



Fluoride Varnish

Case Study

Case Study: Fluoride Varnish Use in Australian Children

The purpose of the study was to prevent dental caries among preschool children living in remote Australian areas. The study was prospective over a two-year period with children randomized by the community they lived in. Thirty remote communities were included in the study with children in 15 communities receiving fluoride varnish administered by community health workers or other health professionals twice per year along with health education for the parents. The children in the control communities received the routine care in community clinics. Baseline dental examinations as well as two-year follow-up exams were conducted on the children. Decayed, missing and filled surfaces were recorded at baseline and after two years of follow-up in each group by trained and calibrated examiners. At baseline children (n=666) in intervention and control communities were of similar age and had similar caries experience. After two years of follow-up, with 82% of children examined, children in the intervention group experienced significantly fewer caries than in the control communities — on average by 3.0 surfaces per child (95% CI = 1.2, 4.9), yielding a preventive fraction of 31%. These findings held true after adjusting for confounding factors, indicating that fluoride varnish is effective in preventing dental caries in young children.

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References:

1. Slade GD, Bailie RS, Roberts-Thomson K, Leach AJ, Raye I, Endean C, Simmons B, Morris. Effect of health promotion and fluoride varnish on dental caries among Australian Aboriginal children: results from a community-randomized controlled trial. *Community Dent Oral Epidemiol* 2011; 39: 29-43.