

عنوان مقاله:

Fluoride Concentration in Drinking Water Resources; North of Iran

محل انتشار:

نشریه بین المللی علوم بهداشت، دوره 3، شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

Aims Fluoride is one of the anions present in soil and water, and determining its level in drinking water is vital for preventing dental and bone diseases in societies. This research aimed to determine fluoride concentrations in drinking water sources of rural and urban areas of Babol City, Iran. Instrument & Methods This descriptive cross-sectional study was conducted in Babol City, Iran, in 2014. 384 water samples were taken from 43 wells and 3 springs in the rural areas, and from 20 wells, 3 water reservoirs, and the water distribution system in the urban areas. Fluoride concentrations of water samples were measured with a model DR2000 spectrophotometer using the standard SPADNS method. Data were entered to SPSS 16 software and were analyzed by ANOVA test. Findings The mean fluoride concentrations in the water samples of the deep wells were higher compared to those of the springs ($p=0.01$). The mean fluoride concentrations in the plains areas were higher compared to the mountainous regions ($p=0.02$). The mean fluoride concentrations in the wells of the urban areas, in the urban reservoirs, and in the urban water distribution system were 0.40 ± 0.14 , 0.39 ± 0.15 , and 0.40 ± 0.15 mg/l, respectively ($p=0.07$). Fluoride concentrations in water in urban areas during various seasons varied from 0.31 to 0.45 mg/l ($p=0.06$). Conclusion Fluoride concentrations in all drinking water sources in urban and rural areas of Babol are less than the ranges recommended by WHO and Iranian national standards.

کلمات کلیدی:

Fluorides; Drinking Water; Rural Health; Urban Health; Water Resources

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