REVIEW ARITICLE

Malnutrition in Children: A Serious Public Health Issue in Nepal

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Background:

Nutrition is defined as the science of food and its relationship to health. It is concerned primarily with the parts played by nutrients in body growth, development and maintenance. Nutrition is one of the essential functions of living beings necessary for the utilization of food. Human beings need to have adequate nutrition to attain normal physical growth and for a healthy life. Adequate nutrition is a fundamental right for every human being. If people fail to consume sufficient quality and quantity of nutrients, they will suffer from hunger or malnutrition. The common types of malnutrition in Nepal are: protein energy malnutrition, iodine deficiency disorder, iron deficiency anemia and vitamin A deficiency. (1)

As world leaders have been occupied with one economic crisis after another, a global hunger and malnutrition crisis has continued unchecked. While the world has been experiencing years of financial turmoil, pervasive hunger and malnutrition are slowly eroding the foundations of the global economy by destroying the potential of millions of children . (2)

At the most immediate level, malnutrition is caused by inadequate diet and by infection. These primary causes of malnutrition are influenced by food access and availability, healthcare, water and sanitation, and the way a child is cared for (for example, whether the infant is breastfed and whether basic hygiene practices are used, such as hand-washing).Underlying all of these primary and intermediate causes of malnutrition are poverty, lack of resources (eg, financial and human resources), and social, economic and political factors (eg, women's status).

Malnutrition is a silent killer - under-reported, under-addressed and, as a result, under prioritized. Malnutrition-related deaths are often put down to the disease that the child eventually died from. As a result, malnutrition - although recognized as the underlying cause of a third of under-five deaths - does not tend to appear on children's death certificates, in country records or in global child mortality statistics. The statistical invisibility of malnutrition, especially stunting, is one possible explanation for the slow progress on reducing the proportion of stunted children in relation to reducing other causes of child mortality. Malnutrition and disease work in a deadly cycle. A malnourished child is more likely to suffer from disease, and the more they suffer from disease the more likely they are to be malnourished. Inadequate food intake leads to weight loss, and a weakened immune system, which means that childhood diseases will be more severe and will last longer. This in turn leads to a loss of appetite . (3)

National Scenario of Nutritional Status In Children:

There is a wide variation in rates of malnutrition throughout Nepal, both ecologically and regionally. Nepal Demographic and Health Survey indicates that more rural children are stunted (low height for age),42% than urban children (27%). Regional variation in nutritional status of children is substantial. Stunting levels are way above the national average in the mountains (53 %). Whereas wasting (low weight for height) and underweight (low weight for age) are also high in mountains with 11% and 36 % respectively in comparison with Terai and Hills. In Terai there is 37 % stunting, 11 % of wasting and 29 % of underweight and in Hills it shows 42 % of stunting, 11% of wasting and 27% of underweight. (4)

Breastfeeding is nearly universal in Nepal, Ninety-eight percent of children have been breastfed at some time. Less than half of children, 45 percent are breastfed within one hour of birth. The vast majority, 85 percent of children are breastfed within one day of birth.Seventy percent of children less than age 6 months are exclusively breastfed, and the median duration of exclusive breastfeeding is 4.2 months. Complementary foods are not introduced in a timely fashion for all children. Seventy percent of breastfed children have been given complementary foods by age 6-9 months. Overall, only one-fourth of children age 6-23 months are fed appropriately based on recommended Infant and Young Child Feeding (IYCF) practices. (4)

Similarly when we look at the situation of anemia, forty-six percent of children aged (6-59) months are anemic, 27 percent are mildly anemic, 18 percent are moderately anemic, and less than 1 percent are severely anemic. When we look at the womens' nutritional status, we see that eighteen percent of women are malnourished, that is, they fall below the body mass index (BMI) cutoff of 18.5. Fourteen percent of women are overweight or obese. Womens' nutritional status has improved only slightly over the years. Thirty-five percent of women aged 15-49 are anemic, 29 percent are mildly anemic, 6 percent are moderately anemic, and less than 1 percent are severely anemic.

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The national growth monitoring coverage is only 39% in the FY 2010/11. Nationally, there has been decrease in growth monitoring coverage by 7 percent compared to last FY. (5)

Trends of Child Malnutrition:

The nutritional status of children in Nepal has improved over the past 15 years and is close to achieving the Millennium Development Goals (MDGs) target of reducing the percentage of underweight children age 6-59 months to 29 percent by 2015. The percentage of stunted children declined by 14 percent between 2001 and 2006 and declined by an additional 16 percent between 2006 and 2011. A similar pattern is observed for the percentage of underweight children, which dropped by 9 percent between 2001 and 2006 and by 26 percent between 2006 and 2011. Similarly, the percentage of wasting declined by 15 percent between 2006 and 2011. (4)

Major ongoing Strategies to address the Nutritional Situation in Nepal:

- Promotion of IYCF through creating awareness regarding the importance of growth monitoringand exclusive Breast Feeding up to 6 month of age and timely introduction of complementaryfoods.
- Provide growth?monitoring services, ANC checkups, de?worming during Pregnancy through outreach clinics, Sub Health Posts, Health Posts/ PHC in food insecure districts.
- Protect, Promote & Support Optimal Feeding Practice for Infant & Young Children.
- Continued regular biannual de?worming of children aged 1?5 years along with vitamin A capsule distribution.
- Strengthen Nutrition Rehabilitation Home and community based management of acute malnutrition (CMAM).
- Increase coverage and compliance of iron/folate supplementation for pregnant women.
- Improve maternal nutrition. (5)

Conclusion:

Malnutrition remains a serious obstacle to child survival, growth and development in Nepal.Children are the future. Children who suffer from malnutrition are physically and intellectually less productive compared to normal children. In the initial two years of life, malnutrition can impact cognitive development. Eighty percent of brain development occurs in first two years of life. This is the period for rapid physical growth as well. The effects of malnutrition lead to child mortality too. Also, malnutrition shows a vicious cycle and can transfer from generation to generation. Regional and ecological variation of malnutrition is also of great concern in Nepal. So,malnutrition remains a serious public health issuethat needs to be addressed.

In order to reduce the malnutrition throughout the country it is necessary to introduce a broader package of nutrition interventions. Community based programmes addressing the malnutrition should be focused.

Some of the Key Messages to Overcome the Malnutrition are:

- Effective interventions should be addressed to reduce stunting, micronutrient deficiencies, and child deaths. If implemented at sufficient scale, they would reduce DALYs (all child deaths) by about a quarter in the short term.
- Of available interventions, counseling about breastfeeding and fortification or supplementation with vitamin A and zinc have the greatest potential to reduce the burden of child morbidity and mortality.
- Improvement of complementary feeding through strategies such as counseling about nutrition for food-secure populations and nutrition counseling, food supplements, conditional cash transfers, or a combination of these, in food-insecure populations could substantially reduce stunting and related burden of disease.
- Interventions for maternal nutrition (supplements of iron folate, multiple micronutrients, calcium, and balanced energy and protein), focus on Mother Infant and Young Child Feeding (MIYCF) practices and linking with the life cycle perspective for the improvement of maternal and child health.
- Although available interventions can make a clear difference in the short term, elimination of stunting will also require long-term investments to improve education, economic status, and empowerment of women. (6)

References

1. National Nutrition Policy and Strategy. Ministry of Health and Population, Government of Nepal. [Internet]. 2008. Retrieved from: http://mohp.gov.np/english/files/new_publications/9-1-Nutrition-Policy-and-strategy.pdf
2. Save The Children. A Life Free From Hunger, Tackling Child Malnutrition. [Internet]. 2012. Retrieved from: http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0 df91d2eba74a%7D/A%20LIFE%20 FREE% 2 0FROM% 20HUNGER %20% 20 TACKLING% 20 CHILD % 20 MALNUTRITION.PDF
3. Ministry of Health and Population, Department of Health Services, Government of Nepal. Nepal Health Sector Programme-Implementation Plan II (NHSP-IP 2) 2010- 2015 Final Draft. [Internet].2010. Retrieved from: http://www.unfpa.org/sowmy/resources/docs/library/R090_MOHNepal_2010_NHSP-IPII_Final_Apr2010.pdf
4. Population Division, Ministry of Health and Population, Department of Health Services, Government of Nepal. Nepal Demographic and Health Survey (NDHS), report. [Internet]. 2011. Available from: http://www.mohp.gov.np/english/publication/NDHS%202011%20Full%20version.pdf
5. Department of Health Services, Government of Nepal, Ministry of Health and Population,Annual Report FY 2010/11. 2011.
6. Bhutta AZ, Ahmed T, Black RE, Cousens E, Dewey K, Giugliani E, Haider AB, Kirkwood B, Morris S, Sachdev HP, Shekar M. Maternal and Child Undernutrition. What it works? Interventions for maternal and child undernutrition and survivalfor the Maternal and Child Undernutrition Study Group. Lancet. [Internet]. 2008; 371: 417-40. Retrieved from: http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673607616936.pdf