



Editorial

The Silent Double Burden: How Economic Hardship Is Worsening Malnutrition and Overnutrition in Iran

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The editorial written by Shima Sadat Aghahosseini (NFHD 2025; 12(4):1-1) hints to a serious health problem affecting many, if not all, developing countries including Iran. The paradox of malnutrition, where undernutrition and overnutrition coexist within the same population, has emerged as one of the most formidable public health challenges of our time. Nowhere is this dual crisis more starkly evident than in developing countries, where a confluence of rapid nutrition transition, persistent economic sanctions, and chronic inflation is deepening the double burden of malnutrition (DBM). For decades, Iran's nutritional landscape has been characterized by this peculiar duality. On one hand, stunting, wasting, and micronutrient deficiencies (MNDs) persist, particularly among children in vulnerable households (1), on the other, overweight and obesity have risen sharply across all age groups (2). The DBM is defined as the simultaneous presence of undernutrition including stunting, wasting, MNDs and overnutrition including overweight, obesity, or diet-related non-communicable diseases (NCDs) (3).

A closer inspection reveals that the DBM extends beyond anthropometric extremes to encompass widespread micronutrient inadequacies. The economic deterioration that Iran has experienced over the past decade acts as a powerful amplifier of this double burden. The reimposition of comprehensive US economic sanctions in 2018 triggered a severe macroeconomic shock: the national currency has depreciated by more than 15-fold against the US dollar, and chronic inflation has consistently exceeded 50%. Food prices have escalated dramatically thereby placing exceptional strain on low-income households (4). Under such conditions, households are forced to adopt coping strategies that worsen the DBM, they reduce consumption of expensive nutrient-dense foods such as meat, dairy, fruits, and vegetables, and instead rely on cheaper, energy-dense, processed foods that are high in fat, sugar, and salt but low in essential micronutrients. Indeed, per capita meat

consumption in Iran has dropped by 40%, and dairy consumption has similarly declined, while the consumption of refined carbohydrates and unhealthy fats has increased (5). This dietary shift accelerated by economic hardship simultaneously promotes MNDs (undernutrition) and contributes to obesity and diet-related NCDs (overnutrition). The erosion of purchasing power also leads to skipping meals, reducing portion sizes, and prioritizing the feeding of children over adults, further entrenching intergenerational cycles of malnutrition. Moreover, the shift from commodity subsidies to direct cash payments in Iran's food assistance programs, while intended to improve efficiency, may have inadvertently reduced the price sensitivity of consumers and diminished the protective effect against rising food prices (6).

The implications for Iran's health system and society are profound. Undernutrition in early life leads to stunted physical and cognitive development, reduced immune function, and increased susceptibility to infectious diseases. Concurrently, the rising burden of obesity and its comorbidities including type 2 diabetes, cardiovascular disease, hypertension, and certain cancers overwhelms a health system already strained by economic sanctions that restrict access to the health care services. The coexistence of these two forms of malnutrition within the same households, or even the same individuals, creates complex clinical presentations that are difficult to manage with conventional approaches. The economic costs are equally staggering; lost productivity due to malnutrition-related morbidity and premature death, increased health care expenditures, and diminished human capital formation (7).

Then, what can be done? The traditional approach of treating undernutrition and overnutrition as separate problems is no longer tenable. The World Health Organization has called for "double-duty actions", i.e. interventions, programs, and policies that have the potential to simultaneously reduce the risk or burden of

both undernutrition including wasting, stunting, MNDs and overweight, obesity, or diet-related NCDs (8). For Iran, such actions could include: (i) strengthening social protection programs such as targeted cash transfers and food vouchers specifically designed to improve access to nutrient-dense foods including fruits, vegetables, legumes, dairy, and lean proteins for low-income households, while avoiding subsidies on unhealthy, processed foods; (ii) implementing school-based nutrition programs that provide balanced, fortified meals and promote nutrition education for children and their families; (iii) regulating the food environment through front-of-pack labelling, restricting marketing of unhealthy foods to children, and taxing sugar-sweetened beverages; (iv) revitalizing primary healthcare services to integrate double-duty screening and counselling for both undernutrition and overnutrition, with a particular focus on maternal and child health; and (v) investing in agricultural policies that support local production of diverse, nutrient-rich crops, thereby enhancing both availability and affordability of healthy foods. These actions must be underpinned by robust surveillance systems that track both forms of malnutrition and their determinants, enabling

evidence-based policy adjustments. The international community also has a role to play by recognizing that economic sanctions have severe humanitarian consequences, including the exacerbation of malnutrition, and advocating for the protection of food security and health as fundamental human rights (4, 9).

As editors of nutrition journals, we have a responsibility to shed light on this silent crisis and to call for actions. The co-occurrence of malnutrition and overnutrition in Iran is not a natural disaster, it is a man-made phenomenon driven by a combination of rapid nutrition transition, misguided policies, and external economic pressures. Without decisive intervention, DBM will continue to worsen, condemning millions of Iranians to poor health and reduced opportunity for their lifetimes. We urge researchers, policymakers, and practitioners to adopt a double-duty lens to recognize that undernutrition and overnutrition are two sides of the same coin and must be addressed together. The time for isolated, single-issue interventions has passed. The time for integrated, equitable, and resilient nutrition strategies is now.

References

1. Nikooyeh B, Ghodsi D, Yari Z, Rasekhi H, Amini M, Rabiei S, et al. Multifaceted determinants of micronutrient status in early childhood in Iran: National food and nutrition surveillance. *European Journal of Nutrition*. 2025;64(1):43.
2. Kelishadi R, Haghdoost A-A, Sadeghirad B, Khajehkazemi R. Trend in the prevalence of obesity and overweight among Iranian children and adolescents: a systematic review and meta-analysis. *Nutrition*. 2014;30(4):393-400.
3. Wells JC, Sawaya AL, Wibaek R, Mwangome M, Poulas MS, Yajnik CS, et al. The double burden of malnutrition: aetiological pathways and consequences for health. *The Lancet*. 2020;395(10217):75-88.
4. Hejazi J, Emamgholipour S. The effects of the re-imposition of US sanctions on food security in Iran. *International journal of health policy and management*. 2020;11(5):651.
5. Moradi A, Mansouri M, Faramarzi A, Kiani K. Investigating the effect of inflation on the consumption pattern of Iranian households. *Statistical Journal of the IAOS*. 2023;39(3):605-16.
6. Rahbarinejad P, Sobhani SR, Sangsefidi N, Irankhah K, Mohamadinarab M. Exploring the association between socio-economic and environmental factors and food consumption in Iran: insights from time series data. *BMC Public Health*. 2025;25(1):2289.
7. Nugent R, Levin C, Hale J, Hutchinson B. Economic effects of the double burden of malnutrition. *The Lancet*. 2020;395(10218):156-64.
8. Hawkes C, Demaio AR, Branca F. Double-duty actions for ending malnutrition within a decade. *The Lancet Global Health*. 2017;5(8):e745-e6.
9. Liu X, Qiu H. The impact of international sanctions on food security and Sustainable Development Goal 2 (SDG-2). *Public Health*. 2024;235:128-33.