Submission No 25

FOOD PRODUCTION AND SUPPLY IN **NSW**

Organisation: The George Institute for Global Health

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Submission to the Inquiry into food production and supply in NSW February 2022

About this submission

The George Institute for Global Health is pleased to contribute to the New South Wales Parliament's Legislative Assembly Committee on Environment and Planning *Inquiry into Food Production and Supply in NSW*.

The George Institute commends the committee on its recognition of the impact climate change and COVID-19 are having on the food system and its desire to seek out solutions to these challenges. This is particularly noteworthy for efforts related to First Nations communities and communities experiencing disadvantage.

Reflecting The George Institute's expertise in food policy and First Nations health, this submission incorporates our broad understanding and research findings related to both these areas of competence. We draw upon our previous recommendations submitted to the *Inquiry into food pricing and food security in remote Indigenous communities*.

In particular since 2011, The George Institute and a research team from the University of New South Wales (UNSW) has been working with the remote regional community of Walgett in New South Wales, creating the unique Yuwaya Ngaari-li (YN) partnership with the Dharriwaa Elders Group (DEG). The partnership is collaborating on evidence-based research projects and building capacity to implement sustainable solutions to improve the health and well-being, social, built and physical environment of Aboriginal people in Walgett. The George Institute draws on the work of this group in our submission as an example of the impacts of food production and supply in NSW on First Nations communities.

Please find below The George Institute's response to this inquiry's Terms of Reference 1, 2, 4, 5, 10 and 11.





About The George Institute for Global Health

The George Institute is a leading global medical research institute established and headquartered in Sydney. It has major centres in China, India and the United Kingdom, and an international network of experts and collaborators. Our mission is to improve the health of millions of people worldwide by using innovative approaches to prevent and treat the world's biggest killers: non-communicable diseases (NCDs) and injury.

Our work aims to generate effective, evidence-based and affordable solutions to the world's biggest health challenges. We research the chronic and critical conditions that cause the greatest loss of life and quality of life and the most substantial economic burden, particularly in resource-poor settings.

Our Food Policy Team works in Australia and overseas to reduce death and disease caused by suboptimal diets, characterised by excessive intake of unhealthy foods and beverages, high in salt, harmful fats, added sugars and excess energy, in place of healthy foods. The team conducts multi-disciplinary research with a focus on generating outputs that will help government, industry and communities to deliver healthier food environments for all.

Our Aboriginal and Torres Strait Islander Health Program drives meaningful and ethical research and advocacy to transform the health and well-being of First Nations peoples and communities. Our program is led through First Nations ways of knowing, being and doing to generate evidence that privileges Indigenous knowledges and voices through actions that empower communities and people. Our commitment to research integrity is underpinned by equity, transparency and self-determination and maintains a First Nations paradigm of health and healing that incorporates the physical, emotional, social, cultural and spiritual elements of health. The primary objective of this program is to create greater health equity for First Nations peoples and communities.

Acknowledgement of Country

The George Institute acknowledges the Gadigal People of the Eora Nation as the Traditional Custodians of the land on which our Australia office is built and this submission was written. Parts of this submission were also written on the lands of the Wurundjeri People of the Kulin Nation. We pay our respect to all Elders past, present and emerging and recognise that our Elders are the knowledge holders of our lands, waterways and communities.

Walgett is on the traditional Country of the Gamilaraay people, and we acknowledge the leadership and custodianship of Gamilaraay and Yuwaalaraay Elders, past and present and emerging.



Recommendations

The George Institute for Global Health has made a series of recommendations throughout the submission regarding specific areas of concern. This list summarises these key recommendations for ease.

We believe First Nations Elders and local Aboriginal Community Controlled Organisations (ACCOs) are best placed to lead the development of culturally appropriate, sustainable solutions that empower and strengthen their communities. There is an urgent need to collaborate with First Nations peoples to address issues of food security, production and supply in a way that integrates First Nations peoples' lived experiences of food and water systems to ensure better health. A proper dialogue and establishment of appropriate governance mechanisms with First Nations peoples that enables true self-determination of decisions directly impacting communities is essential for health parity and an equitable food system.

The George Institute's submission and recommendations have been written with this understanding in mind.

The George Institute recommends:

- 1. The committee explicitly considers both the quantity *and* nutritional quality of food that is available, accessible and consumed.
- 2. The inextricably related issue of water security also be thoroughly considered by the committee throughout the inquiry.
- 3. An equity lens be applied to efforts to understand and improve food and water security to ensure the physical, social and economic accessibility of healthy food for all and at all times.
- 4. The committee considers how our food system meets the sociocultural needs of diverse groups.
- 5. The committee considers the impacts of our food system on the ongoing climate crisis (and vice versa).
- 6. Attention be given to improving food environments to ensure individuals and households are supported to follow a diet that includes enough nutritious food.
- 7. The NSW Parliament investigates the use of existing legislation to promote the availability and accessibility of healthy food and water.
- 8. Local, state and federal governments and agencies ensure the cost of food in remote communities is not more expensive than in other parts of the country, including through subsidies to local and independent stores.
- 9. The NSW Government institutes broad-based, accessible and direct financial support for individuals and households continuing to be affected by the COVID-19 pandemic in the short- and mid-term, as well as working towards improving social and financial supports for individuals and households experiencing disadvantage in the longer term.
- 10. The NSW Government conducts regular assessments of the prevalence and distribution of food and water insecurity, using more rigorous and comprehensive tools than previously applied to capture the quantity and quality of foods and the severity of food insecurity.
- 11. A public dashboard displaying assessments of communities' food and water security be created and regularly updated.



- 12. Extensive qualitative research with people experiencing food insecurity be conducted by the NSW Government to better understand the complex factors leading to and perpetuating food and water insecurity.
- 13. Any responses to food insecurity be co-designed directly with people with lived experience of food insecurity.
- 14. The NSW Government takes immediate action on those recommendations within the Healthy Food Environment Policy Index report that were assessed as having seen little or only some progress to date.
- 15. The NSW Government investigates the potential to scale up food and water security projects that have proven effective in local trials and elsewhere, and appropriately resource any implemented projects to support success.
- 16. The NSW Government leverages the healthcare system to trial programs that aim to support patients experiencing food insecurity with managing other diet-related health conditions.
- 17. The NSW Government provides funding and resources to ensure local ACCOs can be effectively engaged in both long-term planning and short-term crisis responses to food and water security.
- 18. The NSW Government works with and supports the Commonwealth Government in developing a Food and Water Security Strategy that prioritises support for community-led responses to food and water security and aligns with the Universal Declaration of Human Rights.
- 19. The Food and Water Security Strategy addresses the broader social determinants of health, in line with a First Nations holistic approach to health that goes beyond physical well-being to encompass social, emotional and cultural well-being.
- 20. The ongoing effects of colonisation, including racism, intergenerational trauma, stolen generations and loss of land, be addressed in relation to their effects on cultural continuity and well-being, as part of a holistic approach to tackling food and water security.
- 21. Information sharing between government and communities be a two-way exchange guaranteeing that community perspectives and recommendations will be acted upon and respected, and the community has decision-making authority to ensure government accountability, respect and reciprocity, transparency and responsiveness.
- 22. The NSW Government supports the Commonwealth Government in funding the development and implementation of community-led strategies to address food and water security.
- 23. Aboriginal Community Controlled Organisations, First Nations community members and Elders are involved at all levels of decision making and implementation, prioritising local expertise, local needs and local governance structures in both long-term planning and emergency responses to food and water security.
- 24. Remote community stores be supported through local, community-led strategies that address food and water security not a one size fits all strategy.



1. Improving food security and equitable access to food

Food security encompasses both the quantity and nutritional quality of food

The Food and Agriculture Organization of the United Nations defines food security as:

A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life [1].

This definition encompasses several dimensions: availability (the existence of foods), access (being able to obtain those foods), utilisation (the foods obtained providing adequate nutrition) and stability (maintaining food security) [1]. Disruption to any of these indicators could constitute food insecurity.

It is important to recognise that food insecurity and hunger are not synonymous, as a person can be in a state of food insecurity but not hungry [2]. There are well-documented links between food insecurity and both under- and over-nutrition [3], with the latter contributing to various diet-related non-communicable diseases, which may occur as people prioritise quantity over quality due to necessity, preference or the influence of unhealthy food environments [4].

'Food systems producing enough food' is clearly not the same as 'individuals/households having enough nutritious food to live a healthy and productive life'. As such, The George Institute recommends that the committee explicitly consider both the quantity and nutritional quality of food that is available, accessible and consumed when examining matters related to improving food security and equitable access to food. Efforts cannot simply be focussed on increasing the total volume of food being produced, or the amount of food that a person or household can obtain. A focus on the healthiness of foods must be embedded and prioritised throughout this Inquiry.

Sufficient access to safe water is another critical aspect of food security, important not only for the health of individuals, households and communities, including the wellbeing of First Nations peoples, but also for the future of food production including the protection of water supplies used in community operated vegetable gardens. Water security has been defined by the United Nations as:

The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability [5].

The George Institute recommends the inextricably related issue of water security also be thoroughly considered by the committee throughout this inquiry.

The George Institute recommends an equity lens be applied to efforts to understand and improve food and water security to ensure the physical, social and economic accessibility of healthy food for all and at all times. Food insecurity is particularly prevalent amongst people who are experiencing socioeconomic disadvantage [4, 6-14], experiencing poor mental or physical health [8, 13-17], living in rural and remote areas [4, 12, 13, 18, 19], recent migrants



or asylum seekers [9, 20-22], or who are Aboriginal and/or Torres Strait Islander [11, 12, 23, 24], with the overlapping associations between many of these factors further increasing the risk of food insecurity.

In addition, emerging thinking around food security highlights the importance of agency (the ability of individuals and groups to choose the foods they consume and engage in broader food systems and food systems governance) and sustainability (maintaining current food security without compromising the capacity to ensure food security into the future) [1]. As such, The George Institute recommends the committee consider how our food system meets the sociocultural needs of diverse groups. The George Institute also recommends the committee consider the impacts of our food system on the ongoing climate crisis (and vice versa).

Building upon this, the concept of food sovereignty may provide a useful reference point for this inquiry in efforts to understand and address the underlying factors creating and perpetuating issues with food production, distribution and access. This entails a holistic view that prioritises the perspectives and needs of those who produce, distribute, and consume food, encompassing "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" [25].

Unhealthy food environments

Food environments are the physical, economic, policy and sociocultural conditions that create and shape people's dietary patterns and nutritional status [26]. Unhealthy diets are driven by food environments in which the production and promotion of unhealthy products are prioritised. In their current forms, Australia's food environments encourage the consumption of unhealthy products and inhibit access to healthy foods (for a comprehensive overview of the healthiness of food environments in Australia, see Australia's Food Environment Dashboard).

As a result, Australians ordinarily consume too many unhealthy, processed foods and beverages [27-30], with poor diet more common with greater socioeconomic disadvantage [27, 29].

While poor diet is an outcome of social and economic inequality, it cannot solely be attributed to issues around the relative affordability of a healthy diet [19, 31-34]. Neither is it simply about personal choice, as dietary preferences and intakes do not exist in isolation. The food that is available, chosen and consumed is heavily influenced by the contexts in which people engage with food systems, particularly within 'food deserts' (areas with limited access to affordable, nutritious food) and 'food swamps' (areas with a large proportion of unhealthy food outlets) that are more common in socioeconomically disadvantaged areas of Australia [35]. The George Institute recommends that attention be given to improving food environments to ensure individuals and households are supported to follow a diet that includes enough nutritious food.

There are existing regulatory frameworks the NSW Government could use to improve food and water security and food environments. For example, the objectives of the *Food Act 2003* are to ensure food for sale is both safe and suitable for human consumption, to prevent misleading conduct in connection with the sale of food and to provide for the application of



the Australian and New Zealand Food Standards Code [36]. Despite being historically concerned with food safety, this legislation has previously been amended to focus on dietrelated non-communicable disease (e.g. in 2011, requiring fast food restaurants to provide nutrition information on displays and labels) and could be further amended to better support healthy, sustainable, and equitable food systems in NSW. Additionally, the *Environmental Planning and Assessment Act 1979* aims to promote the social and economic welfare of the community and increase the opportunity for community participation (among other objectives). However, communities are historically ignored in their objections to new fast-food outlets they believe will be detrimental to the welfare of their communities [37-39]. There are opportunities for planning regulations to support the development of healthier food retail outlets. There also may be opportunities to improve water security under both the *Environmental Planning and Assessment Act 1979* and *Public Health Act 2010*, which have provisions regarding water safety and drinking water quality. The George Institute recommends that the NSW Parliament investigate the use of existing legislation to promote the availability and accessibility of healthy food and water.

Governments and private industry have considerable influence over, and thus potential to improve, food environments. However, the food industry, by and large, has not demonstrated a commitment to improving the healthiness of these environments of their own accord [40-43]. While the NSW Government has been assessed as one of the better performing jurisdictions to date in enabling and promoting healthy food environments, there are still many opportunities for improvement [44]. Through its role in the national food regulatory system, the NSW Government also has an opportunity to influence other key recommendations set out for the Commonwealth Government [44] that would substantially improve food environments in NSW.

The impact of COVID-19 on food security and nutrition

The COVID-19 pandemic has worsened food insecurity for many Australians [13, 15, 45]. Dietary patterns have been affected, with various studies reporting both positive and negative changes to behaviours [46-50]. During lockdowns, food retailing sales increased, while purchases of foods prepared outside of the home necessarily decreased [51]. Alongside this, there was a surge in the use of food delivery platforms [52], which are overwhelmingly skewed towards the provision of unhealthy foods [53]. Furthermore, there is evidence that food and alcohol corporations leveraged the pandemic to further market and promote unhealthy products [54-57], for instance by utilising themes of shared hardship to justify increased purchases of "treats" such as alcohol and fast food or encouraging the consumption of alcohol and unhealthy foods as a coping mechanism.

Supermarkets are the primary source of foods and beverages for Australians [51] and are highly influential in shaping dietary patterns [58]. The current supply chain and staffing crises affecting supermarkets, leading to well-documented shortages on shelves and particularly of fresh produce, are impairing the accessibility and affordability of healthy foods, compromising food security. This is particularly true in regional and remote settings, where food shortages became common place during the COVID-19 pandemic. The George Institute recommends that local, state and federal governments and agencies ensure the cost of food in remote communities is not more expensive than in other parts of the country, including through subsidies to local and independent stores.

Although economic disruption impacted the availability and affordability of healthy foods for some [13, 59], the (temporarily) increased government financial and social supports provided



during the early stages of the pandemic improved access to healthy and nutritious foods for many [31, 32, 60, 61]. With the withdrawal of these improved supports, however, healthy foods likely became inaccessible to a significant proportion of the community once more.

The lack of additional supports for those in situations of greater disadvantage, whether temporarily or over a longer period, condemns households to food insecurity as well as other adverse social and health outcomes. As such, The George Institute recommends that the NSW Government institutes broad-based, accessible and direct financial support for individuals and households continuing to be affected by the COVID-19 pandemic in the short- and mid-term, as well as working towards improving social and financial supports for individuals and households experiencing disadvantage in the longer term.

Understanding food insecurity

Key to addressing food insecurity is accurate assessment of the extent of the problem [62-64]. The NSW Population Health Survey indicator for food insecurity has been noted for its brevity, lack of validation and sole focus on quantity, which "may not adequately capture the intensity and complexity of food insecurity" [65]. However, it is not clear whether even this deficient indicator is currently being used at all, as there do not appear to be any questions on or analysis of food insecurity in the most recent questionnaires [66] and reporting [67]. A review focussing on assessments of food insecurity in Australia has identified considerable deficiencies in approaches, which were described as leading to an inadequate "understanding of the true prevalence and severity of food insecurity in Australia" and contributing to a lack of attention to the issue [63].

A range of different, comprehensive tools are available to measure food security/insecurity [65] . More complete assessment items, as trialled in various Australian settings [6, 8, 10, 13-15, 62, 68], may appropriately reduce the risk of underestimating the real prevalence of food insecurity. The George Institute recommends that the NSW Government conducts regular assessments of the prevalence and distribution of food and water insecurity, using more rigorous and comprehensive tools than previously applied to capture the quantity and quality of foods and the severity of food insecurity. In addition, The George Institute recommends that a public dashboard displaying assessments of communities' food and water security be created and regularly updated.

Building on assessments of the prevalence and distribution of the problem, the complex factors underpinning food insecurity (beyond socioeconomic disadvantage and regular or intermittent financial pressures) must be further investigated through qualitative research. For example, previous research has identified that in regional and remote areas there may be issues with transportation [18], and a lack of time, poor food literacy or inadequate storage and cooking facilities, impacts on capacity to follow healthy dietary patterns [4, 69-72]. In addition, previous and ongoing experiences of discrimination and racism can affect interactions between First Nations people and food and health systems [73], and the inability to access culturally relevant food may pose additional barriers [4, 22, 73]. The George Institute recommends that extensive qualitative research with people experiencing food insecurity be conducted by the NSW Government to better understand the complex factors leading to and perpetuating food and water insecurity.

The George Institute further recommends that any responses to food insecurity be codesigned directly with people with lived experience of food insecurity. The perceptions of people affected likely differ to those of policymakers and program designers [4].



Understanding these will not only help ensure that the underlying determinants of food insecurity are recognised, but also that the affected people inform and are empowered by responses to them, which will improve the chances of success. The experiences of people affected by food and water insecurity make them experts in food insecurity and this expertise is invaluable [74].

Improving the consumption of nutritious foods

Action to achieve the comprehensive conception of food security discussed previously should focus on several key components of food environments, including production and manufacturing, availability and (physical, social and economic) accessibility, and retailing practices (for example marketing and promotions). Improving this enabling context is essential to ensuring that healthy food is provided, selected and consumed. The George Institute recommends that the NSW Government takes immediate action on those recommendations within the Healthy Food Environment Policy Index report that were assessed as having seen little or only some progress to date [44]. A recent review of international evidence highlighted a range of other initiatives to support healthier food environments that also warrant further consideration [75].

While unhealthy food environments remain largely unconstrained, the capacity and propensity of individuals and households to realise healthy dietary patterns must be encouraged and supported in other ways. Individuals, households and groups identified as most at risk of food insecurity should be prioritised. The physical, social and economic accessibility of healthy food is a key concern and enhanced supports to comprehensively mitigate inequalities and improve access are sorely needed [7, 13-15, 72, 76]. International experiences demonstrate the effectiveness of policies and interventions that address the underlying social and economic determinants of food security [77] and should be considered in the NSW response to food security.

Other actions that aim to improve knowledge, skills and practices are also required [4, 69, 71, 72, 78]. The dignity, autonomy, empowerment and social inclusion of people experiencing food insecurity are also important factors [79, 80]. A reliance on food charity is insufficient to improve food security; while food banks are important to address acute shortages of food, they do not resolve the issues causing food insecurity [14], and international experience has highlighted their limited utility and sustainability [77], although they may be valuable sites for the delivery of additional programs [81-83].

Some recent projects in Australia that have successfully improved access to and consumption of healthy foods include:

- An initiative that supported stores in rural Victoria to sell fresh fruit and vegetables, which increased ranges and decreased prices [84]
- A trial of price discounts on healthy foods and beverages in stores in remote Northern Territory communities, which led to improvements in purchases of fruit, vegetables and bottled water [85]
- A four-week nutrition education program in Western Australia, which saw improvements in health and nutrition literacy, healthy food behaviours and diet [81, 82, 86, 87], particularly amongst participants who were Aboriginal or Torres Strait Islander [88]
- A six-week food security and literacy program in NSW and Victoria, which led to improvements in food security, food and nutrition knowledge and diet [83]



• A trial of the impact of increasing prices of unhealthy beverages in a store located in a hospital in Melbourne, which decreased sales of unhealthy beverages and increased sales of healthier beverages [89].

Specific strategies for rural, regional and remote communities that could be adapted to an Australian context were also identified in another recent review [90].

The George Institute recommends that the NSW Government investigates the potential to scale up food and water security projects that have proven effective in local trials and elsewhere, and appropriately resource any implemented projects to support success.

In addition, other innovative schemes that support access to healthy food should be investigated. As people experiencing food insecurity also often have greater difficulty managing their health needs, programs aligned with the burgeoning "food is medicine" concept [91] may be particularly promising for reducing both the prevalence of food insecurity and the burden of disease on individuals, communities and health systems. This encompasses interventions which aim to directly encourage and facilitate healthier dietary patterns such as produce prescriptions, medically-tailored meals and food pharmacies [91, 92]. The George Institute recommends that the NSW Government leverages the healthcare system to trial programs that aim to support patients experiencing food insecurity with managing other diet-related health conditions.

Food security and equitable access to food for First Nations peoples

Only through understanding and respecting what the paradigm of health and food and water systems means for diverse cultures can impactful actions to address food and water security be conceived and developed. Unfortunately, too often there is a lack of recognition or understanding of Traditional Knowledges outside of a Western paradigm. This top-down approach results in solutions that are not fit for purpose and result in solutions that do not go to the heart of addressing food and water security and equitable access to food for First Nations peoples. First Nations Elders and local Aboriginal Community Controlled Organisations (ACCOs) are best placed to lead the development of culturally appropriate and sustainable solutions that empower and strengthen their communities. The George Institute also recommends that the NSW Government provides funding and resources to ensure local ACCOs can be effectively engaged in both long-term planning and short-term crisis responses to food and water security.

In First Nations communities, disadvantage in precarious food and water systems is being exacerbated by climate change. This disadvantage leads to increased food and water insecurity, a key contributor to poor diets, resulting in higher rates of non-communicable diseases. Food and water systems in First Nations communities are vulnerable to a range of environmental and geographic factors. Climate change and disaster events, including bushfires, drought, tropical cyclones, rising sea levels and a warming ocean, continue to expose and worsen food and water insecurities. Geographic constraints, including the remoteness and relative isolation of many First Nations communities, have further limited the affordability and availability of healthier foods [93]. The George Institute recommends that the NSW Government supports the Commonwealth Government in developing a Food and Water Security Strategy that prioritises support for community-led responses to food and water security and aligns with the Universal Declaration of Human Rights. The George Institute also recommends that the Food and Water Security Strategy addresses the broader



social determinants of health, in line with a First Nations holistic approach to health that goes beyond physical well-being to encompass social, emotional and cultural well-being.

2. Reducing food waste and destruction

The George Institute understands the importance of reducing food waste and making sure everyone has access to a healthy balanced diet. There has been a growth in surplus food redistribution schemes to address these problems over the last few decades. However, it is important that such schemes do not become institutionalised, leading to a two-tier food system. As noted previously, food charity will not improve food security by itself, and attention must be dedicated to the social and economic causes of food insecurity.

The NSW government should strive to ensure that all people have access to adequate income and facilities to secure a healthy diet for themselves and their families. Such schemes are most effective if they are geared towards supporting people to obtain adequate housing and incomes and access appropriate infrastructure and support, rather than just providing free food, in line with our previous comments on actions to successfully achieve a comprehensive conception of food security.

4. Preserving productive land and water resources

11. Consideration of Indigenous food and land management practices

The George Institute recognises the important connection to land and Country in First Nations communities, and the subsequent impacts that disruption to this connection have on food security and health outcomes. As such, this submission has combined terms of reference 4 and 11 in recognition of the interrelated issues raised by these two terms of reference, and highlights a specific case study whereby these challenges are being addressed.

Strong connection to land and Country

The continued connection between First Nations people and Country has allowed communities to thrive and survive over millennia. However, this connection has been eroded due to the ongoing impacts of colonisation in Australia. The gradual damage to this strong connection between First Nations peoples and Country, where Country includes the complex food and water systems that embody the social, emotional, cultural, spiritual and physical aspects of First Nations Health and well-being [94], has had enormous impact on the nutrition, health and well-being of remote communities [95]. The George Institute recommends that the ongoing effects of colonisation, including racism, intergenerational trauma, stolen generations and loss of land, be addressed in relation to their effects on cultural continuity and well-being, as part of a holistic approach to tackling food and water security.

The continuing impact of colonisation has adverse outcomes for food and water systems and food knowledges, leading to severe health inequities and disproportionate rates of nutrition-related health conditions for First Nations peoples [96]. In particular, food insecurity is associated with worsening nutrition and increased chronic disease [97].

First Nations peoples experience a disproportionate burden of chronic disease, and the social determinants of health are key drivers. 70% of the disease burden gap between First Nations peoples and non-Indigenous Australians is attributable to chronic diseases [94].



Environmental changes (including bushfires, drought and damage to land and water systems as a result of agricultural and mining practices) and events such as the COVID-19 pandemic have exacerbated these problems, further disrupting food and water supplies and highlighting the need to prioritise community-led solutions in planning processes. It is crucial that governments collaborate with First Nations communities to address these challenges.

Degradation of rivers has impacted food security

As part of the Yuwaya Ngarri-li (YN) partnership between the Dharriwaa Elders Group and UNSW, The George Institute has been working closely with the remote community of Walgett, which provides a strong example of a community that has been trying to address these issues. Walgett is located where the Namoi and the Barwon Rivers meet in far North-West NSW – on a fertile flood plain benefitting from many surface waterways and connecting groundwaters. The community has a strong connection to land and water. The degradation and drying up of the rivers over time has had increasingly devastating effects on sources of food and water for the local community, including access to fish and yabbies from the river, as well as clean water for drinking and water for vegetable gardens. During conditions of low flow in rivers, Walgett sources water from the Great Artesian Basin "Bore" groundwater for drinking water and concerns have been raised about the potential additional health risks of the high sodium levels [98]. In addition, higher sodium levels, coupled with water restrictions, reduces the output of local vegetable gardens operated by Aboriginal Controlled Community Organisations.

Progress of the Yuwaya Ngarri-li partnership

In 2017, the YN partnership engaged The George Institute and the Global Water Institute at UNSW, to support the community in highlighting the health risks of consuming this high salt "Bore" water (320mg Sodium/Litre) and to support advocacy for solutions at local and state government levels [99, 100]. Ongoing discussions with Walgett Elders and community members throughout 2018 confirmed a strong interest in increasing local community control and strengthening of programs to build community resilience for food and water security.

In 2019, the YN partnership launched the Walgett Food and Water for Life Project (FW4L) to develop community-led innovative solutions to food and water security. The importance of genuine partnership, leadership and engagement of the Walgett community is central to the FW4L, with the community identifying the need to transform food and water systems to ensure a sustainable, secure supply of affordable and nutritious food and safe drinking water on their Country. Whilst all communities are different, the Walgett community's approach to tackling food and water security provides a specific case study for other communities in Australia.

Community concerns about cost of living and high cost of fresh fruit and vegetables

In April 2019, a community forum was held with key stakeholders and around 60 community members. The cost of living, including the high costs of buying fresh fruit and vegetables locally, was raised as a major problem in Walgett. Many identified the implications of the drying up of local rivers and the related quality of the local drinking water as significant concerns.



Vulnerable food systems and lack of institutional structures to maintain food security

A series of challenges has beset the Walgett community since the FW4L was established, exposing the vulnerability of the current food system and the lack of institutional structures to maintain food security in Australia. In July 2019, Walgett's main food store, the local Independent Grocers' Association (IGA) burnt down, and access to food was challenging due to the nearest supermarket being 80 kilometres away and supplies in the temporary pop-up store restricted and expensive.

Soon after, there was a breakdown at the local water treatment plant, which caused Walgett to lose its water supply and prevented the use of air conditioners during a heatwave in January 2020. While the NSW Government installed a desalination system and procured two deliveries of bottled water the desalination plant is not operational leaving the community at risk of poor drinking water and severe water shortage during droughts. This is not cost effective, efficient or sustainable, and it is imperative that a longer-term solution that is designed fit-for-purpose to provide safe drinking water is established. The impacts highlight the need for government planning to include minimum water allocation for community gardens, particularly in remote settings, so that food security can be safeguarded.

In March and April 2020, COVID-19-related panic buying in cities disrupted food supplies further [101]. The Walgett IGA reopened in November 2020, but reported consecutive deliveries that were less than 30% of stock ordered, as the stock was prioritised to meet extra demand in cities and urban centres. As the IGA is the only store in Walgett, and due to travel restrictions during the COVID-19 outbreak, this further increased food insecurity and led to reports of residents going without food and water.

These incidents exposed and exacerbated vulnerabilities in the food supply chain, as well as the lack of effective institutional structures and co-ordination for ensuring the community had adequate access to food in crisis situations. For example, ACCOs are not automatically members of the Local Emergency Planning Committees and have to be invited to attend meetings. This prevents community members from actively contributing to community concerns and therefore risks information about community needs not reaching the ears of emergency agencies. This in turn highlighted the absence of appropriate response strategies and plans to ensure sustainable food and water security in Walgett.

Walgett is an important example of how food and water insecurity impacts local communities. Whilst the story of the supermarket burning down is unique to Walgett, unfortunately the rest of the story is true of many rural and remote communities around Australia. It is also an example of how community-led approaches can build innovative solutions if governments are prepared to listen and share decision-making resources.

Recommendations for working with First Nations communities

The George Institute recommends:

 Information sharing between government and communities be a two-way exchange guaranteeing that community perspectives and recommendations will be acted upon and respected, and the community has decision-making authority to ensure government accountability, respect and reciprocity, transparency and responsiveness



- The NSW Government works with and supports the Commonwealth Government in funding the development and implementation of community-led strategies to address food and water security.
- Aboriginal Community Controlled Organisations, First Nations community members and Elders are involved at all levels of decision making and implementation, prioritising local expertise, local needs and local governance structures in both longterm planning and emergency responses to food and water security.
- Remote community stores be supported through local, community-led strategies that address food and water security not a one size fits all strategy.

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