

From Global Thinking to Local Action: The Planetary Diet as Chronic Disease Prevention

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In this Anthropocene age, the detrimental effects of our industrial actions are increasingly visible on the planet's ecosystems, natural resources, and general health, as well as on the health of its inhabitants. Malnutrition is a major cause of premature mortality globally.¹ Our efforts to feed ourselves and to put food on our plates have imposed unsustainable practices on humans and the planet. Food, therefore, is at the center of one of our biggest environmental and public health challenges. More than 40% of adults in the United States are obese.² Obesity and various dietary risk factors lead to chronic diseases, and these diseases are associated with mortality, disability, and ever-increasing health care costs. As noted in the Global Burden of Diseases, Injuries and Risk Factors Study (GBD), in 2017, eleven million deaths were caused by 15 dietary risk factors globally. Moreover, the same dietary risk factors were also responsible for 255 million disability-adjusted life years.³

These deaths and disabilities likely could have been avoided had an optimal, nutritious diet been available. What is often overlooked in discussing the obesity epidemic, however, is the inextricable links among food, health, and the environment. Food production is responsible for about 30% of all greenhouse gas emissions and 70% of all freshwater use.⁴ As we approach the limits of the carrying capacity of the environment we depend upon, food security will soon become a more pressing issue, both in the United States and globally.⁵

How to feed a planetary population that is predicted to comprise 10 billion persons by 2050 in a sustainable way that also ensures food security for future generations is, therefore, a pertinent question. This question was answered and quantified by the EAT-Lancet Commission on Food, Planet, Health (hereinafter, the Commission).^{4,6} The Commission presents a planetary diet that can serve as a reference for a global diet that will be both sustainable and capable of preventing dietary-related chronic diseases and mortality. To generate a change in dietary-based morbidity and mortality, key goals from the report must be met. Red meat and sugar consumption, for example, must

be reduced by approximately 50%, and the intake of fruit, vegetables, legumes, nuts, and pulses must increase significantly, by more than 100% in most places. Regions throughout the world differ in how they define a healthy reference diet, but decreasing the consumption of red meat and sugar and increasing the intake of fruit and vegetables are common denominators. Given the correlations among higher red meat consumption, ill health effects, and increased mortality from noncommunicable diseases, these changes align with current public health recommendations for a healthy diet in the United States.⁷ Similarly, given the soaring rates of type 2 diabetes and the ensuing risk of cardiovascular disease, decreased sugar consumption is also a priority.^{8,9} The Commission pleads that a radical shift in the global food system and in patterns of consumption is needed to reduce premature mortality and the diet-related disease burden. The need to address changes in the food system is increasingly urgent and has become an important priority for many multilateral, global agendas.^{10,11}

This plea for food system change must become a major public health priority. The public health community should be at the forefront of advocating for a shift in the food system and should demand an important role in making it happen. The reasons for change are obvious: changing our diets and improving the manner in which our food is produced can substantially and dramatically affect our efforts to combat obesity and prevent many chronic diseases. Moving toward an increasingly plant-based diet via the planetary diet and other flexitarian diets can reduce global mortality rates by as much as 23%.^{4,12} The

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potential for such an effect on human mortality is enormous and more than justifies including it as part of the public health agenda. The added bonus is that adopting the planetary diet as a means of preventing obesity and chronic disease will also combat climate change as an important byproduct.⁴

Given the futility of current efforts to prevent obesity and tackle the growing obesity epidemic, it is time to try a new approach.¹³ For years, diet-related diseases such as obesity and other chronic diseases have been treated as problems largely related to personal choice and behavior within the control of each person. It has become clear, however, that these diseases also stem from systemic issues that are rooted in our industrial food systems and structural barriers to an optimal diet (eg, lack of access to affordable and healthy food). As Professor William Dietz terms it, we are experiencing a global “syndemic,” a synergy of the 3 pandemics of obesity, undernutrition, and climate change.¹⁴ In the United States, where nearly 1 in 7 households with children is food insecure,¹⁵ it is tempting to conclude that food insecurity and obesity are unrelated. However, findings from a study of participants in the Supplemental Nutrition Assistance Program in the United States revealed that the 2 conditions are strongly correlated.¹⁶

The cheapest calories available for low-income families are in processed foods, which serve as dietary risk factors for increased morbidity and mortality from chronic diseases.¹⁷ When structural factors such as residential segregation create “food deserts,” where the components of a healthy diet are difficult to access, food insecurity becomes an inevitable consequence.¹⁴ Characterizing these problems as the result of the poor, misinformed choices that people make about their diet fails to address the structural processes that limit individual choice. It is also a form of “blaming the victim” that diverts our attention from the need to address food insecurity as a structural problem. What is needed is a change in the way that the issue of chronic diseases and food choices is addressed. This is a crisis. We must claim responsibility for the solution, and we must act now.

To exemplify how the public health community can act now, we can look at another defining public health epidemic, or pandemic: the fight against HIV/AIDS. When the public health community came together and claimed responsibility for the HIV/AIDS epidemic, the public health community worked across fields of expertise and acknowledged the need for combined efforts: behavioral interventions; structural interventions that affect laws and policy makers; and community interventions, where community leaders were engaged before they took responsibility for engaging their groups.¹⁸ In that fight, as in the fight against the obesity epidemic, it was also necessary to combat the stigma of the disease before efficient treatment and prevention could take place.

Certainly, the challenges of food system change and chronic disease prevention differ from the challenges of infectious disease prevention. Complex issues such as structural and political barriers, international trade agreements and local subsidies, and the noncommunicable and chronic aspect of the diseases at

hand (eg, diabetes, cardiovascular disease) require multiple targets for immediate action. Although we have not seen the “AIDS-free generation” yet, the way the epidemic eventually was confronted by the public health community shows that we can achieve great progress with the right motivation, with a multipronged approach, and with a good dose of urgency.¹⁹

If we, as members of the public health community, agree that the solution to the epidemics of obesity and chronic diseases is to respond to the global call for a shift in the food system, the EAT-Lancet report gives us a platform to gather the public health community around a common cause: improved chronic disease prevention through the planetary diet. Critics may argue that this global call is not generalizable to local contexts. However, we must take this global call and act locally in accordance with guidelines of the EAT-Lancet report. These guidelines can be adapted to conform to the circumstances and needs of each nation, city, health care facility, and home. For example, cities can facilitate green spaces and urban gardens, provide funding for research, and minimize their food waste. Nationally, policy makers can help facilitate policies that improve not just the quantity but also the quality of food that is available. They can create policies that moderate food-price volatility and that increase food security.

Aligning national dietary recommendations with the planetary diet is another concrete local point of action, as Canada has shown in its national dietary recommendations.²⁰ These recommendations are in line with the EAT-Lancet report. Similarly, health care professionals can provide their patients with dietary recommendations that promote plant-based proteins and discourage sugar intake. Researchers can aid in improving the quality of metrics and data, such as was done by the GBD study,³ which will further support evidence-based policies that improve the food system.

Other local recommendations can be developed for actors, such as farmers, who are directly involved with food production. For example, for farmers, an incentive to grow what is natural in their local environment while cultivating insect-friendly crops in 10% of their crop space could be vital.⁴ Growing crops in their natural habitats would, in turn, maintain biodiversity and promote the sustainability of the food system, while also enhancing future food security nationally. Speeding up change implies speeding up adaptation to a local version of the planetary diet that focuses on the demand side as well. The local adaptation implies a consumer shift toward increased plant-based food, something all of us can advocate for, with public health officials at the forefront.

Control of such adaptation is at the level of governance. Ultimately, we require better governance of the global food system, with a correction to the asymmetry of the food system power of today, partly through new policy and partly by realigning agricultural subsidies.¹⁴ Although this process is complicated and can take years or decades, the public health community can play an important role. If we view this challenge as a population-level challenge that we confront in the

face of an epidemic, we might succeed in getting buy-in from the general public.

As public health workers, we have a moral obligation to promote health equity for all and to reduce the social and health disparities of populations that are most affected by these disparities, regardless of political beliefs. In the United States, nevertheless, one difficulty with reports such as the EAT-Lancet report is that these reports can be interpreted as politicizing the issue to control the food industry and turn agricultural practices in a certain direction. Regardless of political standing and beliefs, the EAT-Lancet report and its accompanying research¹² have the potential to guide efforts to confront the obesity epidemic and to prevent chronic diseases. In the landscape of chronic diseases, risk factors are shifting; we are moving from 1 or 2 diseases to clusters of multiple chronic diseases. There is no silver bullet for dealing with this shift, and we are challenged to develop a multipronged approach to confront it. Yet a sweeping shift in diet might be the closest and most efficient tool we have.

Simply put: the food system of today is making our population and our planet sick. In matters of sickness and health, we, the public health community, must have a voice, and a loud one at that. As Goethe once wrote, “Knowing is not enough; we must apply. Willing is not enough; we must do.” It is time for public health to claim responsibility for sustainable food production to promote chronic disease prevention. It is time for action.


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