INTRODUCTION

Dental caries is considered to affect 97% of world population during their lifetime.
At least, 59% of children in the age group of 12-19 years, will have one documented cavity.
American Academy of Pediatrics recommends Fluoridated toothpaste to all children starting at tooth eruption, regardless of caries risk. In addition, Fluoride varnish is recommended every 3–6 months for all children from tooth emergence until they have an established dental home.
Michigan State University College of Human Medicine (MSU-CHM) general pediatric clinics is an academic practice serving 4000 children.
The aim of this project was to improve the oral fluoride varnish application for all children starting at 6 months of age or at the time of tooth eruption up to 5 years of age duration by at least 50% in 18 months.

METHODS

The stakeholders identified were physicians, nurses, medical assistants and health information team (HIT).
The team met every month for 1-2 hours and started to work on methods to increase the rate of fluoride varnish application.
Baseline data about oral health screening and fluoride varnish were obtained.
The QI project was based on PDSA cycle with a 6-month gap in between the cycles. For the first cycle, all medical staff obtained a 2-hour knowledge and skills training on dental caries and current recommendations on fluoride varnish.
PDSA cycle 2 involved having automatic reminders for providers in the electronic medical records (EMR).
PDSA cycle 3 involved having automatic fluoride orders to the recommended age groups. Results were analyzed after every 6 months and improvements were made based on the input from data and medical staff.

RESULTS

The number of patients who had fluoride varnish applied increased from 14% (n=50) to 55% at the end of PDSA cycle 3.
Administration of the varnish did not affect the flow of the patients in a busy primary care practice.
The rate of improvement was seen across all the age groups, all of the providers and in both of our clinical sites.

DISCUSSION

We certainly achieved more than the targeted aim for the project.
Some of the factors that affected the project were the late buy-in from physicians and medical staff transition to a brand new EMR funding for fluoride varnish parental concern about fluoride etc.

CONCLUSIONS

It is possible to adhere to the oral fluoride varnish guidelines in busy primary care practice.
This will ultimately increase oral hygiene and prevent dental caries.
The project is being continued and we have raised our goal of fluoride varnish for the next 12 months to by 75%.

REFERENCES

3. http://www.ihi.org/resources/Pages/ImprovementStories/Qan dAonQISixQuestionsForIHIImprovementAdvisor.aspx

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