

Children in northern Ethiopia are iodine deficient

Excerpted from: **Girma K et al. The status of iodine nutrition and iodine deficiency disorders among school children in Metekel Zone, Northwest Ethiopia.** *Ethiop J Health Sci.* 2014; 24 (2):109–116.

In Ethiopia, IDD has been recognized as a serious public health problem for the past six decades. Today, it still remains a major threat to national health and development. In 2011, an estimated 12 million school-age children were living with inadequate iodine, and 66 million people were at risk of iodine deficiency. Between 2005 and 2010, only 15–20% of households in Ethiopia were using adequately iodized salt, about a third of all school-age children living in endemic regions had goiter, and the national median urinary iodine concentration (MUIC) was 24.5 µg/L (1).

The USI program in Ethiopia began as early as 1989. But the Eritrean–Ethiopian war brought it to a halt, when the imports of iodized salt from the Red Sea ceased in the 2000s. In 2005, the Ethiopian government reinstated USI, with the goal of virtual IDD elimination by 2015 (2). In the subsequent years, the initiatives to maintain universal iodized salt distribution throughout the country were revitalized and relaunched. But despite some signs of progress, the country still has one of the highest rates of iodine deficiency and one of the weakest salt iodization programs (3).

To provide current data on the prevalence and severity of IDD among rural school children in Ethiopia, a study was carried out in Addis-Alem kebele (ward) in the Wombera District, Metekel Zone, between 2011 and 2012. Two hundred children aged 6–18 years were enrolled from a school of 750. All children were examined for goiter. Iodine levels were measured in salt samples from 50 households using both rapid field tests and standard titration. Urine samples from 30 children were tested for iodine concentration, and blood samples from 37 children were tested for markers of thyroid function.

The household characteristics were typical for a rural area with agriculture, and particularly crop production and animal

husbandry, as the main subsistence activity. Almost 40% of the children had goiter (girls more commonly than boys), and this rate did not change with age. A recent Ethiopian Demographic and Health Survey (EDHS 2011) reported that the highest household coverage of iodized salt (39.7%) was in the Beneshangul Gumuz region, where Addis-Alem kebele is situated. Although this study reports a similar overall coverage (40%), it also shows that only a quarter of these households (10% of all households) have salt that is iodized to adequate levels.

The median UIC among the school children was 39.9 µg/L (range, 20.54–62.2 µg/L), which shows small progress since 2005 when the national average was 24.5 µg/L. According to official guidelines, this indicates that the area is moderately iodine deficient. But with 80% of the children

tely iodized salt across the country. Careful evaluation of the impact of the USI program on the society is also necessary in order to achieve proper IDD control in the community. Reporting the results of such efforts is vital for policymakers and program managers whose goal is long-term IDD control.

References

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3. International Council for Control of Iodine Deficiency Disorders. Elimination of iodine deficiency through salt iodization in Ethiopia. Summary Report on Situation Analysis of IDD and USI in Ethiopia, ICCIDD 2012.



affected by moderate or borderline-severe iodine deficiency, much effort is still required to achieve sufficiency in the population.

As long as iodine deficiency remains a severe public health problem in Ethiopia, efforts are needed to further strengthen the existing systems to provide access to adequa-