The Challenges of Maternal and Child Nutrition in Sub-Saharan Africa

Sub-Saharan African countries have recorded poor statistical indices of nutritional progress more than any other continent, except in a few cases when compared with some Asian countries. High incidences of maternal and infant morbidity and mortality have dotted the landscape in this region, with myriads of challenges. Poor maternal and infant nutrition have been associated directly and indirectly with high incidence of maternal death in pregnancy and during child birth.

This is also a major cause of low birth weight, which contributes significantly to child morbidity and mortality, with subsequent poor cognitive development. A poorly developed mindset contributes positively to the burden of economic woes because of poor economic production capabilities. In addition to these, the scourge of HIV/AIDS has greatly influenced maternal and child nutrition.

Although the requirements to improve the nutritional status of these vulnerable groups are within the reach of countries in this region, there are socio-economic, political, bio-social and some natural impediments that create inundating challenges. Improved management of resources, understanding of nutrition as a national developmental issue, development of the agricultural sector, manpower development in the field of nutrition, good governance and zero tolerance for corruption are the basic ingredients required to overcome these challenges.

Issues relating to maternal and infant nutrition are not sincerely considered as priority in some developing countries. When one considers specific actions to improve maternal and child survival, one is drawn to particular interventions, which includes vaccination, oral rehydration therapy and the treatment of infection and haemorrhage. In recent years, this portfolio of responses has broadened to embrace the health system including human resources, financing and stewardship. Somehow, nutrition is managing to slip through the unfilled gap of achieving a total success in health care.
**Issues for Consideration**

Although nutrition is a major risk factor for major childhood diseases, it is yet to be accorded the attention it deserves.

Research has shown that nutrition is usually influenced by five interrelated factors: political instability; poverty/inequality; ineffective development policy; climate and environmental change; and inadequate and poorly administered food security, health prevention, and well designed and implemented nutrition programmes.

Many of the countries with high or stagnant stunting levels are among the most fragile politically. It is envisaged that if public-health experts and policymakers could package the evidence showcasing the importance of maternal and child nutrition, catalogue the long-term effects of under-nutrition on development and health, identify evidence-based interventions to reduce malnutrition, and call for national and international actions to improve nutrition for mothers and children, there will be some palpable level of improvement in nutritional care for mother and child.

The impact of high food prices on maternal and child nutrition may signal the return to an era of food insecurity. More recent evidence from developing country settings confirms that rapid increases in food prices cause maternal and child malnutrition levels to rise relatively rapidly, with first effects seen in the mother [3]. Women and children who have special nutritional needs are particularly at risk, with negative implications in terms of maternal health and well being, as well as the survival, growth and development of children [1]. Maternal malnutrition, poor foetal growth and stunting in the first two years of life lead to irreversible damage across the course of life, including shorter adult height, lower attained schooling, reduced adult income and decreased offspring birthweight [2]. Furthermore, deterioration in the quality of the diet causes the damage even before food
shortages become pronounced. Even small variations in the micronutrient content of diets during pregnancy are associated with significant differences in foetal and infant growth.

**Causative Factors**

The nutrition conceptual framework originally developed by UNICEF [5] was proposed as a tool to help orientate problem solving discussions at all levels, including the community level, and in so doing to help to elucidate what the local coping strategies are. The conceptual framework includes three levels of causality. The immediate causes of malnutrition are inadequate dietary intake and disease, operating in a synergistic fashion with infections being more common in those with malnutrition and also contributing to the development of poor nutritional status. The underlying causes at household and community level concern access to food, health and environmental sanitation services and maternal and child caring practices. Each of these three clusters of factors is an essential but alone insufficient condition for achieving nutrition security. The basic causes operating at the societal level include availability of natural resources, national income, education and the adequacy of national infrastructure and governance mechanisms. In other words, the distribution of wealth, income and political power is the ultimate cause of nutrition outcomes.

There should be appropriate responses to protect and promote nutrition security, especially at the household level. Nutrition security means to be free from hunger and malnutrition. The nutrition security of a society is a reflection of the universal, indivisible, interrelated and interdependent nature of human rights. Nutrition security encompasses many rights, especially the right to adequate food, the highest attainable standard of health as in Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the children’s right to food, health care as well as survival and development as defined in Arts. 24, 27 and 6 of the Convention on the Rights of the Child (CRC). Nutrition security also encompasses the right of mothers to appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation, as defined in Art. 12.2 of the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) [6]. Despite the fact that many countries appended their signatures in this document, only a few actually acted positively to promote maternal and child health.

The interventions that should be considered for implementation in order to protect
food and nutrition security, especially in response to a rapid rise in food prices, should be relevant to the local situation, including current levels of maternal and child malnutrition, maternal and child caring practices and the presence of diseases. The "triggers for action" are the prevalence levels of the condition that are considered either "severe" or "moderately severe", and that from a public health perspective require action to ensure that rights to adequate food and health are not being violated. This list of interventions draws on the recommendations agreed at the SCN 35th Session [6], which are largely based on the Lancet Nutrition Series set of essential nutrition actions [7] that if taken to scale would help accelerate the rate of reduction of maternal and child malnutrition. Evidently, these interventions are needed on top of actions that address the basic causes of malnutrition concerning the distribution of wealth, income, and political power [6].

In urban areas social protection policies and programmes are needed to provide safety nets that can cushion and mitigate the effects of poverty, especially when faced with rapid increases in food prices for example. Conditional cash transfer programmes link the transfer of cash to poor households with a commitment of the family head to keep children in school and/or for the mother and child to receive/make health service visits. Cash transfer schemes can be targeted to poor women who are heads of households, and/or to areas where the prevalence of women with low Body Mass Index (BMI) is greater than 20% (moderate and severe population risk) [7].

The scourge of HIV has contributed immensely to the problem of food and nutrition security. Inability of the head of household to generate income or engage in farm work to produce food is one of the surest ways to usher in poverty, with subsequent malnutrition. This has posed a great challenge to maternal and child nutrition in most sub-Saharan countries. An overwhelming burden of HIV and the treatment of seriously ill children with chronic infections leading to undernourishment is succinctly challenging. Additionally, further investigation of the clinical and pathophysiological complexities and treatment of malnourished children with HIV in the context of health systems is needed if interventions are to be effective [8].

It is highly imperative for countries that have access to funding from international donors to be more astute and focused on the kind of intervention that they may want to embark upon. Currently, some sub-Saharan African countries are being "coerced" by funding agencies to embark on micronutrient supplementation when the obvious nutritional problem is inadequate protein and energy intake. It is believed that when the problem of protein energy malnutrition is effectively controlled, using the local food resources and supported with nutrition education,
micronutrient deficiencies would have been brought under control. It is sensible to note that micronutrient deficiencies cannot be controlled when the mother and the child are undernourished. These are tricky issues to address, but they are critical for a policy-maker facing competing challenges from a number of different nutritional interventions [9].

**Suggested Strategies to Address the Challenges**

Strategies to address the challenges of maternal and child malnutrition should commence by considering why previous interventions failed to meet the target. For sub-Saharan countries to formulate and implement more effective policies and programmes to reduce levels of malnutrition, they need to be able to reliably measure change and to evaluate which policies and programmes are effective. This requires advancements in four areas:

- **Methodology:** More time series data are needed on the most unstable and fragile countries and in the most vulnerable areas and seasons; stunting should be the indicator of choice when monitoring longer-term poverty and hunger reduction; and ongoing food security and nutrition surveillance and information systems will provide more targeted and contextual stunting-related data at household, agro-ecological and programme levels for policymaking [12, 13].

- **Policy:** Multi-sectoral policies that take holistic approaches that are well-implemented are more likely to reduce chronic malnutrition. The policies would target poverty reduction, food security, education, gender, disease burden and population. International assistance for chronic stunting should not be interrupted for short-term emergency food aid (which targets the acutely malnourished), and should focus on prevention [10].

- **Programmes:** Local capacity-building for policy and planning, and for assessing, monitoring and evaluating progress in meeting a country’s own goals (preferable to the Millennium Development Goals, MDG) in reducing hunger and malnutrition, is essential. Development-oriented and preventive programmes in food production, land tenure, jobs, education, gender, health care and water are more important in the long run than are direct feeding programmes [11].

- **Case study research and evaluation:** Case studies and contextual analysis of the more successful countries in reducing stunting can provide valuable guidelines for future policy and programme work. Support from USAID,
UNICEF, FAO, World Bank and other major donors and advisers could allow researchers to evaluate, for example, why Senegal has been so successful in reducing stunting in the last 10 years (by 36%), while the levels deteriorated by 31% in neighbouring Guinea; why stunting increased at the same time that child mortality decreased dramatically in Zambia and Malawi [13]; or how some countries (for example, Ethiopia and Eritrea) in the drought-prone Greater Horn of Africa succeeded in reducing stunting in the face of political instability and famine, while Kenya's progress has stagnated since 1989.

Policymakers can learn more on progress in monitoring the MDG poverty goals of child stunting from reliable and comparative health and nutrition surveys, such as the USAID-supported Demographic and Health Surveys (DHS) and the UNICEF-supported Multiple Indicator Cluster Surveys [9]. Programme planners and evaluators in particular need to know not only which countries are progressing, but the location, number, process and causes of chronic stunting within each country. They can do so even better from locally owned integrated food and nutrition surveillance systems that have knowledge of the contexts, risks and vulnerabilities, as well as the resilience and capabilities in their areas [12, 13].

**Conclusions**

Increases in food prices will cause maternal and child malnutrition levels to rise relatively rapidly, with the first effects more likely to be seen in the pregnant mother, leading to irreversible damage to the foetus that will persist across the course of life. Furthermore, deterioration in the quality of the diet is likely to cause such damages even before food shortages become pronounced. Efforts to mitigate the effects of the food price crisis must therefore ensure that the right to food, that is adequate in quality not just quantity, is respected, protected and fulfilled. While such efforts are needed urgently, they should be placed in a developmental agenda rather than only an emergency or humanitarian context, since this is not a new problem, just the worsening of the existing situation, which was already serious.

Strengthening local health systems in their capacity to implement and audit interventions is more important than donor-dominated and constantly changing monitoring systems and donor-driven workshops that distract local staff from their already eroded health services to children. A change in approach to nutrition interventions, both in focus and in locus, is needed so that beneficiaries are no longer requested to implement interventions but to locally develop interventions and audit their contribution to child survival. The funding and capacity of higher education institutions in Africa to initiate and maintain leadership in child health
should be considered as part of necessary assistance. There should be a mechanism to prevent personnel who received training opportunities to develop the nutrition situation in their native countries to refuse to impact their knowledge in such communities.

References


2007.


Authors

Professor Tola Atinmo (corresponding author), Dr Oyediran Oyewole

Contact

University of Ibadan - Department of Human Nutrition

Ibadan
Nigeria