

Editorial

An Asian–African dialogue and partnership for nutrition and health

Mark L Wahlqvist MD, FRACP, FAFPHM

International Health & Development Unit, Faculty of Medicine, Monash University, Clayton, Melbourne, Victoria, Australia

Although Asia and Africa have been disconnected in their southern extremes, geographically and ecologically, ever since the separations in Gondwanaland some 200 million years ago, the people whose descendants settled in Asia left Africa only about 150 000 years ago as *Homo sapiens*.¹ The Eurasian continental bridge between Africa, South-east Asia and the Pacific is now of little consequence as sea, and air traffic as well, across the Indian Ocean becomes more and more active and information technology (IT) provides instantaneous knowledge transfer. Great opportunities now exist for an Asia–Africa dialogue, recreating the ancient affinities.

At present, the diversity of food cultures remains wide in both Africa and Asia and is suggestive of the potential latitude possible within the human diet. Such diversity is compatible with optimal health, with sustainability of the food supply and the environment from which it comes, and with socioeconomic wellbeing.

It is worth pointing out that the amount of food people require, measured by energy or calorie value, is dependent on the size of the individual (muscle mass and its energy needs are roughly proportionate to height), physical activity, and illnesses, which may be febrile, catabolic or malabsorptive (Fig. 1). Each of these may be rather different by environmental setting or socioeconomic situation, or at different historical points in time. An eco-nutritional analysis of energy intake, bioavailability and expenditure of this kind could help in the development of a more cohesive African–Asian, indeed international, view of disorders of energy balance. During fetal development and extra-uterine growth, length or height could be expected to be adaptive to energy balance, with long-term implications for imbalance, should the relationships change. In the past and often, regrettably, still in the present, endemic communicable diseases such as malaria, yellow fever and recurrent food-borne illness increased the energy requirements.

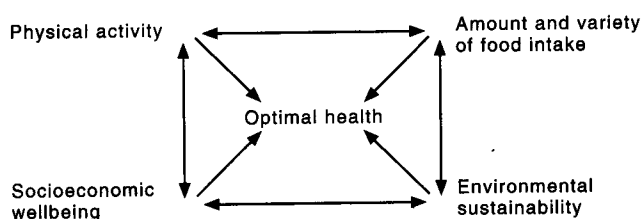


Figure 1. Global determinants of optimal health.

Presumably, whether populations survived at all in certain ecological settings, with human pathogens, depended on the following:

1. Successful reproduction with or without optimal health judged by life expectancy, morbidity rates and other indicators.
2. Whether disease resistance developed.
3. Whether food or physical activity provided protection against illness.
4. Whether it was possible to migrate out and back to the area according to risk.

Often, it seems, people settled for less than optimal health and were unaware it could be better. The question is now whether, if we knew how, we could change our environmental niche by restoring it, developing it, or moving from it to a better niche in order to improve health. Perhaps the answer is that we are forever doing this by migration and urbanization. For all of the problems of urbanization, in general there are less insect-transmitted illnesses and, potentially, less food- and water-borne illnesses because of the relative ease of prevention and management of these health problems when people are together in one place. At the same time, the 'environmental buffer zones' that reduce the spread of disease and the avoidance of overcrowding that characterize rural life are lost. The trade-offs, as long as poverty is avoided with urban socioeconomic development, favour life expectancy in urban environments.² Japan and Hong Kong are remarkable for their long life expectancies in the face of urbanization. However, being physically active is harder to achieve in cities given a lack of recreational and safe environments for exercise; thus, obesity becomes prevalent and with it non-insulin-dependent diabetes (NIDD) and cardiovascular disease (CVD).³

The question of urbanization and its effects on health, especially from a nutritional point of view, is complex but not necessarily detrimental. However, the development of megacities in Asia and Africa have usually brought with them atmospheric pollution and homeless children in large num-

Correspondence address: Prof. Mark L. Wahlqvist, International Health & Development Unit, Menzies Building, Monash University, Wellington Road, Clayton, Melbourne, Victoria 3168, Australia.

Tel: 61 3 9905 8145; Fax: 61 3 9905 8146

Email: mark.wahlqvist@med.monash.edu.au

bers; in these mega-cities the health and social effects are unacceptable from any point of view. Unless socioeconomic development underpins, or at least accompanies, urban development, it is not possible for the net effect of mass urbanization to be advantageous to health.

There remains, therefore, a strong case for rural and village development throughout Asia and Africa to enable local industry, including local food production and processing, to develop. In turn, people could be employed locally and communities could trade. Food Based Dietary Guidelines (FBDG) support this approach, recognizing that the best of food traditions need to be maintained locally and that there needs to be environmental sensitivity in food production and other economic pursuits which allow for trade.^{1,4}

While the variety of food helps achieve optimal health, it would be unusual for enough variety to be achieved by local food acquisition alone. Hunter-gatherers move around for their food and agriculturalists tend to base their food supply on staples of cereals or root vegetables. The impetus to develop successful local food economies may well come, in the future, from the application of information technology (IT) and of biotechnology (BT), or combinations of both IT and BT. In the case of IT, it will become increasingly affordable even in the most disadvantaged economic communities. This is already happening in villages around Bangalore in India, in Mali in West Africa and in Soweto in Southern Africa. IT can be taken up quickly by young people of both genders, contribute to their knowledge and skills base, and suggest ways of managing their affairs locally. Once satellite telecommunications transcend national systems it is conceivable that, very quickly, every community in Africa and Asia could be 'on-line'. New economic forces will then operate to change local economies. If BT can be managed in an environmentally sound fashion with a 'diverse suite of high yielding plants and animals' relevant to local conditions, it could build local economies and not simply be the province of the global corporate sector.

The future of international nutrition in international health needs a vision that IT might provide low-risk BT management and that it might become a reality quickly. Backing needs to come from science, education, health, agriculture, non-government organizations (NGOs), governments and international agencies alike. This is a way we can stem, for example, the growing tide of orphans of HIV-positive parents and of refugees of conflict about land and resources, and restore greater dignity to the human species and to the planet in which it lives.

In the meantime, world population (meaning mainly Asia and Africa) is expected to stabilise by around the year 2050. By then we should be able to provide for a more sustainable future where optimal health means longevity, minimal morbidity based on enough food from various sources, regular physical activity and a sense of socioeconomic wellbeing.^{5,6} The critical nutrition events we now face need the best analysis we can provide, while recognizing the uncertainty that is involved.⁷

References

1. Wahlqvist ML, Specht RL. Food variety and biodiversity: Econutrition. *Asia Pacific J Clin Nutr* 1998; 7: 314-319.
2. Australian Institute of Health and Welfare. Australia's Health. The sixth biennial health report of the Australian Institute of Health & Welfare. Canberra: AIHW, 1998.
3. World Health Organization. Obesity. Preventing and managing the global epidemic. Geneva: World Health Organization, 1998.
4. Darnton-Hill I, Wahlqvist ML, Uauay R. The scientific basis for diet, nutrition and health relationships. In: Preparation and use of food-based dietary guidelines. Report of a joint FAO/WHO consultation, Nicosia, Cyprus. Geneva: World Health Organization, 1996; 51-92.
5. Wahlqvist ML. Public health nutrition in the Asia Pacific region (Editorial). *Asia Pacific J Clin Nutr* 1997; 6: 77.
6. Wahlqvist ML. Public health nutrition in the Asia Pacific Region. Proceedings of Building Alliances for Change in Public Health Nutrition, 14-16 July 1997, Melbourne, Australia.
7. Wahlqvist ML. Critical nutrition events in human history. *Asia Pacific J Clin Nutr* 1992; 1: 101-105.