

Analytic Framework: School Fluoride Varnish Delivery Programs

The analytic framework postulates the pathway leading from school fluoride varnish delivery programs to improved health outcomes, access to care, and improved health equity.

School fluoride varnish delivery programs are offered to children attending preschools and schools. These programs lead to increased receipt of fluoride varnish applications, which in turn leads to reduced initiation of tooth decay and reduced progression of tooth decay, which could lead to reduced morbidity. In addition, these can lead to improved health equity, measured in reduced disparities by income and other social determinants of health in both tooth decay and receipt of fluoride varnish.

Potential effect modifiers include child, school, and community factors (e.g., baseline tooth decay severity, socio-demographics, rural/urban, policy); background fluoride exposure (e.g., fluoridated water); fluoride varnish application (e.g., frequency, follow-up time); provider (e.g., dental vs. non-dental provider) and co-interventions (e.g., sealants).

Potential additional benefits include integrating preventive dental care into medical care, increasing high-risk children with a dental home, and improving quality of life and school performance. Potential harms include excess fluoride exposure and allergic reactions to fluoride varnish application.