



## EDITORIAL

# Temporal trend of child stunting prevalence and Food and Nutritional Surveillance System<sup>☆</sup>



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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.<sup>1</sup> One of the major contributors to stunting is undernutrition from conception to the 2<sup>nd</sup> 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.<sup>2,3</sup> 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.<sup>4–6</sup> 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.<sup>3,7,8</sup> Unfortunately, data are sometimes sparse.

In this issue of the *Jornal de Pediatria*, Corrêa et al.<sup>9</sup> 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 inequities of access to health services due to geographical characteristics and the lack of infrastructures likely explain partly the situation.<sup>9,10</sup> 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.<sup>11</sup> 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.<sup>12</sup>

Corrêa and colleagues<sup>9</sup> 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

<sup>☆</sup> See paper by Corrêa et al. in pages 120–6.

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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.<sup>13,14</sup>

The work by Corrêa and colleagues<sup>9</sup> provides useful inputs for future research in the field and informs policy-makers 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.

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