

STROBE Statement

Manuscript title: Dental Fluorosis and Associated Factors in 12-Year-Old Thai Ethnic Children in Con Cuong, Nghe An, Vietnam: A Cross-Sectional Study with Water Fluoride Analysis

Journal: BMC Oral Health

<i>Section/Item</i>	<i>Item No</i>	<i>Recommendation</i>	<i>Location in manuscript</i>
<i>Title and abstract</i>			
<i>Title</i>	1	Indicate the study's design with a commonly used term in the title or abstract	Title: "A Cross-Sectional Study with Water Fluoride Analysis"
<i>Abstract</i>	2	Provide a structured summary including background, objectives, methods, results, and conclusions	Abstract (structured), lines 1–28
<i>Introduction</i>			
<i>Background/rationale</i>	3	Explain the scientific background and rationale for the investigation	Introduction, paragraphs 1–2
<i>Objectives</i>	4	State specific objectives, including any prespecified hypotheses	Introduction, last paragraph
<i>Methods</i>			
<i>Study design</i>	5	Present key elements of study design early in the paper	Methods: "Study Design and Setting", first paragraph
<i>Setting</i>	6	Describe the setting, locations, and relevant dates	Methods: "Study Design and Setting", dates:

			"May to November 2023"
<i>Participants</i>	7	(a) Give eligibility criteria, and the sources and methods of selection of participants	Methods: "Participants and Sampling"
		(b) If applicable, describe methods of recruitment	Not applicable – cross-sectional survey
<i>Variables</i>	8	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers	Methods: "Variables and Data Collection" (clinical examination, water fluoride, questionnaire)
<i>Data sources/measurement</i>	9	For each variable of interest, give sources of data and details of methods of assessment (measurement)	Methods: sub-sections on clinical exam, water analysis, questionnaire
<i>Bias</i>	10	Describe any efforts to address potential sources of bias	Methods: calibration of examiners, standardized protocols; Limitations section discusses residual bias
<i>Study size</i>	11	Explain how the study size was arrived at	Methods: "Participants and Sampling" – stratified random sampling, all eligible children included
<i>Quantitative variables</i>	12	Explain how quantitative variables were handled in the analyses	Methods: "Statistical Analysis" – continuous variables (water fluoride) as mean $\pm$ SD, used in t-tests and logistic regression
<i>Statistical methods</i>	13	(a) Describe all statistical methods, including those	Methods: "Statistical Analysis" – bivariate

		used to control for confounding	(chi-square, t-test) and multivariable logistic regression with forced entry
		(b) Describe any methods used to examine subgroups and interactions	Not performed due to limited power
		(c) Explain how missing data were addressed	No missing data reported
		(d) If applicable, describe analytical methods taking account of sampling strategy	Stratified sampling accounted for by including commune-level water fluoride
	Results		
<i>Participants</i>	14	(a) Report numbers of individuals at each stage of study (e.g., numbers screened, eligible, enrolled)	Results: "Participant Characteristics" – 476 enrolled
		(b) Give reasons for non-participation at each stage	Not applicable – all eligible participated
		(c) Consider use of a flow diagram	Not required; simple cross-section
<i>Descriptive data</i>	15	(a) Give characteristics of study participants (e.g., demographic, clinical, social)	Table 3 and text: gender, dietary habits, water fluoride
		(b) Indicate number of participants with missing data for each variable of interest	No missing data
<i>Outcome data</i>	16	Report numbers of outcome events or summary measures	Results: Tables 1–4, fluorosis prevalence,

			water fluoride means, caries prevalence
<i>Main results</i>	17	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% CI)	Tables 3 and 4; adjusted OR in Table 4
		(b) Report category boundaries when continuous variables were categorized	Water fluoride analyzed as continuous; not categorized
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Not applicable – cross-sectional
<i>Other analyses</i>	18	Report any other analyses performed (e.g., subgroup analyses)	None performed
Discussion			
<i>Key results</i>	19	Summarize key results with reference to study objectives	Discussion, first paragraph
<i>Limitations</i>	20	Discuss limitations of the study, taking into account sources of potential bias or imprecision	Discussion: “Strengths and Limitations”
<i>Interpretation</i>	21	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, and consistency with similar studies	Throughout Discussion, especially final paragraphs
<i>Generalizability</i>	22	Discuss the generalizability (external validity) of the study results	Discussion: “Implications for Public Health”

Other information

Funding

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Give the source of funding
and the role of the funders

Declarations: “Funding”