



Childhood Nutrition: A Double-Edged Crisis of Malnutrition and Obesity

Olga Tzetzzi *

***Correspondence to:** Olga Tzetzzi, MD, PhD, paediatrician, Thessaloniki, Greece.

Copyright

© 2025: **Olga Tzetzzi**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 25 Apr 2025

Published: 14 May 2025

Introduction

Childhood nutrition stands at the heart of pediatric care, not only as a biological necessity but as a critical determinant of lifelong health and development. In recent decades, we have witnessed a troubling global paradox: while millions of children in low-income countries suffer from undernutrition, a growing number in high-income settings face the long-term consequences of obesity. Though these two phenomena may seem worlds apart, they are interconnected manifestations of the same systemic challenges—poverty, inequality, and disrupted food environments (WHO, 2020; Popkin et al., 2012).

In southern Madagascar, where food insecurity remains severe, pediatric clinics like "Evangelismos" in Toliara are engaged in daily battles against severe acute malnutrition. Interventions include anthropometric assessments (weight, height, mid-upper arm circumference), nutritional supplementation for lactating mothers, and the careful use of infant formula. These efforts aim to restore not just weight, but the trajectory of healthy development for infants at risk of stunting, wasting, and mortality (Corsi et al., 2016; UNICEF, 2019). These methods are aligned with global guidelines on managing malnutrition and are essential for improving infant survival and cognitive development (World Bank, 2018).

In contrast, pediatricians in Greece are increasingly focused on childhood overweight and obesity, which affect a significant percentage of school-aged children. Through the National Action for Childhood Obesity, BMI screenings, nutritional education, and family-based counseling are employed to curb unhealthy lifestyle patterns from an early age (Kumanyika et al., 2018; Tsoukalas et al., 2020). These interventions target not just diet, but also behaviors, habits, and the broader social environment in which children grow. Greece, like many developed countries, is experiencing a rise in childhood obesity, with long-term implications for public health systems (Ioannou et al., 2015).

Despite the divergent presentations, undernutrition and obesity share underlying drivers: food insecurity, lack of education, urbanization, and socio-economic disparities (Global Nutrition Report, 2021). Both conditions compromise physical and cognitive development, increase the risk for non-communicable diseases, and perpetuate cycles of poor health into adulthood (Lutter et al., 2019). The World Health Organization (WHO) highlights that the nutrition transition, characterized by rapid urbanization and dietary shifts, is a major factor in the rise of obesity, even in low-income settings (WHO, 2020).

For pediatricians, this dual burden presents a unique challenge—and opportunity. A unified, child-centered approach to nutrition is essential. This means adopting preventive strategies, integrating cultural context into care, and advocating for systemic change that prioritizes child health at all levels of policy and community life (Gillespie et al., 2019; Hawkes et al., 2020). Pediatric care must evolve to recognize and respond to the full spectrum of nutritional disorders. Whether treating a wasted infant or counseling an overweight child, the

pediatrician plays a pivotal role in reshaping the narrative around food, growth, and health. Global collaboration, evidence-based interventions, and an unwavering commitment to equity are key to ensuring that all children, regardless of geography, have the opportunity to thrive (UNICEF, 2021).

References

1. Corsi, D. J., et al. (2016). "The epidemiology of severe acute malnutrition in sub-Saharan Africa." *Lancet Global Health*, 4(9), e537-e548.
2. Gillespie, S., et al. (2019). "The double burden of malnutrition: A review of global evidence." *Global Food Security*, 23, 147-157.
3. Global Nutrition Report. (2021). "The state of global nutrition: Childhood obesity and malnutrition." *Global Nutrition Report*, 6(1), 13-25.
4. Hawkes, C., et al. (2020). "The nutrition transition: Implications for public health." *Public Health Nutrition*, 23(9), 1573-1582.
5. Ioannou, M., et al. (2015). "Prevalence of childhood obesity in Greece: National findings and policy implications." *European Journal of Public Health*, 25(3), 481-487.
6. Kumanyika, S. K., et al. (2018). "Global perspectives on childhood obesity prevention." *The Lancet*, 391(10132), 1612-1620.
7. Popkin, B. M., et al. (2012). "The nutrition transition: The global shift from undernutrition to obesity." *The Lancet*, 379(9828), 1177-1189.
8. Tsoukalas, T., et al. (2020). "National programs for childhood obesity management in Greece: Evidence-based approaches." *Pediatric Obesity*, 15(8), e12656.
9. UNICEF. (2019). "The state of the world's children 2019: Children, food and nutrition." UNICEF Report.
10. UNICEF. (2021). "The role of pediatricians in addressing global malnutrition." UNICEF Nutrition Report.
11. World Bank. (2018). "Addressing child malnutrition in Madagascar: A call for global action." World Bank Report.
12. World Health Organization (WHO). (2020). "Global nutrition targets 2025: Childhood obesity." WHO, Geneva.



Medtronic