Addressing the Double Burden of Malnutrition with a Common Agenda

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Nutritional problems on a global basis are somewhat paradoxical; poor countries mostly affected by undernutrition over the past centuries are presently also showing rising prevalence of obesity and related burden of noncommunicable diseases (NCD). Policies and programs that successfully served to prevent and control malnutrition in times of slow economic growth or during economic depression are now potentially contributing to the NCD epidemic in developing countries. These policies have included securing access to food energy sources (mostly cereals, fats and oils) in support of food security. Subsidizing the price of sugar, cereals (wheat, rice, bread), other refined starches, vegetable oils (soy, rapeseed and corn) and in some cases alcohol and animal fat has contributed to generating an obesogenic environment that fuels obesity and the related NCDs. As malnutrition and infections retreat, progressive inactivity due to changes in the nature of physical work related to productive activities and rural-urban migration serve to reduce energy expenditure during both work and leisure time. International agencies, NGOs and academics dealing with malnutrition were initially reluctant to acknowledge that developing countries were facing a ‘double burden of disease’. However, the extent of NCD epidemic and a better understanding of causes and consequences has led to a present consensus that malnutrition has to be addressed considering the consequences of both deficit and excess energy. The present aim is to continue efforts to lower undernutrition without increasing obesity and the associated NCDs. Recent estimates indicate that over a billion individuals are overweight or obese, and a slightly lower number are underweight. However, the distribution is age selective, obesity is more frequent in adults in developed countries and malnutrition is more frequent in children in the poorest developing countries. Generating a common agenda and policies to address the double burden is particularly important in those nations and regions in which one sees appreciable loss of DALYs from both conditions, such as the northern part of the African continent,
most of South, Southeast and East Asia, Central America and the Andean region.

Malnutrition should presently be addressed as a continuous process from the womb to the tomb. The so-called nutrition-infection complex determines, in large part, how children grow and develop mentally, while diet-physical activity interactions greatly affect what diseases we will most likely suffer from during our lifespan and, finally, how we will age and die. A wide range of factors operate within each particular stage and interact with genetic constitution to influence the nutritional status of the individual in that particularly phase of life, but also cumulatively in the remaining stages of the lifespan. The practical message, however, is that with appropriate definitions of ‘malnutrition’ and carefully designed evidence-based interventions, the life-course approach can serve as a template to uncover the most effective actions to reduce morbidity and health care costs now and in the foreseeable future. Our ultimate goal should be what Fries has termed the ‘compression of morbidity’, meaning that we ideally should live lives free of the disabilities related to acute and chronic illnesses and impaired function and extend our healthy life years towards the upper limits of the human lifespan, for now circa 105 years.

We presently recommended the use of the term ‘malnutrition in all its forms’ to encompass nutritional problems at all stages of the life course, addressing them with integrated approaches rather than continuing to pursue the single-nutrient ‘magic bullet’ interventions which prevail even today. We should abandon the sterile debate on which single nutrient should take precedence over others and recommended a common definition adopting the term malnutrition in all its forms which leads to policies that combine approaches and integrate policies and programs. The UN SCN’s 33rd Annual Session considered the following terms to help advance a common agenda: malnutrition in all its forms, underweight, wasting, stunting and overweight, as well as micronutrient deficiencies and nutrition-related chronic diseases. Underweight was defined by a low weight-for-age; a child may be underweight because she or he is wasted (low weight-for-height) or is stunted (low height-for-age), or both. Wasting and stunting should be considered separately since they require different approaches in their treatment and control. Low birthweight is defined as being underweight at the time of birth (below 2,500 g), whereas the growth-restricted newborn is one that has low birthweight for the corresponding gestational age. Acute wasting is an important form of malnutrition, especially within the context of emergencies and child survival since it has a direct impact on resistance to infection. To attain the respective MDGs on preventing child hunger and mortality resulting from malnutrition requires successful control
and prevention of malnutrition in all its forms. We clearly need new ideas leading to novel and more effective actions; research on how to best deliver these actions at the population level should also be optimized. We need to move from efficacy studies to true effectiveness studies under real-world conditions; the search for cost-effective solutions should be the goal.