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The health and economic consequences of policy inaction and vested interests: food and climate change

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A Viewpoint on the Frontiers in Science Lead Article

[Obesity and climate change: co-crises with common solutions](#)

Key points

- Behrens et al. provide a complete and accurate overview of the different aspects of the obesity epidemic and its relationships to the environmental polycrisis, concluding that taxation and removal of the commercial barriers are needed.
- Solutions to tackle the obesity epidemic exist but have not been adequately implemented owing to a lack of political will; the same words can be applied to the failure of climate policy.
- According to projections overweight and obesity will represent the dominant human phenotype in 2035 (>50% of the population); human health and planetary health both fall under the definition of Anthropocene.

From externalities to co-benefits

“Externality” is a term used by economists to describe (usually undesired) side effects of human activities. Climate change and obesity are possibly the greatest negative externalities arising from human activities—namely energy production and the food system, respectively. The costs associated with the effects of climate change have been repeatedly provided. Concerning health, there were 70,000 excess deaths in Europe due to the heat wave in 2003 (1), then 62,000 in 2022 (2), while 400,000 Europeans have been affected by deadly floods and storms in 2024 (3). A recent study suggested that 2,345,410 (95% confidence interval 327,603–4,775,853) climate change-related deaths will occur across 854 European cities between 2015 and 2099, based on a business-as-usual scenario (4). According to the European Environment Agency, the economic costs of Europe’s extreme weather have soared: annual

damages more than doubled in the recent decade, hitting €44.5 billion between 2020 and 2023 (5). The World Economic Forum estimates that natural disasters have cost us US\$162 billion in the last year alone (6). So far, insurances covered most of the costs, but insurances are starting to have problems (higher premiums, growing risk of uninsurability, increasing financial strain). It has been stressed many times, since the Stern Review was released in 2006 (7), that the costs of not acting are much higher than the costs of climate change mitigation. The Review stated that *early action* would have led to much lower expenditure and much greater benefits than inaction. Now, 19 years later, this is evident: the more we wait, the greater the human, health, and economic impacts become—as a function of the worsening global “polycrisis” of which climate change is only one component. This is even more dramatic for climate-related health and economic shocks in low- and middle-income countries (LMICs): these are often much more acute than in high-income countries (HICs), like the impact on food prices and the consequent risks of famine. Unfortunately, evidence on health and economic implications for LMICs is more fragmented than for HIC.

In their lead article, Behrens and colleagues (8) remind us that overweight and obesity are projected to represent the dominant human phenotype in 2035 (>50% of the population) with enormous health and economic costs. The projection that overweight and obesity will soon be the dominant human phenotype offers a philosophical basis for treating human health and planetary health jointly under the definition of Anthropocene. These authors describe very clearly how the two externalities of climate change and the obesity epidemic are related. But there are also differences between the two and they cannot be treated the same way. Overwhelming evidence for the causes of climate change (essentially the disequilibrium between emissions related to burning fossil fuels and the planet’s capacity of absorbing greenhouse gases) has been available in the last decades, whereas the complex roots of the obesity epidemic have been elucidated only recently, and the paper by Behrens and colleagues is currently the best available account of advancements in obesity science. In obesity we are also dealing with a disequilibrium (the ratio between caloric intake and expenditure), but the increase in obesity rates has been, and still is, too steep—particularly in Western countries—to be attributable only to this ratio. The quality of food, in particular the substitution of traditional, plant-based diets with ultra-processed, refined diets, is likely to play a major role. Uncertainties regarding the causal process, and its multifactorial nature, render remedies more difficult to find and the different approaches utilized so far have been largely unsuccessful in curbing the epidemic.

Beyond these differences, there are similarities between climate change and obesity. In both cases, acting early, a systemic approach, and powerful top-down initiatives (such as taxation) are needed. Recently, a document by the United Kingdom Academy of Medical Sciences and the Italian Academy of Sciences on childhood obesity has stated that “Developmental trajectories are set early in life, including during the prenatal period, and appear difficult to alter after the age of about 5 years. The first 1000 days of life are critical to development and health across the life-course. [...] Multiple factors affect weight gain during infancy and childhood. Much evidence

suggests that targeting single factors, such as diet or physical activity, in single settings, without consideration of wider contexts, is rarely an effective way to tackle obesity. Rather than look for ‘silver bullets’, [...] policymakers should target wider societal drivers, to create an enabling and supportive environment for healthy lifestyles” (9).

We can translate the language of negative externalities into the language of positive “co-benefits”—that is, benefits that can be accrued in one sector by acting in another sector. Mitigating climate change and the environmental polycrisis has a multiplicity of positive side effects:

- health co-benefits such as decreasing obesity rates (e.g., through changes in the food system, active mobility, and increased physical activity in green spaces),
- co-benefits for natural systems (e.g., impact on biodiversity and ecosystem services such as air quality improvement and water regulation),
- co-benefits in the economic, social (e.g., impact on inequalities), political, and psychological domains,
- attenuation of short- and long-term costs, compared with a business-as-usual scenario (including choice of discount rates, costs of insurances, etc.).

A particularly relevant sector is food, not only for the mentioned impacts on food prices and availability in LMICs, but also in relation to the quality of food more generally. Intensive agriculture, monocultures and loss of biodiversity have been associated with an impoverishment of soils and the nutritional quality of food, including micronutrient depletion and changes in crop composition.

Obstacles to action

Given the obesity–climate situation described by Behrens and colleagues (8), why are we not acting swiftly to address it? Similarly, why are we failing to achieve the Paris Agreement goals, as we have recently stressed (10)? Global policies have several strengths, including the existence of unified goals (e.g., the Sustainable Development Goals framework) and some degree of accountability (e.g., the Paris Agreement’s “nationally determined contributions”). However, their limitations are much more numerous, including: power imbalances (e.g., Global South perspectives deprioritized in agenda-setting); lack of ambition and lack of granularity in goal-setting; voluntary commitments (based on naming and shaming rather than binding penalties); poor mechanisms in creation of consensus around goals (a few States can block or weaken agreements); and, most importantly, corporate conflicts of interest and economic influences on policy decisions.

Europe is (or could be) an exception in this landscape. Article 191 of the Treaty on the Functioning of the European Union (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:12016E191>) outlines the EU’s environmental policy objectives and principles. As stated, its main objectives are to preserve, protect, and improve the quality of the environment, as well as to safeguard human health and ensure the prudent and rational use of natural

resources. The Article establishes foundational principles for EU environmental policy, including the precautionary principle, the prevention principle, rectifying environmental damage at its source, and the polluter-pays principle. But the implementation is not obvious and there are clear signs of political regression.

Also, we should pay particular attention to what is happening in low-income countries. Not only they are the primary victims of climate change, but they need also to be involved in the dialogue for a new economic development, by expanding for example nature-based solutions. The mechanisms that were introduced at the Conferences of the Parties (COPs) under the United Nations Framework Convention on Climate Change (UNFCCC) should be considered for an involvement of LMICs into new modalities of sustainable production. COP26 launched the Glasgow Dialogue on Loss and Damage; COP27 (Sharm el-Sheikh) agreed to establish a fund dedicated to loss and damage; and COP29 adopted a new quantified collective goal (NCQG), tripling public climate finance for developing countries to US\$300 billion/year by 2035, rising to US\$1.3 trillion/year when national and private sector contributions are included. These funds create an opportunity not only for reparation of damage, but also for better, regenerative development.

Conclusions

Behrens and colleagues (8) provide a complete and accurate overview of the different aspects of the obesity epidemic and its relationships to the environmental polycrisis. The review of the scientific evidence leads to the conclusion that advocacy for powerful top-down actions, including taxation and removal of the commercial barriers, is needed. In their words: “Accumulating evidence supports priority actions to remove market distortions via cost transparency, taxing unhealthy foods, combating marketing, effective food labelling, facilitating healthy food choices, promoting healthy living environments, and public and professional education. [...] Solutions exist but have not been adequately implemented owing to a lack of political will” (8). Very similar words have recently been used in relation to the failure of the Paris Agreement (10).

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