

Iodine content of potable water sources

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■ **ABSTRACT** : Iodine deficiency disorders (IDD) is considered as a major public health problem all over the world including India. An inverse relationship between iodine content of drinking water and goitre prevalence has been noted and supported by several investigators. Iodine content of drinking water varies from region to region and also within a region. Several villages in Nagpur district have been categorized as endemic by Public Health Department. The variation in iodine content in drinking water from different sources (bore well (BW), tap water (TW) and dug well (DW) from the endemic pockets of Nagpur district covering fourteen villages under five talukas (Kalmeshwar, Ramtek, Kamptee, Kuhi and Parseoni) were analyzed. The drinking water sources differed in the villages and also showed varied levels of iodine. The mean iodine values noted in water from DW was found to be highest (32.9 ± 9.26). Water sources from BW and TW showed slightly lower mean iodine levels (28.89 ± 14.11 and 28.82 ± 12.02 , respectively). Amongst the five talukas, the lowest mean iodine levels were seen in BW water (20.46 ± 12.66) and DW water (19.59 ± 2.17) in Ramtek taluka. The mean levels of iodine observed in water sources in other villages were found to range between a minimum of 24.06 ± 10.91 to a maximum of 47.91 except for the water sources of Kamptee taluka. The results showed that drinking water from different sources from the same geographical background of endemic regions of the five talukas of Nagpur district did not reflect significant variations in iodine concentration.

■ **KEY WORDS** : Iodine deficiency disorders, Endemic, Potable water