

IRON AND IODINE DEFICIENCY PREVENTION

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Iron and Iodine are crucial micronutrients required for the health, growth, development, and survival of mother's and children among the poor in this country. Deficiency of iron result in anaemia- a state of ill-health wherein the iron containing bio-pigment haemoglobin that impart red colour to our blood & help carry oxygen from the air we breath to the tissue of our body, and thus help energize our metabolism, is deficient. Anaemia due to iron deficiency in our diet continue to account for the major proportion of maternal mortality as well as low birth weight and related infant mortality of our new born.

In the early 70's the govt. of India, realizing the all important role of anaemia in the causation of delivery related deaths of our mother's and low birth weight related death of our new born, launched a national program to prevent anaemia (NNAP) among pregnant women by providing iron and folic acid to expectant mothers in our country. In the mid 90's, after more than two decades of existence of NNAP, while researching the mechanism of low birth weight among new born in India, we came across the shocking fact that anaemia of expectant mothers continue to remain the most important cause for low birth weight of babies in India. On reviewing the status of this program we learned with dismay the fact that the NNAP remained a program in paper without implementation due to gross neglect. Cut to the quick by this fact, we wrote to the National Human Rights Commission (NHRC) about the gross violation of the fundamental rights of life, health & development of mothers and children, particularly of the poorer segments of our society, due to neglect. The NHRC promptly moved to address this issue and organized a National level meeting of stake-holders and experts on the problem to discuss what needs to be done in this regard. This meeting unanimously agreed to direct the government of India, Ministry of Health to adopt expeditiously all means to remedy the situation. Indeed the then Minister of Health was prevailed on to make a statement in the Parliament promising urgent action in this regard. Despite this, a perusal of the 2005- 06 (a decade after the NHRC directive) report of the ministry of health confirm that maternal anaemia remain the most important cause of maternal mortality and low birth of weight among new born and related infant mortality in India.

The story of Iodine Deficiency

In 1983, on the basis of work by Indian scientist, there was a conceptual transformation internationally, wherein endemic psycho- physical retardation rather than endemic goitre was to the emphasized as the important health consequence of nutritional iodine deficiency. The AIIMS scientists demonstrated wide prevalence of deficiency of thyroxin (an iodine containing hormone required for early development of human brain and body) among school children and newborn in the tarai endemic of UP and Bihar, wherein 10-25% school children & newborn were shown to have hypo-thyroidism and related mental sub-normality and growth retardation. These shocking observations, confirmed by several investigators internationally, lead to major shift in prioritisation of public health policy, resulting in world-wide effort by national and international agencies to eradicate nutritional iodine deficiency in the third world. In India, the then prime minister Mrs. Indira Gandhi included iodine prophylaxis through salt iodisation in her 20 point programme of priority. Subsequently Prime

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Minister Rajiv Gandhi gave leadership to promote a nation-wide effort to prevent nutritional iodine deficiency through universal iodisation of edible salt. Fifteen years after implementation of this programme, re-studies of school children in the most backward tehsil of the most backward district of Uttar Pradesh showed remarkable normalization of their seriously compromised IQ status as a result of effective salt iodisation.

The above two examples are paradigmatic of the major loss / gains to be made in improving the health, development and survival of our mothers and children as a result of failure/success in implementing nationally approved public-health programs. Needless to say the neglect of such programs would result in avoidable pregnancy related loss of life to mothers and babies in India, violating the most fundamental of all rights, namely the Right to Life!

