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The Double Burden of Malnutrition in Latin America

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1. Introduction

The double burden of malnutrition (DBM) is the coexistence of undernutrition with overweight or diet-related noncommunicable chronic diseases (NCDs), which can occur at the individual, household and population level.¹ This phenomenon is present at all stages in the life course, beginning with maternal weight. For example, inadequate nutrition during pregnancy can lead to low birthweight for the infant, making the child more susceptible to infection or death and in later years, less capable of physical labour. In contrast, maternal obesity can lead to an infant with high birth weight who has less exposure to healthy foods and is more likely to develop a sedentary lifestyle and, in later years, NCDs. The factors driving these cycles are multifaceted, having to do largely with environmental and social factors.² Furthermore, in low and middle-income countries, the demographic, epidemiological and nutrition transitions have accelerated rapidly, resulting in a heightened prevalence of the DBM in regions such as Latin America.³ A multitude of causes have been explored, ranging from changes in lifestyle, diet and physical activity to urbanization, economic development and country specific policies.⁴ However, one single factor cannot be isolated; the combination of psychological and epigenetic factors, along with food systems, supply and demand, built environment, trade policies and poverty, among others, contributes to the high prevalence of DBM in some areas. Viewing it this way offers a vision for integrative interventions, given that the DBM is a global challenge that requires diverse interventions for all forms of malnutrition.³

2. Prevalence and cost of the double burden of malnutrition in Latin American countries

The DBM at the population level significantly affects countries in Latin America and the Caribbean. While stunting has shown a reduction among children from 24.5 per cent in 1990 to 11.3 per cent in 2015, 6.1 million children are still affected. Conversely, 7.2 per cent of children under five years in Latin America and the Caribbean were affected by overweight in 2015, summing to 3.9 million children.⁵ In a survey of Latin American countries including Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Mexico, Peru, Uruguay and Venezuela, Chile had the lowest prevalence of stunting (1.9 per cent), while Guatemala had the highest (48 per cent). In addition, anemia was higher in Guatemala (49.2 per cent) and lowest in Brazil (21.8 per cent), although for women this reached a high of 30 per cent. Chile had the highest overweight prevalence (12.9 per cent) and Colombia had the lowest (5.2 per cent). For women, the highest overweight prevalence was reported in Mexico and the lowest in Colombia and Guatemala, although prevalence ranged from 40 to 84 per cent among age subgroups.⁶

In the latest data from Mexico, in 2016, the prevalence of overweight and obesity in school children and adolescents was greater than 30 per cent; however, in teenage women the prevalence reached almost 40 per cent with a greater increase in rural areas compared to previous years.⁷ For Mexican adults, the prevalence of overweight and obesity was reported at 72.7 per cent for women and 69.4 per cent for men.⁸ Prevalence of anemia is high among Mexican children and adolescents, impacting the poorest and youngest populations the most. In 2016, anemia prevalence was 26.9 per cent in children 1-4 years, 12.5 per cent in those 5-11 years and 9.6 per cent in adolescents aged 12-19 years.⁹ Although the prevalence of stunting has decreased by half since 1988 in Mexico, it is still high (13.6 per cent), affecting 1.5 million children under five years.¹⁰

Malnutrition increases morbidity and mortality, while reducing society's work productivity and overall years of schooling. Consequently, these have economic consequences. In fact, the economic impact of the DBM represents 4.3 per cent of Ecuador's gross domestic product (GDP) and 2.3 per cent of Mexico's. The costs of overweight and obesity are mainly reflected through the money spent treating and managing chronic diseases, which pose a substantial burden to individuals, families, and especially the health system. Projections made for the year 2078 estimate that overweight and obesity

will generate a total annual cost in US\$1 billion in Chile, US\$3 billion in Ecuador and US\$13 billion in Mexico.¹¹ If effective strategies to address this problem are not implemented, the human and economic cost generated in the health system will be unsustainable.

3. Double burden of malnutrition and sustainable development goals

Global sustainable development requires comprehensive and multi-sector policies that address: poverty, hunger, food insecurity, malnutrition, the environment, education, universal healthcare, jobs and human rights. These issues are all relevant to health equity and social justice.

Adopting this position in 2015, 193 countries of the United Nations included ending all forms of malnutrition in the Sustainable Development Goals (SDGs), considering its potential to “transform the world”.¹²

The DBM directly relates to the SDG aiming to end hunger, achieve food security and improve nutrition for all through sustainable agriculture, ensuring all people have access to “safe, nutritious and sufficient food all year round”.¹³ To reach these goals, interdisciplinary actors must simultaneously work together on each SDG. Moreover, the 2030 Agenda promotes a universal approach to nutrition, recognizing that malnutrition can manifest in different ways, although the most evident forms are through underweight and overweight.¹²

The World Health Organization (WHO) has advocated for “double duty actions” that can simultaneously reduce both under and overweight, thereby decreasing different types of malnutrition. Undeniably, healthy diets should be made more accessible through policies that rethink subsidies for vegetables and displace unhealthy products with healthy options, while making them more affordable, among other things. But at the same time, policies that modify the food system are incredibly important to ensure food security, healthy environments and respectful use of natural resources. In fact, these policies also help mitigate the effects of climate change, becoming “triple duty actions.” Given mounting evidence of climate change’s impact on agriculture, the food system and food security, this is just as important.¹⁴ For these reasons, the 2030 Agenda calls for development of rural areas and investment in agriculture, which is considered an effective tool to end poverty and hunger, sustainably.¹⁵ Furthermore, to decrease food insecurity and attain a more sustainable food system, global waste of food must also be reduced. Each year, almost one third of the food produced is thrown away, which not only results in millions of dollars of lost, but it also increases the price of food and decreases the quantity that can be sold, putting tremendous pressure on ecosystems and increasing greenhouse gasses. In other words, each step of the food chain needs to be considered for intervention.¹⁵

4. Policies that help mitigate the double burden of malnutrition

There is no doubt that the current food system, marked by its dominance of ultra-processed foods, has dramatically changed diet patterns.¹⁶ Various studies have shown that ultra-processed foods and beverages have low nutritional quality and increase the risk of obesity, diet related NCDs and premature death.¹⁷ Moreover, they are made with chemicals that promote habit-forming consumption addiction and therefore, overconsumption. Estimates warn that up to half of daily energy intake may eventually be of ultra-processed products in many Latin American countries.¹⁸ The marketing and promotion of these products also plays a powerful role in promoting obesity, especially for vulnerable groups like children. A diet that predominates in low quality, ultra-processed foods can contribute to both obesity and stunting and at the same time, produce harmful effects for the environment through its influence on the food system. These factors loop back as drivers of the DBM. Therefore, reducing consumption and demand of ultra-processed foods should be prioritized as a strategy to mitigate the effects of the DBM in Latin America and the world.¹⁴

Furthermore, as previously mentioned, to counter negative effects produced by the DBM, double-duty actions, that is, those that simultaneously reduce the risk or burden of both undernutrition and overweight/obesity, must be implemented.³ However, in Latin America (and other regions to varying extent), numerous barriers are faced such as: poor promotion of exclusive breastfeeding; insufficient marketing regulations for infant formula and junk food; lack of fiscal measures to affect consumer demand such as taxes to sugary beverages; and industry interference in nutrition and public health policies.¹⁹ Moreover, existing programmes must also be evaluated to ensure they tackle all forms of malnutrition, without having unintended harmful consequences.²⁰

In addition, front of pack labeling, such as the warning label adopted by Chile, has also shown to have promising effects for changing purchasing habits. Also, it is easily understood and well accepted by children.²¹ This labeling law also prohibits cartoon characters on packages and keeps these foods out of schools, making it a good example of a comprehensive policy. The Pan American Health Organization (PAHO) provides a tool to classify food and drink products that have excessive free sugars, salt, total fat, saturated fat and trans-fatty acids; in other words, a way to easily identify ultra-processed foods, further promoting integrative policies.²² Another great example is implementing policies for food and its commercialization in government-controlled institutions. For instance, Brazil has been a leader in developing a complete school meal law that requires 30 per cent of all school meals to be purchased from local farmers, among other incentives meant to reduce the supply of processed foods to these institutions. Other important measures include regulating Fast food chains to promote availability of healthy foods and implementing policies to improve the quality of food in the informal food sector, providing proper sanitation and controls.^{23,24} The government plays an essential role for creating and carrying out comprehensive measures to protect the health of populations and the environment.

5. Conclusion

Strategies to reduce the double burden of malnutrition should focus on cost-effectiveness and on sustainability within the food system. To do this effectively, every part of the food chain must be targeted, to affect supply and demand, change the dominance of ultra-processed foods, make healthy foods more accessible and create more informed consumers. Doing this will achieve a healthier diet for all, impacting all forms of malnutrition by making healthy foods the easy choice, while supporting infrastructure that promotes and facilitates active living.¹⁹

Notes

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