WORLD PUBLIC HEALTH NUTRITION ASSOCIATION

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

June blog

Reggie Annan

Why do my columns begin with pictures like this? Well, one of my readers says he enjoys the riverside, serene, reflective pictures that I have used. And why do I like this also? Is it part of my temperament and personality? I don't really know, but what I do know is that I like to reflect, and so I take my time before deciding, rather than rush into things without carefully 'counting the cost'. Planning adequately before implementing is good and necessary. There again though, too much thought can lead to indecision and inaction, and we do not have forever to act – children are dying every second from hunger and malnutrition.

Malnutrition, Undernutrition

What's gone wrong in Africa?

In this month's column I have chosen to discuss malnutrition in general. This is because some people, after reading my last two columns, said that though it is good to discuss issues surrounding management of malnutrition, this should not be the focus. Somebody else said that the Ready to Use Therapeutic Food (RUTF) issue is not public health nutrition. Now, I'm not going to debate whether RUTF is public health nutrition or not. Maybe readers of this column can comment on that by using the response facility at the end of this column. Next month I will discuss what's going right, and what we as public health nutritionists need to do for situation to improve to improve.

My question here, is: Why is undernutrition still a major problem in lower-income countries in general, especially in Africa, and what should we public health nutritionists be doing to stop this trend? I am hoping that colleagues and other readers of this column would take some time to share their thoughts on practical steps we should be taking to stop this malnutrition menace. Do add your comment below in the response facility and agree or disagree with me. We all must remember that we are supposed to be problem solvers and not just describers of problems.

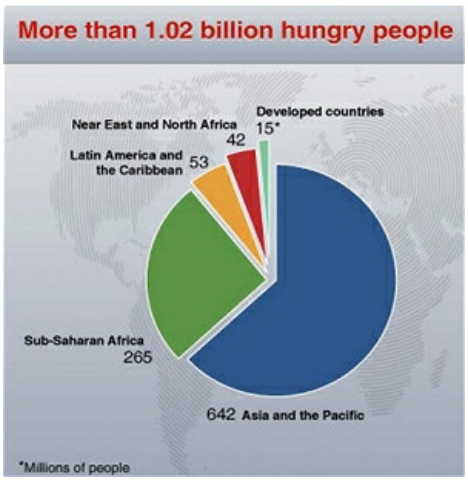
What is malnutrition?

Malnutrition literally means 'bad' nutrition and therefore encompasses both over- and undernutrition. Here I am focusing on undernutrition. Besides, 'malnutrition' is more commonly used to refer to undernutrition rather than overnutrition.

Malnourished people are hungry. Acute malnutrition is the result of a relatively short period of inadequate nutrition which leads to wasting and, if severe, may also cause retention of water and swelling (oedema). Chronic malnutrition is the result of prolonged episodes of inadequate nutrition and leads to stunting (for more on that, please visit the website of the International Malnutrition Task Force at *www.imtf.org*

Acute malnutrition may be classified as severe or moderate. Both are serious global problems that are a significant cause of mortality of young children (up to 5 years of age). Acute malnutrition can be seen at any age but is more common in infants and young children, and is caused by many factors including poor feeding practices, poor hygiene, and illness. Inadequate nutrition during pregnancy can precede both acute and chronic malnutrition.

In many low-income countries, malnutrition is still very common. See the Food and Agriculture Organization of the UN (FAO) summary in the chart below. FAO estimates that just over 1 billion people were undernourished worldwide in 2009. The source is: *http://www.fao.org/hunger/en/*



This is more than recorded at any time since 1970, the first year with comparable statistics. The numbers in absolute terms are highest in Asia, but in terms of proportion, the worst rates are in sub-Saharan Africa. In Africa, it's estimated that about 14 per cent of children were born with low birthweight between 2003 and 2008. Fourteen per cent of children were moderately underweight and 7 per cent severely underweight, during this period. A total of 10 per cent were wasted (very thin) and 40 per cent stunted (very short). Trends over the years have not changed much. The source for this information is *http://www.unicef.org/rightsite/sowc/pdfs/statistics/SOWC_Spec_Ed_CRC_TABLE 2. NUTRITION_EN_111309.pdf*.

Malnutrition, Undernutrition
Underlying causes

Malnutrition is caused by inadequate food intake and disease. In turn this has underlying and basic causes. Here I focus on three underlying causes that go to explain the current state of malnutrition especially in sub-Saharan Africa.

Food insecurity

Food security is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active healthy life (1). These can include simple local staples like that shown in the picture here of traditional maize (corn). Food insecurity itself has many basic causes. These include unstable social and political environments that frustrate sustainable economic growth, war and civil strife, macroeconomic imbalances in trade, natural resource constraints, poor human resource bases, gender inequality, inadequate education, poor health, natural disasters such as floods and locust infestation, and bad governance (2). All of these misfortunes are common in many parts of Africa, so it is not surprising that food insecurity persists in Africa.

In many parts of Africa, poverty has worsened, and the millennium development goal of alleviating poverty is not being achieved. The HIV situation has not improved, and many households have become food insecure and lost livelihoods due to HIV infection. Civil wars and strifes are rampant, displacing large numbers of people at a time as well as exposing them to infections. Africa has had more than its share of poor governance and bad leadership leading to instability and decline. As if that is not all, poor peasant farmers find themselves at the mercy of the climate and rain for irrigation. They are often bedevilled with drought, which causes poor yields and famine. Nutrition security can be achieved only after achieving food security. Preventing children from being malnourished, and reducing infant mortality, depend so much on all such factors, and public health nutritionists, as professionals and as citizens, have a role to play in all these.

Inadequate maternal and child care practices

The period from birth to two years of age is recognised as the 'critical window' for the promotion of optimal growth, health, and development. Failure to breastfeed exclusively, insufficient quantity and inadequate quality of complementary foods, general poor child-feeding practices, and high rates of infections, have a detrimental impact on health and growth in these vital two years. Inadequate breastfeeding, offering the wrong foods, giving insufficient quantities, and not ensuring that the child gets enough food, all contribute to malnutrition, and all these bad practices persist in sub-Saharan Africa and many lower-income countries although there is improvement in some countries. (*http://siteresources.worldbank.org/NUTRITION/Resources/Tool9-appendb.pdf*). Even with optimum breastfeeding children can become stunted if they do not receive sufficient quantities of quality complementary foods after six months of age.

For example, in Niger it is reported that while breastfeeding is common, exclusive breastfeeding is rare, and children are fed water, herbal tea and cow's milk within a few days of birth (3). This exposes them to increased risks of infection, particularly diarrhoeal diseases and acute respiration infections (4). It therefore not surprising that prevalence of severe acute malnutrition among infants less than 6 months is high in Niger. In Nigeria a study found that the quality of breast

feeding practices was poor and the duration was mostly short. The use of cow's milk and the tendency to commence supplementary feeding before six months were also prominent (5). Meanwhile, the complementary foods introduced were likely to be inappropriate.

These practices are likely to be associated with traditional and cultural beliefs and taboos some of which are not helpful, together with issues such as discrimination and lack of empowerment, high illiteracy and lack of nutrition education.

Unhealthy environments and lack of access to health service

A third underlying cause of malnutrition is lack of access to health care, and poor environments generally. Inadequate access to clean water and poor environmental sanitation exists in sub-Saharan Africa. Malaria is endemic; one of its causes is poor environmental sanitation such as swamps, gutters used as open drains, stagnant water and poor drainage systems. Lack of access to health facilities and care is a major contributor to malnutrition within a continent where rural populations are high and proximity to health facility sometimes lacking. For instance in Niger there is very low access (48%) to formal health treatment, and a low number of people seeking treatment even where there is access (3). In some countries poor quality of health delivery, especially in rural areas, results from lack of adequate staffing since many health workers would rather live in urban areas.

Obviously, these underlying causes require commitment from society as a whole, not only from public health nutritionists. But the multi-faceted nature of the factors also imply that we should be more than public health nutritionists and should go beyond providing just the scientific evidence in order to make a difference.

So you may ask yourself. I am a public health nutritionist, or a nutritionist who works in public health. I am interested in preventing children from being malnourished in the first place. What should I be doing? I don't have all the answers. Next month – and I hope with your help – I will look at some of the answers, from a public health and a nutrition point of view. I am also sure that some readers have strategies and programmes which have worked and would like to share with others. Please comment on what should be done and what has worked and hopefully, we will discuss that in July's blog

References

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Request and acknowledgement

You are invited please to respond, comment, disagree, as you wish. Please use the response facility below. You are free to make use of the material in this column, provided you acknowledge the Association, and me please, and cite the Association's website.

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