

FROM THE EDITOR

The Ethics of Food in the Health System Architecture

Jessica Fanzo, PhD

Food holds a special place in global societies, and its meaning and value are embedded in our cultures and our economies. We all need food for our survival, health, and overall well-being, which is one reason why it is considered a human right by the United Nations (UN).¹

The foods we eat that make up our diets come from food systems. These systems comprise all the elements (eg, environment, people, inputs, processes, infrastructures, institutions) and activities that relate to the production, processing, distribution, preparation, and consumption of food and to the output of these activities, including socioeconomic and environmental outcomes.²

While food systems in some countries are incredibly efficient and offer consumers more diverse foods than ever before, they are also rapidly changing, sometimes for the worse. The diets resulting from inefficient food systems are now one of the major risk factors in the global burden of disease. This is quite apparent when one looks at malnutrition statistics. Approximately 800 million people are undernourished in the world; 155 million of the world's children under the age of 5 (23%) are stunted or chronically undernourished,^{3,4} and another 2.1 billion people are overweight or obese.⁵

By 2050, the global population is expected to reach between 9.4 and 10.2 billion people,⁶ increasing the demand for food and creating unprecedented stresses on the environment, natural resources, and ecosystems that humans are intricately dependent upon. Yet the global food system is already straining ecosystems and landscapes that are essential for our food supply and diets. Food production is the major emitter of greenhouse gases to our atmosphere as well as the largest user of water resources.⁷ With rapid urbanization, population pressures, geopolitical conflicts, fragile global democracy, and less predictable climate variability and more extreme weather events, the stakes are too high to ignore the influence of the global food system on the environment and vice versa. Underlying this challenge is the unanswered question of how to nourish our populated planet in ways congruent with positive social, health, environmental, and economic outcomes. We need a more equitable, ethical, and sustainable global food system.

The debate about feeding the world *well* and sustainably is deeply rooted in ethics. At its core, this debate engages a range of compelling ethical values—promoting individual and public health, protecting the environment, ensuring economic well-being, minimizing animal suffering, providing fair access to farmland, respecting individual freedoms and cultural traditions, fostering collective control over food and agricultural policy, engaging an active citizenry in food social movements—that frequently come into conflict in the formulation of potential solutions. At the same time, the burdens of undernutrition and overweight and obesity—and of climate change and environmental degradation—fall disproportionately on the world’s most disadvantaged people and groups, including poor women and children and the rural and urban poor.² Such complex issues underscore the need to pay careful attention to the ethics of the current state of the global food system and of proposals to improve it, as well as to the need to articulate the broader ethical landscape.

This special issue of the *AMA Journal of Ethics* examines the complexities of an array of food system ethical issues and their impact on health and nutrition outcomes. This issue also examines the nature and scope of clinicians’, organizations’, industries’, and governments’ obligations to address these ethical issues.

The health sector and the practitioners working in that sector are at the center of many ethical issues stemming from food systems and their interactions with health systems. Physicians are faced every day with such ethical issues. Many farm and food system workers suffer from work-related injuries and illnesses related to agriculture and food supply chain work. Nicole Civita argues that physicians must be equipped to deal with the unique challenges of this population and to understand the complex risks that patients from this population face. Toward this end, clinicians need to make site visits, viable treatment recommendations, and [advocate for reform](#).

These patients could be seen as vulnerable, but Alexis K. Walker and Elizabeth L. Fox re-evaluate [what it means to be vulnerable](#) across the global food system. Traditionally, women of reproductive age and children were considered nutritionally vulnerable because of the unique stage of their lifecycle both biologically and physiologically.² However, the authors argue that classifying who is vulnerable can be problematic and that a more nuanced view of contexts of marginalization across food systems is critical for successful dietary and nutrition interventions.

While mothers with low income are often considered one of the most vulnerable groups, we need to take a closer look at how mothers make dietary decisions. Anne Barnhill and Stephanie Morain highlight the importance of one of the most important natural foods we have to offer—breastmilk. Eliminating [formula giveaways](#) has been embraced as a way to reduce the influence of formula marketing in hospitals and to increase breastfeeding rates among new mothers. However, the authors argue that this practice

can raise some ethical concerns about autonomy for those mothers who, for lifestyle reasons, prefer to feed formula to their infants and who cannot afford formula without the giveaways.

Health care professionals are also dealing with populations with multiple burdens of malnutrition related to transitioning food systems and nutrition transitions, as Adam Drewnowski and Jean-Pierre Poulain point out. They examine how cultural factors can provide insights into the “[protein transition](#)”—the choice of populations’ protein that economic factors alone cannot illuminate. Thus, health care professionals have a complex patient population to deal with, as individuals sometimes face multiple health burdens, including food insecurity and obesity.

Obesity is stigmatized not only in society but also within the health system itself, which can influence patient care. Often, medical students trained in the United States are biased towards thinness, as Gail Geller and Paul A. Watkins point out. They show that a sizeable minority of students in their study attributed obesity to being lazy or lacking will power and argue that medical schools should integrate ethics into the nutrition curricula to help mitigate [negative weight bias](#). Part of the education of health care professionals also means better understanding of nutritional science itself. David L. Katz argues that physicians need to be better informed about [nutritional sciences](#), a unique, complex, difficult-to-study field. In order to help patients make informed decisions, physicians need to share the limitations of the evidence with their patients and to partner more effectively with dietitians and nutrition experts.

There are many ways to improve food systems to improve diets. Many nutrient-rich foods are expensive or inaccessible in food deserts. Annalynn Skipper argues that while both consumers and physicians face time constraints, physicians can play an important role in promoting healthy diets to their patients with low income through advocacy. In particular, she argues that they should become advocates for making nutritious foods easy to get and consume and not shy away from what could be seen as a daunting task to [end food deserts](#). Haley Swartz looks at fruit and vegetable [produce prescription programs](#) that are meant to deliver healthy foods to people with low income. She conducted a literature review of community-supported agriculture, vouchers, and coupons and found that when physicians and retail outlets offer these programs there is a need to assess autonomy and fairness from the perspective of patients as well as to address barriers to the programs’ expansion. Sarah Reinhardt and Ricardo Salvador argue that physicians can contribute to a more equitable and sustainable food system by advocating for and participating in [food procurement initiatives](#) that are consistent with providers’ health-promoting missions. Finally, in the podcast, 1 and 2 of the contributors to this issue—Swartz and Katz—will explore concrete strategies for clinicians who want to address food scarcity or poor nutrition in the communities they serve.

Actions need to go beyond those taken by health care and food system actors. There is a need for global action and accountability. As I suggest in my contribution to this issue, the [Sustainable Development Goals](#) (SDG) era is upon us, which requires global cooperation. We must focus our attention on SDG2 being central to the food systems agenda—which is to “end hunger, achieve food security and improved nutrition and promote sustainable agriculture”⁸—and, in so doing, many of the ethical issues of social equity and justice across food systems will have to be addressed. Governments, the UN, international and local nongovernmental and civil society organizations, the food and beverage industry, and health professionals all play a role and are accountable in ensuring that the nutrition and health needs of our global population are met through food systems.

This issue of the *AMA Journal of Ethics* aims to help highlight the ethical issues of food systems in the health of populations and how health care and health practitioners can play important roles.

References

1. United Nations Human Rights Office of the High Commissioner. Special Rapporteur on the right to food. <https://www.ohchr.org/EN/Issues/Food/Pages/FoodIndex.aspx>. Accessed July 17, 2018.
2. HLPE. Nutrition and food systems: a report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. <http://www.fao.org/mwg-internal/de5fs23hu73ds/progress?id=xCg4jFnsZZjeMnBXKDARNuuJXu4V-If30INIQSYcGE,&dl>. Published September 2017. Accessed July 17, 2018.
3. Food and Agriculture Organization of the United Nations; International Fund for Agricultural Development; UNICEF; World Food Programme; World Health Organization. The state of food security and nutrition in the world: building resilience for peace and food security. <http://www.fao.org/3/a-l7695e.pdf>. Published 2017. Accessed August 15, 2018.
4. UNICEF; World Health Organization; World Bank Group. Levels and trends in child malnutrition: joint child malnutrition estimates. Key findings of the 2017 edition. <https://data.unicef.org/wp-content/uploads/2017/05/JME-2017-brochure.pdf>. Published 2017. Accessed July 17, 2018.
5. Dunham W. The weight of the world: 2.1 billion people obese or overweight. *Reuters*. May 28, 2014. <https://www.reuters.com/article/us-health-obesity-idUSKBN0E82HX20140528>. Accessed July 17, 2018.
6. United Nations Department of Economic and Social Affairs, Population Division. World population prospects: the 2017 revision, key findings and advance tables. https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf.

United Nations working paper ESA/P/WP/248. Published 2017. Accessed August 15, 2018.

7. Ramankutty N, Mehrabi Z, Waha K, et al. Trends in global agricultural land use: implications for environmental health and food security. *Annu Rev Plant Biol.* 2018;69:789-815.
8. Qadir A. Understanding the Sustainable Development Goals/global goals. *Atlas Corps Blog.* November 26, 2016. <http://www.atlascorps.org/blog/understanding-the-sustainable-development-goalsglobal-goals/>. Accessed July 18, 2018.

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