

Integrating Oral Health Care into Primary Care

Five Successful, Long-Standing, Statewide Programs
Providing Care for the Maternal and Child Health Population



Program Spotlight

Colorado Medical-Dental Integration Project

Overview

The Colorado Medical-Dental Integration (CO MDI) project of the Delta Dental of Colorado Foundation integrated dental hygienists into medical practices to increase access to oral health care for vulnerable populations,^a improve patients' oral health, and build sustainable medical-dental integration models. The project initially consisted of three waves from 2007 to 2011, 2014 to 2019, and 2018 to 2022. The CO MDI project has been sustained in participating health care organizations, and the model has expanded in community health centers participating in the Rocky Mountain Network for Oral Health Integration project (2019 to 2024) funded by the Maternal and Child Health Bureau, Health Resources and Services Administration.

^a Vulnerable populations include people with low incomes, who are uninsured, and/or who are from racial and ethnic minorities; children from families with low incomes; older adults; and people with chronic health conditions. Vulnerable populations also include people living in rural areas who encounter barriers to accessing health care.

During monthly meetings and biannual in-person learning sessions, CO MDI implementation coaches provided technical assistance to medical practices on workflow modifications, billing, dental equipment purchasing, regulations, and safety. Measures were tracked monthly and used to drive the delivery of high-quality oral health care and continuous improvement. CO MDI was implemented by the Adult and Child Center for Outcomes Research and Delivery Science (ACCORDS) at the University of Colorado Anschutz Medical Center, Delta Dental of Colorado Foundation, and 26 health care organizations that integrate dental hygienists into their medical practices. Over the course of the CO MDI

“Technical assistance is key to expansion and replication of the model. It’s understanding billing. It’s understanding scope of practice. It’s understanding the relationship between providers and how they implement the work. It’s understanding what’s required for liability, insurance, collaborative agreements, and those kinds of things. It’s the coaching and technical assistance that Patty and her team provide that makes it work and makes it successful.”

—CO MDI





project, 43 dental hygienists have been integrated into 33 medical practices in 27 health care organizations across Colorado.

Inception and Early Years

The broad scope of practice for dental hygienists in Colorado created a supportive environment for pioneering medical-dental integration and developing integrated care-delivery models. Between 2007 and 2011, grantees (medical practices) focused on building evidence for the feasibility of using dual-functioning exam rooms within medical practices to increase access to oral health care provided by integrated dental hygienists. The findings from the feasibility project (2007–2011) informed Wave 1 (2014–2019) and Wave 2 (2018–2022) of CO MDI.

While the initial goal was to reach young children, CO MDI sites provided oral hygiene care to people across the lifespan. Early in the project, the population of focus changed from children to the population being seen in the medical practices: Adults were served in 40 percent of visits and children under age 5 in 27 percent.

Funding

CO MDI was funded by the Delta Dental of Colorado Foundation.

Notable Program Strengths

- The project had steady funding from the Delta Dental of Colorado Foundation for approximately 15 years, from the feasibility study (2007–2011) through two implementation waves (2014–2019 and 2018–2022).
- Colorado has a broad scope of practice for dental hygienists that allows for dental-hygiene diagnosis;^b prescribing fluoride, topical medications, and chlorhexidine gluconate on a limited basis; and administering anesthesia with indirect supervision of a dentist. Dental hygienists can also practice independently without the supervision of a dentist and can bill Medicaid directly. These factors facilitated the development, implementation, and sustainability of the project.
- Grant funds were used to purchase dental-hygiene equipment, support the initial salary of integrated dental hygienists, and facilitate a learning network for participating medical practices. The learning network served as a forum for medical practices to learn, share, and work together to improve the coordination, quality, and integration of medical care and oral health care.

Notable Program Evaluation Activities

- Project data helped inform the development of the [Medical-Dental Integration Toolkit](#), which contains materials for practices in Colorado and other states that provide guidance on implementing integrated dental-hygienist models of care.
- Project data were analyzed and published, adding to the body of evidence for the effectiveness of co-locating and integrating dental hygienists in primary care settings.
- Evaluation expertise from Patty Braun, University of Colorado ACCORDS program, was instrumental in conducting the CO MDI evaluation.

^b“Dental-hygiene diagnosis” means the identification of an existing oral health problem that a dental hygienist is qualified and licensed to treat within the scope of dental hygiene practice. The dental-hygiene diagnosis focuses on behavioral risks and physical conditions that are related to oral health. [Colo. Rev. Stat. § 12-220-104 2024]

Evaluation Methodology

In each wave, clinics tracked measures monthly to evaluate implementation of models and drive the delivery of high-quality care and continuous improvement. Financial measures were tracked quarterly.

Source: Monthly measures

Objective 1: Expand access to dental services for underserved populations.

- Number of total patient visits.
- Percentage of patient visits by insurance type.

Objective 2: Develop financially sustainable models for delivering CO MDI project services.

Objective 3: Improve the oral health of CO MDI patients.

- Number of patient referrals for restorative care.
- Number of patients who attended restorative care.

Select Evaluation Findings

Source: [Colorado Medical-Dental Integration: Wave 1 Report 2020](#) (2020)

Between September 2015 and March 2019:

- 67,092 visits were provided by dental hygienists integrated into CO MDI sites.
- 34,157 referrals to dentists were made for untreated dental caries.
- 55 percent of patients who were referred to a dentist for restorative care attended those visits.

Resources to Learn More About Evaluation

- [Embedding Dental Hygienists into Medical Care Teams: Implementation and Evaluation of a Medical-Dental Integration Approach in Colorado](#) (2023)
- [Integrating Dental Hygienists into Medical Care Teams: Practitioner and Patient Perspectives](#) (2021)
- [Collaboration Between Medical Providers and Dental Hygienists in Pediatric Health Care](#) (2016)
- [Feasibility of Colocating Dental Hygienists into Medical Practices](#) (2013)



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