



Nutritional policies for health in Mexico: the message is (not) clear

Políticas nutricionales para la salud en México: el mensaje no está claro

According to the 2019 global burden of disease study, Mexico's top five causes of disease burden and death were all metabolically related (1), and eight of the top 10 factors that lead to the top causes of death are directly related to eating habits; the top three being, high fasting plasma glucose, high blood pressure and elevated body mass index (1). Industrialization and globalization have undoubtedly transformed food systems worldwide and helped reduce the prevalence of famine and undernutrition (2). However, the widespread availability of foods that are energy rich, high in saturated fats and high in sugar content, have not been accompanied by adequate policies, regulatory measures, as well as sufficient educational programs. As a result, Mexico and other western countries, have registered a rise in nutritional disparities and lifestyle-related diseases, and the coexistence of pandemic levels of famine and overweight/obesity, also known as the double burden of malnutrition (2).

In this context, understanding the dietary drivers of these diseases presents a large challenge in a country with just over 126 million inhabitants (3). Individual dietary intake questionnaires are costly and require sufficient time and sample size to adequately estimate dietary intake patterns in such a diverse population. As such, Romo-Avilés M et al., in this issue of the journal *Nutrición Hospitalaria*, have estimated food supply over the past 30+ years based on national records of household expenses from 125,897 Mexican family units to obtain robust per-capita estimates (4). Relying on detailed questionnaires on 285 food items, including traditional ingredients like: the *nopal* (a type of edible cactus), *quelites* (a variety of wild, leafy, vegetables and herbs), and *mamey* (a type of berry native to Mexico and Central America); changes in food supply in grams a day (g/day) per adult, but also macro- and micronutrients present in Mexican households were estimated. The researchers classified these food items based on their processing levels into the NOVA food groups, as they have been associated with higher risk of non-communicable diseases (NCDs) such as overweight and obesity, cardiovascular disease, and cancer worldwide (5). According to the report by Romo-Avilés M et al., between 1984 and 2018, fruits and vegetables, as well as fish supply increased (4). Despite these beneficial habits, increments of processed and ultra-processed foods and drinks (PFD and UPFD respectively) have overshadowed these results. Most shockingly, the prepared foods category (constituted by widely available and affordable Mexican street foods) had a 5-fold increment between 1984 and 2004, and then a 3-fold increment between 2004 and 2018. As a result, un-processed nutrient-dense energy sources were displaced in favor of PFDs and UPFDs (UPFDs saw an 11.2 % increase in their proportion of energy supply). Of note was the finding that socioeconomic status was not an indicator of higher quality diets, and family units in higher strata were also found to have a high supply of PFD's, UPFDs, total cholesterol, saturated fats and sodium intake.

The message is clear, public health strategies must be deployed to put a stop to the impact of NCDs on health in Mexico, but also worldwide. In 2014, Mexico successfully implemented a sugar-sweetened beverage taxation which is shown to significantly reduce the acquisition of these products (6,7), and in 2020, a mandatory front-of-package labelling system is expected to facilitate healthy dietary decisions across all strata of the population (8). Nevertheless, Romo-Avilés and collaborators point out that social inequalities continue to limit the ability of many of Mexico's inhabitants to make healthful day-to-day dietary choices. As such, multi-stakeholder actions

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and long-lasting governance measures should be implemented to mitigate the impact of prepared foods, sources of saturated fats, sodium, and sugar. For this goal, the supply of nutritious foods must be available across the country, with increased affordability, but also educational campaigns in order to aid families in adopting healthful dietary habits. Clear messages and precise interventions are required in the region, this report is a critical first step to understanding the social landscape and designing the necessary actions to address the burden caused by diet-related NCDs in Mexico.

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