

## PUBLIC POLICY AND ORAL HEALTH INEQUALITIES

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management

**Abstract:** It is known that fluoridation has a contextual effect on oral health socioeconomic inequalities, but broad public policies have not been investigated. Thus, the aim of the current study was to determine the effects of municipal public policies on oral health across different social strata. This was a Cross-sectional study with 7,328 12-year-old children and 5,445 15-19-year-old adolescents from 177 Brazilian municipalities. Information at municipal level was collated for dental services, educational services, sanitation, and water fluoridation. The main individual level exposure was the disposable equivalent household income. The dichotomous outcomes were: untreated dental caries ( $\geq 1$  tooth), missing teeth ( $\geq 1$  tooth) and filled teeth ( $\geq 1$  tooth). Analyses were carried out using multilevel logistic regression. Interaction terms were tested between individual level income and policy variables. The prevalence of untreated dental caries, missing and filled teeth was 47.0%, 15.1% and 47.5%, respectively. There was no significant interaction between income and policy indicators. Individuals living in municipalities with no water fluoridation had 1.42 (95% CI 1.08-1.86) higher odds of having untreated dental caries; the OR for those in municipalities with less education policies was 1.36 (95% CI 1.07-1.73); those in municipalities with less sanitation had OR=1.05 (95% CI 0.78-1.40); and those in municipalities with less dental care had OR=1.36 (95% CI 1.02- 1.80). Fluoridation and policies about sanitation, education and dental care were similarly associated with oral health in different social strata. Other policies on social and economic fields may be further explored.

**Key words:** health inequalities; social inequity; health policy

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