

Invited Editorial

Food-Based Dietary Guidelines (FBDGs): Their Future

ABSTRACT

The promulgation of the joint WHO-FAO Cyprus Declaration in 1995, established the principles and procedures for countries to develop their customised Food-Based Dietary Guidelines (FBDGs). One of the earliest acculturations of the FBDGs was undertaken by WHO for the Western Pacific region. This process has been continued for the Southeast Asian region, where revisions have now been made to reflect its changing health patterns and food systems. The greatest challenge to FBDG revision is how climate change is and will affect food supply and health. The world has become more populous, the risks to food insecurity have escalated with growing inequity, conflict and mass migration are rife, trading arrangements have become fragile, and climate change is proceeding apace. The future depends on sustainable ecosystems, the food and water they provide and us as ecological beings.

Key words: Food-Based Dietary Guidelines, Southeast Asia, sustainable ecosystems

Why food?

Foods and beverages are what we consume for sustenance, health, social intercourse and pleasure. The system which provides these benefits must be accessible, safe, affordable, equitable and sustainable. We are omnivores who can live on a wide range of dietary patterns unlike most other creatures. This is both our biological advantage and our ecological Achilles heel. We have ranged far and wide in our evolution, populating and compromising countless ecosystems.

The characteristics of diets considered optimal for health were generally agreed by national and international authorities in the latter half of the 20th century. In 1995, a joint WHO-FAO consultation produced the evidence-based Cyprus Declaration which established the principles and procedures for communities, countries and regions to develop their customised Food-Based Dietary Guidelines (FBDGs) (Wahlqvist *et al.*, 1999). The over-riding guideline was that of a biodiverse diet, where most of the diversity would be generated through plant-derived foods, understood to encourage inclusion of legumes and, where culturally acceptable, mushrooms, even though the latter are technically fungi. The logic in a biodiverse diet is not only its physiological and metabolic coherence, but also its representation of a healthful environment in which to live or with which to trade, its insurance of essential nutrient coverage, and its minimisation of adverse exposures (Wahlqvist, 2014). It does not presuppose any one food culture, although some are more diverse than others and more restrained through geoclimatic and socio-economic factors.

In the minds of those of us who drew up the Cyprus Declaration was the importance of the intactness of food required to deliver functions dependent on its structure and physico-chemical properties. This rationale has been consolidated over the years (Wahlqvist, 2016). However, what is now more obvious is that we are ourselves an intimate part of our environment in many ways, microbiologically through our microbiomes; sensory-wise through tactile, olfactory, gustatory, visual, auditory and many other receptor pathways widely distributed in tissues; hormonally through the endocrine properties of food and environmental contaminants like plastics. We are, in reality ecological creatures.

Ecologically, where and how we live are keys to FBDG ownership and application. We

can endeavour to ensure livelihoods which benefit from and promote healthy eating. Even so, there will be difficulties. One way to address the limitations which communities find in supporting FBDGs is to connect their households more effectively and to have communities complement each other with people and other resources including food and health services (Wahlqvist, 2009). These strategies are now more feasible with the internet and smart phones which have become almost ubiquitous.

Various lines of evidence were brought to bear on the FBDG principles which have been applied in many settings. One of the earliest acculturations of the FBDGs was undertaken by WHO for the Western Pacific region. It took account of the various food habits in the region. This process has been continued for the Asia Pacific region, where national reports were published collectively in the *Asia Pacific Journal of Clinical Nutrition* in 2011. Revisions have now been made for Southeast Asia (Tee *et al.*, 2016) to reflect its changing health patterns and food systems, particularly in regard to food security. The task is to optimise diets, place by place.

It is becoming clear, however, that dietary diversification is challenged by poverty and inequity, conflict, displacement, the ultra-processing of food, natural disasters, urbanisation and demographic change towards ageing populations and households. For these reasons, efforts are being made to improve the nutritional value of staple crops on which much of the world depends, as with the Harvest Plus biofortification initiative.

Climate change

The greatest challenge to FBDG revision is how climate change is and will affect the food supply and health. It will affect both quantity and quality. Within a generation, all of the rivers of Asia which emanate from the Tibetan plateau will be running dry - and it is likely that the Indonesian archipelago will suffer increasing drought, as will Australasia. With failure of water and food systems in the Asian region, it is estimated that more than 2 billion people will be affected (Wahlqvist, 2014). This does not take into account depleted ground water and the irrigation on which it depends, rising sea levels and effects on coastal food production, or super storms and other natural disasters now projected by Hansen *et al.* (2016).

Operationalisation

The difficulty with the advent of the FBDGs initiative in 1995 is that it was not coupled with an implementation policy other than that the guidelines should be developed. There was pointless discussion about their 'harmonisation' rather than their adaptation and little action to operationalise them (Wahlqvist, 2009). Meanwhile, the world has become more populous, the risks to food insecurity have escalated with growing inequity, conflict and mass migration are rife, trading arrangements have become fragile, and climate change is proceeding apace.

Of particular concern, ethical problems are growing in regard to the limited availability of nutritious and safe foods, free from environmental contamination (Friel & Baker, 2009). This applies particularly to massive food waste (30-50% of all that is produced), declining fish stocks, contaminated with microplastics and other endocrine disruptors, to livestock immune-compromised on account of multiple antibiotic resistant genes, crops growing in recently industrialised areas with contaminated soil and water and vanishing waterways whose glacial sources have melted without replacement. The explicit identification in dietary guidelines of the adverse effects of ultra-processed food has been reflected by FAO in its proposals for climate change-sensitive dietary guidelines (Fischer & Garnett 2016). Such understanding of food and health must now inform FBDGs more

widely. Better governance of food systems is now a pressing issue for the architects of FB-DGs and policy implementers.

The future

The re-visitation of all food, nutrition and health policy instruments with a view to their validity, currency and fitness for action is to be encouraged. That includes the FB-DGs, region by region, locality by locality. The need to do so in Asia is great, as are the benefits of doing so. The future depends on sustainable ecosystems, the food and water they provide and us as ecological beings.

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