

Micronutrient Deficiency in India

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SUMMARY

Deficiencies in Indian population due to inadequacy of Micronutrients such as iron, vitamin A, vitamin C, iodine, zinc, etc. has received special attention in the recent past. The population groups which suffer most are children, adolescents and pregnant/lactating women. This paper provides an analysis of Micronutrient deficiencies in Indian population utilizing the information from 1950 till date. It has been observed that the level of anaemia which is due to inadequacy of iron continues to be high and there has been very little improvement over time. The problem of vitamin A deficiency is local and focal. However, deficiency due to iodine has declined very significantly. The deficiency due to inadequacy of vitamin C is not significant. There is recent emphasis on deficiency due to Zinc but availability of information is minimal. Thus, there is a need to look into the nutritional programs targeting children, adolescents and pregnant/lactating women to make them more effective.

Key words: Micronutrients, Anaemia, Goitre, Bitot's spot.

1. INTRODUCTION

In India, currently there is more emphasis on micronutrients as compared to macronutrients. This is because micronutrient deficiencies with respect to iron, vitamin A and iodine deficiency disorders continue to be major nutritional problems. Micronutrient deficiencies result from inadequate dietary intake, poor absorption of nutrients, excessive losses, increased requirements or a combination of these factors.

Iron deficiency anaemia (IDA) impairs cognitive performance, behavior, and physical growth of infants, preschool and school-aged children. It affects adversely the immune status and increases the risk of morbidity. It also lowers physical capacity and work performance of adolescents and adults. IDA adversely affects pregnancy outcome by increasing the risk of maternal mortality, prenatal and perinatal loss.

Vitamin A deficiency (VAD) is the most important cause of preventable blindness in young children. VAD generally manifests as xerophthalmia, which includes all ocular manifestations; severe deficiency causes corneal

xerosis/keratomalacia leading to irreversible blindness in young children. Even mild vitamin A deficiency, which is more widespread, is associated with increased risk of morbidity and mortality in children.

Iodine is an essential micronutrient for normal growth and development in humans. Iodine deficiency is the most common cause of preventable mental retardation in the world today. Iodine deficiency causes goiter, impaired brain development in the foetus and infant and retarded physical and psychomotor development in the child. The deficiency of iodine also impairs children's learning ability. During pregnancy, iodine deficiency results in still birth, abortion and perinatal deaths.

The importance of eliminating micronutrient malnutrition has long been recognized by India's policy makers and is well-reflected in the country's policy documents: the National Nutrition Policy (1993), which specifies control of micronutrient deficiencies, and the National Nutrition Plan of Action (1995), sets the ambitious goals of reducing anaemia among pregnant women to 25%, eliminating blindness due to vitamin A deficiency, and reducing iodine deficiency disorders to 10% by the

