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Life and Health Re-imagined

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Good food for all

Resetting our food system for health, equity, sustainability and resilience

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Summary - Resetting our food system for health, equity, sustainability and resilience

Inequities in our food system

 Food insecurity is largely the result of poverty. It is best addressed through policies that promote full employment and job security, raise levels of income support to meet the cost of a healthy diet, and widen the welfare safety net to include people who currently fall through the cracks.

Vulnerabilities in food supply chains

 Almost 90% of the fresh food in Australian supermarkets - including fruit and vegetables, eggs, most meats and dairy products - is grown in Australia. However, the narrative that Australia is 'food secure' masks vulnerabilities in food supply that

Innovative food system responses to coronavirus

- Moving Feast is providing food relief to vulnerable Victorians by providing boxes of produce from local farmers and community gardens, meals and backyard growing kits.
- Many farmers and farmers markets went online to continue operating amid social distancing restrictions and to meet the consumer demand for fresh, healthy local produce.
- Increased backyard vegetable gardens and home-cooking present opportunities for more fresh, nutritious food intake in the home.

Strengthening food system resilience

- A key feature of resilient food systems is likely to be diversity – diversity in the geographic locations that food is sourced from, the length of supply chains, the scale at which food is produced, who produces food and in the foods that we eat.
- There is a need to nurture a new generation of farmers by enabling access to land, resources and education. Measures are also required to encourage regenerative approaches to agriculture that build soils and natural ecosystems, increase climateresilience and minimise dependence on inputs reliant on fossil fuels.

Introduction

Coronavirus is testing the limits of Australia's food system, the complex web of supply chains that bring food from farm to fork.

On the surface, our food system appears to have performed well. After initial difficulties in responding to a sudden increase in consumer demand, retailers have managed to keep supermarket shelves well stocked, assisted by <u>Australia's high degree of self-sufficiency</u> in fresh food production.

But beneath the surface, coronavirus is making visible the cracks in our food system. Rising unemployment and a growing economic crisis are exacerbating inequities in the system's ability to deliver healthy food for all and highlighting the inadequacy of addressing food insecurity through charitable food relief.

Coronavirus has revealed vulnerabilities in complex global food supply chains with disruption to <u>imports of some farm</u> <u>chemicals and food ingredients</u>, <u>a loss of markets</u> for farmers who sell into the food service and hospitality sectors, and <u>rising</u> <u>food waste</u>.

Yet the crisis has also sparked rapid innovation. Farmers have responded to closures of farmers markets by opening online markets, consumers have increased their demand for locally produced food, and civil society groups have mobilised to provide systems of food relief that strengthen healthy and sustainable local food supply.

Crises like coronavirus expose the cracks in complex systems, but they also reveal opportunities to strengthen them. They are transformative moments, when rapid responses to changing conditions point to innovative ways to leap forward. Coronavirus is a moment to reset the food system by placing health, equity, sustainability and resilience at its core.

Inequities in our food system

Coronavirus has laid bare inequities in the food system.

While around 4% of people in Victoria run out of food and are unable to afford to buy more, rates of food insecurity are much higher in vulnerable population groups, such as Aboriginal and Torres Strait Islander Peoples (19%), lone-parent households (13%), the unemployed (12%) and people in households with an income of less than \$40,000 (10%). A larger proportion of people skip meals or eat low-cost unhealthy foods to avoid running out of food.

Many Australians live on the brink of food insecurity, including those in insecure employment and underemployment. Rising unemployment due to the economic crisis accompanying coronavirus will push greater numbers of Australians into food insecurity. Some agencies are already reporting <a href="https://doi.org/10.1001/jib/https://doi.org

Food insecurity in Australia is linked to <u>poorer health outcomes</u>, and <u>higher rates of overweight and obesity</u>. Around a third of obese adults in Victoria <u>experience some degree of food insecurity</u>. Overweight and obesity is a <u>risk factor for a number of chronic diseases</u>, including type 2 diabetes and cardiovascular disease. It has also been linked to a <u>greater risk of becoming severely ill with coronavirus</u>.

Rising food insecurity during coronavirus highlights the weaknesses in Australia's existing system of food relief, which relies largely on the charitable sector and donations of surplus food to food banks. During coronavirus, the system has been challenged by social distancing restrictions and a lack of volunteers, which forced some community groups providing food relief to close their doors. Donations of food from the major supermarkets also fell due to rising consumer demand.

Food insecurity is largely the result of <u>poverty</u>. It is best addressed through <u>policies</u> that promote full employment and job security, <u>raise levels of income support</u> to meet the cost of a healthy diet, and widen the welfare safety net to include people who currently fall through the cracks. Income support payments can be supplemented with other forms of food relief that provide healthy and sustainable food while <u>purchasing food from local farmers</u>. This can reduce food waste and support farmer incomes, as well as increasing food security for vulnerable people.

Vulnerabilities in food supply chains

Australia is often <u>described as 'food secure'</u> because it is relatively self-sufficient in the production of fresh foods and a <u>net food exporter</u>.

Almost 90% of the fresh food in Australian supermarkets - including fruit and vegetables, eggs, most meats and dairy products - is grown in Australia. However, the narrative that Australia is 'food secure' masks vulnerabilities in food supply that warrant attention.

Australia doesn't produce enough fruit and vegetables to meet healthy eating guidelines for the population, and the gap is widening. It also relies on <u>imports of some critical inputs</u> to the food system, such as fertilisers and farm chemicals, fuel, farm machinery, animal feed, some additives for processed foods and some types of food packaging. Australia imports the majority <u>of its nitrogen-based fertilisers and farm chemicals</u>, mainly from China.

Disruption to global food supply chains during coronavirus has highlighted the vulnerabilities of import-dependencies for critical inputs to the food system, as well as the important role that regenerative low-input production systems can play in a resilient food system.

Coronavirus disruption adds to the financial stress for farmers, who face <u>rising prices for some imported inputs</u>, such as fertilisers and farm chemicals, exacerbating the pressure on already slim profit margins.

Many farmers who sell into the hospitality and food service sectors have lost markets, due to the impacts of social distancing restrictions on the sector. Some have had to <u>plough crops destined for these sectors back into the soil</u>, highlighting a lack of flexibility in the food system to adapt and effectively utilise food surpluses.

Farmers in export-oriented industries have also faced challenges from <u>disruption to global transportation</u> and the loss of some markets.



Innovative food system responses to coronavirus

Coronavirus has been a significant shock to the food system. Farmers, retailers, civil society groups and other stakeholders have responded with agility and innovation.

They are developing workarounds for food system disruption, providing food relief to vulnerable population groups and responding to increased consumer demand for healthy, sustainable food from local sources. These responses sow the seeds for increased resilience of the food system to future shocks.

In Victoria, civil society groups moved quickly to form Moving Feast, a collective of around 20 social enterprises, who developed a "pandemic response that creates justice, sustainability and resilience". The collective is providing food relief to vulnerable Victorians by providing boxes of produce from local farmers and community gardens, meals and backyard growing kits.

When some local governments in Victoria shut down farmers markets due to concerns about social distancing, many <u>farmers</u> <u>and farmers markets went online</u> to continue providing fresh healthy produce to consumers.

Open Food Network, an open source online platform that connects farmers with supply networks and customers, experienced a 10-fold increase in farmers and food hubs going online at the peak of the pandemic and a 14-fold increase in turnover through these businesses.

Community-supported-agriculture initiatives and local vegetable box schemes across Victoria also experienced a significant increase in demand for locally produced food. CERES Fair Food, Melbourne's largest organic food hub, has tripled its orders during the pandemic. The Prom Coast Food Collective in South Gippsland has scaled up from 100 customers a month to 200 a week, and Edithvale Community Greengrocer has increased orders for its local produce boxes by 60%.

There is some evidence that interest in backyard vegetable production has increased during coronavirus, with <u>rising</u> demand for vegetable seeds and seedlings.

There is also evidence that people are cooking more as they spend more time at home, with an <u>increase in consumer demand for home-baking products such as flour</u>. An increase in home cooking has the potential to have positive impacts on health as research suggests that <u>more frequent home cooking may be associated with a healthier diet</u>.

These innovative responses to food system disruption and shifts in consumer behaviour during coronavirus point to ways that we can strengthen the <u>resilience of our food system</u> to shocks and stresses.

Strengthening food system resilience

Food systems will face more shocks and stresses in future, whether from pandemic, economic crisis, <u>climate change</u> (eg. storms, fire, flood or drought), fuel shock or other events.

This requires a greater focus on building the resilience of food systems so that they can withstand and recover from shocks (and, indeed, adapt and leap forward), while continuing to deliver healthy and sustainable food in a way that is fair to all, including farmers as well as consumers.

A key feature of resilient food systems is likely to be diversity – diversity in the geographic locations that food is sourced from (local as well as global supply chains), the length of supply chains (short as well as long), the scale at which food is produced (small as well as large scale), who produces food (community as well as commercial production) and in the foods that we eat (a diverse range of fresh healthy foods, rather than relying on a small number of crops).

Analysis of past food system shocks, such as the <u>Queensland</u> <u>2010-11 floods</u>, suggests that local food production, often small scale and connected directly to consumers via short supply chains, has an <u>important role to play in strengthening resilience to shocks</u>.

Food and agricultural policy in Australia focuses primarily on increasing large-scale export-oriented agriculture, with little focus on the resilience of Australia's domestic food supply or the capacity of the food system to deliver healthy, sustainably produced food to all.

If we are to strengthen the resilience of our food system to future shocks, policy will need a wider lens that recognises the value of a diverse range of farming systems and supply chains.

Coronavirus presents an opportunity to strengthen local supply chains that focus on delivering healthy and sustainably produced food. This will require strong measures to permanently protect agricultural land around Australia's rapidly growing cities and to ensure secure sources of water (such as recycled water) for food production in a drying climate.

There is a need to nurture a new generation of farmers by enabling access to land, resources and education. Measures are also required to encourage regenerative approaches to agriculture that build soils and natural ecosystems, increase climate-resilience and minimise dependence on inputs reliant on fossil fuels (such as conventional fertilisers).

Resetting the food system for health, equity, sustainability and resilience

Coronavirus is an opportunity to reset the food system to focus on a healthy, equitable, sustainable and resilient food supply.

A food system that is fit for purpose in the 21st century must do more than keep food on the supermarket shelves.

We will be food secure when all Australians have access to a healthy diet, when farmgate prices support farmer livelihoods, when we produce food in ways that regenerate rather than deplete natural ecosystems, and when the food system is resilient enough to withstand the shocks and stresses that we know are likely in the future, as well as those we haven't yet anticipated.

Coronavirus has much to teach us about how to do this and we would be wise to seize this opportunity.



References

ABARES (2020) Australian food security and the COVID-19 pandemic. ABARES Insights issue 3 2020. Available https://daff.ent. sirsidynix.net.au/client/en_AU/search/ asset/1030201/0 [viewed 9 June 2020]

ABS (2015) Australian health survey: Nutrition – state and territory results 2011-12. Available https://www.abs.gov. au/AUSSTATS/abs@.nsf/mf/4364.0.55.009 [viewed 9 June 2020]

ABS (2020) 6202.0 Labour force, Australia, April 2020. Available https:// www.abs.gov.au/ausstats/abs@.nsf/ lookup/6202.0Media%20Release1Apr%20 2020 [viewed 10 June 2020]

Australian Government (2015)
Agricultural competitiveness white
paper. Available https://agwhitepaper.
agriculture.gov.au/sites/default/
files/SiteCollectionDocuments/agcompetitiveness-white-paper.pdf [viewed
9 June 2020]

Australian Institute of Health and Welfare (2017) Impact of overweight and obesity as a risk factor for chronic conditions:
Australian burden of disease study.
Australian Government. Available https://www.aihw.gov.au/getmedia/f8618e51-c1c4-4dfb-85e0-54ea19500c91/20700.pdf.aspx?inline=true [viewed 10 June 2020]

Briscoe, T and Carbonell, R (2020) Coronavirus panic buying takes root at nurseries selling fruit and vegetable plants and seeds. ABC News 24 March 2020. Available https://www.abc.net. au/news/2020-03-24/coronaviruspanic-buying-of-edible-plants-atnurseries/12082988 [viewed 9 June 2020]

Busicchia, B (2020) Why flour is still missing from supermarket shelves. The Conversation 27 May 2020. Available https://theconversation.com/why-flour-is-still-missing-from-supermarket-shelves-137263 [viewed 9 June 2020]

Canal Vieira, L; Serrao-Neumann, S; Howes, M and Mackey, B (2018) Unpacking components of sustainable and resilient urban food systems. Journal of Cleaner Production 200: 318-330.

Caraher, C and Furey, S (2019) Are food banks merely a sticking plaster for poverty? RTE Brainstorm 7 February 2019. Available https://www.rte.ie/ brainstorm/2019/0207/1028061-arefood-banks-merely-a-sticking-plaster-forfood-poverty/ [viewed 10 June 2020] Department of Agriculture, Water and the Environment (2020) Agricultural trade implications of COVID-19. Volume 3, April 2020. Available https://mcusercontent.com/23f496884edecf7b6f1c75452/files/2da5ec01-f23b-433f-b7c7-a424ead39f8f/AgTrade_COVID_19_Vol_3.pdf [viewed 10 June 2020]

Hartley, A and Hughes, M (2020) Farmers enjoy fivefold rise in food sales as coronavirus drives more people away from supermarkets. ABC News, 5 April 2020. Available https://www.abc.net.au/news/2020-04-05/farmers-rising-food-sales-gate-coronavirus/12119368 [viewed 10 June 2020]

Hope, Z (2020) Farmers ploughing fresh veggies back into soil as restaurant ban bites. The Age, 25 April 2020. Available https://www.theage.com.au/national/victoria/farmers-ploughing-fresh-veggies-back-into-soil-as-restaurant-ban-bites-20200424-p54n0q.html [viewed 10 June 2020]

IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]

KPMG (2020) Post COVID-19: Australia's food and agribusiness sector outlook. Insights 4 June 2020. Available https://home.kpmg/au/en/home/insights/2020/06/post-covid-19-australia-food-agribusiness-sectoroutlook.html [viewed 10 June 2020]

Lindberg, R; Lawrence, M; Gold, L; Friel, S and Pegram, 0 (2015) Food insecurity in Australia. Australian Family Physician 44 (11): 859-862.

MacMahon, A; Smith, K and Lawrence, G (2015) Connecting resilience, food security and climate change: lessons from flooding in Queensland, Australia. Journal of Environmental Studies and Sciences 5: 378-391.

McKay, F; Haines, B and Dunn, M (2019) Measuring and understanding food insecurity in Australia: A review. International Journal of Environmental Research and Public Health 16(3): 476.

Nestle, M (2019) The Supplemental Nutrition Assistance Program (SNAP): History, politics and public health implications. American Journal of Public Health 109 (12): 1631-1635. Rabobank (2020) Farm input 'work arounds' soften COVID-19 disruption risk. Media release, 24 April 2020. Available https://www.rabobank.com.au/media-releases/2020/200420-farm-input-work-arounds-soften-covid19-disruption-risk-rabobank/[viewed 8 June 2020]

Ramsay, R; Giskes, K; Turrell, G and Gallegos, D (2020) Food insecurity among adults residing in disadvantaged areas: potential health and dietary consequences. Public Health Nutrition 15 (2): 227-237.

Rose, N and Booth, S (2017) 'Successful failures' – the problem with food banks. The Conversation, 13 November 2017. Available https://theconversation.com/successful-failures-the-problem-with-food-banks-86546 [viewed 10 June 2020]

Tan, M; Feng, Jand MacGregor, G (2020) Obesity and COVID-19: the role of the food industry. BMJ 2020; 369; m2237.

Tendall, D; Joerin, J; Kopainsky, B; Edwards, P; Shreck, A; Le, Q B; Kruetli, P; Grant, M and Six, J (2015) Food system resilience: Defining the concept. Global Food Security 6: 2017-23.

Tuffield, R (2020) Victorian farmers find innovative ways to sell food in midst of pandemic. ABC News 18 May 2020. Available https://www.abc.net.au/news/2020-05-18/euroa-depotemerges-from-strathbogie-local-initiative/12257490 [viewed 9 June 2020]

Victorian Agency for Health Information (2019) Challenges to healthy eating – food insecurity in Australia. Findings from the Victorian Population Health Survey 2014.

Wolfson, Jand Bleich, S (2015) Is cooking at home associated with better diet quality or weight-loss intention? Public Health Nutrition 18 (8): 1397-406.



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VicHealth is committed to health equity, which means levelling the playing field between people who can easily access good health and people who face barriers, to achieve the highest level of health for everyone.

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