As I see it

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This is a momentous time for all of us who are committed to protect and improve food, nutrition and health, with all this implies. I am reminded of what my colleague Roger Shrimpton said, in response to the depressing thought that 'nutrition is everybody's business but nobody's responsibility'. Roger's reply is a rallying call: 'Nutrition is everybody's business and is our responsibility'. This month's contribution of mine is written in this spirit. It follows and reflects on the 65th WHO World Health Assembly held in May. I also consider, from my own experience, how public policies of huge international implications may have the effect of improving – or worsening – public health and population nutrition.

Nutrition

The UN system, and leading edge science

After the best part of half a century specialising in nutrition and public health, I am beginning to feel that right now, there is more for us to play for than ever before. Our *Rio2012* conference at the end of April resonated with calls from leading participants for the Association itself to carry the flag forward. The calls were for us to be a real influence on the UN and its agencies, national governments, and international organisations.

More concretely, in May the WHO World Health Assembly passed a series of resolutions on issues of global importance within which nutrition is crucial. One is on the prevention and control of non-communicable diseases, following up from the UN high-level meeting in New York last September This, and the response from the Association and other public interest organisations, can be accessed above. Another is on maternal, infant and young child nutrition. This can also be accessed above.

I wrote last month: 'We need to create a new vision of nutrition as a fascinating and challenging integrative theme, when considering the world's food systems at a time

of rapid climate change, economic crises, and ever more constrained natural resources for the planet's escalating population'. Can this be done, and can the Association and its members play a leading part? I suggest that yes it can, and that yes we better had. But don't expect that this will be easy... Read on...

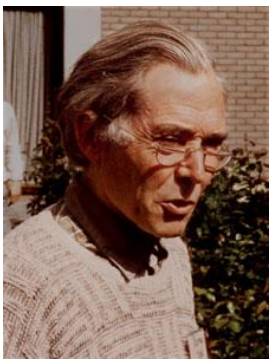
Nutrition and the UN System

It has always intrigued and then irritated me that during the last thirty years in which I have been working closely with WHO, I have found nutrition to be not just a poor relation but even a mere feature of societal concern apparently best left to others. It has seemed that WHO has needed to get on mainly with the important technical, sophisticated and challenging tasks of dealing with malaria, polio and other infectious diseases. UNICEF could get out into the community and deal with the problems of diarrhoeal disease and protein-calorie malnutrition. FAO would ensure that there really was enough food to eat. Then national government departments and non-government organisations needed to get their act together and educate women to feed their children properly.

But where was the cohesion? Over the decades, WHO has kept on specifying that nutrition is crucial to health and well-being at all times and all stages of life. This has been expressed in a series of reports in which I have been involved. One highlighted the need for a life-course approach to nutrition (1) as part of the background work for the 2003 WHO '916' report (2), which followed the 2000 report of the Millennium Commission (3) which I was privileged to chair. Yet none of these clear statements of the imperative and central importance of nutrition to world health have seemed to affect the deliberations of the UN or its constituent agencies.

So probably we now need a different approach, taking into account the social, economic and environmental determinants of disease, health and well-being. At present though, this is just not there. As a glimpse of some of the deep reasons why, here follow some of my own experiences in the last 30 and more years.

Nutrition and leading-edge science



One might argue that the nutritional aspects of chronic non-communicable diseases have held centre stage in terms of policy making for decades now in many countries, following the pioneering research and advocacy for dietary change led in the US by Ancel Keys from the late 1950s onwards. His campaign was so intensive that by 1961 he was appearing on the front page of *Time* magazine, as you see above. Then there was the pioneering Norwegian government's public policy making for chronic disease prevention starting in 1962 (4).

Even so, when I was asked 25 years ago to develop for the WHO European region an analysis which became the report *Healthy Nutrition: Preventing Nutrition-Related Diseases in Europe* (5), the idea that nutrition modified the risk of major chronic diseases was still generally considered unusual. Furthermore there were no funds available in WHO for dealing with the dietary aspects of chronic non-communicable diseases. It was only in 1982 that Geoffrey Rose of the London School of Hygiene and Tropical Medicine (above right),together with Henry Blackburn of the University of Minnesota, produced their brilliant and now classic first analysis of the needs for dietary population change as well as the treatment of high risk groups (6). Then I was myself involved with Geoffrey Rose in the next WHO technical report in the same area (7). But it was soon evident that officials responsible for public policy-making, had not thought at all about the need for nutritional issues to have an impact on public policies and programmes in any non-medical dimension, especially as these involved agriculture and food manufacture.

Nutrition and agriculture policy

At that time I learned why. In 1982 I was asked to become director of the Rowett Research Institute in Bucksburn, Aberdeen, Scotland. The Rowett was founded early in the last century by John Boyd Orr above left), who much later became founding director-general of the Food and Agriculture Organization of the UN, and a Nobel Peace Prize Laureate. When I arrived it was the largest nutrition research institute in the world, but almost exclusively specialising in animal husbandry. I was taking over an agricultural research empire, a large part of whose task was to advise farmers how to improve their productivity, on the basis of a huge range of farm animal feeding studies.

So for me this was an intensive crash course in nutrition in the service of modern agriculture, whose task in turn was to produce more food, more efficiently. It was routinely assumed by most of the staff at that time and certainly all the farmers, who constantly came to the Institute for advice, that all the foods they were concerned with – primarily meat and dairy production – simply reflected agriculture's response to demands from government and society to provide meat, milk and butter. They knew that these foods had already been shown by Boyd Orr as missing features of the diets of the poor, and as valuable contributors to stunted children's growth.

My predecessor Kenneth Blaxter (next picture above) was a brilliant agricultural scientist specialising in the energy needs of animals. He considered our human nutrition research to be feeble compared with the meticulous work that the agricultural research community had undertaken in animal husbandry. He did introduce deer farming (some of the Rowett deer herd are shown above) and recognised that venison was much lower in fat. But his main concern, as expressed to me, was that modern agriculture was energetically simply unsustainable because of its intrinsic dependence on the use of oil to drive the machinery and produce fertiliser and so many other inputs and outputs. With the population explosion and the finite oil resources he was already predicting a world food crisis.

I discovered that post-war the Rowett had become famous for having discovered the apparent 'value' of feeding cows and sheep cereals rather than grass. This speeded their growth and was apparently highly cost-effective. It meant that now most global cereal production is being fed to ruminants which have of course evolved to eat grass. This now accounts for the vast cattle feedlots in the US and elsewhere. The next big discovery, still being perfected when I arrived, was to add fishmeal to the ration of dairy cows and sheep at specific times to boost the production of milk by improving the supply of essential amino acids. Hence the huge diversion of fishmeal to agriculture that continues to this day.

I also had to learn fast about the real nature and purpose of agriculture policy-making in determining what food was actually produced, manufactured and marketed. A month before I arrived at the Rowett, the then Prime Minister Margaret Thatcher had declared her antagonism to the huge effort and money being – as she saw this – 'wasted' on agricultural research. When she later visited the Rowett, it became obvious that this was not a passing prejudice. She stayed overtime hearing about our human studies but quickly walked past any agricultural research still underway

A wide range of farmers continued to come after I took over the Institute. They wondered how could it be that a medic like me could possibly be of any help to them. Several of them repeatedly challenged me on this. In their terms I was completely inappropriate as the Rowett director. These good people were soon complaining to me that there was now also a threat to reduce the automatic 50 per

cent subsidy on any farm improvement such as new milking sheds and equipment so soon after them losing their 100 per cent subsidies. Furthermore, they told me, there seemed to be a move to abolish the guaranteed price at which milk was bought by the Milk Marketing Board. This in effect controlled the quantity of milk going into the food supply of the whole country! There were even suggestions, following Mrs Thatcher's pressure, that the farmers might have to pay for all the advice that my staff were routinely giving, related to beef, dairy, sheep and pig, and even rabbit and venison farming.

Equally important for my understanding of this whole new world were discussions with the Minister of Agriculture for Scotland, who was worrying about how to continue giving the Rowett as much funding as possible. He was also worrying about how to help the Minister of Agriculture for England to negotiate in Europe the price of milk, butter and beef. They needed to gain a consensus in Brussels to reduce retail prices so they could reduce the vast milk, butter, beef, wine and grain 'mountains'. These were accumulating as surplus to demand in Europe in response to the huge subsidies of the Common Agricultural Policy which at that time was the major use of the European Union's budget.

The Minister knew that the way to reduce food mountains was to reduce price. I discovered that his economists could predict accurately how many thousands of surplus tons could be sold if the price was reduced by X per cent. Alternative schemes were to reintroduce subsidised milk for schools and to all old people's homes – full fat milk, not the new fancy half-fat milk which made the butter mountains bigger. When I objected, explaining that this was a particularly unhealthy thing to do, it, was as though a Martian had spoken. Nutrition had nothing to do with it! Officials continued to manipulate the price of milk, sell it at next to nothing to the Soviet Union which was then in economic crisis, and finally to dump the excess on the world market.

By this stage, 20 years ago, I was becoming somewhat notorious for demanding a new public health and nutritional approach to agriculture. Yet I was also beginning to be seen by the top brass in Whitehall as not talking complete nonsense. So I was invited to talk about fats and sugar intakes and their determinants, and the need to transform agricultural policies, by what was known as the Quadripartite Meeting. This was of the chief agricultural scientists and their staff from the US Department of Agriculture, the Canadian Agriculture Department, and the equivalent French Ministry, when it was their turn to meet in the UK. They were astonished that I should be so critical, as I described the post-war epidemic of chronic non-communicable diseases which I directly linked to national food and agricultural policies. I went on to explain that populations throughout the world were having their food systems and dietary patterns manipulated by hopelessly misconstrued policies.

I thought I had made no impact. But a year later I was invited back, this time to France. I learned that the USDA had taken what they described as 'my' WHO '797' report (8), the product of a WHO study group which I chaired, and assessed how implementing it would affect US agriculture. They had modelled the implications of the WHO report for US agriculture, which would have to be totally transformed. There would not be the huge need for growing grain in the Mid-West, which would be transformed for growing vegetables and fruit unless the world at large needed grain as a primary human source of food. But the demand for fruit and vegetable would impose a strain on water supplies.

They quietly let me know that they had been fascinated by the WHO report with its recommendations for agriculture but that my chances of changing the policies of the US were zero. This was because the meat, grain, sugar and milk businesses explicitly encouraged for decades by multi-billion dollar government subsidies were now so powerful that they essentially controlled Congress. So now big business nurtured by government subsidy would prevent any change for public health reasons.

Nutrition and WHO policy

I started on these recollections as a preliminary to my analysis of the recent UN General Assembly requirement that WHO lead the policy changes for the prevention of chronic non-communicable diseases. I will have more to say about this after this month.

It is though relevant to mention here that when I began to engage with the process that led to the 1990 WHO '797' report, I asked what is WHO's legal position. In particular I wanted WHO legal officers to inform me whether WHO was only a technical body engaged with national ministries of health or, alternatively, with the whole of government.

They told me very clearly that WHO is the UN agency whose duty is to specify to any department of government and to governments as a whole, the requirements and needs relevant to public health, and to make recommendations on what needs to be done. In parallel, other UN agencies deal for example with trade, development, agriculture and food.

Our '797' report, with its emphasis on chronic non- communicable diseases and also on the nutritional deficiencies most of all in impoverished countries, engaged with a great range of public policy issues. So its recommendations included specific proposals for ministers of agriculture. In the US, Department of Agriculture officials and scientists clearly understood what was involved. In the light of our better understanding of the determinants of food intake, we now need to work out what new measures we should take in agriculture policy-making. This will come later.

Nutrition and food manufacturing policy

At my time at the Rowett I became one of about a dozen scientists appointed by the Prime Minister, to see how best to change dramatically the industrial prospects of Britain. I went to Whitehall and found myself sitting in the Cabinet Office with the former Cabinet Minister David Hunt, later Lord Hunt of Wirral (above, left).

There I discovered that my job was to transform the British food manufacturing industry so that it could become a major exporter and a world leader. I will always remember that I had across the table an amazingly young guy. He told me he was inventing new mathematical models for dealing with financial issues in the City of London. They were already five years ahead of anywhere else in the world, he said, and could outdo in speed of transaction and prediction of currency movements any other centre. His job was to make the City of London financially pre-eminent.

I often think of this now and the absolute conviction of that mathematical whizz-kid that the 'free market' was the most wonderful way of doing business with money and that this financial wizardry would flourish. As indeed it did with enormous costs for us all in society which we will have to endure for the next few decades...

Then there was Martin Rees, now Lord Rees (above right) of astrophysics fame, who quietly indicated that he was not sure how his scientific work would help industrial exploitation. Within weeks I was, with senior civil servants, running special workshops and Delphi Method exercises – a new game to me – at the industrially funded Leatherhead Food Research Centre, and in Unilever's highly sophisticated research centre at Colworth Park, Bedford as well as at the Rowett.

Slowly I came to realise that marketing dominates everything in the food manufacturing business. On going to a national conference of what I think is now the Biscuit, Cake, Chocolate and Confectionery Alliance, I heard that member companies considered their products the best in the world, and there was a huge export opportunity, as the Mediterranean countries had pathetically low biscuit, cake, chocolate and sweets intakes. Here was a marvellous marketing opportunity which the Alliance would take on. They reckoned their sales could quadruple. Now we see

the success of their brilliant marketing with the rapid disappearance of the Mediterranean diet.

Nutrition and repentance

Finally, it was twenty years on and nearly ten years ago. I was in what is now called the Department of Business, Innovation and Skills. This houses and controls the relevant UK Research Councils and is where the Chief Scientist operates. I was discussing the emerging Chief Scientist's Foresight programme, whose purpose then was to understand and address the scientific, social and economic drivers of what had become the appalling epidemic of obesity (9).

There I met again one of the university-based food scientists with whom I had been involved in the 1980s, when we attempted to put some science – as well as from my point of view health – into the food business. He greeted me warmly. He told me that he now realised that during most of his distinguished work on food texture and taste, he had helped the food manufacturers to generate the epidemic of obesity. He now wanted to make amends.

You may by now have got a glimpse of what we all now are up against.

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