Jornal de Pediatria 2023;99(2): 99–100

Jornal de Pediatria
www.jped.com.br

EDITORIAL

Temporal trend of child stunting prevalence and Food and Nutritional Surveillance System☆

Cristiana Berti [a,*], Adriano La Vecchia [b]

[a] Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy
[b] Università degli Studi di Milano, Milan, Italy

Despite the overall decline in percentage over years, stunting remains a public health challenge and concern worldwide, with 149 million children under five years of age being stunted.[1] One of the major contributors to stunting is undernutrition from conception to the 2nd birthday, a time that represents a critical window for fetal and infant growth and development. Maternal factors, pregnancy outcomes, poverty, limited access to health services, food insecurity, and poor hygiene conditions may also contribute to this condition, alongside socio-economic, commercial, and political contexts.[2,3] Child stunting exerts short- and long-term effects on individuals and societies. They include increased mortality, poor cognition, and educational performance, susceptibility to non-communicable diseases, low adult wages, and lost productivity.[4–6] Prevention and appropriate management of child undernutrition must be prioritized to ensure child survival and physical and intellectual development and to avoid the rise of non-communicable diseases. Tracking the progress toward the achievement of nutrition targets at national and sub-national levels is an important task in public health as it helps policymakers to identify priority areas of action and to develop proper strategies to address chronic undernutrition.[3,7,8] Unfortunately, data are sometimes sparse.

In this issue of the Jornal de Pediatria, Corrêa et al.[9] characterize the temporal tendency of the prevalence of stunting among children under five years of age, assisted by the Unified Health System, in the Brazilian North Region and for each of its states, using secondary data from the Food and Nutritional Surveillance System (SISVAN) for the years 2008 to 2017. The Prais-Winsten regression model was used with and without variable adjustment for SISVAN coverage to also investigate the relationship between the temporal tendency toward stunting and the SISVAN coverage.

The Authors contribute to updating the epidemiological evidence on child stunting in the Brazilian Northern Region both as a whole and for each state. Beyond confirming the precarious nutritional status in the area, the results evidence regional differences in stunting prevalence, thereby the need for differentiating strategies to cope with chronic undernutrition based on local contexts. The iniquities of access to health services due to geographical characteristics and the lack of infrastructures likely explain partly the situation.[9,10] A large analysis in 67 low- and middle-income countries showed that, despite declining stunting prevalence, socioeconomic inequalities continue while rural-urban inequalities are decreasing over time. A major limitation of this analysis was the lack of recent data from populous countries, including Brazil.[11] The influence of socioeconomic status and the rural-urban gap should be monitored closely to tackle the inequalities, especially nowadays when climate change, the COVID-19 pandemic, and the wheat crisis are widening the gaps and disrupting health, nutrition, and protection services.[12]

Corrêa and colleagues[9] highlight the key role of a computerized system of accurate, regular, and frequent collection and interpretation of growth curves and nutritional status records within Primary Health Care, as a tool enabling to continuously generate information on nutritional status and food consumption, in order to identify children at nutritional risk in a rapid and low-cost manner. Notably, the Authors find a strong negative association between the SISVAN coverage and the prevalence of child stunting. This result indicates the potentially positive impact of such a type of system not only on the early identification of the nutritional risk but also on the prevention

☆ See paper by Corrêa et al. in pages 120–6.

* Corresponding author.
E-mail: cristiana.berti@policlinico.mi.it (C. Berti).

https://doi.org/10.1016/j.jped.2022.10.001

of the related morbidities and the organization of nutritional and health care, suggesting the need for further improvement of the SISVAN coverage. The exclusion of 27 municipalities from the analyses due to data inconsistency, 19 of them concentrated in the state of Tocantins, underlines the need not only for a quantitative but also a qualitative improvement of the data collection system. Homogeneous distribution of trained health professionals involved in data collection would reduce statistical bias and improve the understanding of regional differences.

Monitoring the health and nutrition situation of populations and groups over time is helpful. However, it is worthy underlying that in order to establish targeted and effective interventions to tackle child chronic malnutrition, it is paramount to investigate the key determinants and drivers of stunting so that individual countries can learn what works or not (i.e., enablers and/or barriers) in nutrition and health programs.[13,14]

The work by Corrêa and colleagues[9] provides useful inputs for future research in the field and informs policymakers and program planners. Results point out the importance of implementing nutritional and health surveillance; strengthening the health care network; investigating more in-depth associations between trends of this form of chronic undernutrition and determining factors; tackling the problem of socioeconomic and environmental inequities for achieving the reduction in the prevalence of child stunting.

Conflicts of interest

The authors declare no conflicts of interest.

References

1. World Health Organization, United Nations Children's Fund (UNICEF), World Bank. Levels and trends in child malnutrition: UNICEF /WHO / The World Bank Group joint child malnutrition estimates: key findings of the 2021 edition [Internet]. Geneva: World Health Organization; 2021. p. 31. [cited 2022 Jul 22] Available from: https://www.unicef.org/media/60806/file/SOWC-2019.pdf.
3. Victora CG, Christian P, Vidaletti LP, Gatica-Domínguez G, Menon P, Black RE. Revisiting maternal and child undernutrition in low-income and middle-income countries: variable progress towards an unfinished agenda. Lancet. 2021;397:1388–99.
4. de Onis M, Branca F. Childhood stunting: a global perspective. Matern Child Nutr. 2016;12(Suppl 1):12–26.
5. de Sanctis V, Soliman A, Alaaraj N, Ahmed S, Alyafei F, Hamed N. Early and long-term consequences of nutritional stunting: from childhood to adulthood. Acta Biomed. 2021;92:e2021168.
6. Montenegro CR, Gomez G, Hincapie O, Dvoretskiy S, DeWitt T, Gracia D, et al. The pediatric global burden of stunting: focus on Latin America. Lifestyle Medicine [Internet]. 2022 Jul. [cited 2022 Aug 29];3 Available from: https://onlinelibrary.wiley.com/doi/10.1002/lim2.67.
7. India State-Level Disease Burden Initiative CGF Collaborators. Mapping of variations in child stunting, wasting and underweight within the states of India: the global burden of disease study 2000–2017. EClinicalMedicine. 2020;22:100317.
8. Saraswati CM, Borghi E, da Silva Breda JJ, Flores-Urrutia MC, Williams J, Hayashi C, et al. Estimating childhood stunting and overweight trends in the European region from sparse longitudinal data. J Nutr. 2022;152:1773–82.
9. Corrêa EM, Gallo CO, Antunes JL, Jaime PC. The tendency of stunting among children under five in the Northern Region of Brazil, according to the food and nutrition surveillance system, 2008–2017. J Pediatr (Rio J). 2023;99:120–6. Epub ahead of print. PMID:36055366.
10. Cardenas E, Osorio AM, Barandica OJ, Pico Fonseca SM. Mind the gap! Socioeconomic determinants of the stunting urban-rural gap for children in Colombia. Child Ind Res. 2022;15:415–32.
11. da Silva IC, França GV, Barros AJ, Amouzou A, Krasevec J, Victora CG. Socioeconomic inequalities persist despite declining stunting prevalence in low- and middle-income countries. J Nutr. 2018;148:254–8.
12. Oxfam. Hunger in a heating world: how the climate crisis is fuelling hunger in an already hungry world. Oxfam International. [cited October 18, 2022]. Available from: https://www.oxfam.org/en/research/hunger-heating-world. Published September 27, 2022. Accessed
13. Finaret AB. Advancing nutritional epidemiology by linking datasets and addressing data quality. J Nutr. 2022;152:1595–6.
14. Vaivada T, Lassi ZS, Irfan O, Salam RA, Das JK, Oh C, et al. What can work and how? An overview of evidence-based interventions and delivery strategies to support health and human development from before conception to 20 years. Lancet. 2022;399:1810–29.