



Dental Public Health Project Descriptive Report Form

Name of Project
North Carolina’s Into the Mouths of Babes (IMB) Program
Executive Summary
<p>The Into the Mouths of Babes (IMB) Program is a preventive oral health program that supports medical practices in delivering fluoride varnish applications and oral health counseling during well-child visits. The IMB program primarily targets medical facilities who provide well child visits for Medicaid enrolled children from birth to age 3½. Over 25 years, IMB has grown into a nationally recognized model of medical–dental integration cited in federal guidelines and emulated in 35 states.</p> <p>Core partners include the NC Department of Health and Human Services Oral Health Section (OHS), NC Medicaid, University of North Carolina (UNC) Gillings School of Global Public Health and UNC Adams School of Dentistry, the NC Academy of Family Physicians, and the NC Pediatric Society. POHS visits include oral evaluation, caries risk assessment, caregiver counseling, fluoride varnish application, and dental referral as indicated. A NC-developed Priority Oral Health Risk Assessment and Referral Tool (PORRT) helps providers triage children at highest caries risk in dental workforce shortage areas.</p> <p>Since its statewide launch, IMB has delivered 4.6 million preventive visits to over 1.09 million children and trained 9,800 clinicians (56% rural). NC Medicaid has invested approximately \$78 million in IMB services (2000–2024), with documented direct Medicaid savings of \$14.8 million and a modeled societal return of roughly 3:1 from avoided dental treatment costs alone. Children receiving four or more IMB visits before age 3 show 17.7% less untreated caries and 21% fewer hospital dental surgeries. Statewide kindergarten surveys document declining decay rates and narrowing income-based disparities beginning in 2004.</p> <p>Key success factors: equal and sustained commitment from all partner organizations; bidirectional data loops translating research into protocol updates; intentional quality improvement integration; and preservation of Medicaid reimbursement through multiple managed care transitions.</p>
Name of Program or Organization Submitting Project
Oral Health Section, NC Division of Public Health, NC Department of Health and Human Services

Project Overview

By the mid-1990s, NC faced converging early-childhood oral health crises: rising prevalence of early childhood caries among children from families with low income, a dental workforce shortage and geographic maldistribution, limited dental access for very young Medicaid children, and a dentist participation rate in NC Medicaid of only 25%. These challenges were documented through state surveillance data, an [NC Institute of Medicine Task Force on Dental Care Access](#) report, and reports from pediatricians and family physicians who observed unmet need at routine well-child visits.

A regional demonstration project, Smart Smiles, proved that integrating oral preventive care into primary medical visits in the Appalachian region was feasible and effective. That success prompted statewide pilot testing in 1999–2000; NC Medicaid began reimbursing IMB services in February 2000 and launched the program statewide in February 2001.

1. Target populations

- Pediatricians, Primary care and Family care medical providers (physicians, physician assistants, nurse practitioners, and public health nurses under physician standing orders) who serve young children.
-

2. Project goals

- Increase access to preventive oral health services for very young, low-income children lacking timely access to a dental home
- Reduce early childhood caries prevalence and close income-based and racial/ethnic oral health disparities
- Train and support medical providers statewide, especially in rural areas, to deliver oral screening, risk assessment, caregiver counseling, and fluoride varnish application
- Sustain a fully integrated reimbursement model through NC Medicaid that persists across managed care transitions
- Build and maintain cross-sector partnerships that translate research into practice and support ongoing quality improvement (QI)

3. What lessons learned would be useful for others seeking to implement a similar project, including what did not work?

- Equal and sustained commitment from all partner organizations is the single most important success factor. No partner can carry the program alone.
- Track both medical and dental preventive visits from the beginning; without comparative baseline data, measuring and demonstrating growth is difficult.
- Build QI into training and follow-up intentionally. The Children's Health Improvement Program Reauthorization Act ([CHIPRA](#))–funded Community Care of NC QI collaboration (2013–2016) produced measurable gains in utilization and dental referral when QI was structured and resourced.
- Designate resources to help practices connect families to dental homes and track follow-through; navigation support reduces the gap between referral and actual dental visit.
- Plan proactively for managed care transitions. IMB's 'carve-out' status in NC's 2019 Medicaid transition protected fee-for-service reimbursement, but practices still needed workflow support. Early engagement with managed care entities is essential.
- Early resistance from organized dentistry to medical providers delivering oral preventive care was resolved nationally through CDT/CPT coding and policy alignment. Addressing this consensus-building before program launch would have eased early adoption.

Resources, Data, Impact, and Outcomes

1. What resources were necessary to support the project, such as staffing, volunteers, funding and collaboration with other agencies or organizations?

Staffing: An Early Childhood Oral Health Coordinator at the Oral Health Section (OHS) oversees program administration, training logistics, Medicaid billing and coding support, and the NC Early Childhood Oral Health Collaborative (ECOHC) the multi-sector collaborative supporting IMB. The 20 OHS public health dental hygienists, employees of NCDHHS, cover all 100 North Carolina counties and deliver live 1-hour continuing education trainings statewide. Facilities requiring continued support are encouraged to attend the training again or contact the regional Public Health Dental Hygienist for additional resources and assistance. New staff members from facilities previously trained may follow the train the trainer model, or they may request the live training from the regional Public Health Dental Hygienist from the Oral Health Section. From 2013 to 2016, Community Care of NC QI specialists supplemented training and QI efforts. Roles at the primary care offices include nurses, physicians, and medical assistants.

Partnerships: The original six core partners—NC Department of Health and Human Services Oral Health Section, NC Medicaid, UNC Gillings School of Global Public Health, UNC Adams School of Dentistry, NC Academy of Family Physicians, and NC Pediatric Society—continue to collaborate through ECOHC. UNC Gillings leads ongoing program evaluation, producing multiple peer-reviewed publications. Additional organizations have joined ECOHC over time.

Funding: Federal and state Medicaid dollars provide core operating and service reimbursement funding. Federal grants supported the Carolina Dental Home pilot (2008–2012, eastern NC), CHIPRA QI work (2013–2016), and development of the online E-learning module through NC AHEC (North Carolina Health Education Centers).

2. What process measure data (counting) were collected, such as number of sealants placed or people served?

- 4.6 million preventive visits, involving assessments and/or fluoride varnish, were delivered to 1.09 million Medicaid-enrolled children (2000–2024)
- 9,800 clinicians trained, with 56% in rural practices
- Approximately 155,600–165,000 IMB visits billed per year since 2014
- \$78 million in total NC Medicaid expenditures for IMB services (2000–2024)

3. What outcome measure data (results) were collected, such as improvement in health?

- Children receiving ≥ 4 IMB visits before age 3 showed 17.7% less untreated caries (27% vs. 32%; $p < 0.001$) compared to matched controls. (Kranz et al., Pediatrics, 2015)
- Children in highest IMB-uptake counties had 21% fewer hospital dental surgeries (3.8 vs. 4.8 per 1,000 child-years; $p = 0.02$). (25th anniversary analysis, 2024)
- Provider setting and type (private practice vs. health department) did not influence effectiveness of POHS. (Kranz et al., AJPH, 2014)
- IMB contributed to a statewide decline in kindergarten caries rates beginning in 2004 and reduced income-based caries disparities at the community level. (Achembong et al., Pediatrics, 2014)
- Documented direct Medicaid savings: \$14.8 million (2000–2024). Modeled societal return approximately 3:1 from avoided dental treatment costs; does not capture costs linked to dental infection-related systemic conditions (e.g., heart disease, stroke).

4. How frequently were data collected?

NC Medicaid claims data are collected continuously and analyzed annually by OHS and evaluation partners. Kindergarten oral health assessment surveys are conducted periodically by OHS and local health departments, providing longitudinal population-level data. Research publications from UNC Gillings have drawn on linked longitudinal Medicaid claims and kindergarten screening datasets.

5. How were the results shared?

Results have been disseminated through peer-reviewed publications (linked on the IMB program page), ECOHC, NC pediatric and family medicine professional society meetings, the Association of State and Territorial Dental Directors, national oral health conferences, and the NC Public Health Association Annual Meeting (most recently a 25th anniversary poster in 2025). A public-facing [provider toolkit](#) is available online.

Budget and Sustainability

What was the budget for the project?

Approximately \$8 million per year in NC Medicaid claims for IMB services; approximately \$78 million cumulative (2000–2024). Internal OHS staff costs for coordination, training, and CME support are absorbed within agency operations (cost not separately tracked). Starter kits for newly trained practices: approximately \$16 per kit.

How was the project funded?

Primary funding is federal and state Medicaid (Title XIX). Additional funding has come from federal grants (HRSA, CHIPRA) supporting evaluation, pilot projects (Carolina Dental Home), and training expansion. NC AHEC supported development of the online E-learning CME module.

What was the sustainability plan for the project?

IMB has achieved structural sustainability through:

1. Full integration of IMB reimbursement into NC Medicaid as a fee-for-service benefit, preserved through three major Medicaid reform cycles including the 2019 managed care transition via carve-out status.
2. Incorporation of IMB Coordinator duties into the permanent Early Childhood Oral Health Coordinator position within OHS, with training delivery expanded to all OHS public health dental hygienists statewide.
3. CME accreditation is maintained through multi-organization partnerships (NC AFP, AAFP, NC AHEC).
4. An online E-learning module (available via NC AHEC) providing a scalable, low-cost training pathway for new providers. ECOHC continues policy advocacy, research, and practice support.

Resources

List resources developed by this project that may be useful to others, such as guidelines, infographics, policies, and/or educational materials. Include links if available.

- [IMB Program Toolkit](#) (training materials, provider guides, billing/coding resources, parent educational materials)
- [PORTT NC Priority Oral Health Risk Assessment and Referral Tool](#) with instructional video and referral guidelines—developed with NC pediatricians and dentists, based on UNC Gillings systematic literature review: available via the IMB Toolkit

- IMB E-learning CME module (1.0 CME hour, web-based): available through NC AHEC network
- Key peer-reviewed publications:
- Kranz AM et al. Effectiveness of preventive dental services. *Pediatrics*. 2015;136(1):107–114.
- Kranz AM et al. Setting/provider type and POHS effectiveness. *Am J Public Health*. 2014;104(7):e91–99.
- Achembong LN et al. Population-level caries impact. *Pediatrics*. 2014;133(4):e827–834.

Contact for Inquiries	
Name:	Stacey Solomon, RDH
Title:	Early Childhood Oral Health Coordinator
Agency/Organization:	Division of Public Health, Oral Health Section NC Department of Health and Human Services
Address:	65 Moore Drive, Durham, NC 27703
Phone:	919.214.1257
Email:	stacey.solomon@dhhs.nc.gov
Second Contact for Inquiries	
Name:	Jessica Scott-Jeffries, DHSc, RDH
Title:	Director of Programs
Agency/Organization:	Division of Public Health, Oral Health Section NC Department of Health and Human Services
Address:	65 Moore Drive, Durham, NC 27703
Phone:	252.671.7611
Email:	Jessica.Scott-Jeffries@dhhs.nc.gov

To Be Completed By ASTDD	
Descriptive report number:	36010
Associated BPAR:	Integrating Oral Health Care into Primary Care and Perinatal Oral Health
Submitted by:	Oral Health Section, NC Division of Public Health, NC Department of Health and Human Services
Submission file name:	DES36010NC-imb-prog
Submission date:	April 2026
Last reviewed:	May 2026
Last updated:	May 2026