

Cooperate to prevent food-system failure

To keep people nourished during a global pandemic, our food systems must evolve, and governments must work together, says Jessica Fanzo.

As journalist Joan Didion wrote in her 1967 essay ‘Goodbye to All That’, “It is easy to see the beginnings of things, and harder to see the ends.” She was writing about her love affair with the city of New York, but the same can be said of COVID-19.

How the pandemic began is reasonably well understood – the virus, SARS-CoV-2, probably made its way from wild bats to humans through a food market. COVID-19 is the latest in a long line of diseases that have crossed from animals to people, including HIV/AIDS, severe acute respiratory syndrome and Ebola. In fact, 60% of emerging infectious diseases are zoonotic, and of the pathogens that cause these, at least 71% originate in wildlife¹. The reshaping of habitats around the world, often initiated by the need to grow more food, puts people in ever closer contact with wild animals and makes the transmission of infections more likely.

How the pandemic will end, and what damage it will cause, is less clear. So far, there is no end in sight. Many people will be affected forever – economically, physically, socially and psychologically. The World Bank estimates that up to 115 million extra people will fall into extreme poverty (living on less than US\$1.90 per day) in 2020 owing to the economic shocks of the pandemic. This, in turn, will have significant impacts on food security, nutrition and health. It is projected that 130 million more people will face acute food insecurity by the end of 2020, in addition to the estimated 135 million who faced it in 2019.

The health of those who are already undernourished could decline further – particularly older, vulnerable and marginalized people. Disruptions to health care in many low- and middle-income countries owing to COVID-19 could lead to around 193,000 additional deaths among children per month². Obesity and non-communicable diseases are significant risk factors for hospitalization with COVID-19, and they can result in medical complications for both young and older people. Obesity and metabolic disorders are also factors in the disproportionate risks of hospitalization and death in low-income and ethnic minority populations in high-income countries. In Chicago, Illinois, for example, nearly 70% of the people who have died from COVID-19 were Black, although Black people make up only 30% of the population³.

Early evidence suggests that the pandemic is trouncing the functionality and efficiency of food systems – the



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activities involved in producing, processing, distributing, preparing and consuming food, and the people who influence those activities – in multiple ways. It is reducing food-production capacity, slowing distribution and limiting access to both markets and financial or nutritional safety nets. Farmers are economically vulnerable owing to the tight profit margins associated with their industry. Government restrictions on the movement of people have hindered farmers’ access to necessary goods, labour and equipment, slowed the planting and harvesting of crops and affected feeding of livestock. Restrictions have also impeded the ability to move food to markets, ports and across borders, leading to increases in food loss – particularly of perishables, such as meat and dairy. Food waste has also increased as a result of reductions in the available workforce at meat-processing plants. Together with higher levels of unemployment and loss of income, this has resulted in an increase in the number of people struggling to access a healthy diet. Many people are already opting instead for staple grains and unhealthier, highly-processed foods that are cheaper and have longer shelf lives⁴. This pandemic, and the need to stave off the next one, bolsters the already compelling case for ensuring the global food supply is safe, nutritious and equitably distributed.

Governments and businesses should prioritize ensuring that producers are making healthy food and that consumers have access to it. They should support and invest in food-assistance programmes during and after the pandemic. Governments must support the United Nations’ \$10-billion COVID-19 Global Humanitarian Response Plan, set up so its agencies can provide the most marginalized and vulnerable populations with basic services, such as COVID-19 testing materials, medical equipment, food, water and basic health coverage, such as vaccines. As of September, the programme had received less than 30% of its target.

The integrated One Health approach (addressing risks at the intersection of human, animal and environmental health) is crucial in responding to COVID-19, recovering from it and preparing for the next zoonotic pandemic. To minimize viral reservoirs and contact between virus-carrying animals and people, wildlife habitats must be protected against urbanization and deforestation. Governments need to police the illegal sales of wildlife in food markets and the global food trade, and to complement this with public-health disease-prevention programmes and messaging. Stronger surveillance tools to track potential zoonotic and food-borne illnesses across food systems are also needed.

These recommendations to ensure food systems function effectively during the pandemic and long after cannot work without a united global effort. Instead of the splintered responses to the COVID-19 crisis seen so far, involving political polarization and geopolitical competition, politicians must embrace global cooperation and inclusion. Governments should not face inward. They should double down on opportunities to re-engage and collaborate on the interlinked challenges of climate change, malnutrition and environmental collapse.

1. Cutler, S. J. *et al. Emerg. Infect. Dis.* **16**, 1–7 (2020).
2. Robertson, T. *et al. Lancet Global Health* **8**, e901–e908 (2020).
3. Yancy, C. W. *J. Am. Med. Assoc.* **323**, 1891–1892 (2020).
4. Belén Ruiz-Roso, M. *et al. Nutrients* **12**, 1807 (2020).