



Pediatricians and Pediatric Oral Health

Knowledge and Attitudes about
Silver Diamine Fluoride in
Pediatric Practice

Executive Summary

October 2023

Introduction

Pediatric dental disease, while largely preventable, continues to impact too many children and families, particularly those disproportionately impacted by racial and economic inequalities. Pediatricians are essential partners in keeping children's teeth healthy but may lack the knowledge, training, or incentive to incorporate oral health promotion and disease prevention services into care provision for young children.

With a longstanding commitment to children's oral health, the American Academy of Pediatrics (AAP) [Section on Oral Health](#) embarked on a project in 2023 to better understand pediatricians' provision of preventive oral health services for children ≤5 years of age and assess pediatrician familiarity with and use of a new modality for treating dental caries – silver diamine fluoride (SDF).

The project included a Pediatric Oral Health Practices Survey with over 300 pediatricians and a series of key informant interviews. The interviews were conducted to learn more about:

- 🦷 Pediatricians' oral health training experiences
- 🦷 Current provision of oral health services and guidance to families of children ≤5 years of age
- 🦷 Perceptions about SDF as a treatment option for dental caries in the medical setting, including anticipated startup needs and challenges.

Survey results are available in the final report. This summary provides a brief overview of findings from 12 key informant interviews conducted during July and August 2023.

About the Interviews

The interview opportunity was promoted to pediatricians through relevant AAP Committees, Councils, and Sections. Prior knowledge about and/or use of SDF in pediatric practice was not a participation prerequisite.

Over 75 pediatricians applied to take part by completing an online interest form. Twelve applicants – all primary care pediatricians – were invited to participate through a selection process that prioritized 1) diversity in AAP Committee, Council, Section membership, 2) applicants who rated pediatric oral health as a serious problem in their patient population and, 3) applicants with larger percentages of patient populations ≤5 years of age.

To understand perceived needs and challenges that may be associated with SDF implementation in pediatric primary care settings, the majority of interviews (9 of 12) were devoted to pediatricians who *did not* currently use SDF in practice.

Conducted virtually, the 30-minute interview topics included pediatric oral health training, current provision of oral health services, community oral health partnerships, envisioning SDF implementation in the clinical setting (those not currently applying SDF), and lessons learned from practices already using SDF. Prior to each interview, participants reviewed the American Academy of Pediatric Dentistry's [Chairside Guide: Silver Diamine Fluoride in the Management of Dental Caries Lesions](#). Attendees received a \$50 e-gift card in thanks for their time.

Results

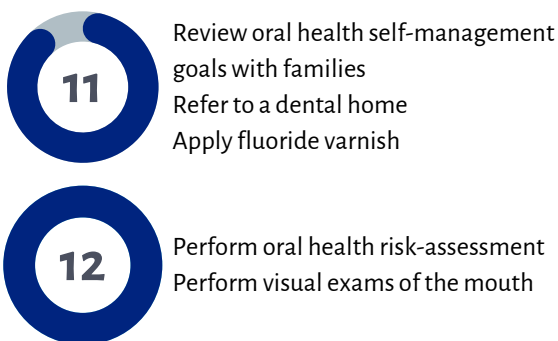
Oral Health Training

Nine of 12 pediatricians reported some type of oral health training, typically in residency, although most characterized their training as limited. Several interviewees participated in practice-based learning opportunities through a state-sponsored program or an AAP quality improvement initiative. Regardless of source, training content often focused on fluoride varnish application.

No participants had received SDF-related training. Several noted limited familiarity with SDF and three pediatricians were unaware of SDF prior to interview participation.

Current Provision of Oral Health Services and Guidance

Almost all pediatricians interviewed provided each of five key oral health preventive services to their patients.



Interviewees described most to all parents as receptive to and accepting of oral health services offered, especially families of children without a dental home.

Community Oral Health Partnerships

All participants reported relationships with local dentists but described limited dental care access for uninsured or Medicaid-insured patients. Some in academic practices had access to the resources of an affiliated dental school – and their pediatric dental trainees – but often reported "saving" those referrals for their most complex patients.

Envisioning SDF Implementation in the Clinical Setting: Pediatricians Not Currently Using SDF (n=9)

Anticipated Clinician and Staff Involvement in SDF Application. All reported that pediatricians in their practice would potentially be responsible for SDF application as well as nursing staff (n=6) and medical assistants (n=5). One participant suggested that residents might apply SDF.

Preparing for SDF Implementation. All participants endorsed the need for professionally-led training due to the risks of SDF staining and concerns about correctly identifying caries for treatment. Several anticipated more extensive and intensive training than they received for fluoride varnish application.

Few pediatricians expressed concerns about appropriate procedure space; several raised questions about SDF storage (eg, shelf life; cold storage requirements).

Incorporating SDF into Practice Workflows.

Participants envisioned different strategies for incorporating SDF into their practice workflows including applying SDF during a health supervision visit and scheduling a separate appointment. Several raised concerns about recommended post-SDF application follow-up, citing issues of compliance and billing. Participants described numerous resources that could support incorporation of SDF at the practice level.

Conditions to Make SDF Implementation Feasible and Successful in Practice. Pediatricians identified numerous conditions necessary to make SDF implementation feasible and successful in their practice. Foremost among these were education/training and payment.

Several pediatricians shared concerns about adding "one more thing" to young patients' visits, especially at a time when many practices are experiencing ongoing challenges associated with COVID, staffing, and clinician burnout.

Interest in SDF as a Treatment Modality. On a 5-point scale (1 = *not at all interested*; 5 = *very interested*), participants rated their own interest in SDF as a treatment modality for pediatric caries higher (mean = 4.0) than perceived interest among the families for whom they provide care (mean = 3.8) and pediatrician colleagues in their practice (mean = 2.6).

Lessons from Practices that Currently Use SDF (n=3)

Among the three pediatrician participants who affirmed practice use of SDF, none reported direct involvement in SDF application at the time of the interview, thus lessons learned are limited.

SDF Implementation. Participants acknowledged uncertainties about SDF implementation specifics (eg, supplies/equipment; office workflow; fiscal considerations).

Further, no interviewees could speculate on the percentage of families in their practice that accept the offer of SDF treatment.

For our patients, often with disabilities or complex medical conditions, the access is just as impossible as in more remote places and a lot of community dentists won't see our patients, even if they're pediatric dentists.

...we really have to own oral health in primary care at this point as much as we can.

Conclusions

Key informant interviews with a small set of primary care pediatricians provide learnings that can inform the direction of current and future AAP initiatives regarding oral health in general, and use of SDF as a treatment for childhood caries specifically. Despite concerns about correct SDF application and being asked to do “one more thing,” most pediatricians interviewed expressed interest in and recognized the need for SDF. Conditions required for successful and feasible SDF implementation in the clinic setting centered on appropriate education/training and adequate payment.

Limitations of note include a small, self-selected sample whose experiences and opinions may not reflect those of pediatricians in general. Willingness to participate in an interview about an innovative treatment for childhood caries may also reflect a stronger interest in pediatric oral health than exists in the overall population of primary care pediatricians.

Recommendations

Despite these limitations, interview learnings inform several recommendations for AAP consideration that include:

- 🔊 Creating educational and training opportunities for pediatricians to learn about SDF.
- 🔊 Studying and learning from practices that have successfully implemented SDF across a variety of practice types and settings.
- 🔊 Championing appropriate payment for practices that implement SDF and providing coding and billing guidance.
- 🔊 Continuing to promote and support the critically important oral health preventive care that many pediatricians provide.

I'm glad that AAP is bringing oral health into the pediatric space and helping support pediatricians to do this work.

Acknowledgements

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