The poor and emerging nations of the world are, by definition, the least able to bear the health costs of treating serious nutrition-related conditions such as severe acute malnutrition and obesity-related diabetes.

Reprinted with permission from: Ann Nutr Metab 2018;72(suppl 3):47–54

The Double Burden of Malnutrition in Countries Passing through the Economic Transition
by Andrew M. Prentice

Key insights
The economic advancement of low- and middle-income countries (LMICs) has been accompanied by a rise in obesity. These nations must now cope with the severely malnourished plus an increasing number of individuals with obesity-related chronic diseases, especially diabetes. The result is that many countries bear the double burden of under- and overnutrition. Alongside the unfinished agenda of high levels of infectious diseases, this double burden of malnutrition is crippling the healthcare systems of many LMICs, requiring urgent attention.

Current knowledge
The main drivers for undernutrition are all associated with poverty. These, in turn, are linked to low levels of education, particularly among girls and women who end up as the primary caregivers of children. Despite the bleak outlook, developing nations have the opportunity to learn from the mistakes made by other countries that have already experienced this transition.

Practical implications
The metabolic processes that regulate energy balance in humans are greatly influenced by a wide variety of environmental and cultural factors. Therefore, any attempts to combat obesity must address all aspects of human lifestyles, from individual health to hygiene, education, housing, and public transport. An important element is the understanding that childhood undernutrition has prenatal origins and intergenerational consequences. For instance, stunted infants are usually born to small mothers. Furthermore, the malnourished fetus has the tendency to adopt a thrifty phenotype that is specially adapted to accrue fat in later life. In the obesogenic modern world, many such individuals are at risk of weight gain.

Recommended reading