

# Water fluoridation saves poorest children from hospitalisation

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Credit: University of Canterbury

Research from the University of Canterbury (UC) GeoHealth Laboratory shows that children in our most deprived areas benefit from better dental health if water is fluoridated.

UC researcher Dr. Matt Hobbs, of the GeoHealth Laboratory in UC's College of Science, and his fellow researchers have examined the association between community [water](#) fluoridation and dental ambulatory sensitive hospitalisations (ASH) in children.

The study, published in the prestigious *International Journal of Epidemiology*, shows that the presence of community water fluoridation (CWF) was related to reduced dental hospitalisations in children aged zero to four and five to 12 years.

The study then considered the moderating effect of CWF on the association between area-level deprivation and dental ASH, "as we know that higher rates of dental ASH are present in areas with higher area-level deprivation," Dr. Hobbs says.

"Our study is important as it uses nationwide data that was pooled over six years. It shows that children aged zero to four years and living in the most deprived areas showed the greatest effect of community water fluoridation on dental ASH rates, and the biggest health gain was for those with the worst socioeconomic disadvantage."

According to the study, childhood ambulatory sensitive hospitalisations (ASH) account for about 30% of all acute and arranged medical and surgical discharges in Aotearoa New Zealand.

"We show tangible and important associations which relate fluoridated water to reduced dental hospitalisations in [children](#) aged zero to four and five to 12. However, for the first time we show that those living in the most deprived areas were most likely to benefit," Dr. Hobbs says.

Both globally and locally in New Zealand, the persistent nature of oral health inequalities presents a significant challenge to policymakers.

"The potential for continued variation in [water fluoridation](#) persists in New Zealand in the absence of regulation at the national level," he says.

"This study's results are important as better oral health and reduced dental hospitalisations have wider benefits as well—for instance, reducing school absences and improving childhood educational attainment."

**More information:** Matthew Hobbs et al. Area-level deprivation, childhood dental ambulatory sensitive hospitalizations and community water fluoridation: evidence from New Zealand, *International Journal of Epidemiology* (2020). [DOI: 10.1093/ije/dyaa043](https://doi.org/10.1093/ije/dyaa043)

Provided by University of Canterbury

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