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Volume 3, Number 4, April 2012

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

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Editorial

Thought and action

This month the main contributions to **World Nutrition** are devoted to two themes, which are connected. The first is our *Rio2012* conference itself, addressed in a series of short communications by Association members and others. The second is the nature and purpose of public health nutrition, addressed in a momentous commentary by Geof Rayner and Tim Lang.

Reasons to be cheerful

This is the month of *Rio2012*. The next issue of *WN*, together with the Association's website, will be posted on-line earlier than usual, on 0001 GMT Thursday 26 April, immediately before *Rio2012*. So that issue will be, as this issue is, a celebration of our conference, which is created, directed and organised with our partners the Brazilian national public health organisation Abrasco.

Two years ago we envisioned a conference designed to follow the principles of independence, transparency and accountability, agreed by our governing body on behalf of our membership. Our ambitions were high. Our principles were not only ethical. Public health has social, cultural, political, economic and environmental dimensions. It follows that public health nutrition has these dimensions also. This makes our vocation and profession very different from 'classical' or clinical nutrition,

which is principally a biochemical discipline. Our conference would need also to be an expression of nutrition as part of public health. As soon as we partnered with *Abrasco*, the national public health civil society organisation, we realised this could be done. Our Brazilian partners think and act like this all the time.

As already stated on our website and in the conference's dedicated website, *Rio2012* is a new departure for conferences in our field, and for general nutrition conferences. It has been designed so that everybody present is encouraged to be a participant. All the sessions are interactive, and made to be so by using methods of involvement that are normal in any dynamic meeting but so far not used for nutrition conferences.



Inês Rugani, executive secretary of Rio2012, impressing all present at the week-long planning meeting in October, with the need for dynamism

The motto of the conference, knowledge-policy-action, indicates two principles. First, the word 'knowledge' and not the word 'science' is used, because the scientific method does not capture all that needs to be known. Indeed, current methods of scientific investigation can sometimes be grossly inadequate. 'Knowledge', which includes science, validates the testimonies of communities and families who, all too often, are subjected to interventions whose protocols do not include asking them what it is that they themselves experience, and what they themselves think and believe. The conference is designed as an act of participatory democracy.

Second, the inclusion of 'action' as well as 'policy', indicates that the whole direction of the conference is towards the world outside. What is agreed at the conference will be carried forward. Thus the end of the conference is the beginning of its purposes.

An intention of the conference is to end nutrition as an insulated profession, and to start a world movement that fully integrates nutrition into the planning and practice

of public health as a whole, in the public interest. Our success will become evident only in the years to come.

There is much to do. The world's dominant political and economic ideology, despite proof of disastrous failure, is still dominated by mathematical models that license greed. These, and their creators, do not grasp the ways in which human beings actually work, personally, socially, politically – or commercially.

This gives all of us who work to protect and improve public health and public goods a great responsibility and opportunity. Everybody other than rabid ideologues should know that the destruction of basic primary health care services is outrageous. Everybody other than interested big businesses should know that aggressive advertising of junk food to children must be prohibited.

It is time for us as a profession to realise that the type of nutrition that focuses on the chemical constituents of foods is a distraction from the realities of modern food systems, food supplies and dietary patterns. As Carlos Monteiro says in this journal, with nutrition and health, the issue is neither nutrients nor foods, so much as what is done to foods before they are purchased and consumed. The big issue is the nature, purpose and extent of food processing. Seeing this is to realise that as a profession we have a duty to confront the manufacturers and purveyors of ultra-processed food. We have to engage with public policy. With public health it was ever thus.



Here are just some of the people responsible for Rio2012, at the end of the second week-long planning meeting held in Rio de Janeiro last October

Lessons from history

The need to learn from history is a theme of the commentary by Geof Rayner and Tim Lang that we publish this month. They point out that public health nutrition is not a branch of nutrition as now usually taught and practiced. Public health nutrition is a branch of public health. Properly understood, nutrition in its 'classic' biochemical and physiological sense, is a branch of public health nutrition (1).

Seeing our profession as a branch of public health is logical. It is also revolutionary, because public health is a movement as well as a discipline. It has technical bases, and also engages with social, economic, political and environmental issues and crises.



How public health has been advanced. Left, workers on the barricades in Berlin in 1848. Right, the Broad Street pump before its removal in 1854

This is illustrated by a study of history. In 1848 Rudolf Virchow (1821-1902), who at the age of 27 was already a distinguished pathologist, was asked by the government of Prussia to investigate the causes of a rampant outbreak of typhus in the mining communities of Upper Silesia, and to make a report with recommendations. He did so. He found that the causes of the disease included poverty, misery, hopelessness, insecurity, and starvation.

He concluded: It is no longer a question of treating the patient with drugs or by the regulation of food, clothing or housing... We must begin to promote the advancement of the whole population'. He handed in his report to the authorities in Berlin, who sacked him. At the same time, the 1848 revolution broke out in the streets of European cities, and Virchow served on the barricades in Berlin, defending the workers against the army. The picture above left, shows the flag of the insurgents, which later became the flag of a unified democratic Germany.

In 1854 the British epidemiologist John Snow (1813-1858) conducted a meticulous survey of the incidence of cholera in the Soho area of London, constructing a map which showed the locations of the clusters of death. Then he acted: he made sure of the removal of the handle from the Broad Street pump, pictured above right, as the agent of death. His actions were opposed by directors of the private companies that supplied water, and by various city fathers who owned shares in the companies. The eventual result included Acts of Parliament that identified water as a public good and as such a public service paid for with public money, and fair household rates.

The justification for this policy was partly philanthropic but mainly practical. Once governments understood that infectious diseases were liable to kill substantial proportions of all classes of people in the populations for which they were responsible, and also that incidence of these diseases usually could be checked and reduced, they acted.



London's sewage system, built mostly in the 1860s, includes 13,000 miles of tunnels and pipes, and at its time was the engineering wonder of the world

Hence the gigantic sewage systems installed in London and other European cities in the second half of the 19th century, not long after John Snow's revelation (3), which people now living in such cities tend to take for granted. The great civil engineer Joseph Bazalgette (1819-1891) was the mastermind of the systems built in London, which included beautifully designed pumping stations (such as the Octagon in Crossness, left above) and vast main sewers (like that at right, above). As a result, cholera and typhoid ceased to be public health problems in London, and in the other cities and areas at first in Europe and then in North America and elsewhere that installed sewage and water purification systems.

Geof Rayner and Tim Lang's magisterial book (4), published in the week before *Rio2012*, and their commentary_developed from it, remind us of four points that are crucial to our teaching, practice and advocacy of public health nutrition.

- Leading European and North American philosophers, economists and politicians of the 18th, 19th and early 20th century, and leaders of the public health movement, knew that the great issues of their day were both a cause and an effect of grossly inadequate food and nutrition. These included soaring population, rocketing increase of slum dwellers, outrageous exploitation of rural and city workers, insecure living conditions, inadequate or unaffordable medical services, and epidemic infectious diseases.
- In those days, scientists who specialised in nutrition were interested in the impact of adequate and nourishing food (as then understood) on the health and welfare of nations. Thus in the mid 19th century the focus of Justus von Liebig (1803-1873) on protein, pushed the growth of young people and made them fitter as factory workers and foot soldiers (5). A century later the focus of John Boyd Orr (1880-1971) on fresh food and milk (6) was essential in the ability of the British fighting forces and population to endure World War II.
- The number of academically qualified people who identify themselves as nutritionists has now vastly increased, while at the same time the scope of nutrition has diminished. The great issues of the 18th and 19th century, within which nutrition is crucial, remain fundamental. These are now as urgent and crucial as in the earlier period of outrageous exploitation by enriched and powerful nations of impoverished and dispossessed nations. More of us need to see this, and also to speak out and act.
- The profession of nutrition will continue to under-perform, until its leading practitioners see that nutrition is part of public health, can be effective when and only when this is fully understood, and works as a social, economic and now also an environmental as well as a behavioural and biological science. There must now be much less focus on individual 'education and information' and instead much more on the underlying and basic causes of states of health and well-being in the broad senses of these terms.

Another point is not alluded to in Geof Rayner and Tim Lang's book. It is this.

• The theory and practice of nutrition is now dominated by the economically wealthy parts of the world, whose politicians and contollers of funds for science generally have little feeling for fundamental and elemental public health, who see dispossessed communities as marginal, and who despite proof of the catastrophe of casino capitalism still 'go for growth'. Ecological thinking, as advocated by Geof Rayner and Tim Lang, suggests that big public health nutrition initiatives now need to come from the South.

Back to Rio

One conclusion of the *Rio2012* conference could be the setting up of a commission whose concern is nutrition in the grand sense. Such an initiative should come from nations with the best understanding of the issues, including China, India, Indonesia, Egypt, Nigeria, Mexico, and Brazil. European and North American countries should also be engaged. Likewise relevant UN agencies.

Notes and references

- Terminology here is obscuring clear vision. The great nutrition scientists of the 19th century and first half of the 20th century were concerned with public health and became renowned for this reason. The proper term for what is now called 'public health nutrition' is 'nutrition', and the proper term for what is now called 'nutrition' is 'clinical nutrition', to be identified as a branch of the correctly identified 'nutrition'.
- 2 Ackerknecht E. Rudolf Virchow Doctor, Statesman, Anthropologist. Madison WI: University of Wisconsin Press, 1973.
- What convinced the British Parliament was the 1858 'Great Stink' from the Thames, which had became a vast cesspit devoid of life, and was so insufferable that politicians in the Houses of Parliament, which overlook the Thames and Westminster, considered moving out of London.

 Instead, the Enabling Act for London's sewage system, which still works today, was passed in that year.
- 4 Rayner G, Lang T. *Ecological Public Health*. London: Routledge/ Earthscan, 2012.
- 5 Von Liebig also artificially fertilised plants and animals, and developed the first infant formula.
- Boyd Orr did not regard milk as ideal. He promoted it for practical reasons: at the time there was a glut of milk in Britain, and he proposed that it was better to pour it down throats than down drains.

Acknowledgement and request

Readers may make use of the material in this editorial if acknowledgement is given to the Association, and WN is cited. Please cite as: Anon. Thought and action. [Editorial] World Nutrition, April 2012, 3,4, 85-91. Obtainable at www.wphna.org.

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