NUTRITION AND HUMAN RIGHTS

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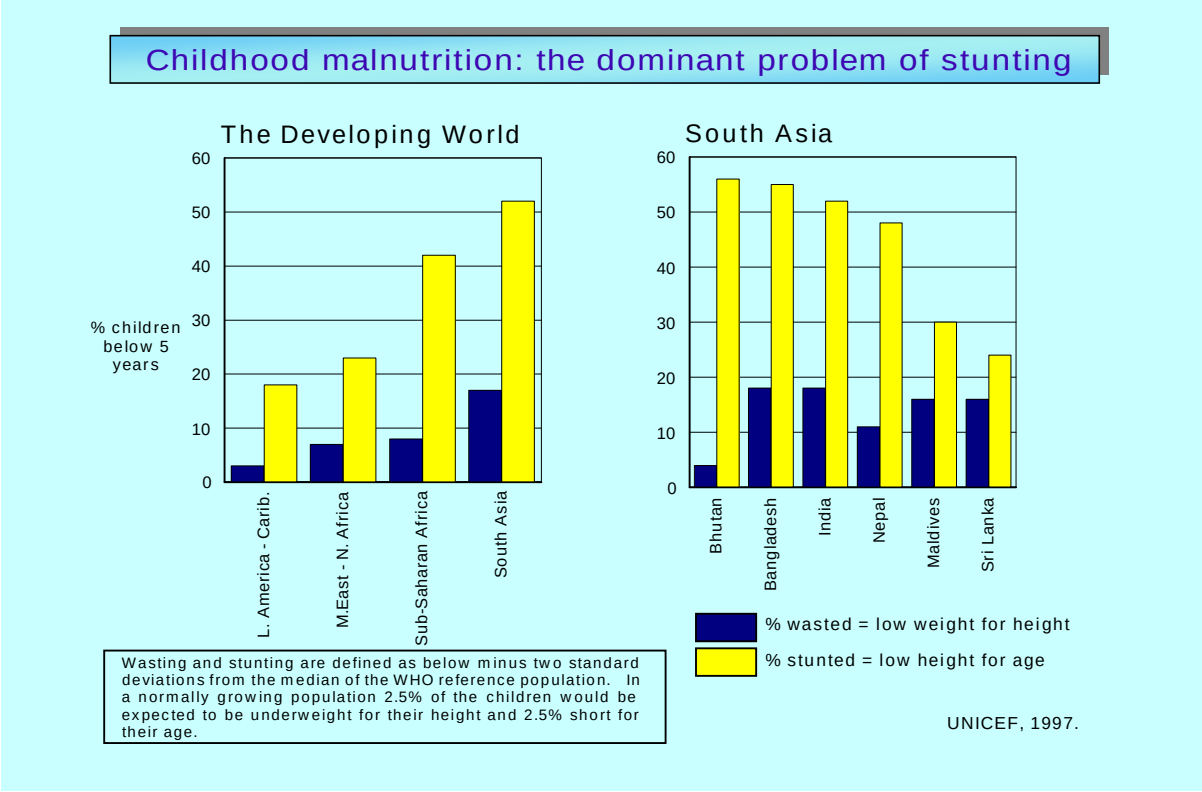
"The world is failing children by not ensuring they have enough to eat, says the UN Children's Fund (Unicef), May 02 , 2006. It says the number of children under five who are underweight has remained virtually unchanged since 1990, despite a target to reduce the number affected" BBC May 02, 2006. Half of all the under-nourished children in the world live in South Asia (India, Bangladesh, and Pakistan) Unicef has reported. And it also adds that poor nutrition contributes to about 5.6 million child deaths per year, more than half the total.

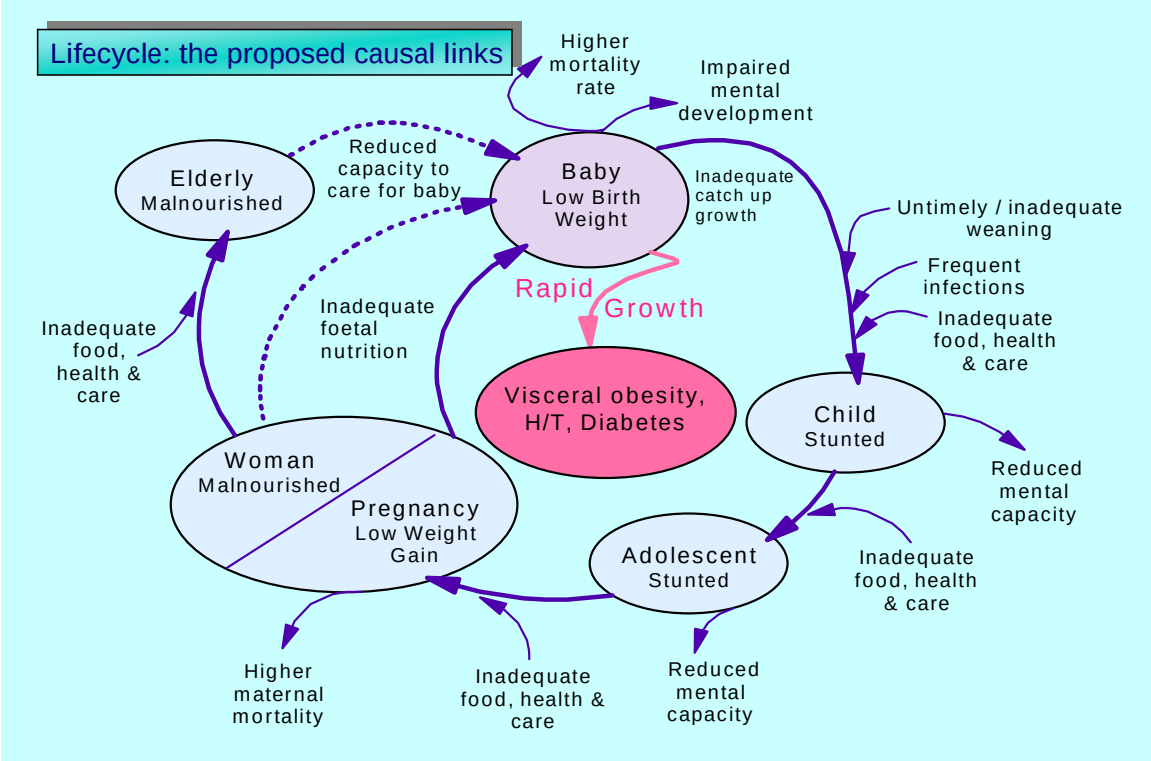
It is worth noting that only three countries, India, China and Bangladesh, make up half of all malnourished children in the developing world. Please see the Fig.1 below on the effects of childhood malnutrition in our parts of world as reported in 1997. The situation has not changed much in 2004. It is a huge problem, we need to tackle it on an emergency basis to save the generation otherwise we will have enormous proportion of our new generation will not be functional in true sense and may die prematurely. Malnutrition affects people of every age, although infants, children, and adolescents may suffer the most because many nutrients are critical for growth and development. When a malnourished woman gets pregnant, her child may weigh less at birth and have a lower chance of survival. Thus, the cycle of birth of malnourished fetuses continues (for details, please see Fig.2). Children in developing countries who have severe deficiencies of vitamin A, selenium, and sulphur amino acids, as a result of malnutrition have a greater chance of getting sick or dying from infections such as diarrhoea or measles. Iodine deficiency, another form of malnutrition, can cause mental retardation and delayed development. Iron deficiency can cause a child to be less active and less able to concentrate. Teens who are malnourished often have trouble keeping up in school. The underlying causes of malnutrition in many Asian countries include poverty, the low status of women, poor care during pregnancy, high rates of low birth weight, high population densities, unfavourable child caring practices, and poor access to health care. Malnutrition affects virtually every organ system. In addition to the impairment of physical growth and of cognitive and other physiologic functions, immune response changes occur early in the course of significant malnutrition in a child. These immune response changes correlate with poor outcomes and mimic the changes observed in children with acquired immune deficiency syndrome (AIDS). Loss of delayed hypersensitivity, fewer T lymphocytes, impaired lymphocyte response, impaired phagoytosis secondary to decreased complement and certain

cytokines, and decreased secretory immunoglobulin A (IgA) are some changes that may occur.



Prevention of malnutrition in children starts with an emphasis on prenatal nutrition and good prenatal care. Health care providers should emphasize the importance of breastfeeding in the first year of life. Promotion of breastfeeding is particularly crucial in developing countries where safe alternatives to human milk are unavailable. Long term effects of malnutrition/undernutrition can be manifested in gene-nutrient interactions which produce visible as well as stealth changes in embryonic or fetal development, as they set the stage for an adult's susceptibility to a host of diseases and behavioral responses. Please read my earlier article published in MM website (Darwin day celebrations). The dramatic rise in heart disease, diabetes and other conditions of are increasingly pegged as epigenetic in nature, and may well claim their origins in faulty embryonic development. Longitudinal studies have shown that low-weight newborns are biologically different for life than their bulkier counterparts. Smaller infants have fewer kidney nephrons, altered metabolism, and are more insulin resistant and already may have developed diabetes. These deficits reflect a fetus' response to being mal or undernourished, and they wire their genes to respond differently to the environment that follows outside the womb. Malnourished fetuses adopt several strategies to optimize their chances of survival during the neonatal period, but these strategies assume that the same type of nutritional conditions will prevail. Children are set up in utero to

experience an environment of low nutrition (malnourished mother) and find themselves either in the land of plenty or malnutrition/undernutrition. The adaptations adopted during fetal programming may prove to be detrimental if appropriate levels of nutrition are not available. Thus, any change in condition may have deleterious consequences. Once they are born, the fetus can opt for stunted growth (50-60% in South Asia) or rapid growth (which also leads to disease like diabetes or hypertension at very early age.



Nutrition and human rights

Over the last decade a human rights approach to economic and social development has gained increasing interest and support in addressing and fighting hunger and malnutrition. The obligations of states inherent in this approach can strengthen the efforts towards food and nutrition security and nutritional well-being for all. It breaks with conventional and often charity based approaches, and recognizes that people have a human right to adequate food. This was laid down in the Universal Declaration of Human Rights (UDHR) adopted by the UN in 1948.

From a human rights perspective, hungry or malnourished people are not to be seen as passive recipients, but, as rights holders and as active claimants of their right to food. At the same time they themselves have duties to make optimal use of the resources available to them so that they can cater for themselves and for their dependants. This can however only happen when they have access to the necessary resources and opportunities for doing so.

The UDHR was followed by binding international human rights conventions, both on civil and political rights and on economic and social rights, of which the Covenant on Economic, Social and Cultural Rights (CESCR, 1966), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, 1979), and the Convention on the Rights of the Child (CRC, 1989) are those most pertinent to a human rights based approach to food and nutrition. The operationalisation of the economic, social and cultural rights has been slower than in the case of civil and political rights.

At the same token, over the last decade important conceptual and methodological advances have been made giving the right to adequate food a clearer and more precise interpretation and meaning, and guidelines for monitoring the right to food in local, national and international contexts have been developed. Since the nutrition of the fetus is so critical for human growth, development, and adult diseases, we need to emphasize more and more on human rights of unborn fetuses to proper nutrition. In this context, the UNICEF survey on children (less than 5 years olds) malnutrition in South Asia is highly alarming as the nutrition status of these children seems to be affected during their fetal/ prenatal/postnatal growth. Human rights for proper nutrition of these children (their growth and development, and disease –free life, school performance, cognitive development) are already compromised before their journey to the adulthood.