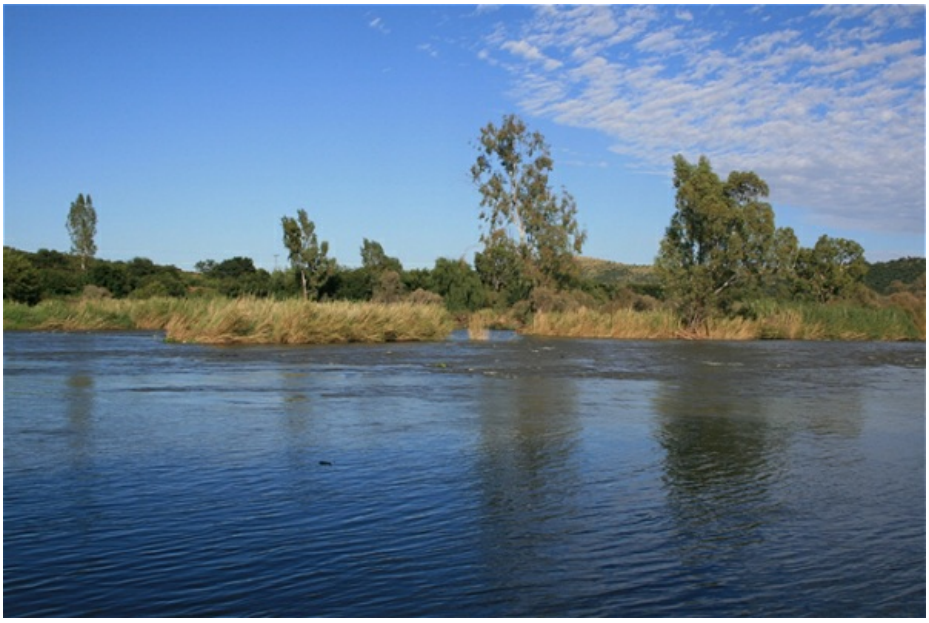
WORLD PUBLIC HEALTH NUTRITION ASSOCIATION

DECEMBER 2010

JOIN US, WORK WITH US, AND HELP TO MAKE OUR WORLD A BETTER PLACE

July blog

Reggie Annan



Last month I asked why malnutrition is still a major problem in Africa, focusing on three underlying causes of malnutrition using the conceptual framework on causes of malnutrition and death. This month I sit by the river again, and I ask what should we be doing, and how we can learn from interventions that work. But I would like to soothe you with the nice serene picture above taken by a good friend of mine. It is one of those peaceful atmospheres that we all desire every now and then.

Malnutrition in Africa

What can we do right?

It is essential to be aware that under-5 mortality levels are high in many countries, and that malnutrition is associated with more than half of these deaths. There is no way the Millennium Development Goals 4 (reducing child mortality) and 5 (improving maternal health) can be met if we omit the issue of malnutrition, or do not address its challenge the right way. You can read more about the MDGs at *http://www.undp.org/mdg/basics.shtml*.

Interventions that aim at preventing malnutrition and ensuring proper care for malnourished children are key steps towards promoting child survival and reducing under-5 deaths. Though there is a great shift towards obesity and specific micronutrient intervention, maternal and child undernutrition continues to place a heavy burden on low- and middle income countries (1).

So you may ask yourself. I am a public health nutritionist or nutritionist who works in public health. I am interested in preventing children from being malnourished in the first place or I am interested in child survival. What should I be doing? Let's look at public health nutrition-oriented approaches used by one UN agency – the UN Childrens' Fund (UNICEF).

Malnutrition throughout the world

UNICEF's policies and programmes

UNICEF is committed to scaling up and sustaining coverage of its current high-impact nutrition interventions in four key programme areas. These are: infant and young child feeding; micronutrients; nutrition in emergencies; and nutrition and HIV.

Infant and young child feeding

Infant and young child feeding has two aspects: exclusive breastfeeding, and appropriate complementary feeding. UNICEF's goal is to protect, promote and support optimal infant and young child feeding practices (1). The picture of the woman breastfeeding her child above, reminds us that exclusive breastfeeding and appropriate complementary feeding should ensure improved nutritional status, growth and development, and the health, and ultimately the survival of infants and young children.

These strategies are based on the 1990 Innocenti *Declaration on the Protection, Promotion and Support of Breastfeeding, the 2005 Innocenti Declaration on Infant and Young Child Feeding and the 2003 Global Strategy on Infant and Young Child Feeding.* Use this link for more information *http://www.unicef.org/nutrition/index_breastfeeding.html*.

It is reckoned that about 1.4 million of the under 5 deaths in developing countries can be prevented by exclusively breastfeeding for 6 months, and that a further 6 per cent or close to 600,000 under 5 deaths can be prevented by ensuring optimal complementary feeding (1). Hence actions to promote these are crucial. Many lower-income countries support these strategies, which is good. But the same story cannot be told regarding implementation. Rates of exclusive breastfeeding up to 6 months are still low (about 50 per cent, and lower) in many African countries in spite of its benefits (2).

Micronutrients

In many lower-income countries, one-third or more of children under 5 years of age are stunted (low height-for-age), and large proportions are also deficient in one or more micronutrients. Over half of 6-9 month olds are breastfed and given complementary foods and only 39 per cent of 20-23 month-olds are provided with continued breastfeeding. Appropriate complementary feeding is necessary to provide the necessary energy and micronutrients for children 6 months and above in order to prevent underweight (too light), wasting (too thin) and stunting (too short).

All sorts of fruits and vegetables are good sources of micronutrients and can be used in preparing complementary foods for infants.

UNICEF's approach to improve micronutrients status is to increase the nutritional adequacy of complementary foods, identifying vulnerable groups who may require

food aid, multi-micronutrient and lipid based supplements, and education for improved feeding practices. UNICEF seeks to support policies and strategies to promote complementary feeding and health systems such as curricular and training of health workers. At the community levels, mother support activities are encouraged.

Strategies to eliminate iodine deficiency disorders, reduce the prevalence of anaemia and to achieve sustainable elimination of vitamin A deficiencies using public health strategies have been implemented. Universal salt iodisation, vitamin A supplementation, fortification of staple foods, improvement of the diversity of diets, and iron-folate supplements, are among such programmes.

Nutrition in emergencies

UNICEF's third approach for promoting nutrition focuses on emergencies. It is estimated that about 35 million refugees and displaced people are in the world, 90 per cent of whom are women and children. Malnutrition increases during emergencies because people become displaced, livelihoods are lost, sanitation problems become pronounced due to congestion in refugee camps, breakdown of health system is likely, lack of clean water results, and mothers may find it difficult to breastfeed. The result is acute malnutrition.

If the emergency situation is prolonged, then chronic malnutrition also becomes an issue. In emergencies, UNICEF assesses the nutritional and health needs of affected populations, protects and supports breastfeeding, especially exclusive breastfeeding by providing safe havens for pregnant and lactating women, provides essential micronutrients, supports therapeutic feeding centres for severely malnourished children, and provides food for orphans.

Nutrition and HIV

On nutrition and HIV, strategies adopted by UNICEF include providing voluntary, confidential testing and infant feeding counselling for pregnant women, helping governments develop infant and young child feeding policies that encourage early and exclusive breastfeeding and include HIV guidelines, protecting breastfeeding, and promoting optimal infant feeding in hospitals.

UNICEF also addresses the nutritional needs of the growing number of HIV-positive pregnant and lactating women and children who are infected with the virus, orphaned, or living with an HIV-infected parent. The aims of these strategies are to prevent mother-to-child transmission of HIV in breastfeeding, and to provide care and support to infected mothers and HIV exposed and infected children.

What works?

These strategies are effective only if they are properly implemented. One of the Panel 1 Series Key Messages of *The Lancet* series on maternal and child undernutrition states that 'Effective interventions are available to reduce underweight, stunting, micronutrient deficiencies, and child deaths. Among the currently available interventions reviewed, breastfeeding counselling, appropriate complementary feeding, and vitamin A and zinc, have the greatest potential for reducing child deaths and future disease burden related to undernutrition. Interventions to reduce iron and iodine are important for maternal survival and for children's cognitive development, educability, and future economic productivity' (3).

We can conclude from the above quote that these strategies do work. Given this, then either they are not being implemented, or there is something wrong with how they are implemented. Maybe these interventions are not provided in a timely manner, or large (nationwide) scale implementation is lacking, or there is lack of political will, or they are not implemented in a sustainable manner.

What do I think?

In my opinion, counselling pregnant women, and education on the vital value of exclusive breastfeeding during antenatal visits need to be intensified. The baby-friendly hospital initiative needs to be protected. The importation and promotion of breastfeeding substitutes should be strongly discouraged, through legislation.

Moreover, many cultural misconceptions still persist. It is common among certain cultures for mothers not to give colostrum or give herbal mixtures in the first days of the child's life. Some women still think breastmilk does not have enough water. Other mothers do not sill accept the fact that breastmilk flows as the child suckles and are tempted to mixed feed because the child cries. Yet still others also think that bottle-feeding is a status symbol, an indication of prosperity. These issues need to be addressed.

What is appropriate complementary feeding? In my experience, teaching and demonstrating to rural mothers with the help of a mother-support group how to prepare thick (not watery) cereal porridges and to fortify with palm oil, peanut paste, soya milk and fish powder are simple but effective ways of promoting appropriate complementary feeding.

I believe that food based approaches such as fortification of commonly eaten foods should be required by law throughout African countries, and that non-compliance should be identified and punished. Imported foods, especially oil and cereals, should also be fortified. If not, micronutrient deficiencies will continue to be with us. There are countries where food fortification has worked, such as in Morocco where flour is fortified with iron and bread made from the fortified flour is commonly eaten at almost every meal.

The causes of malnutrition are multi-faceted. Tackling malnutrition should involve all sectors including health, agriculture, water and sanitation, transport, and rural government. We must know how to collaborate and bring the various sectors round the table when we plan for interventions because all are needed.

Global consensus

Having said all this, malnutrition will be properly tackled only when nutrition becomes a priority at all levels, from global through national to local and household. As rightly put in the executive summary of *The Lancet Series*, nutrition is a central component for human, social and economic development, and prevention of malnutrition is a long-term investment that will benefit the current generation and their children.

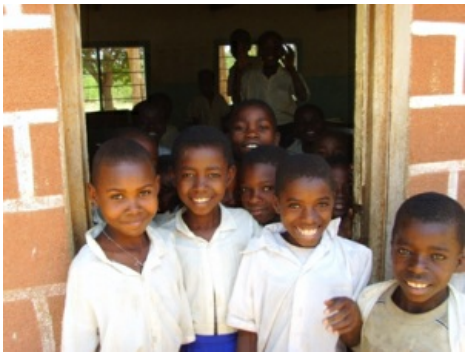
I believe that efforts at national levels will be effective if there are agreements at the global level that prevent exploitation and which do not force countries to only do what donor agencies expect them to, even if these are not in the country's interest. On the other hand, these global pressures are also necessary because they may compel national commitment and promote political will.

Finally, 'Reducing maternal and child undernutrition will require improved coordination between national agencies and international organisations.

Additionally, the international nutrition system requires significant reform in order to be effective: a new global governance structure is needed to provide greater accountability'. This is the last and crucial key message of *The Lancet* series.

There are many parts of Africa where several non-government organisations are working together in the same geographical location and doing similar interventions but one does not know what the other is doing. This only leads to re-inventing of wheels or duplication as well as wasting already limited resources. Some of these programmes are not sustainable anyway since they fold up in 3-5 years without adequately empowering the communities to continue. Lack of coordination also means that there are no opportunities for agencies to learn from one another's experiences in order to avoid mistakes made by the other and thus do what works.

Malnutrition acute and chronic
More RUTF stuff



Where do ready-to-use therapeutic foods fit into this? They are important, they are a breakthrough in large scale management of malnutrition, and they are effective. One of their characteristics which makes them very effective is their low water content, which ensures that they do not get easily contaminated, have long shelf life and are nutrient dense.

This is in contrast to parts of Africa where children are given watery porridges with high water content and low nutrient density, and where the water may be contaminated. The diet of the general population especially in West Africa is also mainly root crop-based rather than cereal based. Cereal based foods have lower water content than root-based foods, and this decreases the risk of low nutrient density.

But ready to use therapeutic foods should be used only to manage malnutrition in emergencies and as a short-term approach. They must not replace family foods and balanced diets. We must not medicalise malnutrition. We should promote nutrition rather than manage malnutrition.

Prevention is better than cure

Looking at the causes of malnutrition it is clear we should focus on prevention rather than on 'management'. The presence of malnutrition in children signifies a failure on our part as professional and scientists, and also a systemic failure.

This implies that we should prevent children from become malnourished in the first place. This is why ready-to-use therapeutic foods should not be our focus. Public health nutritionists working in Africa and in all other low-resourced countries and settings should endeavour to tackle the factors that lead to the situation where we need to treat or 'manage' malnutrition – for at that point, we would have failed already. Indeed, the term 'manage' sounds quite negative. Why manage a problem when you can prevent the problem in the first place?

If the debate is centred on ready-to-use therapeutic foods, and generally on treating malnutrition, we will make minimal impact. The debate should be on how to prevent malnutrition. Instead of debating whether we should produce therapeutic foods locally or commercially, in Africa or as imported say from Europe, we should be thinking about how can we eradicate food insecurity, improve care and feeding practices for children and infants, and successfully advocate adequate public health access and safe environments, so that we do not end up 'managing' malnourished children.

To achieve this, it is necessary to strengthen programmes and interventions that aim at preventing malnutrition. These include exclusive breast feeding and appropriate complementary feeding, food fortification, school feeding programmes, supplementary feeding, community based growth monitoring, nutritional surveillance, nutrition education, and behaviour change communication.

We must also address the factors that underline poor feeding practices, food insecurity and poor health and environment. Even when we have to manage malnutrition, the community mobilisation and screening aspects need to be emphasised since these are more prevention-based. And when malnutrition needs to be managed in the hospital, we should pay attention to support for families and carers, so that they are empowered in order to prevent the recurrent of malnutrition.

A world free of malnutrition? Yes, it is possible.

References

1. UNICEF in Action UNICEF *www.unicef.org*
2. WHO. Infant and young child feeding data by country. *http://www.who.int/nutrition/databases/infantfeeding/countries/en/index.html*
3. The Lancet series on Maternal and Child Undernutrition. Executive summary" IAEA *http://www-tc.iaea.org/tcweb/abouttc/tcseminar/Sem6-ExeSum.pdf*

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Please cite as: Annan R. Promoting Nutrition and preventing malnutrition: What has worked and what should we be doing. [Column] Website of the World Public Health Nutrition Association, July 2010. Obtainable at www.wphna.org

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