World Nutrition

Volume 1. Number 1, May 2010

Journal of the World Public Health Nutrition Association
Published monthly at www.wphna.org

The Association is an affiliated body of the International Union of Nutritional Sciences
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Editorial

Hunger: For what, why, and what to do?



In this first issue of ***World Nutrition***, Association member Michael Latham comments on current policy and practice designed to prevent shortage or deficiency of vitamin A. The dominant policy now is administration of massive doses of retinol to all reachable children in all countries where lack of vitamin A is identified as a public health programme, irrespective of the nutritional and health status of the children – as shown in the picture above, which illustrates the practice in India. This has now become a colossal global programme which, in their experience and judgement, is an ignominious error – a fiasco. *Continued inside…*

Everything has a context and a history. Over half a century ago, at the time when previously colonised territories in Asia and Africa were beginning to win their independence as nations, a young English politician from a modest background in Yorkshire, later to become UK Prime Minister, published a tract with the title *The War on World Poverty*. In it he wrote that the most urgent problem in the world was hunger. He stated: 'Over 1,500,000,000 people are living in conditions of acute hunger, defined in terms of identifiable nutritional disease. This hunger is at the same time the effect and the cause of the poverty, squalor and misery in which they live' (1).

The 'war on world hunger'

The author, Harold Wilson, and John Boyd Orr, the Nobel Peace Prize-winning public health nutritionist, also the first director-general of the Food and Agriculture Organization of the United Nations, who inspired him (2), may have pushed the numbers. But their rhetoric, that the vast scale of world hunger is not so much a tragedy as an outrage, became accepted by the then newly formed United Nations agencies. It also became adopted by national governments and professional bodies, by aid and development organisations inside and outside governments, by industry and the media; and also by the many millions of relatively privileged people who continue to give money in the hope that this will relieve famine, destitution and deprivation, or even 'make poverty history'. It informs our idea about who we are – and who 'they' are.

Currently it is reckoned that more or less a billion people cannot be sure of getting enough to eat, of whom many are suffering from deficiency diseases (3), in a world where overall there is more than enough food produced for everybody. But what does this mean, and what is the right thing to do?

A global total of many tens of millions of families, mostly in some Asian and many African countries, women and small children most of all, are undernourished, often hungry, and sometimes starving. There's no doubt about that. The conditions of life

of many thousands of impoverished rural and urban communities in Latin America, in the former USSR, in territories and areas devastated by wars, and also within North American and some European countries, are not much better. Wherever children – and adults also – are suffering from evident nutritional deficiencies, often made worse by infections and infestations, they are in immediate need of medical and nutritional intervention, and continued primary care. Some of the aid that goes from rich to poor countries is for such purposes.

But what then, if fundamental conditions of life do not change, or get worse? What then, if public services are crumbling? And what about the even more vast numbers of communities and families defined as undernourished not because they are actually suffering from any disease, but because they are identified as 'vulnerable'? What is the problem, and what solutions work?

'Hidden hunger' for micronutrients

In the last half-century, experts who advise United Nations agencies, governments, and other bodies that determine international development and aid policies and programmes, have struggled with such questions. Their responses have tended to become increasingly narrow and technical. The first answer in the 1950s was that the number one global public health nutrition crisis was not so much hunger in general, but shortage as well as deficiency of protein. This paradigm was adjusted in the 1970s in favour of lack of protein and also of energy. As from the 1990s this paradigm was modified again, to give special attention to 'hidden hunger', meaning, potential as well as evident deficiencies and shortages most of all of three micronutrients – iron, iodine, and vitamin A.

The reason for this new focus was partly numbers. In 2001 the then director-general of the International Food Policy Research Institute stated: 'Iron and vitamin A deficiencies are the most widespread deficiencies in the world today, affecting perhaps as many as 3.5 billion people' (4). Another reason was pragmatic. Solutions were seen as 'do-able'. Salt supplies could be iodised – and this programme has indeed sharply reduced goitre. Iron-deficiency anaemia was identified as a very common condition most of all of women of child-bearing age and young children, and staple foods could be 'fortified' with iron – although anaemia has several other immediate causes. Once named as undernutrition, hunger tends to become a problem addressed by quasi-medical interventions, devised and delivered by expert groups, who include consortiums of UN agencies, national government and other aid and development organisations, industry, academics, and health professionals and co-workers in the field.

Vitamin A: top agenda item

So what about vitamin A, the topic of this month's *WN* commentary by Michael Latham?(5). Shortage and deficiency of vitamin A, contained in many fruits, vegetables and other plant foods in the form of carotenoids, and in breastmilk (especially colostrum) and in a few non-human animal foods as retinol, and also vulnerability to shortage or deficiency, is now generally agreed to be one of the big three world undernutrition crises.

Since the early 1990s the consensus view has been that at any one time something like 250 million children, mostly in Africa, Asia, and the Western Pacific region, are at risk of vitamin A deficiency (6), of which 5-10 million are said to suffer from the deficiency disease xerophthalmia, and of which between a quarter and a half million a year are said to go blind and usually to die (7), unless they are subjected to external professional intervention.

Prevention is usually in the form of twice-yearly administration of massive doses of retinol. This is now provided to children between the ages of 6 and 59 months in over 100 countries throughout the world identified as at risk of deficiency. The agreed targets include every single reachable child in all the 61 countries where death-rates in children under 5 are higher than 70 per 1,000, a figure not much higher than the global average, which is taken to be a reliable proxy for vitamin A deficiency (8). This strategy has, it is said, the potential to avert the deaths of over a million children a year (7).

Vitamin A supplementation in this form was in 2005 identified by the United Nations Children's Fund (8) as crucial to the fulfillment of the UN Millennium Goal #4. This goal is by 2015 to reduce by two-thirds the death rates of children under the age of 5. Later, 50 experts were asked: If you had $US 75 billion to spend over four years for the benefit of humanity, what would be the most effective 30 interventions?

The answer, published in May 2008 as 'The Copenhagen Consensus' (9), was decided by a panel of eight economists, of which seven are based in the USA. Of the 'top ten' interventions, five were for relief of undernutrition. The number one priority, with an 'eye-popping benefit-cost ratio', was supply of vitamin A and also zinc to 80 per cent of the 140 million children reckoned to be actually deficient in these micronutrients. This, they estimated, would cost $US 60 million a year and would yield $US 1 billion a year. (The second priority was more free trade, and the third, food fortification with iron and iodine).

Problems with external intervention

This all sounds very impressive. But is vitamin A deficiency now a vast global emergency? Does supplementation with massive doses of retinol prevent blindness and deaths of hundreds of thousands of children every year? And is this approach to

undernutrition and deficiency without problems? In the judgement of Michael Latham, the answer to all three of these questions is, almost certainly no. Indeed, after well over half a century of shared experience working in Africa, Asia, and elsewhere, they believe that the continued very large-scale commitment and investment in 'top-down' external interventions to prevent loss of sight, blindness and death in children, and the relative and sometimes almost complete neglect of broad public health approaches, is bad science and bad policy.

When children are actually suffering from clinical xerophthalmia, with its threat of blindness, they do indeed need supplements of vitamin A, preferably from local sources such as palm and other oils, or if necessary from capsules. Such interventions, preferably managed by community leaders or locally-based professionals, certainly protect and save the sight of children who are seriously deficient in vitamin A. But, the authors contend, there is little evidence that massive dosing with retinol reduces rates of death, which is its chief justification. They maintain that the main commitment of UN agencies and national governments should be to foster, with all due deference to the people most immediately concerned, 'bottom-up' programmes that begin with family, community and local education and empowerment. These need to be indefinitely sustainable.

So what then is the right approach? The first priority should be sustained exclusive breastfeeding, as specified in the UN strategy on infant and young child feeding, and emphasised in the *Lancet* series on child survival (10). (This is not listed in the Copenhagen Consensus 30 priorities, perhaps because breastmilk is free, is not an intervention supplied by foreign governments and aid agencies, and has no commercial potential). The next priority is adequate supplies of vitamin A from a variety of plant foods, and when readily available from relevant animal foods. This requires nationally and locally-controlled strategies that ensure security of production and distribution of a variety of available, accessible and affordable nourishing foods, including those that are rich or good sources of vitamin A. In turn this will also encourage family, community, and national capacity to prevent malnutrition, and also protect against other diseases.

Michael Latham makes a powerful case for a much more modest role for quasi-medical approaches to vitamin A shortage and deficiency. One paper cannot make a complete case. Is more research needed? Probably what is most

needed, is more open debate and testimony from leading public health professionals with field experience in the countries that are most affected. It is also time to pay much more attention to what people in impoverished regions say they need and want.

The trouble with charity

There is a bigger issue here. The governments of rich countries, their aid and development agencies, the World Bank, and the relevant United Nations agencies, favour programmes of food aid and quasi-medical interventions, because these are seen as 'politically neutral'. Such programmes do indeed not address the social, economic – and political – reasons why so many populations especially in Asia and Africa cannot be sure of having enough to eat, and who are indeed at risk of or who suffer from specific deficiency diseases, and much else besides. Vitamin A deficiency is not an infection, like smallpox, that can be eradicated. Like all non-communicable diseases of epidemic proportions, if its fundamental causes remain, its general prevalence will not decrease.

In impoverished countries, one 'political' reason for hunger, in any of its forms, is external debt. Another is so-called 'structural adjustment' programmes imposed by lenders such as the World Bank on governments in return for loans conditional on sharp cuts of publicly funded education and primary health services. Another is export, trade and indeed aid policies that have the effect of damaging or destroying the livelihoods of farmers most of all in impoverished countries (11). All forms of charity are liable to distract attention from the basic reasons for the misery that evokes charitable responses.

Certainly, the immediate reason for hunger, food insecurity, nutritional deficiency and, among other threats to public health, deficiency of vitamin A, is lack of food, or of certain foods and nutrients. Just as physicians and surgeons in wars, or in the accident and emergency admissions section of a hospital in a dangerous city, do their best to patch up wounded people, health professionals in impoverished countries must and should treat the victims of what the distinguished physician and epidemiologist Paul Farmer terms 'structural violence' (12). But professionals are also citizens. We need to see and know the contexts in which we work.

What the hungry populations of Asia, Africa and elsewhere in the world most need and deserve, is justice.

The editors

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