

In this Issue

Challenges in child and adolescent nutrition

In this issue, we feature articles on nutrition in children and adolescents from around the world, encompassing both undernutrition in India⁽¹⁾, Bangladesh⁽²⁾, Iran⁽³⁾ and Turkey⁽⁴⁾ and overnutrition in Brazil^(5,6). One article⁽⁷⁾ reports on the prevalence of anaemia and stunting in 193 065 children aged 6–59 months in forty-three low- and middle-income countries using data from Demographic and Health Surveys during the period 2005–2015. Overall, 21.5% of children surveyed were both anaemic and stunted, and the prevalence of these co-morbidities was associated with residence in rural areas, less educated mothers and poorer households. This is consistent with the findings from India and Bangladesh reported here, illustrating the sort of important risk factors that could be addressed to improve childhood undernutrition.

New prevalence thresholds for wasting, overweight and stunting from the WHO–UNICEF Technical Expert Advisory Group on Nutrition Monitoring are presented in this issue by de Onis *et al.*⁽⁸⁾. The new thresholds are based on the normative WHO Child Growth Standards and for the first time include thresholds for over- as well as under-nutrition; and they should be used in future studies. From Brazil, on the other hand, Filgueiras *et al.*⁽⁵⁾ report on assessment of android fat in children aged 4–9 years using anthropometric methods (waist circumference, waist-to-height ratio, conicity index). For the 30% of the sample who were overweight, about 30% also had excess android fat by dual-energy X-ray absorptiometry (DXA) and the anthropometric measures showed good agreement with DXA in identifying android fat. These simple anthropometric measures could be useful in population surveys. Staying in Brazil, another article by Filgueiras *et al.*⁽⁶⁾ describes the association of body adiposity indices with DXA-derived body fat in children and adolescents aged 8–19 years. Although sensitivity, specificity and area under the curve suggested some value in the adiposity indices, Bland–Altman plots indicated that for lower levels of body fat the indices overestimated body fat, while at higher levels, the indices underestimated body fat relative to DXA.

Other articles in this issue look at fussiness in food selection in Irish children, which may put them at risk of inadequate nutrient intakes in the context of a 20% prevalence of childhood overweight and obesity⁽⁹⁾, and consumption of non-core foods by UK adolescents⁽¹⁰⁾. The likelihood of eating non-core foods was increased when adolescents consumed food out of home, especially in eateries, leading the authors to conclude that targeting such eating occasions may be useful. Lambrinou *et al.*⁽¹¹⁾

report on the ToyBox intervention in kindergartens across six European countries that aimed to improve fruit and vegetable consumption and reduce intake of unhealthy snacks via a family-based intervention. The intervention improved some of the family-related determinants but not the actual snacking habits of the pre-school children. Another short intervention in US elementary schools improved nutrition knowledge and preference for fruit and vegetables⁽¹²⁾. Oddo *et al.*⁽¹³⁾ review the literature on nutrition interventions for adolescents in Indonesia and, although there was limited information, recommended iron–folic acid supplements, anti-helminths and nutrition education delivered through schools, along with further work on this topic. For Canadian street-involved youth who used illicit drugs, food insecurity was common and was associated with depression⁽¹⁴⁾.

These papers show the great variety of ways in which nutrition in children and adolescents can be studied and the ongoing challenges to ensure all children receive optimal nutrition.

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