

**Assessment of Iodine Deficiency Disorder (IDD)
in Womberma and Burie Districts,
West Gojjam Zone, Ethiopia**

Technical Report

Study Team: Aweke Kebede
Adamu Be;lay
Girmay Ayana
Dr Cherinet Abuye
Yohannes Tesfaye
Alemnesh Zelelew

July, 2010

Summary

Introduction

This report summarizes the results of IDD assessment in Womberma and Burie districts, West Gojjam, Amhara Regional state conducted in July 2010. The survey was sponsored by Micronutrient Initiative (MI).

Objective

The major objective of this study was to assess the situation of Iodine Deficiency Disorders (IDD) by conducting clinical examination for goiter, urinary iodide level determination, assessment of goiterogenic factors and availability of iodated salt, and knowledge, attitude and practices of the communities towards iodated salt in the area.

Method

Cross-sectional, community based study was conducted to assess magnitude and causes of goiter in Womberma and Burie districts, West Gojjam, Amhara Regional state. Clinical examination for goiter was conducted in children age 6-12 years (N = 513) and biological mother of the children age 15 – 49 months (N = 375) from randomly selected 400 households in 10 randomly selected village of the Woredas. Besides conducting household interview, urine samples were collected from children for urinary iodine determination.

Results

The study revealed that total goiter prevalence rate of 54% with 36.5% palpable and 17.5% visible goiter in children. It was found that female children are affected more than male children. The result also showed that maternal goiter rate was 30.1% with 16% palpable and 14.1% visible. The goiter rate was more pronounced in younger age groups of women than their old counterpart. Median Urinary Iodine excretion level in children was 0.5µg/dl indicating low level of iodine intake in the area. Goiter rate in children with UIE category < 2µg/dl (severe) was

64% while between 2 µg/dl – 4.9µg/dl (moderate) was 19.4%. Only 2.2% of the children had UIE level >10µg/dl, indicating adequate intake of iodine

Conclusion

The prevalence rate of goiter 54% in children and 30.1% in biological mothers of the children is more than 30%, cutoff point for severe iodine deficiency. According to WHO/UNICEF/ICCIDD this clearly indicates that goiter is endemic and severe in the study area. According to the same guideline, in a given community if the median urinary iodine level in school age children is below 2 µg /dl it indicates the severity of IDD in a community. In this study more than 64% of the children were having UIE level <2µg/dl which clearly indicates that the area is severely affected by iodine deficiency. As indicated by low median level of UIE (0.5µg/dl) results the major cause for goiter in the study area is iodine deficiency. Some food sources such as roots and tubers are found to contain goiterogenic factors that aggravate iodine deficiency problems when consumed unprocessed. Foods of this sort were not consumed or observed in the study. However, goiterogenic chemicals such as pesticides and herbicides were found to be used for more than two decades in the study area that might aggravate IDD situation in the community and hence need further impact assessment. Distribution and use of iodized salt is very rare in the area and only few people have knowledge of iodized salt.

Recommendation

In order to reverse the grave consequence of the problem immediate distribution of iodated salt or iodized oil capsule is highly recommended. Establishing sustainable source and distribution of iodized salt in the area shall be a strategy to safe guard the community. Immediate action in prohibiting direct application of pesticide and banned pesticides on food crops also need collaboration of sectorial governmental bodies. Although iodated salt is not in place it is important to create awareness on adverse effects of IDD, benefit of iodized salt, and how to use iodized salt in food preparation so that the community will raise the issue of right to iodated salt and seek their own solution.