Research Exercise Summary

PREVALENCE OF IODINE DEFICIENCY DISORDER ON MOTHERS AND CHILDREN IN ETHIOPIA

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Introduction

Iodine deficiency disorder (IDD) is a major problem worldwide, affecting different stages of human development. The most affected are pregnancy and childhood, where IDD causes high prenatal mortality and mental retardation. In Ethiopia, IDD has been a deep rooted problem and affects a large proportion of the population. In 2011, the International Council for the Control of Iodine Deficiency Disorders (ICCIDD) estimated that about 12 million school age children and 66 million people were living with inadequate iodine and at risks of iodine deficiency. Ethiopia is among the top iodine deficient countries in the world based on national median Urinary Iodine Concentration (UIC) <100 µg/L (Andersson et al., 2012). These problems can be partly explained by the lack of awareness about the importance of iodine and its effect, and lack of access to iodized salt in households and iodine deficiency in the soil of the country. Here I review the available data on iodine status during pregnancy and infancy in Ethiopia, in the context of growing awareness of the importance of iodine during pregnancy worldwide.

Iodine deficiency prevalence on women

Women require high amount of iodine during pregnancy. As a result, the deficiency of iodine has severe consequences in women who are living there. Despite this, very few scientific studies have been carried out so far. Ethiopia is divided in to 9 ethnically based regional states and 2 chartered cities. Nationally, total goiter rate (TGR) was recorded as 35.8 %, with more severe rates in four regional states, where about 60 % of the country’s population are living (Abuye and Berhan, 2007). Another study estimated that the goiter rate as ranging between15.9 - 59.9% with the median UIC of less than 37.2 µg/L in women in Southern region (Gebreegziabher et al., 2013). However, Data are missing for the remaining regional states, which encompass more than 80% of the populations. Thus, it is urgent to determine the prevalence, social and economic impacts of iodine deficiency to apply possible solutions in the rest of the country.
Iodine deficiency prevalence on school children

Iodine deficiency in school-age children is an indicator of the prevalence of IDD in a population. A national study indicates that goiter prevalence rate among school children and household members ranged from 0.4% to 66.3%, with a mean value of 35%, but it was also recorded up to 71 % in some regions (Abuye et al., 2007, Kibatu et al., 2014). Beside this, very little has been known about the effect of iodine deficiency on cognitive function of children in the country. Only one study explored this important question, finding that absenteeism and poor academic results in Southern as goiter associated with school achievement, which children who had goiter were 1.8 times more likely to have low academic achievement than those who did not have goiter (Wolka et al., 2013).

Conclusion

Iodine deficiency disorder is a major public health problem in all parts of Ethiopia. The TGR and UIC are good indicators of the severity of the problem in women and children who are usually suffering from iodine deficiency. A successful application of universal salt iodization with adequate supplies and regular monitoring would be useful at different levels. It is also crucial to look at the health outcomes and use more accurate and precise methodologies.

References