

Uptake of a Multilingual Intervention to Promote Toothbrushing in a Safety-Net Health Care System

John Ahern, MB, BCh, BAO, BDentSc, MSc, PhD¹

Brandon Pleman, MD¹

Nicole O'Connor, MD¹

Hugh Silk, MD, MPH, FAAFP²

¹Cambridge Health Alliance, Department of Family Medicine, Cambridge, Massachusetts

²University of Massachusetts Chan Medical School, Department of Family Medicine and Community Health, Worcester, Massachusetts

Ann Fam Med 2024;22:173. <https://doi.org/10.1370/afm.3071>

THE INNOVATION

Dental caries is the most common chronic disease of childhood, disproportionately affecting low-income minority children.¹ Twice daily toothbrushing with fluoridated toothpaste is proven as a clinically effective, low-cost method of reducing dental caries in children.² Favorable toothbrushing behaviors of young children are strongly associated with parental support, thus interventions to improve toothbrushing in children should also focus on parents/caregivers.³ We designed a multilingual intervention to promote toothbrushing among children attending a safety-net health care system, by providing parents/caregivers with a toothbrushing kit during well-child visits.

WHO & WHERE

Cambridge Health Alliance (CHA) is a non-profit, safety-net health care system in Massachusetts providing care to >140,000 patients in Cambridge, Somerville, and Boston's Metro North region. CHA's patient population is racially/ethnically diverse and mostly from low-income minority backgrounds, with >40% receiving care in languages other than English, and ~60% insured by Medicaid. In 2021, CHA undertook an oral health needs assessment consisting of a survey, focus groups, semistructured interviews, and input from an expert advisory group. The assessment revealed significant findings, including concern about children's oral health and a perception of low oral health literacy among parents/caregivers. Consequently, the report concluded that greater efforts are needed to effectively communicate the importance of oral health and good oral hygiene practices to parents/caregivers and children.

Conflicts of interest: authors report none.

Corresponding author

John Ahern

163 Gore Street

Cambridge, MA 02141

jahern@cha.harvard.edu

HOW

In 2023, the Practice Improvement Team (PIT) at one of CHA's primary care clinics piloted a multilingual intervention to promote toothbrushing among young children by providing parents/caregivers with a toothbrushing kit during well-child visits. The policy stated that parents/caregivers of children aged 1-8 years who present for a well-child visit would be offered a toothbrushing kit during the rooming process by the medical assistant (MA). A toothbrushing kit would be offered during well-child visits only, not sick visits. Children aged <1 year or >8 years would not be offered a toothbrushing kit during the well-child visit. Each toothbrushing kit consisted of a children's toothbrush, fluoridated toothpaste, and a laminated toothbrushing information card. The toothbrushing information card consisted of evidence-based guidelines on how to brush a child's teeth, including information on how much toothpaste to use depending on the child's age. The toothbrushing information card was translated into Portuguese, Spanish, Haitian Creole, Nepali, and Arabic by CHA's translation services, so each toothbrushing kit consisted of a toothbrushing information card in the parent's/caregiver's preferred language ([Supplemental Appendix](#)).

LEARNING

Uptake of the intervention relied on 2 factors: (1) feasibility of the workflow for staff and (2) parental/caregiver interest. At the pilot clinic, standard practice for an MA is to provide a young child with a children's book during a well-child visit. Therefore, to optimize workflow feasibility, all prepacked toothbrushing kits were stored beside the children's books for the MA's convenience. To assess parental/caregiver interest, we calculated how long the supply of toothbrushing kits should last based on the number of patients aged 1-8 years who attend the pilot clinic each week for a well-child visit. The supply of toothbrushing kits lasted 26 weeks, which reflects an uptake of >80%.

This multilingual intervention to promote toothbrushing was successfully implemented at one primary care clinic. The intervention was uncomplicated, low-cost, and easy to incorporate as part of normal well-child visit workflow. The scalability of this intervention is favorable across this health care system, and other safety-net health care systems. Future study should include toothbrushing practices of families who receive toothbrushing kits.



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Key words: oral health; primary care; integrated care; health promotion/disease prevention; health behavior change; vulnerable populations; well-child visits

Submitted August 18, 2023; submitted, revised, October 27, 2023; accepted November 13, 2023.

Funding support: Patient Care Fund: Committee of Interns and Residents.



[Supplemental materials, including references](#)