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Reviews of the Prevalence of Iodine Deficiency among vulnerable population in Ethiopia.

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Abstract

According to the WHO, Iodine Deficiency Disorders (IDD) are among the major public health problems of the world, particularly of pregnant and young women in many developing countries. The objective of the studies is to review paper on iodine deficiency disorder in Ethiopia. We identified and reviewed 10 papers on prevalence of iodine and goiter deficiency and associated factors among vulnerable population in Ethiopia. Iodine Deficiency disorders are a significant public health problem. Hence, there is a need to continue the supply iodized salt in order to achieve the goal of elimination of iodine deficiency disorders in Ethiopia

Background

According to the WHO, Iodine Deficiency Disorders (IDD) are among the major public health problems of the world, particularly of pregnant and young women in many developing countries. Low level of thyroid hormones in the body due to lack of adequate iodine in foods and drinks is responsible for iodine deficiency. More than two billion people in the world, most of them in developing countries, suffer from inadequate intake of iodine. In Ethiopia IDD has been recognized as a public health problem for many decades. In 2011, estimated that some 66 million persons in Ethiopia were “unprotected from iodine deficiency” as only 15 % of households had access to iodized salt.

Method

We identified and reviewed the report on 10 iodine deficiency disorder. The reviewed report includes: The goitre rate, its association with reproductive failure, and the knowledge of iodine deficiency disorders (IDD) among women in Ethiopia; Determinants of iodine deficiency in school children in different regions of Ethiopia; Prevalence and severity of iodine deficiency disorder among children 6-12 years of age in shebe senbo district, jimma zone southwest Ethiopia; Iodine deficiency and women’s health; Colonialism’s malign effect on health in Oromia region, in Ethiopia; Iodine Nutrition in Africa: an update for 2014 and lack of dietary sources of iodine and the prevalence of iodine deficiency in rural women from sidama zone, southern Ethiopia.

Results

Severe iodine deficiency in Ethiopian women leads to 50,000 stillbirths annually and the country’s goitre rate has ranges from 14% to 59 %. Among the factors that lead this deficiency are: low dietary intake and low iodized salt consumption. Adding iodine to salt provides protection from brain damage due to iodine deficiency for whole populations. In 2011 less than 5% of Ethiopian households are currently consuming iodized salt but this has been changed to 53% due to the enforcement of universal iodized salt legislation (EPHI, 2014). Ensuring that all edible salt is iodized is an investment that makes sense. For just a few cents per year, a child can be saved from the permanently damaging effects of iodine deficiency. In Africa, the largest burden of iodine deficiency in 2007, because of large population sizes, was in Ethiopia, Sudan, Algeria, Morocco, Ghana, and Mozambique.

No	Study title	Prevalence Total goiter rate	Median urinary iodine concentration (UIC) below 100 µg/L	Type of study design	Year of study
	The goitre rate, its association with reproductive failure, and the knowledge of iodine deficiency disorders (IDD) among women in Ethiopia	36%	-	cross-sectional survey	2005
	Iodine deficiency in primary school children and knowledge of iodine deficiency and iodized salt among caretakers in Hawassa Town: Southern Ethiopia	14%	90%	cross-sectional survey	2009
	Evidence supporting the implementation of universal salt iodization in Ethiopia	16%	96.5%	cross-sectional survey	2009
	Determinants of iodine deficiency in school children in different regions of Ethiopia	53%	-	cross-sectional survey	1999
	Prevalence and severity of iodine deficiency disorder among children 6-12 years of age in shebe senbo district, jimma zone southwest Ethiopia	59%	83%	cross-sectional survey	2011
	Iodine Nutrition in Africa: an Update for 2014		25%	cross-sectional survey	2013
	lack of dietary sources of iodine and the prevalence of iodine deficiency in rural women from sidama zone, southern Ethiopia	16%	96.5%	cross-sectional survey	2009

No	Study title	Prevalence of Adequately iodized salt	iodized salt coverage	Study design	Year of study
	National iodized salt coverage survey in Ethiopia	53%	89%	Community based cross-sectional	2014
	Ethiopian demographic and Health Survey	5%	15%	Community based cross-sectional	2011
	National Nutrition baseline survey	5%	15%	Community based cross-sectional	2009

The findings of the reviewed papers revealed that iodine status of the population is a significant public health problem in Ethiopia. Hence, there is a need to continue the supply iodized salt in order to achieve the goal of elimination of iodine deficiency disorders in Ethiopia

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