

Blog Synthesis

Malnutrition: Today's Problem – Tomorrow's Crisis

Amala de Silva – 1st June 2010

Introduction to the blog

Sri Lanka despite achieving excellent health indicators remains plagued by malnutrition. This paradox led to its choice as a blog topic on the Poverty Portal of the Centre for Poverty Analysis (CEPA). This blog and the comments it drew can be accessed using the following link: <http://povertyportal.lk/blogs/blog-1-22.html>

In the case of Sri Lanka, the blog highlights the inter-generational vicious cycle of malnutrition: low birth weight infants, child growth failure, malnourished stunted adolescents and small statured malnourished reproductive age women perpetuate malnutrition. The issue then is identifying strategies to break the cycle. Malnutrition is clearly linked to poverty and inequality but many other factors too impinge on the problem.

Malnutrition affects the populations' welfare, in the present and the future, through its impacts on current and future health, education, productivity and employment outcomes and its bearing on economic growth. Given that Sri Lanka is currently facing the challenge of demographic transition¹ malnutrition is classified as a **problem today but a crisis tomorrow** because

- the aging population makes improving worker productivity critically important in achieving economic growth in the future because a small number of workers has to sustain a large dependent population
- evidence of inequality as a determinant of malnutrition make resolving this problem crucial from an equity perspective
- the Barker hypothesis² clearly links low birth weight to the risk of suffering from non-communicable diseases in the future, adding to the health burden imposed by malnutrition being strongly correlated to the spread of communicable diseases.

The blog ends by posing the policy related questions given below, that in turn stimulated a rich and varied discussion.

¹ Demographic transition involves four stages: period of high fertility and mortality associated with pre-industrialization societies; followed by high fertility and relatively low mortality resulting in rapid population growth as in developing countries; in stage three, fertility begins to decline while mortality remains low which results in an aging population scenario and in the fourth stage birth rates fall below the mortality rate resulting in less than replacement population growth. Sri Lanka is currently in the third stage.

² Barker hypothesis (1995), formulated by a British epidemiologist David Barker states that low birth weight babies whose metabolisms are under-developed, would be more prone to diseases such as diabetes and cardiovascular diseases in the future when their metabolisms are challenged by high levels of nutrition.

- What measures should be taken to break the intergenerational cycle? What new measures would you propose?
- Should the health system be focusing on adolescent nutrition and if so what measures would be appropriate?
- While much discussion in policy circles is on the need for inter-sectoral coordination, in practice this component seems dormant. What mechanisms could ensure more systematic and dynamic coordination?
- Malnutrition while closely related to food security still is still complicated by the fact that on the one hand malnutrition remains a problem even in non-poor settings and on the other that obesity (a non-communicable disease risk factor) is a problem even among the poor. What socio-cultural factors should be addressed in this regard?

Nineteen responses were elicited, from health sector and non-health sector professionals in the course of February/March 2010. The extremely rich and thought provoking comments on the blog are summarized below. It is hoped that this record will generate interest and action on the part of researchers and policy makers and thus contribute to strategy formulation that could assist in reducing and alleviating malnutrition in the future.

Factors impacting Malnutrition/Low birth weight

The discussion has highlighted following criteria as important contributors to low birth weight of children. The characteristics can be broadly categorized as characteristics of the mother and household and others.

Characteristics of the mother

- Maternal anthropometry
- Mother's status in the family
- Mother's employment
- Mother's health habits
- Women's burden in accessing fuel and water

Household characteristics

- Poor sanitary facilities
- Lack of access to safe water sources
- Size of the family
- Access to media

Others

- Living conditions in the estate sector
- Working conditions in the estate sector

The conclusion that one would reach on reading the varied blog entries is that malnutrition is a complex problem, involving a large number of determinants, and necessitating policy responses at individual, household, community and national level, that are sensitive to economic, social and cultural dimensions.

Research Concerns

The blog discussion has come up with number of research areas needing in-depth analysis in order to resolve the malnutrition problem in Sri Lanka.

At the micro level involving individuals and households research should focus on the following issues:

- How have changes in lifestyles, including food consumption patterns affected malnutrition in different ethnic groups and sectors?
- Role of social status (going beyond mere economic factors) on child malnutrition
- Reducing women's burden on household activities as a means of improving women's and children's nutrition, health and welfare
- Working conditions of pregnant women (hours of work, point of stopping work before birth) as a determinant of low birth weight babies
- Intra-household food and expenditure allocation patterns and their impact on malnutrition
- Determinants of child diet such as availability, affordability, education level, commercialized products, advertising, media etc. and their impact on malnutrition
- Impact of household smoking and alcohol consumption on child nutrition
- Strengthening the nexus between nutritional knowledge and practice at household level
- Improving mothers understanding of 'growth charts' and their role in improving outcomes
- Need for 'small area' community level in-depth studies to understand local level determinants of malnutrition and identify strategies for alleviation
- Case studies of families in the same locality and similar income levels with 'malnourished' and non-malnourished children
- Longitudinal studies to follow up infants or children over a long time period
- Longitudinal study of low birth weight babies
- In-depth study on causes of 'low birth weight' using sample of low birth weight babies
- Testing the Barker hypothesis for Sri Lanka

At the sectoral level the major concerns are as follows:

- Fragmented picture – District, sectoral and ethnic differences in malnutrition levels: while evidence exists of the estate sector being strongly affected by malnutrition as well as conflict affected areas, are there socio-cultural, gender based or service provision factors that are resulting in inequalities in malnourishment or obesity by sector/ethnicity?
- Does ethnicity of family health workers and the population they serve have an impact on the success of Behavior Change Communication³?

At the macro level, national and international studies should encompass problems such as

- Resolving the "Asian Enigma" as to why child malnutrition in South Asia is far higher than in sub-Saharan Africa (SSA).
- Is obesity a problem/likely to become a problem among low income groups?
- Potential role for harnessing 'junk food' production companies in improving child nutrition

³ Behaviour Change Communication (BCC) refers to health education for example that is targeted at achieving a desired change in behavior, for example increasing the number of mothers who are breast feeding infants through communication encouraging and educating women on this practice.

Policy/Strategy Issues

The blog discussion has equally emphasized the required policy/strategy interventions along with the research priorities listed above.

Policy priorities identified in the blog discussion were

- The intergenerational approach to alleviating malnutrition, as is already being adopted by the health sector. A nation-wide survey completed recently will strengthen this initiative.
- Child under-nutrition higher in South Asia despite higher prevalence of breastfeeding linked to poor health and nutritional wellbeing of the women who are breastfeeding in South Asia highlighting that maternal nutrition tends to be crucial until the child is weaned.

Interventions currently being implemented are:

- The Integrated Nutrition Package covering adolescents, pre-pregnant women, pregnant women, lactating women and children advocated by the Ministry of Healthcare and Nutrition is being implemented in 2010 as a first measure in the most vulnerable districts.
- Implementing the Integrated Nutrition Package programme involves inter-sectoral coordination at the village and district levels. The need exists for greater inter-sectoral coordination at provincial and national level, and high level intervention in this regard is advocated.

Policy gaps

- Need to focus on root causes of malnutrition and not merely on short term measures.
- Needing to target the most vulnerable groups including the poor.
- Crucial to target reducing economic inequity as well as providing nutritional interventions in order to alleviate malnutrition
- Some malnutrition interventions are likely to require social policies, legislation, population based approach and social action (in contrast to attempting to change individual behaviors).
- Need to focus on the estate sector urgently and comprehensively address the overall welfare of this population (nutrition, health, sanitation, safe water, education, working conditions)
- Need to focus on malnutrition by socio-economic group given the strong evidence on the link between income/asset inequity and magnitude of maternal and child malnutrition.
- Need to focus on displaced population and populations in areas affected by conflict.
- Nutrition and family planning programmes targeting adolescents.
- Younger age women (15 to 24) and employed women seem more prone to malnutrition and awareness programmes targeting these two groups could be of importance.
- Legal regulations and monitoring relating to advertising of food via media and posters