



Prevalence of Dental Fluorosis and associated factors in schoolchildren, Cartagena, Colombia

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Objectives

To describe the prevalence of dental fluorosis and associated factors among 6 to 12-year-old schoolchildren in Cartagena, Colombia, in 2018.

Methods

Study design

Cross sectional study

Study sample

835 schoolchildren ages 6 -12

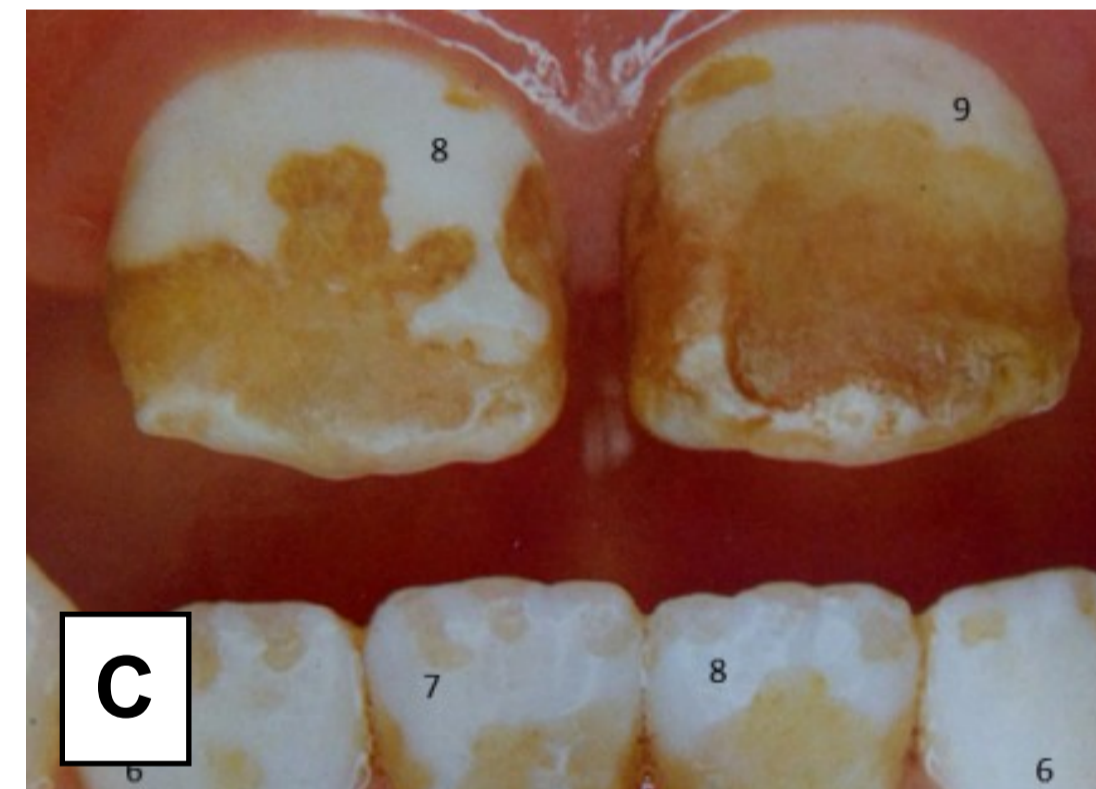
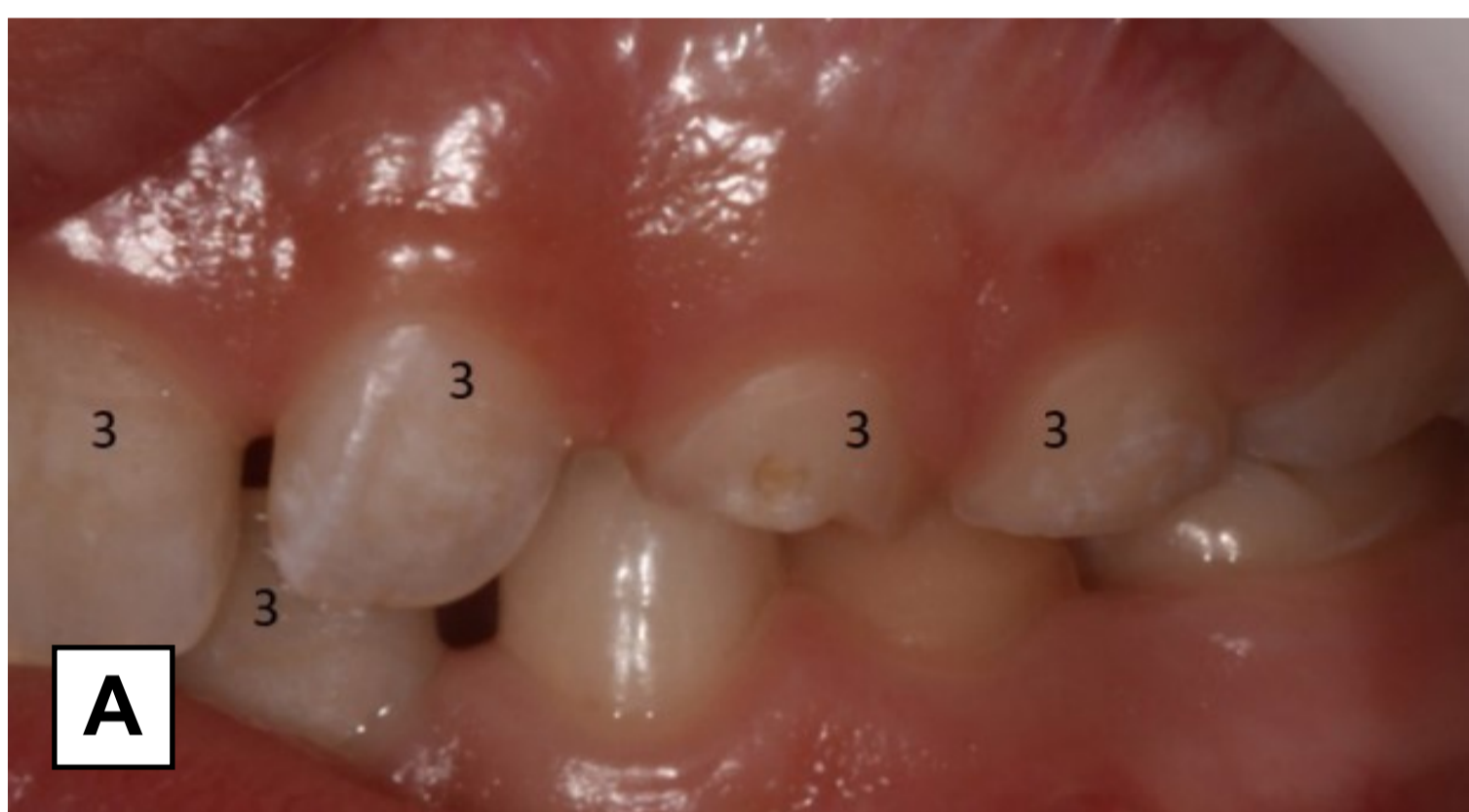
Sampling technique

Stratified random probabilistic

Clinical examination

Thylstrup and Fejerskov Index

Clinical characteristics of Dental Fluorosis



A. Score 3; B. Scores 4, 5 and 7. Enamel loss in the teeth 12, 11, 21, 22, 31, 41, 42. C. Score 8 in the tooth 11 and score 9 in the tooth 21.

Source: Cavalheiro et. al 2017; Fejerskov et al. 1994

Structured survey

Associated factors

1. Drinking water

2. Fluoridated salt

3. Food and drinks

4. Ingestion of toothpaste

5. Ingestion of mouth rinse

Statistical analysis

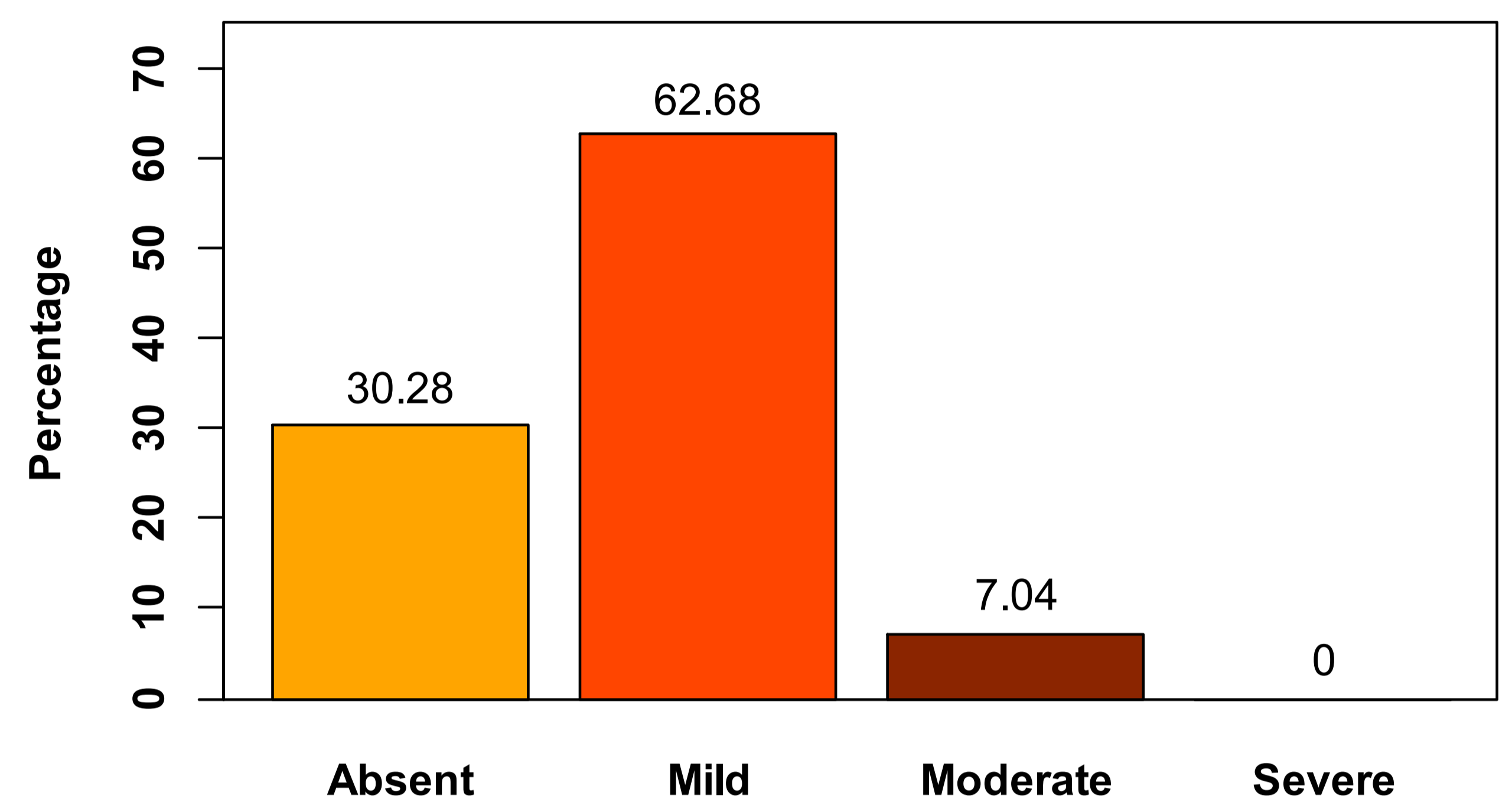
- Descriptive: frequency and proportions.
- Bivariate : Person's Chi-square tests.
- Multivariate: Logistic regression with robust errors, adjusted by potential confounders. Significance level fixed at 0.05.

References

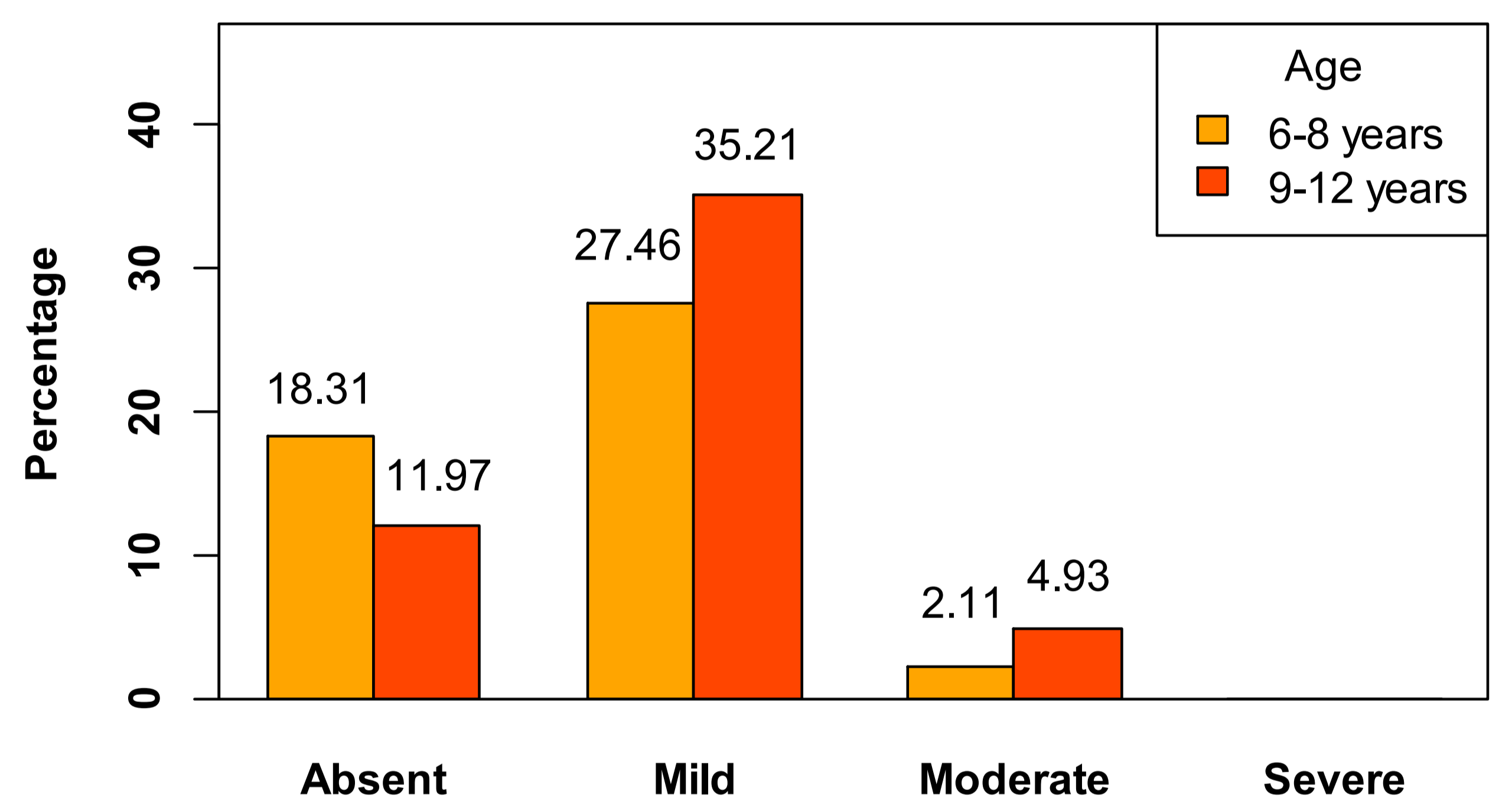
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Results

Prevalence of Dental Fluorosis



Prevalence of Dental Fluorosis by Age



Prevalence of Dental fluorosis and associated factors

Factors	Dental fluorosis		OR	p-value
	Present (%)	Absent (%)		
Age group				
6 – 8 years	18.31	29.58	1.00	-
9 – 12 years	11.97	40.14	2.24	0.0472
Age at which started self-teeth brushing				
Less than 3 years	6.34	28.87	2.54	0.0400
3 years or more	23.94	40.85	1.00	-
Age at which started to use mouthwashes				
Less than 3 years	2.11	12.68	1.00	-
3 years or more	28.17	57.04	4.33	0.0371

Conclusions

The high prevalence of dental fluorosis reflects the need to design and implement effective public health programs to regulate multiple exposures at early ages, which could contribute to reduce its prevalence in this population.