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High Fluoride, Modest Fluorosis: Investigation in Drinking Water Supply in Halaba (SNNPR, Ethiopia)

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ABSTRACT

In Halaba district in Southern Ethiopia fluoride levels from boreholes are high (2.6 to 7.0 mg/l), yet the incidence of fluorosis is modest. Drinking water users living in the vicinity of four drinking water systems that have been in operation for more than 35 years were surveyed. Out of 625 persons 5 percent had severe dental fluorosis and 42 percent had mild forms—which is considerably less than results of other areas with comparable fluoride levels. The incidence was highest in the older age groups. Possible explanations were explored. A likely reason may be the continued large dependence on rain water harvesting ponds for human consumption alongside the use of water from the public borehole systems, but more investigations would be required to confirm this proposition.

KEYWORDS

Ethiopia, Fluoride, Fluorosis, Rift Valley, Water, Health

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