

WN *Editorial*

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Public health and nutrition

The significance of 'kwashiorkor'

'The present system of global governance fails adequately to protect public health. This failure... is especially disastrous for the world's most vulnerable, marginalised, and poorest populations. Health inequities have multiple causes, some of which are rooted in how the world is organised'. This is from the Oslo-Lancet Commission on Global Governance for Health report *The Political Origins of Health Inequity*, published in February. [Available here](#) and summarised in [Update in this issue](#), the report gets to the roots of well-being, health and disease.

The causes of malnutrition

Here is an example. This is what the distinguished authority on sickle-cell anaemia Felix Konotey-Ahulu says. 'There is no mystery about "kwashiorkor". This is a word from my Krobo-Dangme-Ga megatribe... Kwashiorkor is a reflection of the birth position of the sufferer before it is a pathology. It means "the disease of the displaced child"... It is the result of a social pathology before it is a biochemical pathology'. He is quoted in [Inspiration](#), the tribute in this issue of *WN* to Cicely Williams, who first diagnosed kwashiorkor. He knew this personally. As an infant in Ghana in the 1930s he was prematurely displaced from the breast by his younger sibling born soon after him, but escaped what was then an almost always fatal disease by being weaned on to 'beans, eggs, milk, minced meat and Ovaltine'. In *Inspiration*, Rex Dean is also quoted. A senior investigator with great clinical experience in Uganda, he was a co-author with Hugh Trowell of the classic textbook on kwashiorkor. He states: 'Children do not get kwashiorkor when they have an adequate amount of breast milk'.

Kwashiorkor has since the 1950s been conventionally identified as a protein deficiency disease, within the spectrum of protein-energy malnutrition. Given the testimonies above, this clearly is not correct. In earlier stages it can successfully be treated with foods high in protein. But the agent that can treat a disease is not therefore the agent of that disease. The implication of the statements above is that kwashiorkor is a condition whose primary and efficient cause is deficiency of

breastmilk, which is comparatively low in protein, and which contains very many protective bioactive constituents, some known as nutrients, others not. Contributory causes include weaning on paps that are mostly starch, plus neglect, vulnerability to infection and infestation, unsafe water, societies in which too many children are conceived and born soon after one another, and poverty with all this implies.

That is to say, the cause of kwashiorkor, as the Ga people observed, is not just nutritional in any clinical or medical sense. The key biological cause, lack of breastmilk, is itself broader; and other causes are social, cultural, economic and environmental in nature. This makes kwashiorkor, and malnutrition generally, a political issue. On a population basis, it is effectively prevented only by public policies and actions that improve the general conditions of the affected communities and also of their society and country.

To quote the Oslo-Lancet report again: ‘As Amartya Sen argued three decades ago, nutritional status is not determined solely by the availability of food, but also by political factors such as democracy and political empowerment. The politics that generate and distribute political power and resources at local, national, and global levels shape how people live, what they eat, and, ultimately, their health. The global double burden of overnutrition and undernutrition is thus one of serious inequity’

Types of cause

The significance of ‘kwashiorkor’ is just one example of why nutrition needs a new map. Many contributions to *WN* also indicate this need. Those in this issue include the *Updates* on [global health governance](#), on the [new Brazilian dietary guidelines](#), on [world meat production](#) and from the [People’s Health Movement](#). They also include the [Feedback section](#) of letters.

The new map requires understanding of the nature of causation. Modern nutrition science was developed mainly by biochemists, physiologists and physicians. For them, the causes of disease lie within their professional competences, which are largely concerned with diagnosis and treatment. Protein deficiency is the type of cause liable to be identified by conventional nutritionists. This is Abraham Maslow’s [‘Law of the hammer’](#), as in: “To anybody with a hammer, everything looks like a nail”.

But in the scheme originally published in 1990 [by the UN Children’s Fund](#), single or multiple deficiency is not *the* (sole) cause of any type of malnutrition. It is one immediate cause. The other types of cause are ‘underlying’, which include food insecurity and lack of care; and ‘basic’, which include political and economic circumstances. Urban Jonsson, then chief of UNICEF nutrition, who has long field experience in Africa and Asia, devised this conceptual framework. At population level, control and prevention is possible usually only when underlying and basic causes are addressed. Thus, ‘kwashiorkor’ is an accurate name for that condition.

Reduction of its prevalence involves more than mere observation that mothers in affected regions have babies too close to one another, and that weaning food is inadequate and monotonous. It involves understanding why this is so. This leads to identifying root causes, one of which is poverty, and in turn addressing what perpetuates poverty. This is a task for government at all levels from global and national to local, and community, and equally for the empowered people themselves.

This is what the Oslo-Lancet Commission report is saying. The insight is not new. In the mid-19th century [Rudolf Virchow](#) stated that epidemic diseases are symptoms of sick societies. He is heard again whenever needs arise, as they do now. The insight applies to all sorts of malnutrition, including obesity and diabetes, both now pandemic, and other diseases of which unbalanced diets are an immediate cause.

The meaning of 'nutrition'

Two other concepts also apply. One is stated in the 1978 World Health Organization [Alma Ata Declaration](#): 'Health...is a state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity'. We do not learn all about health by focusing on illness. This is the first guiding principle of the new official [Brazilian dietary guidelines](#), now on-line for consultation.

Also, it is now well understood that the welfare and possibly the survival of the human race depend on our realising that our species is just one part of the living world and the biosphere. This means that nutrition has social, economic and environmental dimensions, as specified and explained in the 2005 [Giessen Declaration](#).

Taken together these further insights are the frame for nutrition. Clinical, medically-derived nutrition is applied to individuals. It is sometimes said that public health nutrition is this type of nutrition scaled up to apply to populations, meaning that public health nutrition is a branch of clinical nutrition, which is in effect a branch of medicine. This is not correct. The scope and range of what is now termed 'public health nutrition' is far wider and deeper than that of clinical nutrition, and also than that of modern medicine. Conceptually, it should be called 'nutrition', and what is now called 'nutrition' should be a branch called 'clinical nutrition'. In this new map, of the whole world of nutrition, Felix Konotey-Ahulu's identification of kwashiorkor as a social pathology before it is a biochemical pathology stands out.

When the discipline of nutrition is delineated properly, and is guided by principles appropriate to circumstance, its practitioners should be able effectively to address epidemic disease and to promote population good health and well-being. This is what Cicely Williams, and the Krobo-Dangme-Ga people, continue to tell us. This is the significance of 'kwashiorkor'.

The editors