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# Title

*Evaluation of Fluoride Varnish Implementation for Well Child Visits in a Family Practice Residency Clinic* 

## Priority 1 (Research Category)

Screening, prevention, and health promotion

#### Presenters

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## Abstract

Context: Dental decay is the most common chronic disease in children, with racial minorities and children living in poverty having the highest prevalence. Dental fluoride varnish, a protective coating painted on teeth to help prevent caries, requires no special equipment and can be applied in <2minutes. Per the USPSTF and American Academy of Pediatrics, dental varnish application should be considered every 3-6 months during well child exams. Objective: Evaluate incorporation of fluoride varnish applications in well child visits. Study Design: Mixed-methods. Setting: Two residency clinics in Milwaukee, WI. Population studied: 6 month - 6 year well child visits, pre/post-provider survey. Intervention: Dental varnish application protocol was implemented in July-Sept. 2019. All providers completed the STFM Smiles for Life Module 6. Outcome measures: Pre/post-surveys were conducted to identify provider's opinions including importance, sustainability, and barriers to implementation of a dental varnish protocol. Well child visit data from 7/1/19 1/15/20 (period 1) and 1/16/20 - 12/31/20 (period 2; representing COVID pandemic) was compared for both clinics regarding rates of preventative visits with fluoride dental varnish applied. A Z-test for Equality of Two Proportions was used to compare rates. Pre/post-survey answers were analyzed using 2-sample T-tests. Results: 1,984 well child visits in study period; 369 (19%) with varnish application. During period 1, 25% of visits at clinic 1 and 16% of visits at clinic 2 included a varnish application. There was no significant difference in application rates between periods (clinic 1=22% visits and clinic 2=15%). During the Covid-19 pandemic varnish applications decreased from 18.6 to 8.1 per month at clinic 1 (p<0.01), but increased from 12.5 to 15.2 per month at clinic 2 (p=0.18). Our pre/post-surveys identified the same barriers to application (not enough training/time, unsure where to find supplies). Except for percentage of eligible patients seen for well child exams including fluoride varnish (63% v. 35% p<0.01), no other survey responses were significantly different. Conclusions: Dental fluoride varnish application can be successfully implemented into academic primary care clinics to reach children most at risk, but not without challenges. Results of

further surveys can be used to streamline protocols for sustainability. Optimized processes may be adapted by others to decrease health disparities.