

# Dietary ingestion of fluoride and caries prevalence in preschool and school children in cities with different fluoride content in the drinking water and diet

## Ingesta dietaria de fluor y prevalencia de caries en preescolares y escolares de ciudades con dis

Cisternas,

Guerrero,

Morales,

Uauy,

The consumption of dietary fluoride and its relationship with dental caries prevalence was determined in 780 preschool children and 802 school children from quique, Arica, Santiago and San Antonio, where drinking water has different fluoride concentration. Dietary fluoride was determined from dietary records and fluoride content of foods. The fluoride consumption from drinking water was calculated by Galagan and Vermillion formula. The total fluoride consumption was obtained. The dental caries prevalence was established by the evaluation of dental caries index in deciduous (dmft) and permanent (DMFT) dentition. Significantly lower DMFT values were founded in cities with lower fluoride levels in drinking water. The exception was San Antonio, where high dietary fluoride explained the lower DMFT values relative to Santiago. Our results suggest that not only fluoride in water but also the consumption of fluoride rich foods has a significant impact on the prevalence of caries.