Networks for Oral Health Integration (NOHI) Within the MCH Safety Net

Overview and Project Profiles: Update 2023

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Overview

To improve access to and use of comprehensive, high-quality oral health care for pregnant women, infants, and children at high risk for oral disease, the Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB) funded the Networks for Oral Health Integration (NOHI) Within the Maternal and Child Health Safety Net. Three projects were awarded funding for a 5-year period (2019–2024).

- Midwest Network for Oral Health Integration (MNOHI): Illinois, Iowa, Michigan, and Ohio
- Rocky Mountain Network of Oral Health (RoMoNOH): Arizona, Colorado, Montana, and Wyoming
- Transforming Oral Health for Families (TOHF): District of Columbia, Maryland, New York, and Virginia

The NOHI projects were charged with developing, implementing, and evaluating models of care using three collective strategies:

1. Enhance integration of oral health care within maternal and child health (MCH) safety net services (e.g., community health centers [CHCs]).
2. Increase primary care providers' and support service providers' knowledge and skills to help them deliver optimal oral health care.
3. Enhance awareness and knowledge of preventive oral health practices among parents and other caregivers to increase adoption of these practices, including use of oral health care.

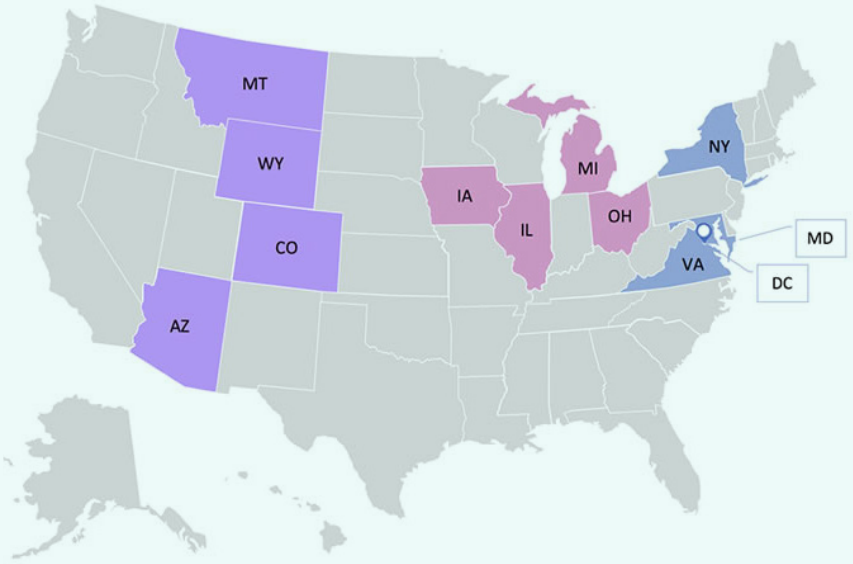
The three projects are implementing their models of care in primary care clinics within selected CHCs in their four-state region (see map below). The RoMoNOH and TOHF projects focus on pregnant women and infants and children from birth to age 40 months, and the MNOHI project focuses on children ages 6–11.

Each NOHI project team comprises the award recipient, the partners, and the primary care associations and selected CHCs in their four states. Partner organizations include the American Academy of Pediatrics, the National Network for Oral Health Access, state oral health coalitions, state oral health programs, a university medical program, and a university school of public health.

Despite the impact of the COVID-19 pandemic on health behaviors and health care, the NOHI projects

Map of NOHI Projects

By Regions



are making substantial progress toward achieving their program objectives. From March 2020 through February 2023, 1,200 primary care providers, community health workers, and care coordinators received training on preventive oral health care and on the key components of integrating oral health care into primary care. During the same time period, participating CHCs provided over 250,000 preventive oral health services to infants and children from birth to age 40 months and to children ages 6–11. Services included 86,265 oral health risk assessments, 84,471 fluoride varnish applications, 37,702 referrals for oral health care, 20,936 dental sealants applications (MNOHI only), 14,327 oral-health-education services (MNOHI only), and 10,672 oral health screenings (MNOHI only). The percentage of infants and children from birth to age 40 months receiving preventive oral health care from the RoMoNOH project and the TOHF project (first two cohorts) and the percentage of children ages 6–11 receiving preventive oral health care from the MNOHI project (first cohort) increased from 9.9 percent (September 2020 through February 2021 reporting period) to 65 percent (September 2022 through February 2023 reporting period).

The NOHI projects participate in a learning collaborative (LC) supported by the Consortium for Oral Health Systems Integration and Improvement (COHSII), a cooperative agreement awarded to the National Maternal and Child Oral Health Resource Center in partnership with the Association of State and Territorial Dental Directors and the Dental Quality Alliance. FrameShift Group also supports the NOHI LC.

The LC provides peer-to-peer learning opportunities for members to share information about successes, challenges, and lessons learned related to implementing models of care and building capacity around the three core function areas: (1) data, analysis, and evaluation; (2) outreach and education; and (3) policy and practice. LC members share project resources (e.g., practice readiness assessments, oral health risk assessments, training and coaching tools, educational materials) and strategies for project implementation (e.g., motivating primary care providers and staff to stay engaged in NOHI project activities, engaging patients, improving oral health providers' capacity to provide timely care for referred patients, sustaining the integration of oral health care into primary care). The cross-pollination of resources and strategies shared among LC members enhances project activities and enables projects to achieve more collectively than they could as individual projects. LC members report that their experiences with the NOHI LC help guide their collaborative work with participating CHCs.

LC members collaborated, with the support of COHSII, to identify a set of common metrics that address their program objectives. LC members also collaborated to develop and refine an environmental scan tool to gain knowledge about factors that could impact the integration of oral health care into primary care in 11 states and Washington, DC, with the purpose of informing NOHI projects' work. The environmental scan tool includes questions focused on scope of practice of medical providers and oral health providers, Medicaid payment, and policies and regulations that impact the target population's oral health. NOHI project staff and partners conducted three environmental scans during the project period. The results of the third environmental scan are presented in *Networks for Oral Health Integration (NOHI) Within the Maternal and Child Health Safety Net: Environmental Scan 2023 Chartbook*.

Midwest Network for Oral Health Integration (MNOHI)

The MNOHI project is part of the Networks for Oral Health Integration (NOHI) Within the MCH Safety Net funded by the Maternal and Child Health Bureau to improve access to and use of comprehensive, high-quality oral health care for pregnant women, infants, and children at high risk for oral disease.

The MNOHI project focuses on improving access to and use of comprehensive, high-quality oral health care for children ages 6–11 who are receiving health care in selected community health centers (CHCs) throughout Illinois, Iowa, Michigan, and Ohio.

Partners

MNOHI consists of the Michigan Primary Care Association (lead) working in partnership with the Illinois Primary Health Care Association, the Iowa Primary Care Association, and the Ohio Association of Community Health Centers (OACHC). The National Network for Oral Health Access (NNOHA) provides technical assistance (TA) on outreach and educational activities. The Michigan Department of Health and Human Services, the Michigan Oral Health Coalition, and Oral Health Ohio partner with MNOHI on policy activities. The Michigan Public Health Institute (MPHI) will conduct an evaluation of the MNOHI project.

Approach

MNOHI state coordinators (one from each of the four primary care associations [PCAs]) are working with 34 participating CHCs (10 in Illinois, 9 in Iowa, 6 in Michigan, and 9 in Ohio) in three cohorts. Participating CHCs are working to develop, implement, evaluate, and improve models of care for integrating oral health care into primary care for children ages 6–11.

State coordinators are supporting CHCs in their respective states via

- Offering TA to identify project champions to create a team of primary care providers, oral health providers, information technology professionals, and quality-improvement (QI) professionals. The team participates in a CHC needs assessment and readiness assessment to determine where extra support may be needed. The team develops and implements new or revised policies to support the project and coordinate training sessions for primary care providers and staff, including community health workers (CHWs) and care coordinators.

- Offering TA to develop structured data fields in the electronic medical record (EMR) to document oral health care provided to patients (e.g., templates for documenting results of oral health evaluations, results of caries risk assessments, and referrals for follow-up care) to strengthen data reporting. Offering TA to develop workflows to incorporate documentation into the EMR.
- Providing promotional and educational oral health materials for patients and parents and other caregivers. Offering TA on how to disseminate and report on an annual patient-satisfaction survey.
- Conducting monthly coaching calls to review progress, address challenges, and discuss opportunities for improvement.
- Conducting quarterly learning collaborative (LC) calls with CHCs participating in the four MNOHI states to share successes, lessons learned, and challenges associated with implementing the models of care and to receive training from NNOHA on topics such as improving dental-sealant-application rates and primary care provider engagement.

MNOHI, via each PCA, provides funding for a half-time CHW or care coordinator for patient and parent or other caregiver outreach and engagement and to follow up on referrals received by parents or other caregivers to schedule a dental appointment for their child. In addition, MNOHI, via each PCA, provides CHCs with quarterly incentive payments for reaching benchmark goals, such as designating project champions, hiring or designating time for a part-time CHW or care coordinator, and participating in coaching and LC calls.

Settings

MNOHI applies the following criteria for CHC recruitment and selection in Illinois, Iowa, Michigan, and Ohio:

- CHC leadership has a vision for integrating oral health care into primary care.
- CHC leadership agrees to participate fully in the 5-year project, or, for cohorts that start later, to participate for the remaining project period.
- CHC serves children ages 6–11.
- CHC offers primary care and oral health care (co-located care preferred).
- CHC has experience with QI projects.
- CHC uses health information technology (HIT) for patient and clinical data.
- CHC leadership identifies champions (care integration, HIT, QI).
- CHC is in a geographically diverse location.

Models of Care

MNOHI state coordinators are working with participating CHCs in their respective states to develop, implement, evaluate, and improve models of care for integrating oral health care into primary care for children ages 6–11. The MNOHI models incorporate the five domains of the interprofessional oral health core clinical competencies:

- Risk assessment
- Evaluation
- Preventive interventions (e.g., fluoride varnish application, dental sealant application)
- Communication with and education of primary care providers and parents and other caregivers
- Interprofessional collaborative practice

An important element of the MNOHI models of care is the incorporation of a CHW or care coordinator into the primary care team to conduct outreach to parents and other caregivers and offer them education, help make appointments for patients referred for oral health care, and provide support to help ensure that patients keep their appointments. All participating CHCs filled this position with existing staff or by hiring new staff. MNOHI, with assistance from NNOHA, compiled a set of best practices and approaches for using CHWs and other care-coordination strategies to improve access to and use of oral health care (see Community Health Worker and Care Coordination: Best Practices [2022] and Community Health Workers for Integrated Care Coordination [2022]). MNOHI is building on lessons learned

from the first cohort of CHCs to assist subsequent cohorts with refining the models of care. MNOHI will compile a set of best practices to inform efforts to integrate oral health care into primary care.

Strategies to Help Sustain Models of Care in CHCs: Lessons Learned

Optimize the EMR: The 34 participating CHCs incorporated documentation of preventive oral health care during well-child visits in their EMR. Participating CHCs developed templates for documenting the oral health evaluation, caries risk assessment, and structured referrals for follow-up care in the EMR, making it possible to monitor primary care providers' provision of anticipatory guidance on oral health. CHCs learned that it is important to make documenting the provision of preventive oral health care

From March 2020 through February 2023, over 650 primary care providers, CHWs, and care coordinators received training on the importance of oral health to overall health and on preventive interventions to improve oral health for children ages 6–11. During the same time period, participating CHCs provided over 132,700 preventive oral health services to children ages 6–11 (46,580 fluoride varnish applications, 23,286 risk assessments, 20,936 dental sealant applications, and 14,935 referrals for care). The percentage of children ages 6–11 who received preventive oral health services increased from 5.6 percent (September 2020 through February 2021 reporting period) to 61.4 percent (September 2022 through February 2023 reporting period) in MNOHI cohort 1 CHCs.

in the EMR simple for primary care providers (e.g., by placing preventive oral health care near other preventive health care in the health record). This makes it easier to incorporate the provision and documentation of preventive oral health care without disrupting the flow of the well-child visit.

Reduce the burden of oral health training for primary care providers: Participating CHCs in Michigan informed MNOHI that the length of the four required *Smiles for Life: National Oral Health Curriculum (Smiles for Life)* modules and a NNOHA module made completing the modules burdensome for primary care providers. MNOHI worked with NNOHA to condense the *Smiles for Life* modules and the NNOHA module to reduce training time from 4.5 hours to under 2 hours. In addition, one participating CHC in Michigan incorporated the MNOHI training into its learning-management system and will have every staff member complete the training. This will be a sustainable element of the project after funding concludes.

Add oral health outreach duties to job descriptions: If participating CHCs add oral health outreach duties similar to those performed by a CHW or care coordinator to an existing staff member's job duties, MNOHI requires that these duties also be added to the corresponding job description to help sustain efforts if there is staff turnover. If the staff member leaves the CHC, the duties will continue with their replacement.

Core Function Activities

Data, Analysis, and Evaluation

MNOHI state coordinators worked with participating CHCs to develop structured data fields in the EMR to document preventive oral health care provided to patients. CHCs received funding to assist with EMR enhancement. For data collection and reporting, Michigan and Ohio contracted with Azara DRVS (Data Reporting and Visualization System) to develop quality metrics on preventive and restorative oral health care and to track them, a first for Azara and a significant achievement for MNOHI. Since the launch of these measures in Azara DRVS, 64 CHCs in 13 states have implemented the measures. This is a significant step that will help CHCs across the country, regardless of whether they participate in NOHI, improve their efforts to integrate oral health care into

primary care and to provide high-quality oral health care to patients. Illinois and Iowa are also collecting metrics from participating CHCs and are working with each center to refine their data-collection and -reporting processes.

Even with the use of Azara DRVS in Michigan and Ohio, data collection and reporting are challenges, partly because there are 6 different EMR systems, 7 different electronic dental record (EDR) systems, and 13 different combinations of EMR and EDR systems used in the 34 participating CHCs. This has complicated the development of a consistent documentation process among all participating CHCs. Each CHC has a different workflow for documenting the required data. In addition, some CHCs underwent EMR- and EDR-platform transitions, and some lack policies and protocols for referring patients for oral health care. These issues engendered further challenges.

MNOHI created a CHW tracking form to capture care-coordination activities and gauge the impact of CHWs' efforts on closing referral loops. MNOHI built a data dashboard to enable visualization of progress across participating CHCs in all four states. MNOHI is using qualitative and quantitative data to track, assess, and report outcomes resulting from project activities. It is also tracking and assessing policy and systems changes in participating CHCs to

provide data for the oral health core clinical competencies. MPHI is conducting an evaluation of the MNOHI project.

Outreach and Education

MNOHI uses *Smiles for Life* modules to train primary care providers and staff. To supplement the modules, NNOHA developed a module specific to MNOHI's target population. In response to feedback from participating CHCs, NNOHA condensed the *Smiles for Life* modules and the NNOHA module to accommodate those whose schedules preclude their completing the training modules. In addition, MNOHI is encouraging dental teams at some participating CHCs to provide oral health training to primary care teams and to consider having regularly scheduled interdepartmental meetings to inspire interprofessional collaboration and engagement in MNOHI activities. During quarterly LC calls with participating CHCs and CHWs, MNOHI provides opportunities for peer learning, and NNOHA offers training, as needed.

Feedback from parents and other caregivers indicates that they appreciate having their child's oral health addressed during well-child visits and that they value the referral process that enables them to obtain a dental clinic appointment before leaving the center.

Patient satisfaction evaluations in 2022 revealed that, on average, 98.5 percent of parents and other caregiver respondents strongly agreed or agreed that CHC staff treated them and their child with respect and gave them an opportunity to ask questions and share thoughts about their child's oral health. Respondents also found it helpful to have their child's oral health checked during the medical visit; thought the oral health instructions were easy to understand and follow; and, if a dental appointment was recommended, planned to schedule it within 30 days.

Policy and Practice

MNOHI state coordinators and partners conducted environmental scans to gather information about factors that could impact the integration of oral health care into primary care at the state level. The scans include questions about scope of practice of primary care providers and oral health providers, Medicaid billing and payment, and policies and regulations that impact the oral health of children ages 6–11. The Michigan Department of Health and Human Services, the Michigan Oral Health Coalition, and Oral Health Ohio conducted the environmental scans for their states. See the environmental scan tool and Midwest Network for Oral Health Integration (MNOHI): Environmental Scan 2023 Chartbook for environmental scan results.

State coordinators and partners use information from the environmental scans to raise awareness about needed system changes (e.g., reimbursement for CHW and care-coordination activities, increasing the upper age limit for which health providers can be reimbursed for applying fluoride varnish to children's teeth). Illinois and Michigan recently passed legislation to require Medicaid reimbursement for CHW services. As a result, CHCs in the two states will be motivated to hire and retain CHWs, and the strategy of using CHWs to conduct outreach, education, and care-coordination activities will be more feasible and sustainable. Information from the environmental scans informed the development of Ohio's 2023–2027 State Oral Health Plan and Michigan's 2025 State Oral Health Plan.

Impact of COVID-19 and Workforce Shortages

The COVID-19 pandemic significantly impacted health behaviors and health care use for children ages 6–11 who are receiving care in CHCs in the MNOHI states. As COVID-19 infection rates fluctuated, CHCs shifted staff responsibilities to focus on testing and vaccination, making it challenging to engage project champions and delaying MNOHI project timelines. Troubleshooting was often necessary to make adjustments in response to these disruptions.

Participating CHCs continue to experience workforce shortages and staff turnover. In Michigan, participating CHC dental clinics continue to struggle to recruit dentists, dental hygienists, and dental assistants. In response, CHCs are prioritizing primary care referrals by saving designated appointment times in the dental clinic schedule for children referred by primary care to limit their wait time for a dental appointment. Facing similar challenges in Iowa, CHCs considered this option, and the Iowa state coordinator encouraged the primary care team to collaborate with the dental team to determine the best way to address pediatric primary care referrals. In response to health care provider burnout and staff shortages in Illinois, CHCs adjusted their workflows and gave CHWs more responsibility for oral health education and follow-up to help the primary care team. OACHC is providing TA to its CHCs, which, like CHCs in other MNOHI states, are also facing workforce shortages and exploring options to address the problem.

Resources

- Azara DRVS (Data Reporting and Visualization System) Dental Measures (2021)
- Community Health Worker and Care Coordination: Best Practices (2022)
- Community Health Workers for Integrated Care Coordination (2022)
- Midwest Network for Oral Health Integration: Project video and presentation
- Midwest Network for Oral Health Integration (MNOHI): Environmental Scan 2023 Chartbook (2023)
- Oral Health Risk Assessment, Children Ages 6–11 (2020)
- Participating Community Health Center Needs Assessment (2020)
- Patient Satisfaction Survey (2022)
- Prospective Community Health Center Readiness Assessment (2020)
- Training Modules
  - Condensed Smiles for Life modules 2 and 6 (2022)
  - Instructions for Accessing the Modules (revised edition) (2022)
  - Oral Health in the Well Child Visit (2020)

Project Contacts

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Rocky Mountain Network of Oral Health (RoMoNOH)

The RoMoNOH project is part of the Networks for Oral Health Integration (NOHI) within the MCH Safety Net funded by the Maternal and Child Health Bureau to improve access to and use of comprehensive, high-quality oral health care for pregnant women, infants, and children at high risk for oral disease.

RoMoNOH is focusing on primary prevention of dental caries in infants and children from birth to age 40 months and pregnant women who are receiving health care in participating community health centers (CHCs) throughout Arizona, Colorado, Montana, and Wyoming.

Partners

RoMoNOH consists of the Denver Health Office of Research (lead) working in partnership with the University of Colorado Department of Family Medicine, the American Academy of Pediatrics (AAP), the Colorado Department of Public Health and Environment (CDPHE), the National Network for Oral Health Access (NNOHA), and primary care associations (PCAs) in Arizona, Colorado, Montana, and Wyoming.

Approach

RoMoNOH developed and is implementing a change package to support the integration of oral health clinical competencies into primary care in 24 CHCs: 8 in Arizona, 9 in Colorado, 3 in Montana, and 4 in Wyoming. Two of the 4 CHCs in Wyoming completed the project commitments and are no longer participating in the RoMoNOH project. An additional 8 CHCs within participating health care centers joined RoMoNOH as expansion sites. These "fast-track" CHCs include 1 in Arizona, 5 in Montana, and 2 in Wyoming.

RoMoNOH is supporting CHCs via

- Technical assistance (TA) on optimizing their electronic medical record (EMR) and electronic dental record (EDR) for documenting and reporting on the provision of preventive oral health care.
- Five eLearning modules to train primary care providers on delivery of preventive oral health care.
- Monthly 1:1 meetings with a PCA practice-transformation coach to develop, implement, and validate RoMoNOH's models of care using the change package to guide activities. The coach reviews the CHC's progress toward meeting project objectives and uses its monthly metrics to identify gaps and opportunities for improvement.
- CHC-specific policies and procedures developed to sustain the integration of oral health care into primary care for the target population when the project ends.

- Triannual learning collaborative calls with participating CHCs in each state to share best practices associated with implementing the models of care.
- In-person TA visits with the RoMoNOH leadership team and PCA coach to provide additional subject-matter expertise related to oral health education, refining workflows, working through preventive oral health care documentation and data extraction, motivating providers and team members to improve their delivery of preventive oral health care at primary care visits, and other activities, as needed.
- Incentive payments for reaching annual benchmark goals for delivering preventive oral health care, submitting monthly metrics, and demonstrating project sustainability.
- Funding for dental hygiene equipment and/or oral health providers' salaries for 12 CHCs that embedded an oral health provider into their primary care clinic. The dental hygiene equipment will remain on site for continued use after the RoMoNOH project ends.
- Opportunity for an additional incentive payment for conducting an activity to further enhance efforts to reach the project's goals. Thirteen CHCs participated in a project-objective-enhancement activity in 2023 (e.g., offered training incentives for primary care providers and staff, developed tools for delivering patient education and anticipatory guidance, provided support for a care coordinator to help make appointments for patients referred for oral health care).
- A 12-minute video training for primary care medical providers and oral health providers and staff to improve self-management goal setting among parents and other caregivers of patients in the target population using AAP's Brush Book Bed program. Implementation materials include a children's book about oral health in English and in Spanish, a child-sized toothbrush, fluoride toothpaste, handouts for parents to support health messages, and caregiver oral-health-goal-setting tools in English and in Spanish.

PCA coaches are essential to the RoMoNOH approach and are supported via

- Training sessions to improve oral health knowledge and coaching skills.
- Monthly 1:1 meetings to review their state's participating CHCs' progress toward meeting project objectives, opportunities for improvement, and strategies for addressing challenges to implementing models of care.
- Monthly coaching calls and semiannual in-person meetings with all PCA coaches to provide practice facilitation TA and enhance peer learning and support.
- Basecamp©, a communications platform, to share project information and resources.

Settings

PCA coaches are coaching 30 CHCs in Arizona, Colorado, Montana, and Wyoming. RoMoNOH applied the following criteria for CHC recruitment and selection:

- Provides infant and child care and/or perinatal care (those with a large population of infants and young children are prioritized).
- Is located in a health professional shortage area.
- Has insufficient on-site and/or community-based oral health care for infants, young children, and pregnant women.

Models of Care

RoMoNOH supports CHCs in the establishment of several models of care. The model used depends on the CHC's oral health needs and capacity and on the state's policies and regulations on the provision of preventive oral health care (e.g., scope of practice, Medicaid reimbursement). All models feature a variety of services that address the five interprofessional oral health core clinical competencies for integrating oral health care into primary care (i.e., risk assessment, evaluation, preventive interventions, communication and education, interprofessional collaborative practice) and referrals to oral health providers. The models include coordinated care with a referral from primary care providers to off-site oral health providers, co-located care with a referral to on-site oral health providers, and integrated care with an oral health provider embedded in the primary care team. Some CHCs are implementing a combination of these models based on the oral health needs of their population.

Strategies to Help Sustain Models of Care in CHCs: Lessons Learned

CHCs showing the most success in implementing their models of care have strong leadership support and primary care provider and staff buy-in, ensure that health care teams have dedicated time to work on their model, reliably submit and use monthly metrics to drive their continuous-quality-improvement activities, and provide care to a population with substantial oral health needs. These drivers are supporting practices' success at attaining project objectives and earning their benchmark payments. PCA coaches provide support and hold CHCs accountable for making ongoing changes and improvements to their models of care.

While the COVID-19 pandemic substantially impacted the implementation of RoMoNOH activities, participating CHCs remain largely resilient and dedicated to RoMoNOH activities. RoMoNOH speculates that the CHCs with the most successful RoMoNOH activities buoyed the project through the worst of the pandemic.

RoMoNOH plans to build sustainability of the provision of preventive oral health care in all participating CHCs via

- Operationalizing changes to electronic health records.
- Incorporating oral health training into employee onboarding training.
- Establishing standard work and system policies.
- Hiring, retaining, and operationalizing dental hygienists in CHCs that implemented the embedded dental hygiene model.

PCA coaches are developing RoMoNOH guides and other materials to support the sustainability of the project's efforts within their PCAs.

From September 2020 through February 2023, over 250 primary care providers received training on preventive oral health care and the key components of integrating oral health care into primary care. During the same time period, the participating CHCs provided over 72,500 preventive oral health services to infants and children from birth to age 40 months (34,403 risk assessments, 20,498 referrals for care, and 17,629 fluoride varnish applications). The percentage of infants and children from birth to age 40 months who received preventive oral health services increased from 32.7 percent (September 2020 through February 2021 reporting period) to 78.5 percent (September 2022 through February 2023 reporting period). Fourteen of the 24 CHCs have oral health providers embedded into their medical teams on site.

Two of the 24 participating CHCs completed the project commitments. One of these CHCs was not providing oral health care before it began participating in the RoMoNOH project. With funding from the Health Resources and Services Administration's Maternal and Child Health Bureau and with RoMoNOH project support, the CHC established a dental clinic, hired a part-time dentist and dental hygienist, built a dental operatory, and purchased dental hygiene equipment and supplies. In addition, to sustain activities initiated by the RoMoNOH project, this same CHC designated fluoride varnish applications as one of its five quality-improvement measures, incorporated *Smiles for Life: A National Oral Health Curriculum* into its annual training for residents, and made caries risk assessment and fluoride varnish application a part of standard primary care.

Core Function Activities

Data, Analysis, and Evaluation

RoMoNOH leadership from the Denver Health Office of Research and the University of Colorado Department of Family Medicine, in collaboration with the PCA coaches, work with participating CHCs to optimize their EMR and EDR and processes for documenting provision of preventive oral health care. Participating CHCs are entering monthly aggregated data into the Shared Practices Learning Improvement Tool (SPLIT), and RoMoNOH creates monthly feedback reports that coaches use in their continuous-quality-improvement activities with CHCs. SPLIT is also used for coaching field notes.

Aspects of the adaptation and use of electronic health records (EHRs) pose challenges, including lack of interoperability between EMRs and EDRs, multiple EHR-optimization demands on limited information technology (IT) staff, and transition to a new EHR platform in some CHCs. In addition, some IT staff have limited experience with supporting medical-dental integration, and some are unavailable or unwilling to be a part of the implementation team. To overcome these challenges, RoMoNOH invested in Azara©, a centralized data-reporting and analytics system, to extract data from EHRs. RoMoNOH also partnered with the Colorado Community Managed Care Network, Colorado's Health Center Controlled Network, to

expand a set of oral health measures and develop a fluoride varnish registry. In addition, RoMoNOH leveraged IT expertise from successful CHCs to help other CHCs, worked to engage IT staff with the implementation team to resolve problems immediately, and developed strategies to count preventive oral health services not captured in the EHR, such as documentation of parent and caregiver goal setting using a goal-setting tool.

RoMoNOH is using the Practical, Robust Implementation and Sustainability Model, a multilevel, mixed-method evaluation tool, to frame its evaluation. As part of the evaluation, RoMoNOH is working with a health economist to estimate the costs of replicating the different models of care. The economist is also using Colorado Medicaid claims data to conduct a cost-benefit analysis of the impact of providing preventive oral health care to infants and young children on averting health care expenditures for oral disease.

Outreach and Education

RoMoNOH, with assistance from its outreach and education partners, CDPHE and NNOHA, developed a five-module eLearning course to train primary care providers on delivery of preventive oral health care. The modules incorporate the five oral health core clinical competencies and include

- Module 1: Introduction | Interprofessional Collaborative Practice
- Module 2: Caries Risk Assessment | Oral Evaluation | Preventive Interventions
- Module 3: Communication and Education | Patient Engagement
- Module 4: Interprofessional Collaborative Practice | Dental Referral
- Module 5: Perinatal Oral Health

The eLearning modules are also used by PCA coaches and CHC primary care providers in coaching events and to onboard new CHC staff and residents, reinforce the delivery of the oral health core clinical competencies, and support sustainability. RoMoNOH developed coaching tools to train nonclinical staff on integrating oral health care into primary care. RoMoNOH also provides TA and subject-matter expertise related to oral health education, practice, and patient engagement to CHCs and PCA coaches as needed.

In 2022, RoMoNOH developed an enhanced parent and caregiver engagement activity using AAP's Brush Book Bed program to motivate primary care providers to discuss oral health and oral hygiene practices with parents and other caregivers and to encourage them to set and meet oral health goals for their children. The 184 parents and other caregivers who participated in the activity and completed the baseline and follow-up surveys reported a significant improvement in five of nine oral health behaviors.

Policy and Practice

RoMoNOH, with assistance from AAP, its policy and practice partner, conducted environmental scans in four states to gather information about the scope of practice for primary care providers and oral health providers, Medicaid payment for preventive oral health care, and policies and regulations that impact the target population's oral health. RoMoNOH uses the information to gain knowledge about state-level barriers and opportunities for integrating oral health care into primary care. RoMoNOH also uses the information to raise awareness among key stakeholders in each state about policies that provide opportunities for or create barriers to promotion of oral health and delivery of preventive oral health care to the target population. For example, RoMoNOH educated key stakeholders in Wyoming about a barrier to patients receiving care in federally qualified health

centers (FQHCs). FQHCs were not reimbursed by Medicaid for a medical visit and a dental visit if both occurred on the same day. The stakeholders requested that Medicaid remove the barrier, and Medicaid reimbursement rules in Wyoming were changed to allow FQHCs to be reimbursed for a medical visit and a dental visit that occurred on the same day.

Impact of COVID-19

The COVID-19 pandemic significantly impacted health behaviors and health care use for all NOHI projects. CHCs had to dedicate time and effort to managing new challenges during the pandemic, which took them away from RoMoNOH activities. In some CHCs, IT and data staff's time shifted from developing processes for collecting and reporting data for RoMoNOH to emergent COVID-19 needs, which resulted in RoMoNOH project delays. In response, RoMoNOH adjusted timelines for assigned tasks, moved meetings and coaching sessions to an online platform when necessary, and provided additional support when needed. Patients continued to come to CHCs for well-child visits and immunizations, and these visits were leveraged for same-day integrated oral health care visits.

Consequences of the intense efforts needed to manage the COVID-19 public health emergency in CHCs include staff burnout, staff loss, staff turnover, and difficulty recruiting for vacant positions, which continue to negatively impact CHC staff's motivation to increase their project-activity efforts. The consequences are ongoing, despite the end of the public health emergency, and require continued attention.

Resources

- Rocky Mountain Network of Oral Health: Project video and presentation
- Brush, Book, Bed Patient Engagement Activity Assessments
  - Provider and Staff Survey (2022)
  - Tiny Teeth Baseline and Follow Up Survey (2022)
- Community Health Center Assessments
  - Community Health Center Baseline Survey (2019)
  - Key Informant Interview Guide (2019)
- Community Health Center Coaching Tools
  - Coaching Change Package (revised edition) (2020)
  - Community Health Center Site Monthly Field Note (2020)
  - Learning Network Field Note (2020)
- Community Health Center Oral Health Needs and Capacity Assessment (2019)
- Medical-Dental Integration eLearnings (2020)
  - Instructions for Accessing eLearnings
  - Introduction to Oral Health Integration (module 1)
  - Clinical Skills & Integrating Oral Health (module 2)
  - Oral Health Communication & Education (module 3)
  - Interprofessional Collaboration (module 4)
  - Perinatal Oral Health (module 5)
- Parent/Caregiver Oral Health Risk Assessment (2022)
- Ready, Set, Goals! (2021)
- Rocky Mountain Network of Oral Health (RoMoNOH): Environmental Scan 2023 Chartbook (2023)

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Transforming Oral Health for Families (TOHF)

The TOHF project is part of the Networks for Oral Health Integration (NOHI) Within the MCH Safety Net, funded by the Maternal and Child Health Bureau. NOHI's goal is to improve access to and use of comprehensive, high-quality oral health care for pregnant women, infants, and children at high risk for oral disease.

The TOHF project focuses on increasing access to preventive oral health care in the primary care setting for infants and children from birth to age 40 months and pregnant women. The project is being implemented in selected community health centers (CHCs) in Virginia, New York, Maryland, and the District of Columbia.

Partners

TOHF is led by HealthEfficient, located in New York, working in partnership with the Maryland Dental Action Coalition, the Regional Primary Care Coalition (District of Columbia), the Schuyler Center for Analysis and Advocacy (New York), and Virginia Health Catalyst. TOHF also partnered with the Mid-Atlantic Association of Community Health Centers to assist with recruiting CHCs and with the University of Maryland School of Public Health to assist with health-literacy assessments.

Approach

TOHF is activating a network of CHCs in the three states and the District of Columbia to develop, implement, continuously evaluate, and refine a family-centered, team-based primary care model for the delivery of preventive oral health care to the target population. TOHF uses the *Breakthrough Series Collaborative* model developed by the Institute for Healthcare Improvement as a method for training and improvement. TOHF initiated four 18-month learning collaborative (LC) cycles with a total of 17 participating CHCs across four cohorts during the first 4 years of the project period. For the fifth and final year of the project, TOHF will recruit up to 10 additional CHCs for a 6-month LC that will focus on the foundational elements of the model (e.g., establishing the oral-health-integration team at the CHC, training primary care providers, optimizing the electronic health record [EHR], building workflows) that proved effective with the first four cohorts.

TOHF is supporting CHCs via

- Online learning sessions and virtual group coaching sessions for primary care providers and staff

of participating CHCs. Sessions are designed to align with the CHC's learning needs and competencies related to evidence-based oral health care, communication and education, interprofessional collaborative practice, health information technology (HIT) integration, optimization of quality-improvement (QI) data, sustaining integration activities, and scaling activities from the pilot project to standard CHC operation.

- Opportunities for peer learning among participants during team storyboard presentations to share best practices, successes, and strategies for overcoming obstacles to implementing preventive oral health care.
- A curated compilation of oral health training modules for primary care providers to assist with the development and implementation of a sustainable training program that aligns with individual CHC operations. Topics include early childhood caries, oral health risk assessment, oral health anticipatory guidance, and fluoride varnish application.
- One-on-one guidance to optimize the use of HIT and to facilitate changes within the EHR to support the integration of oral health care into primary care and data collection and reporting.
- Development of data dashboards and associated analytics to facilitate data-driven decision-making.
- A best practice workflow guide including an oral health risk assessment, a clinical-decision-support algorithm, and EHR template examples.
- An implementation toolkit to support team development, goal setting, and workflow analysis to help increase the number of primary care providers delivering preventive oral health care in a structured and sustainable manner.
- One-on-one practice facilitation to address challenges to and opportunities for enhancements specific to each site.
- Oral health kits and educational materials for primary care providers to share with parents and other caregivers during discussions about oral hygiene practices and self-management goals.
- Stipends for CHCs upon start and completion of LC participation that are tied to project deliverables, including data collection, testing and implementing change models, sharing best practices, and participating in learning sessions.
- Development of a list of individualized strategies and activities for sustaining oral health integration and continued monitoring of data after the 18-month LC cycle ends.

Settings

TOHF applies the following criteria for CHC recruitment and selection in Virginia, New York, Maryland, and the District of Columbia:

- Provide primary care to infants and children from birth to age 40 months.
- Have at least 30 percent of the target population enrolled in Medicaid.
- Serve as a patient-centered medical home with care coordinators and navigators assisting families with complex health care needs.
- Use electronic medical records (EMRs) and electronic dental records (EDRs).
- Have experience using QI approaches to implement, evaluate, and refine models of care.

Models of Care

TOHF is working with participating CHCs to build, implement, continuously evaluate, and improve their family-centered, team-based primary care models for delivery of preventive oral health care. Each CHC project team follows a similar approach for integrating oral health care into primary care in five focus areas (provider knowledge, oral health risk assessment, education and anticipatory guidance, fluoride varnish application, and referrals), with specific adjustments based on individual CHC needs. The lessons learned from each LC cohort and participating CHC experience are incorporated into the planning and resource development for subsequent cohorts. By the end of the 5-year project period, TOHF will have identified, refined, and disseminated strategies to support promising models of care in CHCs.

Strategies to Help Sustain Models of Care in CHCs: Lessons Learned

- Build a strong working relationship early on with the CHC to evaluate the EHR and HIT system, assist with the development of data templates and billing alignment, and train primary care providers on how to use the system to make it easier to adopt and sustain an integrated workflow. EHR optimization is essential to supporting sustainable integration of oral health care into primary care.
- Include oral health training for primary care providers as part of onboarding and annual training, leveraging the CHC's internal learning-management system when possible.
- Emphasize leadership buy-in and multidisciplinary participation during implementation to help make the provision of oral health care in primary care a part of the organization's culture.
- Incorporate oral health quality measures into existing QI programs and data-analytics systems to help make integrated oral health care a part of the QI culture.

From March 2020 through February 2023, over 300 primary care providers received training on preventive oral health care and the key components of integrating oral health care into primary care. During the same time period, participating CHCs provided over 51,000 preventive oral health services to infants and children from birth to age 40 months (28,576 risk assessments, 20,262 fluoride varnish applications, and 2,269 referrals for care). The percentage of infants and children from birth to age 40 months who received preventive oral health services in the first two cohorts of CHCs increased from 44.7 percent (September 2020 through February 2021 reporting period) to 54.6 percent (September 2022 through February 2023 reporting period). All participating CHC sites have made the provision of preventive oral health care in primary care a standard operation of care.

- Acquire input on clinic workflow from all team members.
- Use EHR alerts and reminders for primary care providers about conducting the caries risk assessment during the well-child visit to help make the procedure part of standard practice.
- Incorporate health-literacy concepts when developing or selecting educational materials.
- Use motivational interviewing and goal setting to engage parents and other caregivers.
- Provide education and hands-on training for primary care providers and staff on fluoride varnish application to increase their confidence and competence.
- Develop a process to track and monitor referrals within the EHR, closing the loop between medical providers and oral health providers whenever possible.

As a federally designated Health Center Controlled Network responsible for helping CHCs and other health professionals in its network, HealthEfficient has successfully incorporated an integrated oral health component into its menu of services to help CHCs improve clinical and operational performance while integrating oral health care into care delivered.

Core Function Activities

Data, Analysis, and Evaluation

The HealthEfficient HIT team provides each CHC with an evaluation of its HIT system, site-specific recommendations for EHR optimization, assistance with development of templates and billing alignment, and identification of useful HIT-infrastructure investments to support the integration of oral health care into primary care. For data collection and reporting, the HealthEfficient HIT team created templates for collecting de-identified clinical and administrative project data from CHCs. The team works with each CHC to incorporate processes for data collection and validation. With input from participants in the first two LC cohorts, the team identified five key health center metrics to display on a dashboard for assessing progress and supporting implementation of oral-health-integration practices. The metrics are: (1) percentage of primary care providers completing oral health training, (2) percentage

of target population patients receiving a risk assessment during a well-child visit, (3) percentage of target-population patients receiving oral health education and anticipatory guidance and establishing a self-management goal during a well-child visit, (4) percentage of target-population patients receiving a fluoride varnish application during a well-child visit, and (5) percentage of target-population patients receiving a dental referral during a well-child visit. The HealthEfficient HIT team worked with Relevant, a data-analytics platform, to facilitate dashboard development and data analysis. In the final year of the project, TOHF will also use Relevant to analyze population demographics and social determinants of health to develop targeted interventions. A detailed summative evaluation is planned for the end of the project period.

The use of separate EMR and EDR systems poses challenges for certain elements of integration, most notably closed-loop referral processes. In addition, the complex nature of diverse analytics platforms that CHCs use to pull data from the EHR requires site-specific strategies for HIT optimization. By providing 1:1 guidance to each CHC, the HealthEfficient HIT team helps address these challenges.

Outreach and Education

TOHF produced a curriculum for educating primary care providers and staff, which is delivered to CHC teams via learning sessions, coaching sessions, and training programs that individual CHCs developed. Trainings target skill enhancement to achieve the five competencies recommended by the Institute of Medicine (i.e., providing patient-centered care, employing evidence-based practice, working in interdisciplinary teams, applying QI, utilizing informatics). Trainings also incorporate the interprofessional oral health core clinical competencies (i.e., risk assessment, evaluation, preventive interventions, communication and education, interprofessional collaborative practice). TOHF administered knowledge assessments pre- and post-training to gauge overall understanding and to use information from the assessments to improve training for subsequent cohorts.

To enhance patient knowledge and awareness, TOHF identified best practices, educational materials, and other tools to deliver patient education and anticipatory guidance at an appropriate health-literacy level. TOHF also assembled oral hygiene kits containing toothbrushes, fluoride toothpaste, dental floss, and oral hygiene instructions for distribution to patients and parents and other caregivers at participating CHCs as part of anticipatory guidance and educational activities to encourage the use of healthy oral hygiene practices at home. The University of Maryland School of Public Health completed an oral-health-literacy review with a sample of CHCs to identify opportunities to enhance educational and promotional materials and improve communication with the target population. A summary document with key recommendations and resources was developed for all participating CHCs. In addition, TOHF worked with its state and jurisdiction coordinators to develop community partnership maps that outline potential opportunities for collaboration between participating CHCs and community maternal and child health organizations to support oral health activities.

Policy and Practice

Coordinators from each of the three states and the District of Columbia conducted environmental scans to gain knowledge about factors that could impact the integration of oral health care into primary care for the target population at the state or the jurisdiction level. The scans include questions focused on state-based scope of practice of primary care providers and oral health providers, Medicaid billing and payment, and policies and regulations. Coordinators are using information from the scans to raise awareness among stakeholders, legislators, government officials, and community partners about facilitators of and barriers to improving access to oral health care for the target population in each state or jurisdiction and to share information about scope of practice, Medicaid billing and payment, and policies and regulations in other NOHI states. Specific policies and regulations that could potentially impact the integration of oral health care into primary care include payor reimbursement for related procedures; Medicaid coverage for adults, particularly for pregnant women; growth and expansion of telehealth for oral health care delivery; and expansion of scope of practice for nondentists.

At a community level, information gleaned from the environmental scans related to scope of practice helped CHCs optimize clinical workflows. Information about billing regulations led to the development of a best-practice guide on clinical workflow, EHR template generation, and billing practices for preventive oral health care delivered in the primary

care setting. TOHF also developed and uses a policy matrix tool to support individual CHC sites in identifying potential areas for optimization of practice and barriers to implementation.

Impact of COVID-19

The COVID-19 pandemic significantly impacted health care behaviors and health care use for all NOHI projects, including TOHF. CHCs experienced challenges with staffing shortages, maintaining and adjusting patient care, and managing testing and vaccination activities. Despite the end of the COVID-19 public health emergency, CHCs continue to experience challenges due to staffing shortages and turnover of staff involved in patient care, administration, data processing and analytics, and QI. In response, TOHF worked with each CHC to modify project timelines, adapt project plans, set realistic goals for QI, and support HIT development for data collection and analytics. In addition, group coaching sessions provide opportunities for CHC teams to share strategies for managing these obstacles.

Resources

- Transforming Oral Health for Families: Project video and presentation
- Knowledge Assessments and Scoring Rubrics for Medical and Oral Health Care Providers, Staff, and Patients (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Dental Assistants (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Dental Hygienists (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Dentists (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Medical Assistants (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Non-Clinical Staff (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Nurses (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Obstetric Providers (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Patients (2020)
  - Survey of Dental Caries Prevention and Scoring Rubric: Physicians (2020)
- Participating Community Health Center Assessments
  - Health Information Technology Assessment (2020)
  - Oral Health Integration Readiness Profile for Participating Community Health Centers (2020)
  - Oral Health Literacy Environmental Scan (2020)
  - Oral Health Services Assessment (2020)
  - Participating Health Center Needs Assessment (2020)
  - Policy Assessment Matrix for Community Health Centers (2021)
  - Practice Referral Process Assessment (2020)
- Selection of Oral Health Training Modules for Medical Providers (2020)
- TOHF eCW Workflow & Configuration Guide (2022)
- Transforming Oral Health for Families (TOHF): Environmental Scan 2023 Chartbook (2023)

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