Few would question the urgent need to support human health responses to COVID-19 in our region; it is the right thing to do. However, while Australians may feel secure in the knowledge that this pandemic will not adversely affect national food security, the same cannot be said for many low- and middle-income
countries.

Prior to the coronavirus pandemic, over 10 per cent of people globally were undernourished and approximately 30 per cent deficient in key micronutrients. Malnutrition impacts negatively on the immune system, placing the malnourished at increased risk of poorer outcomes when infected by COVID-19. Additionally, malnutrition is more prevalent in resource-limited settings and is felt unevenly within households, frequently affecting young children, women of reproductive age and the elderly. Reports from the Food and Agriculture Organization of the United Nations and UNICEF in 2019 highlighted that food and nutrition insecurity are increasingly real for millions of people. Significantly, food and nutrition security were also emphasised as a vital component of health in the 2019 United Nations Declaration on University Health Coverage. Malnutrition has multiple drivers, from poverty to climate change to food system failures to deliver safe, nourishing, affordable food. However, chronic under funding of the agricultural sector by both national governments and the international donor community is compounding the problem and will exacerbate the short- and long-term consequences of this coronavirus pandemic.

On the animal and plant health front, the services charged with disease prevention and control were tackling multiple challenges well before the coronavirus pandemic. For example, the spread of African swine fever (ASF) is causing huge mortalities in pigs and impacting severely on household food security and social obligations in Southeast Asia. The spread of this disease, for which there is no vaccine, was made easier due to the inadequate control of classical swine fever (CSF) which spread across the region over the past two decades. Despite the existence of a vaccine against CSF, inadequate funding of veterinary services prevented the effective implementation of CSF vaccination campaigns, rendering farmers accustomed to increasingly high mortality in their pig herds. When ASF arrived, all the farmers saw was more dead pigs, which,
sadly, was nothing new.

The latest, and hugely worrying, plant health threat to reach Southeast Asia is the Fall Armyworm. This insect pest has eaten its way across South Asia and Southeast Asia, decimating crops leading to shortfalls in food for people and feed for intensively raised animals and has now arrived in Far North Queensland.

As countries in the region implement coronavirus control strategies, what will this mean for animal and plant health? National budgets that were already under strain will likely see movement of funds into the human health sector, further stripping sectors such as agriculture of much-needed funds. During the high pathogenic avian influenza (HPAI) H5N1 pandemic, the bulk of funding went to the human health sector and, to this day, H5N1 remains endemic in poultry in many Southeast Asian countries. Will animal health teams vaccinating against economically important diseases such as CSF and Newcastle disease (which is clinically indistinguishable from HPAI) have to cease work due to lack of funding to keep vaccinators safe and animals alive? Will plant health teams undertaking surveillance activities to determine the extent of spread of Fall Armyworm in nearby countries have to cease their activities – whether due to COVID-19 safety measures, or funding cuts, or both – enabling the insects’ relentless march eastward to continue unchecked? Quite likely. How can we learn the lessons of past pandemics such that we commit to adequately investing in animal and plant health and food safety along value chains? If we had taken this seriously after the avian influenza pandemic, we may have not only reduced the impact of coronavirus control activities on food security, we may have prevented it entirely.

More broadly, as we count the costs of inadequate disease surveillance and preparedness in the human health system, we must also factor in the drivers associated with the agricultural sector that facilitated the heightened impact of the disease. As a result of Severe Acute Respiratory Syndrome (SARS-CoV) and now COVID-19, we are all well aware of the ability of viruses that may cause no
disease in animals to jump across to humans via the slaughter, sale, preparation and consumption of food from non-domesticated animal hosts. Consumer concerns in many countries in the region regarding a lack of access to affordable animal-source food (due to high animal mortality and market failure) and a lack of confidence in food safety (e.g. worries about food contamination with hormones, antibiotics or pesticide residues) frequently underlie preferences for non-domesticated animals sold through informal markets. Understanding of, and responses to, the drivers behind consumer and farmer behaviour are yet to be adequately researched and addressed.

Human health is intimately linked with animal, plant and environmental health. Systems thinking using One Health and Planetary Health lenses will be crucial to redesigning global and national systems that can keep us safe, well-nourished, healthy and actively contributing to community well-being. This period of forced physical isolation provides an opportunity to reflect on the systems that underpin our society and our vision for a sustainable development. What will be our vision of sustainable food security and nutritious food systems and their contribution to human health going forward? And what will we do to make our plans a reality at home and abroad?

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