

Indicator C.4. Prevention: Topical Fluoride for Children at Elevated Caries Risk, Dental Services (NQF #2528)

Description:	Percentage of enrolled children ages 1–21 who are at “elevated” risk (i.e., “moderate” or “high”) who received at least two topical fluoride applications within the reporting year. This indicator is a Dental Quality Alliance (DQA) measure and is endorsed by the National Quality Forum.
What data source is used?	Administrative enrollment and claims data are used to calculate this indicator. This indicator can be applied to both public program and commercial (private payer) administrative claims. This indicator is recommended for states to report for their pediatric Medicaid and Children's Health Insurance Program (CHIP) beneficiaries. Reporting on this indicator may also be possible for children with dental benefits through state health insurance exchanges or children represented in all-payer claims databases.
Who is the target population?	Children ages 1–21 enrolled in a program (e.g., Medicaid/CHIP) or a dental plan who are at increased risk for dental caries.
How is the indicator measured?	The indicator is expressed as a percentage [numerator/denominator x 100%]: <div style="border: 1px solid black; border-radius: 15px; padding: 10px; margin: 10px 0;"> <p>Numerator: The subset of children in the denominator who received at least two topical fluoride applications as a dental service</p> <hr style="border: 0.5px solid black;"/> <p>Denominator: Number of children ages 1–21 who are at “elevated” risk (i.e., “moderate” or “high”) for dental caries</p> </div>
Are any children excluded?	Children who do not qualify for dental benefits should be excluded.
What does this indicator measure and why is it important?	This indicator is a process measure of whether children are receiving evidence-based care . Dental caries is the most common chronic disease in children in the United States. ⁱ In 2015–2016, 45.8% of children ages 2–19 had dental caries (both treated and untreated), and 13% had untreated caries. ⁱⁱ Identifying caries early is important to reverse the disease process, prevent progression of caries, and reduce the likelihood of future caries. Evidence-based clinical guidelines recommend that topical fluoride should be applied at least every 3 to 6 months in children at elevated risk for caries. ⁱⁱⁱ
Are there any limitations to this indicator?	Dental procedure codes do not distinguish between all of the different types of topical fluoride applications; the measure assumes that all modes of professionally-applied topical fluoride are equally effective. The measure does not take into account home use of fluoride products.
Where can I get more information about Dental Quality Alliance (DQA) measures?	<ul style="list-style-type: none"> • The technical specifications for this indicator are available from DQA. • All DQA measures and user guides are available online.

ⁱCenters for Disease Control and Prevention. 2016. [Hygiene-Related Diseases: Dental Caries](#). Atlanta, GA: Centers for Disease Control and Prevention.

ⁱⁱFleming E, Afful J. 2018. [Prevalence of Total and Untreated Dental Caries Among Youth: United States, 2015–2016](#). NCHS Data Brief, no 307. Hyattsville, MD: National Center for Health Statistics.

ⁱⁱⁱWeyant RJ, Tracy SL, Anselmo TT, Beltrán-Aguilar ED, et al; American Dental Association Council on Scientific Affairs Expert Panel on Topical Fluoride Caries Preventive Agents. 2013. [Topical fluoride for caries prevention: Executive summary of the updated clinical recommendations and supporting systematic review](#). *Journal of the American Dental Association* 144(11):1279–291.