is still from September 30, 2017 due to low response rates from providers. This portion of the CF3 evaluation will be discussed and revamped in the future to reflect the changes outlined in processes discussed in B-1 section above.

Between July 1, 2015-September 30, 2017, 693 medical/dental providers and medical/dental assistants received the post-test survey and 195 have fully completed the post-test survey, for a 28% response rate (correction of statement and response rate). To date, results suggest that CF3 training is positively impacting providers and staff oral health practices and behaviors. Please see the Evaluation Section III for more detailed results.

QI Laboratory Data Collection

Survey Data

During the lifetime of the grant, four QI laboratory sites were surveyed to collect provider knowledge and beliefs about providing oral health services to pregnant patients and to gather information to guide clinical quality improvement efforts. These include: Denver Health Westside, Denver Health Eastside, and University Nurse Midwives (UNM) and Center For Midwifery (CFM) Clinics (the former two both CU College of Nursing midwifery clinics).

The CF3 team has learned that sharing this information back to leadership in a digestible format has had great success. Typically the format has been a one page data snapshot and/or a powerpoint presentation. As previously reported, data from one summary gave leadership demonstrable data that there was a need to continue to improve provider knowledge on the safety of oral health services through continued education. This led to an informal policy to onboard all new staff with *Smiles for Life* online modules.

In December 2018, the CF3 team held a kickoff meeting to launch learning laboratories at the CU college of nursing midwifery clinics (both UNM and CFM). The pre-test of knowledge and belief about providing oral health services to pregnant patients was administered prior to the staff completing recommended training and receiving guidance around the project. The data was very telling of the for training, with only 10% of Certified Nurse Midwives reporting they were confident in their training to provide oral health services to pregnant patients and 90% reporting the current level of care coordination between their office and the dental providers as poor or fair. See the data snapshot (Attachment 5). The final post survey for all four sites will be administered at the end of June 2019 and the CF3 team plans to report these data back to sites in a similar fashion.

Clinical Billing Data

During the lifetime of the grant, data was collected from the two co-located medical/dental learning laboratories using billing codes to track percent of pregnant patients that actually received oral health services within the same system (see Evaluation Section III and Attachment 2).

Three years of data were pulled for baseline data, and then monthly data tracked during the course of the project. Generally, it was observed that four times as many patients received dental services during pregnancy compared to baseline when a QI approach was used to implement education, screening and dental referral processes in the prenatal office (start date for two clinics varies, see Evaluation Section III Attachment 2).

Other stand-alone medical sites tracked the proportion of prenatal patients screened using the CF3 prenatal oral health risk assessment tool the CF3 team developed (previously reported) as well as the number of dental referrals completed for those screened. UNM and CFW, who were trained in December 2018 and rolled out new processes in January 2019, have already improved their screening rate by threefold, reaching 36% and 33% respectively in May 2019 (up from 12% and 7% the first month of data collection). These numbers are believed to underreport screening and referral rates as midwives continue to forget to add the diagnosis code which facilitates pulling the data.

B-3: Collaborate with the state Medicaid agency to require primary care providers be educated and certified in order to be reimbursed for oral health services by Medicaid & CHP+.

As previously reported, this policy has not changed. Oral Health Unit staff continue to monitor DentaQuest's Office Reference Manual updates and Medicaid Provider Bulletins to ensure accurate policy documentation.

B-4 Identify and use strategic partnerships to increase the communication, collaboration and learning about oral health issues among medical, dental and public health professionals, and oral health advocates.

Internal Partners

CF3 has established itself as a viable program within CDPHE and earned the reputation as the state's authority on preventive oral health for young children and pregnant women. CF3 staff participate in several CDPHE internal work groups and meetings. These include (but are not limited to):

Oral Health Unit (OHU) CF3 is administered in the Oral Health Unit. Program staff continue to consult with the state fluoridation expert to address community barriers related to community water fluoridation and provider questions.

Maternal Child Health (MCH) CF3 remains engaged in MCH work groups despite that oral health was dropped from MCH state priorities in 2015. CF3 staff serve as subject matter experts to CDPHE, Prevention Services Division, MCH and related programs and consult with MCH to align messaging. By continuing to attend these meetings, including the Perinatal Workgroup, and building relationships with prevention partners, CF3 staff has been able to increase communications and alignment of best practices. One example of alignment across internal programs was consulting with the CDPHE breastfeeding specialist. As a result of her recommendation, and with the help of OHRC consultant Susan Lorenzo, the CF3 team compiled the research and rationale and proposed to our advisory board a recommendation to eliminate the on demand breastfeeding risk factor in our Caries Risk Assessment.

In addition, on June 14th, 2019, CF3 team participated in the Maternal Wellness and Infant Health Summit as an important stakeholder and partner to inform the work for the Maternal and Child Health Block Grant for the upcoming 2021-2025 cycle. This convening involved collectively reviewing the current data and developing a preliminary list of key issues for the MCH team to focus the needs assessment and prioritization process. CF3 submitted oral health data on both maternal and infant/child populations detailing prevalence/incidence, severity, urgency, equity and disparities, feasibility and impact. This data was reviewed at the Summit.

External Partners

Colorado Community Health Network (CCHN) - Primary Care Association. Colorado has strong ties with CCHN, meeting regularly with staff to align work activities and goals. CF3 training information is included in CCHN's newsletters and electronic (information) blasts to partners. Recently CF3 staff has been working with CCHN to engage Community Health Centers (CHC) to deliver Cavity Free at Three services. For example, the CCHN dental coordinator requested a list of CHCs that have been trained by Cavity Free at Three in the last 3 years in order to target recruitment efforts. On January 10, 2019 the Perinatal and Youth Oral Health Manager and Cavity Free at Three Coordinator presented to the dental directors at CCHN's Tri-annual meeting. The presentation included a reminder of the Cavity Free at Three mission, a mention of the most current research and recommendations around fluoride varnish applications, and a list of ways the CHCs could request training, technical assistance or collaboration with Cavity Free at Three on quality improvement projects regarding oral health. The directors were given a brief survey to inform CF3 follow-up efforts. Of the 15 respondents, 9 dental directors requested a follow-up conversation about technical assistance opportunities offered by CF3, 2 reported already working with CF3, and 4 said maybe later or not at this time.

Additionally, CCHN's Oral Health Specialist continues to serve on the CF3 Advisory Board and has been engaged in regular phone calls with CF3 staff to communicate when CHCs are interested in trainings and to align technical assistance and quality improvement efforts as some of CCHN staff are serving as coaches

to clinics working on oral health integration through the Colorado Medical Dental Integration project funded by the Delta Dental Foundation of Colorado.

Bright By Three (BB3) BB3 is a Colorado nonprofit aiming "To provide a bright beginning for all Colorado children by helping families support their children's physical, emotional, and intellectual development during the critical first three years of life." BB3 offers free text messages to parents of young children with research-based child development information created by experts. CF3 has had an established partnership with BB3 since 2014 and continues to support oral health messaging through their Bright By Text (BBT) Campaign. This campaign reaches pregnant women with texts focusing on their health and preparing them for the arrival of the baby during pregnancy. The CF3 team contributed oral health related messaging to the rollout of the BB3 prenatal text campaign which will send enrolled participants texts at weeks 28 and 32. These messages currently reach have reached 511 pregnant women since the launch in 2017, across Colorado and many other states.

B-5 Identify and engage a network of multidisciplinary, licensed health care providers as certified CF3 master trainers to provide peer-to-peer presentations in communities identified in the community assessment.

CF3 Master Trainers
Cavity Free at Three Master Trainers are licensed health care providers who have been trained by program staff to deliver CF3 trainings. Training occurs at the annual CF3 Master Trainer certification session. Master Trainers are responsible for providing peer-to-peer training sessions to health care providers. In addition, they help spread the CF3 model in communities and act as program advocates.

During the grant period (2015-present), Master trainers delivered 134 trainings across the state of Colorado.

Regional Oral Health Specialists (ROHS)
As previously reported, through a HRSA Workforce Grant, CDPHE Oral Health Unit contracts with four Local Public Health Agencies in rural communities to prioritize oral health. These agencies have each hired a dental hygienist who serves as a Regional Oral Health Specialist (ROHS). Work priorities include that the ROHS become certified CF3 Master Trainers and deliver CF3 trainings. CF3 staff work closely with the ROHS to support CF3 training activities and deliver regular programmatic updates to the ROHS.

During the life of the grant period, ROHS have done 31 trainings for the CF3 program.

B-6: Host a Master Trainer train-the-trainer session and regular master trainer updates to build the trainer network and to facilitate and assure accurate and current information is presented during trainings.

As mentioned, the Cavity Free at Three Master Trainer Certification Session is held annually. To maintain program fidelity, Master Trainers receive a handbook with instructions, copies of the slides with presenter notes, flash drives with approved CF3 slides, and a FAQ sheet to help them answer questions with responses vetted by the Maternal Child Health branch, the Oral Health Unit, and other CDPHE programs.

To build a larger network of trainers and ensure the sustainability of the program the CF3 team took a different approach to recruiting, managing and updating CF3 Master Trainers in 2019. CF3 hosted the annual Master Trainer update session virtually for trainers who were recertifying. This was much appreciated by many Master Trainers, especially those who normally have to travel long distances for this certification, usually with no compensation.

For new trainers, the CF3 program will host two different sessions focusing on recruiting trainers who are employees within a health system with the idea that they would serve as an embedded Master trainer to train internal staff on an ongoing basis. In May 2019, the CF3 team trained eight embedded Master Trainers on the western slope/central mountain region of Colorado and at the end of June 2019, the CF3 team will train an additional 6-7 trainers in southwest Colorado. These trainings have purposely been hosted in rural areas outside of the Denver metro area in order to reach health systems that could most

benefit from the model. In addition, CF3 staff has hosted individual one-on-one sessions for a few other trainers as needed.

B-7: Develop a peer-to-peer mentorship program between experienced CF3 trainers and new CF3 trainers to encourage collective responsibility for sustaining and maintaining the CF3 program model and expand the capacity of CF3 to provide comprehensive technical assistance to CF3 trainers.

The CF3 program encourages peer-to-peer mentorship at our update events by giving time for social networking, facilitating icebreaker activities, and having experienced Master Trainers help present content to newer trainers. For example, at new certification sessions an experienced Master Trainer delivers the full curriculum as a model for new trainers.

To encourage a collective responsibility for sustaining and maintaining the CF3 program model, CF3 staff facilitated a coaching session on developing an elevator speech to advocate for the CF3 program at the trainer update in March 2019. CF3 staff also collected advice from experienced Master Trainers and compiled compelling quotes to continue to share at new certification sessions.

Objective C: By July 31, 2019, CDPHE will engage pregnant women and parents of young children in oral health.

C-1: Evaluate oral health messages in existing internal and external programs/partnerships that work with the target population and coordinate messaging.

CF3 team members continue to offer oral health expertise to internal and external partners, both formally and informally. For example, the CF3 team helps coordinate messages regarding perinatal oral health and prevention strategies to project staff and grantees of the CO MDI project.

The CF3 team also continued to collaborate with internal MCH partners, as discussed in B-4 above. Because of these collaborations, as previously reported, CF3 continued to distribute the positive results of the CF3 model evaluation and the improvements in young children's oral health throughout Colorado's maternal and child health network.

C-2: Evaluate and coordinate messaging with community outreach representatives of Medicaid's dental health plan vendor (DentaQuest) serving pregnant women and young children.

DentaQuest has continued to focus on increasing sealant utilization as part of its contractual outcomes with the state Medicaid Office. CF3 continues to offer oral health messages. The Dental Director and Perinatal and Youth Oral Health Manager have regular communication with DentaQuest representatives to share information and increase connections.

C-3: Collaborate with Colorado's Regional Care Collaborative Organizations (RCCO) to prioritize oral health services for pregnant women and young children and to educate key personnel/case managers regarding oral health and the importance of dental home

During previous reporting periods, the Oral Health Unit (OHU) engaged the Denver metro area RCCO to discuss increasing oral health services for perinatal populations. Unfortunately, due to lack of funding to support additional infrastructure within the RCCO to implement strategies for pregnant women and young children, no activities were completed. However, the OHU received a grant from the Centers for Disease Control and Prevention (CDC) to draft a RCCO model supporting care coordination and data analyses for diabetic patients across medical and dental systems. This project, funded by the CDC 16-1609 Models of Collaboration pilot grant, led to discussions of future work to support perinatal population care coordination to dental homes. Colorado plans to seek funding to expand the RCCO diabetes work to both the perinatal population and to patients with cardiovascular disease. As Colorado's Accountable Care Collaborative (ACC) Phase 2 begins implementation late during next reporting period, the OHU and HCPF expect additional opportunities to engage the regional Medicaid entities to support perinatal oral health

interventions. These collaborations have only just begun due to the complexities required for the regional entities to implement new HCPF standards and policies.

As part of the ACC Phase 2 roll out, the RCCO model was revised, and Colorado now has Regional Accountable Entities (RAEs) implementing Medicaid. Five of Colorado's six (RAEs) have expressed interest in supporting improved oral health for pregnant women and young children. CF3 is working on a model of how to collaborate and partner with the RAEs to help them achieve their goals around oral health, especially in regard to the new dental key performance indicator (KPI) that is part of the incentive based payment structure for ACC phase 2 roll out.

Beginning in late 2018, CF3 began working with Colorado Children's Healthcare Access Program (CCHAP) practice improvement coaches in RAE regions 3 and 5 to identify high attribution/low billing providers to increase quality implementation. This work around the CF3 model was made possible by leveraging RAE interest in the financial incentives linked to the dental KPI and other incentives such as the Maintenance Of Certification (MOC). This included QI support such as 1) retraining, 2) clinic observation/staff interview and recommendations, 3) process mapping, and 4) PDSAs. Standard performance measures and QI tools are also being developed collaboratively with the Colorado Children's Health Access Program (CCHAP) coach who is a certified portfolio sponsor, in order to encourage MOC projects around implementing or improving the CF3 model.

The CF3 team hopes that this work will inform a model of how CF3 can offer support to other RAEs in the future. CF3 has plans to identify new ways to engage RAEs and connect clinics in technical assistance activities to ensure they are implementing CF3 services effectively and have access to help.

Objective D: By July 31, 2019, CDPHE will support sustainability of oral health services to pregnant women and young children (ages birth to age five).

D-1 By July 31 of each project year, identify, guide the creation of, and evaluate policies that ensure sustainability of health systems change for oral health interventions related to pregnant women and young children.

Collaboration with Health Care Policy and Financing (HCPF)
As previously reported, HCPF states that its policy priorities do not include those identified by CF3. Colorado continues to work on two specific priorities to concentrate efforts:

- Un-pair Medicaid reimbursement for CF3 related codes from well child visits in primary care settings
- Support adoption of USPSTF recommendation on oral health including adoption of services in medical insurance coverage

Additionally, throughout this grant cycle, CF3 staff and the Advisory Board have been focused on the following policy changes:

- Increase state funds for preventive oral health programs (including CF3)
- Adding dental benefits for pregnant women enrolled in Child Health Plan Plus (CHP+) medical plan
- Include oral health services in the public health nurse Medicaid exemption, which would allow public health nurses to become billing providers and increase sustainability of CF3 within local public health agencies

The OHU worked with Oral Health Colorado (OHCO), the state oral health coalition, to provide data and research regarding the above policies. During the 2018 legislative session, OHCO successfully increased

the OHU's state appropriation by $500,000 annually. This funding was intended to help continue CF3 activities once the HRSA PIOHQI and foundation funds ended, while also supporting sealants and water fluoridation. During the 2019 legislative session, a dental benefit was added to the CHP+ benefit for pregnant women, allowing approximately 700 otherwise-ineligible women to receive oral health services every year. Unfortunately, due to lack of foundation support, OHCO may not have the capacity to continue policy efforts to support oral health in the future.

The OHU has also been outreaching to the Colorado Association of Local Public Health Organizations (represents local public health agencies) to advocate for some of the above policy changes. These collaborations should support these policy changes and increase the sustainability of CF3 interventions.

HCPF dental staff have committed to discussing these potential policy changes with other Medicaid staff to understand and address the perceived increase in costs for the medical Medicaid benefit if these policies are implemented. The OHU is working with CDPHE's health economist, evaluators and CF3's external evaluator to continue planning a cost benefit analysis based to demonstrate that an increase in medical Medicaid utilization for CF3 services should lead to decreased dental restorative costs and potentially decreased medical costs for operating room dentistry. Originally, the OHU had planned a Colorado-specific analysis. However, the CF3 external evaluator was not able to take on this project a year and a half ago.

The OHU now plans to use information from other states doing similar analyses to extrapolate cost savings estimates. The OHU has added aggregation of utilization codes for operating room dentistry to the data sharing agreement with the Medicaid Office. While the analysis most likely will not be completed until 2020, CF3 expects that the conclusions will support policy changes to support program sustainability.

D-2 Implement and maintain a QI program to inform program improvements and technical assistance provided by staff.

As outlined in B-1, the CF3 team has learned significantly from PIOHQI model on how to use a QI approach to inform improvements and technical assistance both with the learning laboratories and internally within the CF3 program.

The CF3 team recently identified a need for additional training for the team members providing TA to external partners who have been trained in the clinical model previously but struggled to implement the model (for example, through work with the RAES, see section C-3). Through an informal gap analysis as part of a recent QI process for program improvements (See section B-1), it was decided it would be useful for CF3 staff to understand the principles of change management. The technical assistance CF3 staff provides often involves asking individual providers within clinics to change a process in their work; thus understanding the people-side of change (including reasons for and how to address resistance) is equally as important as understanding the QI approach of how to test and collect data on a change to know if it is working. The CF3 coordinator and CF3 supervisor took a three day course on the Prosci ADKAR change management model in early June of 2019, and the program assistant took a one day course on the same.

The CF3 team also identified a gap in our knowledge around Medicaid billing after the prior CF3 supervisor left. To address this need, a training with a Medical billing consultant was arranged to clarify some of the difficult questions partners ask CF3 to help with around billing oral health services in both the medical and dental setting.

In launching additional QI laboratory sites in a third health system in December 2018, CF3 staff implemented the use of additional QI tools including 1) a charter signed by the champion and clinic supervisor (see Attachment 3) and 2) an implementation action plan to track tasks and progress (see Attachment 4). The addition of these tools was in part in response to difficulties CF3 staff had with the second health system that launched a pilot site. Because there was no official or financial contract with set deliverables and expectations, tracking tasks and getting data from this system was more challenging. At first it wasn't clear at first what the financial relationship would be with this third health system, University

of Colorado. And although in the end a contract was executed, these tools facilitated smoother communication and expectations among all those involved.

D-3: Develop a plan and implement QI laboratory pilot project to build a framework for increasing access to dental care for pregnant women within a clinic and/or health system setting.

Over the course of the grant, the CF3 program team have planned and implemented QI laboratory pilot projects within three distinct health care delivery systems and across soon to be six clinical sites: two co-located medical and dental FQHCs, and four standalone medical clinics offering prenatal care. It was the CF3 program goal to increase dental service access for pregnant women and inform best practices in order to replicate the model in similar settings for an eventual statewide reach.

At the onset of the grant, the CF3 program considered how best to raise awareness around the importance of prenatal oral health with its stakeholders. It was decided not to expend resources to convene a state workgroup and publish Colorado-specific oral health guidelines around pregnancy. Instead, CDPHE referenced and promoted the *National Consensus Statement on Oral Health During Pregnancy* and its many professional and expert endorsements, including those of the American College of Obstetricians and Gynecologist (ACOG) and American Academy of Pediatrics (AAP).

The CF3 team utilized the National *Smiles for Life* (SFL) online training curriculum to help provide clinical training to the medical and dental providers at the QI sites. SFL provided references to the most up-to-date research around prenatal oral health. Finally, the *National Maternal and Child Oral Health Resource Center* has served as a clearinghouse of ongoing evidence and updates during the project.

The CF3 program intentionally collaborated with health care delivery systems that serve high-risk populations, seeking to increase dental access to those most in need of services. The first pilot site evolved naturally through a long-time partnership with Dr. Patricia Braun, an original member of the CF3 Advisory Board, and a long-time champion of oral health integration into primary care settings both locally and nationally. Dr. Braun is a pediatrician and employed at Eastside Clinic, a FQHC connected with Denver Health and Hospital Authority, the largest safety net health care delivery system in Colorado, serving one in four Denver residents. The Eastside Clinic provided a unique opportunity because it's co-located dental and medical services had plans for integrating a dental hygienist into their medical team through a Delta Dental Foundation of Colorado grant. With Dr. Braun's facilitation, the CF3 program was able to secure a contract relationship to begin the work of the QI laboratory and align its activities with the work that was already taking place at Eastside. The CF3 team named this pilot and the ones that would follow the Prenatal Oral Health Partnership. Eventually, the model was expanded to another FQHC within Denver Health, Westside Clinic.

The third pilot site and second health system came about as a result of CF3's work in children's oral health. Poudre Valley Prenatal (PVP) Program serves low-income women at a private Family Medicine Clinic, which itself is part of the UCHealth system. This clinic had received training from CF3 program to provide preventive oral health services to infants and toddlers in the primary care setting. When the clinic's leadership heard about the CF3 prenatal oral health work, they voluntarily signed on as a pilot site.

Finally, another CF3 board member recruited CNM Shannon Pirrie to join the CF3 Advisory Board where she heard about the Prenatal Oral Health Partnership pilots. As a doctoral midwifery student and midwife at a clinic primarily serving refugees, Ms. Pirrie provided the leadership, time, and effort to expand the work at several clinics within the University of Colorado College of Nursing Midwifery. This included University Nurse Midwives (UNM), a practice affiliated with the University of Colorado College of Nursing and administered out of a UCHealth Hospital primary care clinic. The UNM practice sees about 500 patients a year, including a significant refugee patient population, and is comprised of patients who are primarily covered by Medicaid. The midwives work closely with another private midwifery practice with two clinic locations, The Center for Midwifery (CFM)*,* as well as two prenatal practices associated with the University, the Residency program, and an OB/GYN practice University Women's Care. Ms. Pirrie is hopeful that all four practices can eventually incorporate oral health screening, education and referral, especially if UNM and CFM lead the charge to test the new and improved processes.

<u>Timeline</u>

At the beginning of launching the pilots there was substantial preparation and delay due to contracting logistics. Additionally, it was challenging to identify the data parameters needed to determine how many pregnant women had at least one dental visit both for baseline comparison and for monthly data pulls at Eastside Clinic. The project staff wanted to stratify the different preventive and treatment CDT codes to understand the nature of the treatment pregnant women were receiving. Both of these tasks required lengthy correspondence and multiple in-person meetings. The first pilot site at Eastside Clinic was officially launched in September 2016.

The CF3 team has determined the launch of a pilot site includes the following tasks: 1) Identify a clinic champion and form a leadership team for ongoing meetings to address quality improvement, 2) schedule an all staff kickoff event that included staff-led goal setting for the first year of the project, 3) execute a contract (when applicable), and determine data parameters for ongoing data reporting, 4) administer a pre-test to evaluate staff knowledge and beliefs on providing oral health services to pregnant patients,* and 5) require providers to complete the online SFL training course and provide a forum for follow up guidance and discussion.

*Poudre Valley Prenatal declined Pre-test

Year	Denver Health Eastside Clinic FQHC	Denver Health Westside Clinic FQHC	Poudre Valley Prenatal (PVP) UCHealth	CU College of Nursing Midwifery (UNM/CFM)
2016	Launched September 2016			
2017			Training/Kickoff December 2017	
2018	March 2018- Year 2 launch with kickoff, training requirements and revised goals	Launched January 2018	Launched May 2018	Launched December 2018

April 2016 – Began discussions and edits on scope of work for a contract between CF3 Program at CDPHE and Denver Health Eastside Clinic.

July 2016 – Work on data parameters for Eastside baseline data pull began.

August 2016 – Integrated hygienist hired at Eastside clinic.

September 2016 – Official launch of Denver Health Eastside FQHC pilot (training, kickoff meeting, pre-test administered to staff).

September 2016 – Eastside Clinic medical and dental staff made the decision to create direct referral process to co-located dental clinic rather than giving the patient call center phone number for scheduling.

December 2016 – April 2017 – Ongoing adjustment of monthly data pulls parameters.

December 2016 - Denver Health Patient Education booklet "It's All in The Delivery" updated to reflect current oral health recommendations during pregnancy. This booklet is given to every prenatal patient in the Denver Health Hospital system, which serves approximately one in three births in Colorado.

January 2017 – Smart/Dot Phrase used to insert 3-question prenatal oral health risk assessment into patient note in electronic health record.

Jan 2017 – The process for submitting a Prior Authorization Request (PAR) to Medicaid for dental procedures was made electronic and therefore streamlined the amount of steps required by staff to submit, and expedited the time it took to receive approval or denial.

March 2017 – Integrated hygienist saw first patient (Radiography equipment limited, still much collaboration with co-located dental clinic).

April 2017 – Denver Health leadership decide to abandon requiring midwives to do a head, ears, eyes, nose, and throat (HEENOT) oral evaluation and only focus on oral health education, screening (three question risk assessment), including referral during the prenatal intake visit and utilizing nurse to provide this touch point. Midwives will still tell patients oral health is important (especially if the nurse identifies an issue during intake), and follow up at later visits to ask if they have gone to the dentist, but they will no longer be doing clinical assessment.

May 2017 – SFL modules standardized as a requirement for onboarding new staff at Denver Health Eastside clinic.

December 2017 – Began incorporating integrated hygienist into prenatal intake visit at Eastside. Hygienist does fluoride varnish application, screening and schedules directly with herself or dental clinic depending on pregnant patient's need.

December 2017 - Kickoff meeting of Poudre Valley Prenatal (PVP) program, UCHealth Family Medicine Clinic, Fort Collins in Northern Colorado.

January 2018 - Official launch of Denver Health Westside Pilot Site.

January 2018 - Eastside year 2 Survey administered to staff.

Feb 2018 - New referral process with financial counselors mapped at Denver Health Westside.

March 2018 - Eastside launches second kickoff with goals around preventive services and treatment complete metrics.

May 2018 – Chart review conducted to guide PDSA efforts at Eastside.

May 2018 - Official Launch of PVP activities and data collection.

September 2018 - Dental referral incorporated between Denver Health medical (EPIC) and dental (Wisdom) EHRs – no longer have to hand tally.

December 2018 - Official kickoff and launch of CU College of Nursing Midwifery Pilots at UNM and CFM.

January 2019 – Referral relationship established between UNM Clinic and Worthmore Dental Safety Net Clinic.

January 2019 – An integrated hygienist saw her first pregnant patient at Westside clinic as part of the COMDI project. Because of its experience with the Prenatal Oral Health partnership, Westside Clinic chose to exclusively serve pregnant women when using their COMDI funding.

February 2019 – Referral relationship established between CFM Clinic Longmont and Dental Aid.

May 2019 – Contract executed to obtain official data pulls From CU College of Nursing Midwifery UNM and CFM clinics, received data from February-May 2019.

Developing a Change Package

The CF3 team has developed a change package from lessons learned with the pilots. It was decided this change package should be as short, compelling and useful as possible to ensure it was accessible and user-friendly.

The sections include 1) background/rationale, 2) specific AIMs 3) a theory of change diagram with change concepts and specific change ideas 4) a list of change strategies and examples of changes to test 5) links to tools/how to guides 5) a list of 8 implementation steps 6) recommended measures 7) 4 tasks to ensure sustainability. It also includes two quotes from clinics who have implemented the work. The guide is 4 pages long and currently being designed by the CDPHE communications team and should be completed by the end of July 2019.

D-6 Participate in the PIOHQI National Learning Network (NLN). Identify and disseminate lessons learned with other grantees and PIOHQI NLN.

Throughout the life of the grant the CF3 team actively participated in the PIOHQI NLN activities. The team prioritized webinars and has participated in the QI interest group as well. CF3 "shared seamlessly and stole shamelessly" with other members of the NLN. The team regularly responded to email requests via the PIOHQI list serve and has fielded several individual requests as well. This has spilled over into support for related oral health work going on in other states. For example, the Colorado team had a 1-hour phone conference with the Wisconsin State Oral Health program to give advice around medical dental integration. Additionally, a CF3 Advisory Board member and prior evaluator served on the review team for a Virgina white paper on the return on investment (ROI) of fluoride varnish application in the infant and toddler population. This included sharing some Colorado data for the analysis. This paper is due to be published in the summer of 2019, and the CF3 team hopes to use the model developed to extrapolate ROI for Colorado program as well.

Objective E: By July 31, 2019, CDPHE will enhance, synthesize, and communicate statewide data sources with timely and common metrics to inform quality improvement projects that increase access and utilization of oral health services for pregnant women and young children.

E-1 Solidify interagency data sharing agreement between HCPF and CDPHE is current and signed by both agencies.

CDPHE maintains an interagency data sharing agreement (IA) with HCPF, which serves many programs within CDPHE. During this reporting period, the document was signed, although due to HCPF staffing vacancies, oral health quarterly data reports have yet to be delivered to CDPHE. HCPF has delegated the overdue Medicaid utilization reports to its data vendor Truven to complete during the next reporting period.

E-2 Create and continuously update a data dashboard to synthesize and communicate the data to internal and external partners to inform programmatic improvements.

As previously reported, the evaluation team created a data dashboard in Tableau for data relating to CF3 including programmatic, community, and population level data sources. The dashboard's objective is to effectively disseminate and translate the data to program staff, internal partners, and external key stakeholders. To effectively disseminate data, there is an internal and external version of the CF3 dashboard. The external version of the dashboard contains information the public may find useful, such as monthly training numbers, quarterly pre/post data, a community assessment, and geographic impact. The internal version of the dashboard contains all of the information included in the external version plus information that is mostly pertinent to the CF3 team: long-term outcomes and CF3 trainee information (practice setting type and loan repayment information).

<u>E-3 - E5 Examine and determine the utility and representativeness of internal CDPHE data.</u>

See update under E-2.

<u>E-6 Administer CF3 programmatic evaluation surveys, tools, and methods to CF3 trainees.</u>

As previously reported, there are three primary data sources for CF3 training portion of the program. A pre-test and post-test survey are administered through a survey platform (Qualtrics) before and one to two months after training. Technical assistance inquiries relating to the skills taught at the CF3 trainings are tracked through an online customer service platform (Freshdesk).

The program continues to have conversations about how to increase the utility and depth of the technical assistance Freshdesk data and will be included in part of the program TA redesign discussed in section B-1.

c.   Participation in the COHSII led activities.

During the lifetime of the grant Colorado leveraged the expertise offered by the team NLN experts to ingrain the culture of QI into the CF3 team's daily work. Early in the grant, a site visit was very helpful for in-person QI coaching from Dr. Peggy Stemmler. This included a QI exercise she facilitated with the team on how to utilize our Advisory Board effectively. In fact, the CF3 program staff communicated regularly with Dr. Peggy Stemmler via phone conferences and email to discuss progress and ensure continuing momentum, in particular regarding the laboratory pilots. Her advice often included facilitating a BAR-AAR with CF3 staff.

Additionally, the CF3 team values the work and repository of research that ASTDD offers, and frequently visited the webpage for updates, best practice reports, research and webinars. Colorado recently participated in a Descriptive Best Practices Approach Report, submitting information about the PIOHQI laboratory pilots that was published on the website April 2019 (see other relevant documents).

d.   Contributions and Progress to the Strategic Framework

i.   Profile population needs, resources, and readiness to address the problems and gaps in service delivery
The project continues to make progress through:
- Access to timely data (Objective E), specifically activities related to the data dashboard
- Partnerships and training medical and dental professionals (Objective A)
- Resources (Objective C) and collaborating with partners. Objective E highlights the steps initiated to build a data dashboard with HCPF and work on the health department's interagency agreement to help ensure that data and reports guide this project

ii.   Mobilize and/or build capacity to address needs
The project continues to make progress through
  i.   Partnerships and training medical and dental professionals (Objective A)

iii.   Develop a strategic approach for implementation that utilizes a health care delivery system with statewide reach
The project continues to make progress through
  i.   Partnerships and training medical and dental professionals (Objective A)

iv.   Implement evidence-based prevention policies, programs and practices and infrastructure development activities
The project continues to make progress through
  i.   Partnerships and training medical and dental professionals (Objective A)
  ii.   QI tools and processes

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

The project continues to make progress through

        i.   Partnerships and training medical and dental professionals (Objective A)

      ii.   QI tools and processes (Objective). The CF3 team have developed an internal culture of QI with an established QI expert Lead, trained staff and developed tool templates such as PDSAs, A3s, Just Do Its, Scoping Documents, and BAR/ARRs.

    iii.   Data Sharing: Established an easy-to-use data dashboard for internal and external use. In addition, the team Data Analyst is an active and integral member of the program team and attends biweekly team meetings.

II.   SIGNIFICANT CHANGES

- Key Personnel: The CF3 Supervisor was hired September 2018 and the CF3 Program Assistant was hired February 2019
- December 2018 - Official training, kickoff and launch of CU College of Nursing Midwifery Pilots UNM and CFM Aurora clinic locations.
- January 2019 – Referral relationship established between UNM Clinic and Worthmore Dental Safety Net Clinic.
- COMDI launched at pilot site Denver Health Westside clinic. Hygienist saw first patient January 2019. Because of its experience with the Prenatal Oral Health partnership, Westside Clinic chose to exclusively serve pregnant women when using their COMDI funding, directly aiding in expansion and sustainability of pilot site.
- February 2019 – Referral relationship established between CFM Clinic Longmont location and safety net clinic Dental Aid. Training and launch still needed for CFM Longmont location.
- A contract with CU College of Nursing Midwifery, Regents UCD executed May 2019 for data from UNM and CFM clinics.

III. EVALUATION

Colorado's evaluation of program performance includes data from "Learning Laboratory" sites, two Federally Qualified Health Center (Denver Health) clinics, one private OB/GYN clinic (Poudre Valley Prenatal), and two CU College of Nursing Midwifery clinics where clinic quality improvement work and technical assistance is occurring to increase the number of pregnant patients who receive oral health care during pregnancy. A third CU midwifery clinic is scheduled to begin work soon, but no data is available. The data available per site varies and is reflected in the tables below. Please note, Poudre Valley Prenatal, does not report on pre/post and has provided limited clinic outcome data.

In addition, Colorado works with "Other Intervention Sites" by providing training to medical and dental health care providers, students, support staff and key partners to raise awareness and implementation of oral health care for children under the age of three and pregnant women. The objective of CF3 training is to ensure medical and dental practitioners provide oral health services to pregnant women and children. The training outlines a model which encompasses a variety of preventive oral health services including, but not limited to: caries risk assessment, oral evaluation, knee to knee exam, fluoride varnish application, and counseling/education (anticipatory guidance) with primary caregiver, all for children under age 3. The table below shows all "Other Intervention Sites" trained between August 2017 and May 2019, when reporting template was put into place.

a. Increase opportunities for access to oral health care.

Type and Number of Testing (Learning Laboratory) and Other Intervention Sites

Site Type	Number of Testing (Learning Laboratory) Sites	Number of Other Intervention Sites (August 2017 - May 2019)
Federally qualified health center; please list ob/gyn, pediatric, and dental clinics separately	1 -- Denver Health Eastside Clinic (OB and Dental office) 1 -- Denver Health Westside Clinic (OB and Dental office)	3 -- Denver Health Westside Pediatrics Clinic --Uncompahgre Medical Center -- Salud Family Health Centers
Local public health agency	N/A	3 -- Kit Carson County Department of Public Health and Environment -- Park County Public Health --Health District of Northern Larimer County
Private clinic	1 -- Poudre Valley Prenatal OB/GYN clinic)	19 --5th Avenue Smile Dental --Buena Vista Dental Care --Children's Hospital --Just for Grins Kids and Family Dentistry --Pagosa Medical Group --Telluride Center for Dentistry --Telluride Regional Medical Center --Toothtown Greeley -- Indian Crest Pediatrics -- Iron Horse Pediatrics -- Jody K. Private Practice -- Mountainland Pediatrics -- Salida Family Medicine -- Thompson River Pediatrics --Melissa Memorial Hospital --First Street Family Health --Canon Family Dental --Rose Pediatrics --Mainstreet Pediatrics
University	1 --CU College of Nursing Midwifery (University of Nurse Midwives and Center for Midwifery)	5 -- University of Colorado School of Dental Medicine --Aims Community College --University of Colorado Physician Assistant Program --CU College of Nursing --Rocky Vista University
Other, please specify (e.g., school-based clinic)	N/A	4 -- Auraria Dental Oasis -- Colorado Community Health Network -- Colorado Department of Public Health and Environment -- Tri-County Health Network

b. Increase opportunities for training on oral health care, including training on oral health clinical competencies. Describe changes in providers' knowledge, skills, and practices.

<u>Learning Laboratory Methods</u>
Colorado developed a pre/post/follow-up survey for the Prenatal Oral Health Partnership work occurring at the Laboratory sites to assess provider knowledge, perceptions, and practices related to the provision of oral health services for pregnant patients. The survey is used to guide clinical quality improvement efforts and recommendations for implementation and sustainability.

The pre-test was conducted with both Denver Health's Eastside and Westside clinics in January and February 2018, and with CU College of Nursing Midwifery in November 2018. Westside Clinic took their posttest in October 2018 with a follow-up survey scheduled in July 2019 to close out the project. Eastside Clinic and CU College of Nursing Midwifery are scheduled for their follow-up surveys in July 2019 also. Note, Eastside has been working on the project for about one year longer and has followed a similar survey schedule, however, their initial pretest was different and later revamped for the entire project.

Comparative analyses (paired or independent samples t-tests and chi squares) will be conducted to assess changes in provider knowledge, perceptions and practices. It is important to note, that each laboratory site started at different time points, these nuances may effect results for each clinic. Please see the Data Attachment for the latest pre and post survey results available for each learning laboratory site.

<u>Other Intervention Sites Methods</u>
In June 2015, Colorado developed an evaluation plan and data collection system to assess CF3 training outcomes using a pre/post survey. All training participants complete a registration (pre-test) survey online prior to training. The pretest collects robust baseline data about the participant's current oral health practices and demographic information. Then, one to two months after the training, a posttest is sent to all medical/dental providers who are able to bill for CF3 services and medical/dental assistants involved with clinical implementation of the CF3 model: medical providers (physicians, resident physicians, physician assistants, advanced practice registered nurses), dental providers (dentists, dental hygienists), medical assistants, and dental assistants. The main objectives of the posttest are to assess level of CF3 implementation, gauge facilitators and barriers to implementation, and identify any technical assistance needs. Analyses of this survey help inform the future design and enhance revisions to trainings and systematized technical assistance. The posttest data is tracked on the CF3 dashboard (https://www.colorado.gov/pacific/cdphe/Cavity-Free-at-Three-Dashboard). However, due to low response rates additional analyses have not been completed on pre-post data since December 2017. The CF3 program will be reassessing their evaluation strategies and plans for the CF3 training of other intervention sites in the coming year. A summary of key pre and post data is also provided in the Data Attachment (See Attachment 2).

Type and Number of Providers Receiving Training at (Learning Laboratory) – Denver Health, Eastside Clinic

Type of Provider	Number of Completed Pre-Tests	Number of Completed Training	Number of Completed Post-Tests
Primary care providers	0	0	N/A
Prenatal care providers	8	3	Post-test to be completed Summer 2019
Oral health providers	6	5	Post-test to be completed Summer 2019
Medical and dental assistants	6	5	Post-test to be completed Summer 2019
Other	3	3	Post-test to be completed Summer 2019

No new training or pretest, post-test, follow-up data have been collected during this reporting period for Denver Health - Eastside Clinic.

Type and Number of Providers Receiving Training at (Learning Laboratory) – Denver Health, Westside Clinic

Type of Provider	Number of Completed Pre-Tests	Number of Completed Training	Number of Completed Post-Tests*
Primary care providers	0	0	N/A
Prenatal care providers	12	8	10
Oral health providers	5	3	2
Medical and dental assistants	7	6	6
Other (front desk/office staff)	4	4	2

*Westside Clinic will be completing a follow-up survey in July 2019 to close out project.

Type and Number of Providers Receiving Training at (Learning Laboratory) – CU College of Nursing Midwifery

Type of Provider	Number of Completed Pre-Tests	Number of Completed Training	Number of Completed Post-Tests*
Primary care providers	N/A	N/A	N/A
Prenatal care providers	20	20	Post-test to be completed Summer 2019
Oral health providers	N/A	N/A	N/A
Medical and dental assistants	N/A	N/A	N/A
Other (front desk/office staff)	N/A	N/A	N/A

*CU College of Nursing Midwifery will be completing a post-test survey in July 2019 and this project will continue after HRSA funding ends.

Type and Number of Providers Receiving Training at Other Intervention Sites (CF3 Training) June 2015 – April 2019

Type of Provider	Number of Completed Pre-Tests	Number of Completed Training	Number of Completed Post-Tests*
Primary care providers (e.g., family physician, pediatrician, nurse practitioner)	291	291	195 of the 693 billable medical/dental providers sent the post-test have completed the survey since evaluation began in June 2015 – December 2017
Prenatal care providers (e.g., ob/gyn provider, midwife)	N/A	N/A	
Oral health providers (e.g., dentist, dental hygienist)	189	189	
Medical support staff			
Students (dental and medical)	601	601	
Other (e.g., community health worker)	1305	1305	

* Only billable medical/dental providers and assistants receive posttest to assess CF3 implementation. RN, LPN do not receive posttest.

No new post data has been collected and analyzed since December 2017 for "Other Intervention Sites".

c. Increase opportunities for outreach and oral health education.

Although patient education was part of the work at QI pilot laboratory sites, Colorado's PIOHQI initiative does not focus its evaluation on formal patient or pregnant women education. There is no data to report for this section.

d. Increase opportunities for utilization of oral health care.

Learning Laboratory Sites Oral Health Care Utilization Data

In 2016, the CF3 team began working with Denver Health's Eastside Clinic to implement the prenatal oral health partnership project and have expanded those efforts to Denver Health's Westside clinic and Poudre Valley Prenatal in 2018, and two of CU College of Nursing Midwifery's clinic sites (University of Nurse Midwives and Center for Midwifery) in 2019. The QI efforts are focused within the obstetrics and/or dental offices within the clinic sites. For those clinic sites that do not have an integrated dental office or provider, the CF3 team helps clinic's establish partnerships with community dental providers to serve as referral sites. The CF3 team provides training to the providers around the practice and safety of providing dental care to pregnant women and support quality improvement efforts within the clinics. The goal is to increase the percent of pregnant women who receive oral health care during pregnancy.

Electronic health record data are used to pull monthly and cumulative performance measures to help track progress of the QI project at the first two pilot sites. The CF3 team contracts with the health system's business analytics department to pull clinic data monthly for the project. Baseline data was established for each clinic by looking at the overall three year timeframe (3/30/13 – 3/30/16) prior to the start of the prenatal partnership project with Denver Health. For clinics without an integrated dental clinic, electronic health record or other programmatic tracking is conducted to continually assess the QI work implemented at the site. The period of service for outcome data is different for each clinic depending on project start date. As previously reported, the following data definitions are used for monthly and cumulative performance measures:

Clinical Data Definitions:

Denominator: Unique patients with a pregnancy ICD10 code who had at least one OB visit in reporting period.

Numerator: Dental visits/D-codes only counted if they occurred on or after the first OB visit in reporting period and up to:
a) If there is no DD/EDD, endpoint = 'last OB visit + 4 weeks.'
b) If the DD/EDD is before the end of the cumulative period, endpoint = DD/EDD.
c) If the DD/EDD is after the end of the cumulative period and if 'last OB visit + 4 weeks' is before the end of the cumulative period, endpoint = end of cumulative period
d) If the DD/EDD is after the end of the cumulative period and if the 'last OB visit + 4 weeks' is after the end of the cumulative period, endpoint = 'last OB visit + 4 weeks.'
e) If the DD/EDD is after the end of the cumulative period and if the DD/EDD is before the 'last OB visit + 4 weeks', endpoint = DD/EDD
f) If the DD/EDD is after the end of the cumulative period and if the DD/EDD is after 'last OB visit + 4 weeks', and the 'last OB visit + 4 weeks' is after the cumulative period end, endpoint = 'last OB visit + 4 weeks'

Definition of outcomes:
a) Education & Anticipatory Guidance is defined as the number of pregnant patients who attend intake visit where they receive oral health education and screening.
b) Preventive dental/oral health care is defined as any dental procedure code in the D1XXX range, which includes prophylaxis code (D1110), and the D4XXX range, which includes scaling and root planning and other periodontal treatment codes (D4341, D4342, D4910).
c) Treatment complete is tracked using an F-code in the clinic's electronic health record and is defined as the number of patients who complete their recommended treatment plan within a six month time frame.

Please note that "Other Intervention" sites do not report on clinical outcome data.

Number of Pregnant Women Receiving Oral Health Care at (Learning Laboratory) – Denver Health, Eastside Clinic

Period of Service	Number of Clients Enrolled in Site (Denominator)	Number Receiving Oral Health Education & Anticipatory Guidance	Number of Referrals to Providers for Dental/Oral Health Care (numerator)	Number Receiving Preventive Dental/Oral Health Care	Number Receiving Restorative Treatment	Number with Treatment Completed
Baseline (3/30/13-3/30/16)	1320	0	79	30	N/A	0*
Outcome (1/1/17-4/30/19)	1367	760** (8/2017-4/2019)	368	253	N/A	65

Number of Pregnant Women Receiving Oral Health Care at (Learning Laboratory) – Denver Health, Westside Clinic

Period of Service	Number of Clients Enrolled in Site	Number Receiving Oral Health Education & Anticipatory Guidance	Number of Referrals to Providers for Dental/Oral Health Care	Number Receiving Preventive Dental/Oral Health Care	Number Receiving Restorative Treatment	Number with Treatment Completed
Baseline (3/30/13-3/30/16)	2434	0	113	34	N/A	0*
Outcome (1/1/18-4/30/19)	1587	1170** (1/2018 – 4/2019	331	223	N/A	51

*Treatment complete did not begin being tracked in the Denver Health EHR until January 2018, this is why baseline is 0.

**Education & Anticipatory Guidance is not an indicator included in monthly clinic data provided by health system. The individual clinic office provides data about how many intakes were conducted during reporting period.

Number of Pregnant Women Receiving Oral Health Care at (Learning Laboratory) – Poudre Valley Prenatal

Period of Service	Number of Clients Enrolled in Site (Denominator)	Number Receiving Oral Health Education & Anticipatory Guidance	Number of Referrals to Providers for Dental/Oral Health Care (numerator)	Number Receiving Preventive Dental/Oral Health Care	Number Receiving Restorative Treatment	Number with Treatment Completed
Baseline	0	0	0	Data not Available	Data not Available	Data not Available
Outcome (5/1/2018-4/30/2019)	278	167	Data not available	" "	" "	" "

CU College of Nursing Midwifery - University of Nurse Midwives

Period of Service	Number of Clients Enrolled in Site (Denominator)	Number Receiving Oral Health Education & Anticipatory Guidance	Number of Referrals to Providers for Dental/Oral Health Care (numerator)	Number Receiving Preventive Dental/Oral Health Care	Number Receiving Restorative Treatment	Number with Treatment Completed
Baseline	0	0	0	Data not Available	Data not Available	Data not Available
Outcome (2/1/2019-5/31/2019)	284	97	51	" "	" "	" "

CU College of Nursing Midwifery - Center for Midwifery

Period of Service	Number of Clients Enrolled in Site (Denominator)	Number Receiving Oral Health Education & Anticipatory Guidance	Number of Referrals to Providers for Dental/Oral Health Care (numerator)	Number Receiving Preventive Dental/Oral Health Care	Number Receiving Restorative Treatment	Number with Treatment Completed
Baseline	0	0	0	Data not Available	Data not Available	Data not Available
Outcome (2/1/2019-5/31/2019)	185	42	6	" "	" "	" "

e. **Telling your story**
- University of Nurse Midwives Clinic – CU College of Nursing Midwifery, Aurora Colorado
- 500 prenatal patients a year, approximately 50% refugee patients, primarily covered by Medicaid
- Services provided: Oral health education, screening (oral and caries risk assessment) and dental referral at prenatal intake visit. A specific QI activity regarding these services was to create a referral relationship with the Worthmore safety net dental clinic specifically for referrals of refugee patients. The QI Champion, dental director and CF3 coordinator sat down and created a tailored referral form between the two clinics. Dental clinic agreed to track referrals and fax information back as needed.
- Results Worthmore Dental Clinic Tracking Bi-Directional Referrals:
  - February 2019-May 2019:
    - 21 pregnant patients referred (9 forms faxed, the rest called or came to clinic with referral form)
    - Treatment started on 15 pregnant patients
    - Treatment completed on 2 pregnant patients
- Next Step: Decide if there is a need to standardize the referral process. Currently less than half of the referrals were faxed (the process we were testing). Is handing patient the referral form or asking them to call placing the burden on the patient, or acceptable alternative (if provider is busy) in some cases.

Supporting Documents – Attachments 1-5
Grant Number: H47MC28479
Project Title: Children's Oral Healthcare Access Program
Organization Name: Colorado Department of Public Health and Environment
Primary Contact Information:
    Name: Ashleigh Kirk
    Title: Perinatal and Youth Oral Health Manager
    Phone: 303.692.2569
    Email: Ashleigh.Kirk@state.co.us

Attachment 1 - New Key Personnel and Biographical Sketches

1.1 Ashleigh Kirk, MSW, Perinatal and Youth Oral Health Manager
Ms. Kirk filled the vacant CF3 Supervisor position.

Professional History
Perinatal and Youth Oral Health Manager, Cavity Free at Three, 2018-Present
Program Direction, Bright by Three, 2016-2018
Community Outreach Coordinator, Assuring Better Child Health and Development, 2013-2016

Education
Masters of Social Work, Washington University in St. Louis, 2007
Bachelors of Social Work, Indiana University, 2005

1.2 Rebecca Sarniak, M.A., Cavity Free at Three Program Assistant
Ms. Sarniak was hired February 2019 as Program Assistant to manage the Master Trainers who deliver the CF3 curriculum and other program needs.

Relevant Professional History
Program Assistant, Cavity Free at Three, 2019 - Present
Manager of Moderating Services, 2020|Research, 2015 - 2018
Moderator and Qualitative Analyst, 2020|Research 2010 - 2015

Education
Master of Arts, Psychology 2008
Bachelor of Science, Psychology 2005

Attachment 2. Clinic Data – Learning Laboratory – Eastside and Westside Clinic

Figure 2a. Cumulative % of pregnant patients from Denver Health's Eastside Clinic receiving dental services from baseline-4/30/19

Figure 2b. Cumulative % of pregnant patients from Denver Health's Eastside Clinic with preventive service or treatment complete codes from baseline-4/30/19

% pregnant patients with dental service treatment completed

% pregnant patients receiving preventive services (D1XXX and D4XXX codes)

Figure 2c. Cumulative % of pregnant patients from Denver Health's Westside Clinic receiving dental services from baseline-4/30/19
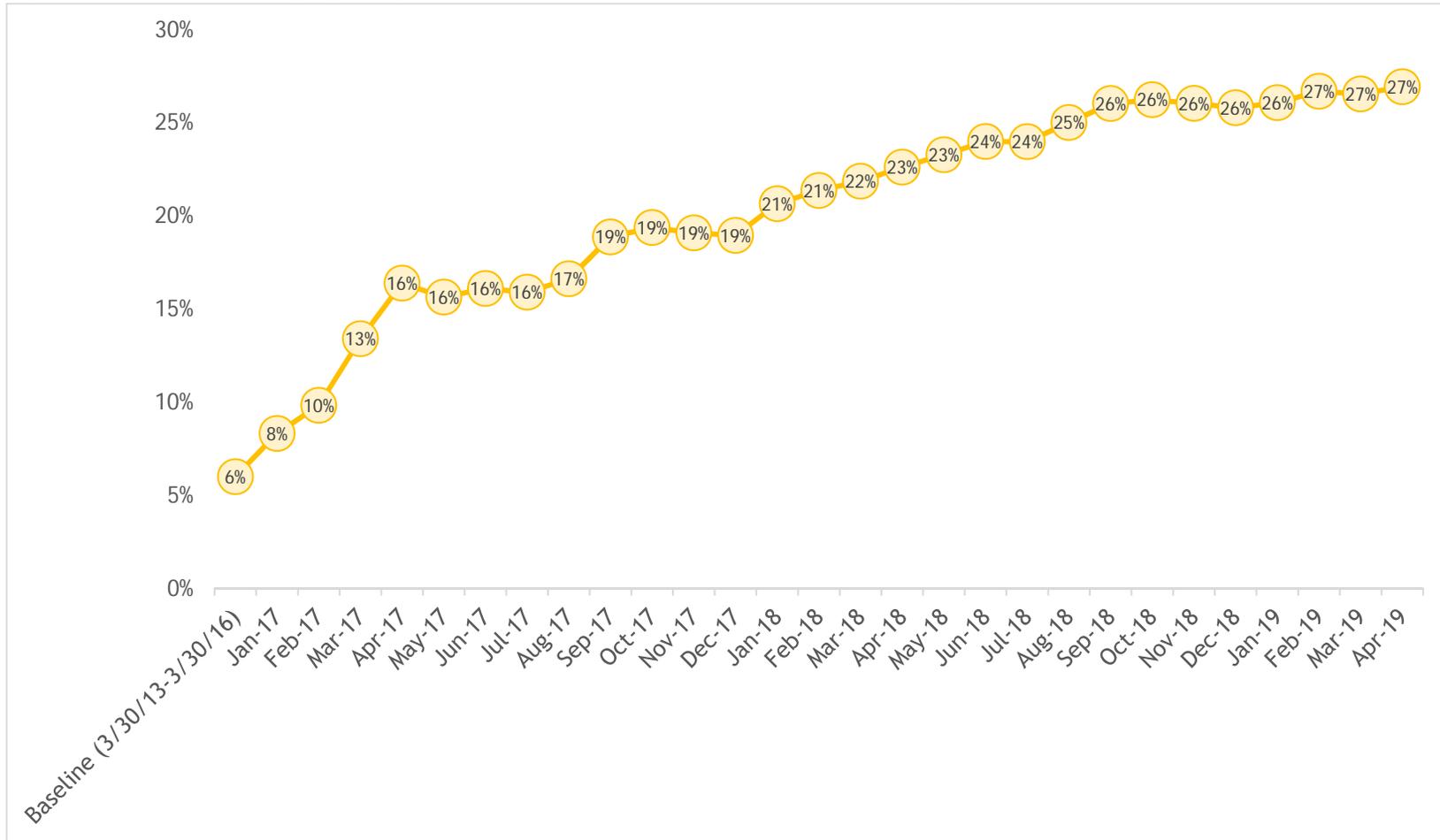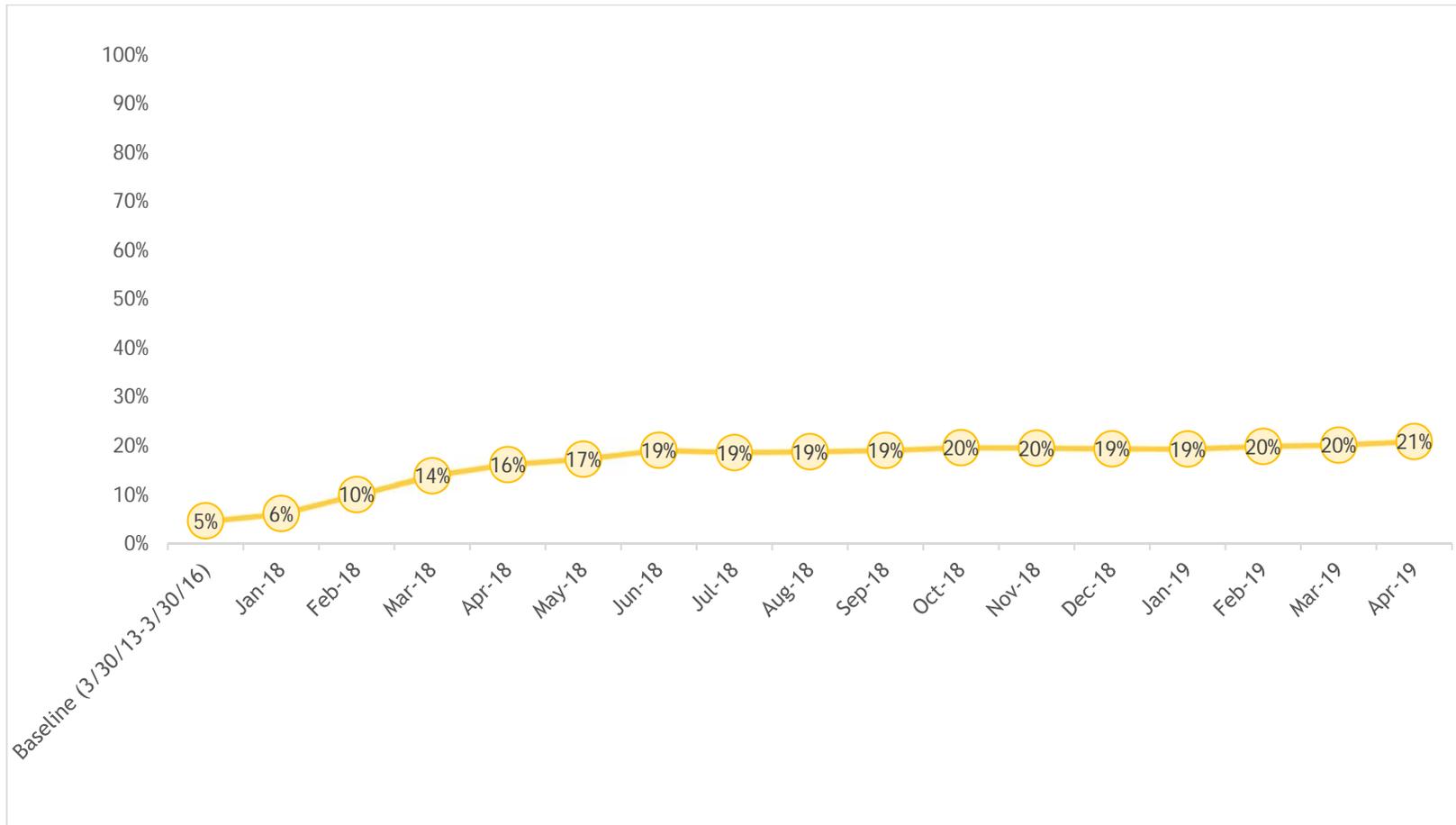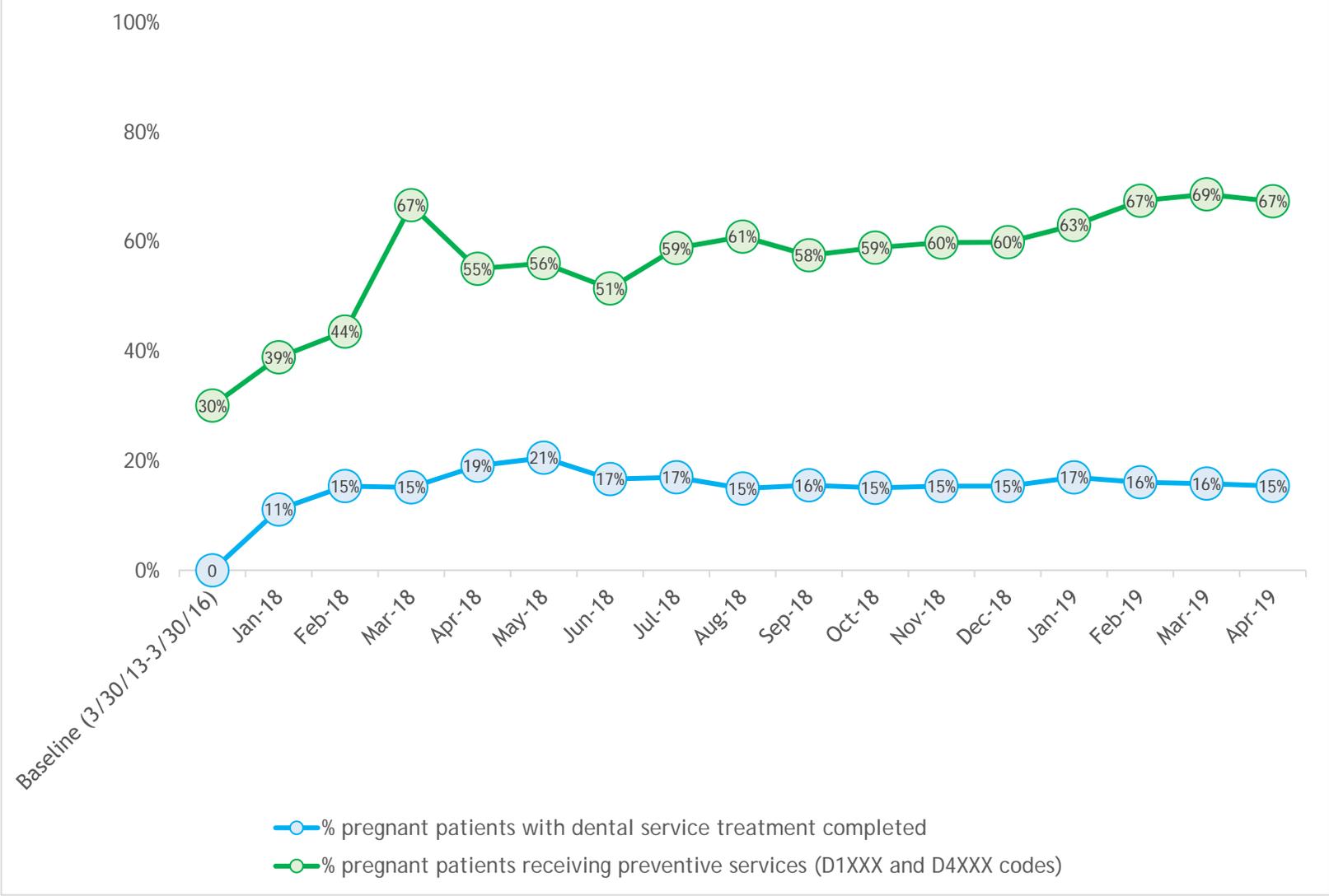
Figure 2d. Cumulative % of pregnant patients from Denver Health's Westside Clinic with preventive service or treatment complete codes from baseline-4/30/19

Attachment 3 – Scoping Document (Charter) for CU College of Nursing Midwifery

Quality Improvement Project Scoping Document

PROJECT/INITIATIVE NAME:	Implement a process of oral health education, screening and referral of CU College of Nursing Midwifery prenatal patients to a dental home.
OPPORTUNITY STATEMENT: (Why is this important to the organization)	- Importance of oral health is not currently addressed by CU College of Nursing Midwifery providers - It is likely many prenatal patients are unaware of Medicaid dental benefit or unaware dental care is safe and recommended during pregnancy, or their dental provider is unaware of the safety of treatment. - It is likely some prenatal patients have never received dental services and have dental disease. - There are dental partners in the community that are willing to see these patients and would be happy to set up a referral relationship
TARGETED OUTCOMES:	- All CU College of Nursing Midwifery providers have completed Smiles to Life Oral health modules - Increase percent of CU College of Nursing Midwifery prenatal patients who have the Prenatal Oral Health Risk Assessment documented in their chart - Increase the percent of CU College of Nursing Midwifery prenatal patients who are referred to a dental provider either formally faxed info or, at a minimum, given dental referral list. - Maintain an updated list of local dental providers who accept Medicaid - Create a referral relationship with 1-3 dental providers

SCOPE LIMITATIONS: (Where are the boundaries?)	**IN SCOPE**	**OUT OF SCOPE**
	Oral Health Education, Screening, Referral incorporated into PN intake. HEENOT? Decide if oral evaluation is feasible during testing.	It is not currently possible to create flowsheet for easier data extraction from EPIC EHR.

EVENT ATTENDEES AND STAKEHOLDERS:	**NAMES AND ROLES**
EXECUTIVE SPONSOR:	Jessica Anderson
PROCESS OWNER:	Shannon Pirrie
Cavity Free at Three FACILITATOR:	Reid Bryan

CORE TEAM MEMBERS:	Practice leads - Susanne Kistin (UNM), Nichol (Nikki) Chesser (CFM)
EXTENDED TEAM MEMBERS:	Recruit one more CFM provider and possibly replacement provider for Shannon when she goes on maternity leave. Carolyn Anello from Worthmore.
CUSTOMER GROUPS:	CU College of Nursing Midwifery prenatal patients. Referral relationship with Worthmore Dental.
PROJECT METRIC(S): (Typical metrics include impact on quality, time, and cost)	● Providers feel they can complete the Prenatal Oral Health Risk Assessment in under 90 seconds. ● Referral relationship with Worthmore is efficient and increases patient satisfaction, access to dental care, and overall improved health. ● % percent of CU College of Nursing Midwifery prenatal intake (new) patients who have documented risk assessment in chart.
INITIATIVE WORKPLAN STEPS:	**TIMELINE AND ACTIVITIES** **Nov 19th** - Kickoff meeting 8-9am. Carolyn Anello attending. **Nov 19th** - Staff sent Smiles for Life & Cavity Free at Three survey link **Nov 19 - 30th** - Shannon, Susanne and Nicol test clinic flow/process, report back on challenges and make changes. **Dec 17** - Go Live for all UNM and CFM providers **Jan 4** - Data for December pulled **Mid Jan** - First check in call with project team **Ongoing -** monthly data pulls for feedback in first 6 month of project, goal of quarterly data pulls ongoing. Monthly check in phone call with project team and standing agenda item at monthly meeting to review data and get feedback. **July 2019** - CDPHE will create one page data sheet of first 6 months of data to dissemination and share with leadership. **December 2019** - Consider spread?
SCOPING DATE:	11/02/2018
GATHER BASELINE METRICS (Timeframe):	N/A
MEETING DATES:	06/27/2018, 11/02/2018, 11/15/2018
TARGETED IMPLEMENTATION DATE ("Go-Live" Date):	11/19/2018
SUSTAINMENT MILESTONES (30, 60, 90 Day Follow-up):	Data pull every 2nd Monday of the month starting January, standing agenda for report out/feedback every 3rd Monday of the month for first 6 months. CDPHE analysis of data and dissemination of results in July 2019.

_____

Signed Executive Sponsor   Date

_____

Signed Process Owner   Date

Signed Cavity Free at Three Facilitator   Date

Attachment 4 - CU College of Nursing Midwifery Action Plan

Action / Task	Person(s) Responsible	Target Completion Date	Status	Notes
QI Scoping Document - Complete and sign	Reid and Shannon?	11/19/2018	Complete	Link
Send out Smiles for Life and Survey Link	Reid	19-Nov-18	Complete	
Create smart phrase/EHR documentation	Shannon	11/19/2018	Complete	.SPORALHEALTHRISKASSESSMENT : add dental screening to problem list z13.84, then add dotphrase .SPDENTALPROBLEMLIST
Create dental referral list	Reid started, UNM finish	11/19/2018	Complete	Link
Create letter to send to dental provider	Shannon	11/19/2018	Complete	Include med recommendations. Reid sent draft
Recruit Project team	Shannon	11/19/2018	Complete	Susanne, Nikki, Jessica, Shannon
Facebook Oral Health info	Jessica	?	In progress	Reid sent info.
Kickoff Meeting	Reid	11/19/2019	Complete	Annouce project, meet Carolyn. Will they be doing it at Boulder CFM location? Ana attended....
Explain Partnership at MA meeting	Shannon	12/12/18		Make sure MAs are on board and know what is going on
Schedule monthly leadership calls	Leadership team	ASAP	Completel?	Before 3rd Monday for standing agenda report out
Create relationships with dental providers	Leadership team	ASAP	In progress	Setting up time with Carolyn to edit referral form and patient one pager
All Midwives take SFL course	All UNM providers	Dec 17th	Completel?	Reid sent email out 11/19
Test new process - clinic flow	Leadership team	Dec 17th	In progress	Please document what goes wrong! Just as important as what goes right!
Communicate step-by-step process after testing	Leadership team	Dec 17th	In progress	Leadership to decide if doing oral evaluation
Implement new process	**All providers**	**January 2019**	In progress	Reminder at meeting on 17th! Doing Oral Evaluation
Track data (i.e chart audit)	Shannon	2nd Monday of Month	Not started	Dr, Brouland? Make a standard report to pull by Z13.84. Get replacement for Shannon maternity leave in May?
CU College of Nursing gets paid for data	Reid and Shannon?	monthly	In progress	Reid gave W9. Will need invoice on letterhead. Can submit monthly or quarterly. Net 30
Send Shannon more pamphlets and pens	Reid	Dec 17th	Complete	Will mail them c/o Shannon
First project leadership call	Leadership team	Dec 10th?	Complete	Sent email to set up call
Determine ongoing need for supplies	Shannon	Ongoing	In progress	
Reminders for staff	Shannon	ongoing	In progress	Remind meeting Dec 17th and at monthly stand up, laminated tooth card in room with screening code
Diseminate data to leadership/report out to group	Reid/Leadership	1-Aug-19	Not started	After results from staff survey in July 2019, preliminary 6 mo data

CDPHE | COLORADO
Center for Health & Environmental Data
Department of Public Health & Environment

Prenatal Oral Health Partnership
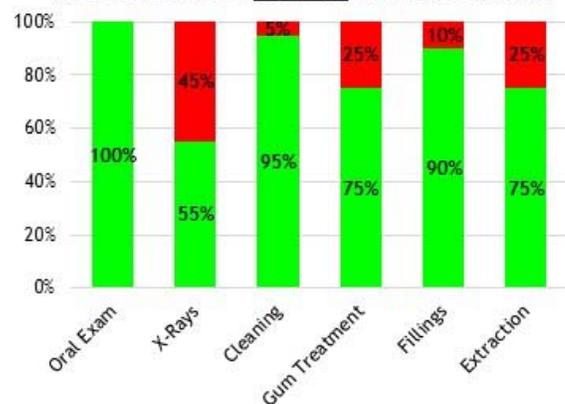## Data Snapshot
CU College of Nursing Midwifery- December 2018

The purpose of the Prenatal Oral Health Partnership pre-test survey in November 2018 was to collect provider knowledge and beliefs about providing oral health services to pregnant patients. Of the 20 from CU College of Nursing Midwifery to participate, 13 (65%) were from the University of Nurse Midwives and 7 (35%) were from the Center for Midwifery. The recommendations made were based on the results of the pre-test survey, and will be re-evaluated following a post-test survey in July 2019. The goal set by CU College of Nursing Midwifery staff is to have 85% of prenatal patients with an oral health risk assessment documented by July 2019.

Recommendation 1: Boost knowledge of safety of oral health procedures for pregnant women, and increase confidence to provide oral health services and education to pregnant patients.
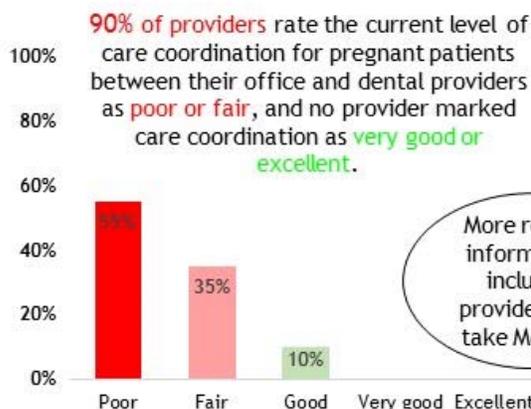
Although **100%** of providers agree that oral health services are beneficial for a pregnant patient's overall health, only **60%** agree they are aware of the risks and benefits around those services.

Only **10%** of providers are confident in their training to provide oral health services to pregnant patients, and only **30%** are confident in their training to educate pregnant patients about the importance of oral health during pregnancy.

Percent of providers who did not know and who correctly did know that the oral health procedure is safe **anytime** during pregnancy.

	Oral Exam	X-Rays	Cleaning	Gum Treatment	Fillings	Extraction
did not know		45%	5%	25%	10%	25%
correctly did know	100%	55%	95%	75%	90%	75%

Recommendation 2: Develop a more streamlined system of referral to dental providers.

90% of providers rate the current level of care coordination for pregnant patients between their office and dental providers as poor or fair, and no provider marked care coordination as very good or excellent.

Poor	Fair	Good	Very good	Excellent
55%	35%	10%		

Only **12%** of providers agree they have an established process to refer patients to dental providers in the area to receive the oral health services they need.

More referral information, including providers that take Medicaid

More educational materials and handouts

A more streamlined referral system

Thoughts from staff on how to increase the number of patients referred.

Other Relevant Documents – Impact beyond the project: links and descriptions
Grant Number: H47MC28479
Project Title: Children's Oral Healthcare Access Program
Organization Name: Colorado Department of Public Health and Environment
Primary Contact Information:
    Name: Ashleigh Kirk
    Title: Perinatal and Youth Oral Health Manager
    Phone: 303.692.2569
    Email: Ashleigh.Kirk@state.co.us

The following documents demonstrate the impact of Cavity Free at Three program beyond the Perinatal Infant and Oral Health Quality Improvement (PIOHQI) grant period (click on title for link):

Evaluation

1. Cavity Free at Three CDC Evaluation 2013-2018

This report for the Centers for Disease Control and Prevention (CDC) details a 5-year evaluation of the Cavity Free at Three program conducted by the Health Surveys and Evaluation Branch of the Colorado Department of Public Health and Environment (CDPHE).

Reports

2. "Prenatal Oral Health Partnership" Association of State and Territorial Dental Directors. Dental Public Health Activities: Descriptive Summaries.
   a. Summary
   b. Full Report

This descriptive document details the preliminary results of grant-funded pilot projects to increase dental access to pregnant women. These efforts were funded by HRSA/MCHB through the PIOHQI initiative.

Research

3. "Tooth Be Told… Colorado's Basic Screening Survey, Children's Oral Health Screening: 2016-17"

The results of Colorado's Basic Screening survey show that fewer Colorado children have cavities now than they did 10 years ago. This positive trend is attributable to preventive programs such as Cavity Free at Three, school sealant programs and community water fluoridation.

4. "Family Matters in Oral Health" Colorado Health Institute and Colorado Department of Public Health and Environment.

This analysis was a collaborative effort by the Colorado Health Institute and the Colorado Department of Public Health and Environment to compare data from the 2014 and 2016 Behavioral Risk Factor Surveillance System (BRFSS), the Colorado Child Health Survey (CHS), and other data sources to look at children whose caregivers reported whether they saw a dental provider. Results indicate that the use of dental care by caregivers affects their children's oral health outcomes.

5. "*Effectiveness on Early Childhood Caries of an Oral Health Promotion Program for Medical Providers*"

This 6-year longitudinal study using quasi-experimental intervention design in 8 federally qualified health centers was published in the American Journal of Public Health in 2017. It showed the impact of the Cavity Free at Three program (referred to in the journal article as the oral health promotion intervention) on early childhood caries (ECC) as measured by numbers of decayed, missing and filled tooth surfaces (DMFS). The results indicate that the intervention targeting medical providers reduced ECC when children received 4 or more fluoride varnish applications at a medical visit by age 3 years.

Legislation

6. Increase in Annual Medicaid benefit for Adults

On April 18, 2019 Colorado Governor Jared Polis signed the Long Bill to increase the Medicaid annual benefit for adults from $1,000 to $1,500 starting July 1, 2019.

7. House Bill 19-1038 – Dental Services for Pregnant Women on Children's Basic Health Plan Plus

On April 16th, 2019 Colorado Governor Jared Polis also signed House Bill 19-1038: Dental Services for Pregnant Women on Children's Basic Health Plan Plus. These benefits will go into effect on October 1, 2019.

Tools

8. Prenatal Oral Health Partnership Recruitment Flyer

This recruitment tool is a resource developed by Cavity Free at Three and funded by the HRSA/MCH PIOHQI grant to spread the lessons learned from the pilot phase to other interested clinical practices.

9. Prenatal Oral Health Toolkit for Primary Care Providers – (Final draft to be published July 2019)

This change package uses lessons learned from the pilot projects funded by PIOHQI and will be available as a toolkit to primary care medical practices who would like to work with Cavity Free at Three to increase prenatal oral health access by incorporating education, screening and referral into their prenatal care models.