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A new global policy framework for adolescent nutrition?

This new *Lancet* series on adolescent nutrition^{1–3} sets out the challenges and opportunities for addressing healthy adolescent nutrition and development. Adolescence is a time when the multiple faces of malnutrition clearly materialise, as exemplified by overweight adolescents who were stunted children, or obese children with micronutrient deficiencies. This is also a time of extreme plasticity of the body and of changing lifestyles and norms when unhealthy behaviours can be adopted or instead virtuous circles of healthy behaviours can be established.

Yet this *Lancet* Series highlights insufficient attention to adolescent nutrition in global nutrition policy frameworks. The WHO Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition established the six World Health Assembly Global Nutrition targets and includes mention of the importance of a life-course approach to improving nutrition, with activities targeting older children and adolescents.⁴ However, the focus of the plan has been on infants and young children up to the age of 5 years. The UN Decade of Action on Nutrition (2016–25) recognises that multiple sectors need to

be involved in action: education, food environment, health, and social protection. However, without specific adaptation for adolescents, the effectiveness of nutrition programmes and policies could be reduced.

We would agree that the approach has to be multisectoral. WHO's Global Accelerated Action for the Health of Adolescents (AA-HA!)⁵ calls for actions to improve adolescent nutrition at the individual, community, and broad structural levels, and considers elements of food affordability and the availability of healthy diets, as well as information to empower decision making for healthy choices. This guidance has been the opportunity to involve other key international actors, such as UNICEF, UNESCO, UNFPA, UNAIDS, UN Women, and the World Bank. It also highlights the need to consider gender specific needs, such as the social norms affecting girls, the discrimination, violence, and abuse girls are often subject to, challenges in accessing education, and the occurrence of pregnancy and parenthood.

But is adolescent nutrition on the agenda of governments around the world? Here we provide an



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overview of some recent developments across WHO regions. Health systems have traditionally focused on micronutrient supplementation, but increasingly there is attention to obesity and to integrated risk factor approaches, reaching out to the education sector. Kenya's national strategy⁶ aims to raise the proportion of adolescent girls who receive iron and folic acid supplements and includes nutrition education to prevent overweight and obesity. In the WHO South-East Asia region, most countries, including India, Sri Lanka, Thailand, and Indonesia, have a weekly iron and folic acid supplementation programme for adolescents. However, they also link adolescent nutrition to wider adolescent health initiatives that include risk behaviours and mental health, often through school health programmes.⁷ WHO and UNICEF have now launched a new toolkit on adolescent mental health that aims to be gender-responsive and gender-transformative.⁸

Improvement of food environments with action directed to adolescents is targeted by several countries. In Cambodia, the government, UN agencies, and civil society have engaged adolescents through innovative approaches to empower youth for food systems improvements and healthy diets.⁹ The Ministry of Health and Sports of Bolivia issued a food-based dietary guideline dedicated to adolescents to promote healthy eating practices, and enable—given the optimum conditions of health, nutrition, and productivity—the opportunity for adolescents to exercise their leading role in society.¹⁰ India has several multisectoral programmes that focus on addressing undernutrition among adolescents, including nutrition support cash transfers, prevention of early marriage and pregnancy, and community-led actions, along with a 2019 Safe Foods and Healthy Diet Regulation for schoolchildren.¹¹ Gulf Country Cooperation countries added taxes on sugar sweetened beverages and soft drinks and this policy has substantially reduced sales of these beverages.¹² In Europe, with the support of WHO, member states are taking action to tackle digital marketing of unhealthy products to adolescents, who increasingly spend time on social media, video games, and other digital spaces. Portugal adopted a law to restrict digital marketing of unhealthy products to children in 2019, and several countries, including Portugal, Slovenia, Finland, and Russia, are piloting the WHO CLICK tool to assess the presence of unhealthy marketing to adolescents online.¹³

Would we then need a new global policy framework for adolescent nutrition, and what could be its content? Such a framework might consider outcome targets related to adolescent nutrition, provided there are adequate data on distribution and time trends. Sustainable Development Goal 2 specifies the need to “address the nutritional needs of adolescent girls”, so better dietary intake data to make that assessment are needed. The content of this framework might include many of the recommendations provided in the Series paper by Dougal Hargreaves and colleagues.³ Public policy is crucial, with a package of essential actions and policies centred on the environments where adolescents live. Schools could have a central role in this approach, but we also need alternative platforms for adolescents who are not in school and for when school systems are disrupted, as has happened during the COVID-19 pandemic. Gender-sensitive strategies will be needed, in consideration to girls' differential access to schools.

Increased research on nutrition services for adolescents is another priority. The WHO Essential Nutrition Actions¹⁴ lists only iron-containing micronutrient supplementation as a specific intervention for this age group, but it is encouraging to see that obesity reduction pilot interventions, such as the ones described in the Series paper by Hargreaves and colleagues,³ show promising results.

A strong element would be the leadership that can come from the adolescents themselves who have an interest and capacity to orient the demand for services, influence policy choices, and hold governments and other societal actors accountable for their implementation.

We declare no competing interests.

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Oral health problems are global and need to be addressed in the USA



The COVID-19 pandemic has shown unequivocally that science, innovation, collaboration, and leadership are important for the health and wellbeing of all people. In the USA, long-standing systemic health and social inequities have placed racial and minority ethnic groups, those living in poverty or with special health-care needs, and older people at increased risk of becoming infected, being hospitalised, and dying from COVID-19.¹ A new report from the US National Institutes of Health (NIH), *Oral Health in America: Advances and Challenges*,² to which we contributed, was published on Dec 21, 2021. This report makes strikingly clear that those vulnerable to COVID-19 are also more likely to struggle with poor oral health.

Oral Health in America: Advances and Challenges shows the progress made and the challenges that persist since the release of the 2000 report *Oral Health in America*.³ Over the past 20 years, the USA has expanded dental coverage through its state-administered Medicaid programmes, the Children's Health Insurance Program (CHIP), and other market-place initiatives authorised under the Affordable Care Act that have resulted in near universal dental coverage for children today. In addition to these policy actions, the 2021 report² highlights how collaborations between oral health and medical professionals, along with the promotion of early visits and interventions, have contributed to a reduction of more than 40% in untreated caries among preschool children (≤ 5 years), including

those from low-income families. This advancement shows how multilevel efforts in the implementation of health policy initiatives can make a difference in oral health outcomes for children, especially those living in poverty.

Other findings in *Oral Health in America: Advances and Challenges* are dismaying. Untreated dental caries in permanent teeth affect one of four Americans aged 6 years and older, with no improvement since the 2000 report. Furthermore, two in five adults aged 30 years and older have some form of gum disease, and prevalence is even higher for people aged 65 years and older. Although tooth retention has substantially improved in the USA with 65% of older adults (≥ 65 years) now retaining a functional dentition of 21 or more teeth, the disparity between those living in poverty and those who are more affluent has nearly doubled in the past 20 years. Functional dentition status is thought to be directly linked to having a better quality of life and, as the report suggests, it is important that expanding dental coverage for older people be implemented to facilitate the reduction of oral health inequities in the USA. The number of older adults that have at least one dental implant has increased six-fold in the past two decades, but high out-of-pocket expenses and inadequate dental coverage make this procedure unaffordable for many.

One area of concern in the USA is how the prevalence of oropharyngeal cancers associated with



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