

## **Fluorosis prevalence in rural India: an example from Rajasthan**

**IKBAL HUSAIN<sup>1</sup> & JAKIR HUSSAIN<sup>2</sup>**

*1 Public Health Engineering Department, Bhilwara - 311001, Rajasthan, India*

[ikbalhusain@gmail.com](mailto:ikbalhusain@gmail.com)

*2 National River Water Quality Laboratory, Central Water Commission, New Delhi - 110016, India*

[drjakirhussain@gmail.com](mailto:drjakirhussain@gmail.com)

**Abstract** Fluorosis is endemic in 17 states of India and about 62 million people are at risk of fluorosis from drinking high fluoride water. In Rajasthan, 24 out of 32 districts are fluorotic and 15 million of the population are at risk. An exploratory qualitative study was carried out to describe the perception of the community regarding fluoride and related health problems; 876 habitations of the 1643 habitations studied were found to have >1.5 mg/L fluoride, ranging from 0.2 to 23.2 mg/L. A detailed fluorosis study was done in 63 habitations with >5.0 mg/L fluoride and 9242 individuals were examined. The overall prevalence of dental and skeletal fluorosis was found to be 5880/9242 (63.62%) and 1183/4839 (26.51%), respectively. The Dean's Community Fluorosis Index for the study area varies from 1.08 to 3.04. The Government has introduced some domestic and community-based defluoridation techniques, but people are still using traditional tactics.

**Key words** fluoride; dental fluorosis; skeletal fluorosis; CFI; defluoridation; Rajasthan, India