



Submission to the Victorian Parliamentary Inquiry into Food Security

The George Institute for Global Health

26 July 2024

Acknowledgement of Country

The George Institute for Global Health acknowledges the traditional owners of the lands on which we work, and in particular the Gadigal people of the Eora Nation on which our Sydney office is situated. We pay our respects to Elders past, present and future. We value and respect the ongoing connection of Aboriginal and Torres Strait Islander peoples to Country and seek to work in partnership with communities to deliver better health outcomes.

About The George Institute for Global Health

The George Institute for Global Health (The George Institute) is a leading global medical research institute, founded in Sydney, Australia, and with major centres in China, India and the UK. Our mission is to improve the health of millions of people worldwide, particularly those living in resource-poor settings, by challenging the status quo and using innovative approaches to prevent and treat non-communicable diseases.

Our Food Policy Team works in Australia and overseas to reduce death and disease caused by poor diets. 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 Gunnu-maana (Heal) Aboriginal and Torres Strait Islander Health Program drives meaningful and ethical research and advocacy to transform the health and wellbeing of First Nations peoples and communities. Guunu-maana is led through Aboriginal and Torres Strait Islander ways of knowing, being and doing to generate evidence that privileges Indigenous knowledges and translates to actions that empower peoples and communities.

Introduction

The George Institute welcomes the opportunity to provide a submission to the *Victorian Parliamentary Inquiry into Food Security*. In responding to the Terms of Reference, we will focus on research we have conducted, or been involved in, that focuses on the issues of food and water security. While our research is not specific to Victoria, we believe the issues raised, and evidence presented, are highly relevant to the Inquiry.

In this submission, we have focused on the powerful relationships that Aboriginal and Torres Strait Islander peoples have to food and food systems through connection to Country. We have drawn on a strengths-based approach to highlight the need for nutrition and food security reform, focused on the cultural determinants of health. We also highlight the work led by the Dharriwaa Elders Group in Walgett, NSW, to show the interconnectedness of water security and food security and priorities for successful community interventions to address these issues. Finally, we have presented our innovative research on “Food as Medicine” as an option to lower the cost of food and improve access to affordable nutritious food for those facing food insecurity.

The George Institute is also responding to the Australian Government's consultation on a National Strategy for Food Security in Remote First Nations Communities. We understand this Strategy will be a partnership with State and Territory governments and encourage the Committee to consider opportunities for this Inquiry to align with the National Strategy.

Recommendations

The George Institute recommends that the Legal and Social Issues Committee:

1. Adopt a **strengths-based approach** to understand the issues of nutrition and food security for Aboriginal and Torres Strait Islander peoples, recognising the intrinsic connection to culture for health and wellbeing;
2. Prioritise examples of Aboriginal and Torres Strait Islander **self-determination and leadership** in nutrition and health when considering evidence;
3. Integrate **water security** as a component of food security throughout the Inquiry;
4. Ensure that recommendations made on addressing food and water insecurity for Aboriginal and Torres Strait Islander peoples are **community-led strategies**, and focus on the **social and cultural determinants of health**, and;
5. Consider an innovative role for the healthcare system to prescribe **food as medicine**, to lower the cost of food and improve access to affordable, nutritious food.

I. Terms of Reference 1: The impact of food security on physical and mental health; and poverty and hardship.

Aboriginal and Torres Strait Islander peoples have a powerful and enduring connection to land, sea and Country

According to the Food and Agriculture Organisation of the United Nations, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"(FAO 2002). The concept of food security has evolved – from a narrower definition on chronic hunger -- to recognise the importance of food availability, accessibility, acceptability and adequacy.

Aboriginal and Torres Strait Islander peoples have a strong connection to food and food practices through their sovereign relationship with Country. (Wilson, Wilson & Delbridge et. al. 2020). For thousands and thousands of years, Aboriginal and Torres Strait Islander peoples have kept their cultures strong and resilient, to nurture health and wellbeing (The Lowitja Institute 2020). Connection to Country, including through accessing traditional foods and food practices, is considered central to an Aboriginal and Torres Strait Islander holistic view of health (The Lowitja Institute 2020). Prior to colonisation, Aboriginal and Torres Strait Islander peoples lived an ecological lifestyle, with high levels of physical activity, nutrient-dense diets and sophisticated agricultural and aquacultural practices. (Wilson, Wilson & Delbridge et. al. 2020). Traditional foods remain an important part of contemporary

Aboriginal and Torres Strait Islander culture and identity and evidence suggests that accessing traditional foods can protect against food insecurity (David, Wilson & Yantarrnga et. al. 2018).

Colonisation had, and continues to have, profound and detrimental impacts on Aboriginal and Torres Strait Islander communities, including on food security. Colonisation disrupted healthy traditional diets for Aboriginal and Torres Strait Islander peoples, rich in bush foods and vegetables, and lean animal protein (Dharriwaa Elders Group & UNSW 2019). Past and ongoing colonisation has affected the intimate relationship that Aboriginal and Torres Strait Islander peoples have with Country, including food and food practices, through land clearings, introduction of foreign animals, and the forced use of rations (Wilson, Wilson & Delbridge et. al. 2020). Complex social determinants, including those related to the ongoing impacts of colonisation, have prevented many Aboriginal and Torres Strait Islander peoples and communities from accessing safe, healthy, and affordable food (Sherriff, Kalucy & Tong et. al. 2022). Further, the cultural determinants of health, including self-determination, First Nations knowledges, cultural expression and Connection to Country, have been continually neglected by successive governments in response to food security issues.

Food insecurity has long-term health impacts (Dharriwaa Elders Group & UNSW 2019). Aboriginal and Torres Strait Islander peoples experience diet-related chronic diseases such as type-2 diabetes and cardiovascular disease, at much higher rates than non-Indigenous Australians (AIHW 2012). There is no evidence that diseases such as diabetes or cardiovascular disease affected Aboriginal and Torres Strait Islander peoples maintaining traditional diets before colonisation (Wilson, Wilson & Delbridge et. al. 2020). For remote communities, including Aboriginal communities, access to high-quality, fresh and nutritious food is limited by supply. Food and other groceries are often 50 per cent more expensive in remote communities compared with regional supermarkets and are often of poorer quality (DPMC 2024).

New ways of thinking about improving Aboriginal and Torres Strait Islander health are needed, that prioritise the cultural determinants of health including self-determination, First Nations knowledges, cultural expression, and Connection to Country (Lowitja Institute 2020). Aboriginal and Torres Strait Islander peoples, as the oldest continuous living civilisations in the world, hold immense expertise in designing and leading solutions to health challenges, including nutrition and food security. Progress in improving food security for Aboriginal and Torres Strait Islanders demands a genuine commitment to collaboration from policymakers, involving a process where community define their priorities and lead the design and delivery of policies and programs (Lowitja Institute 2020).

We urge the Committee to embed this strengths-based approach into its Inquiry into food security when considering evidence related to Aboriginal and Torres Strait Islander peoples, whilst also considering the responsibility of governments. We also encourage the Committee to seek out the numerous case studies and examples of Aboriginal and Torres Strait Islander leadership and self-determination to improve health and wellbeing, through the nurturing of the cultural determinants of health.¹ As described in the below case study of Walgett, Aboriginal Community-Controlled Organisations continue to be at the forefront of community governed service delivery reform.

¹ For example: https://www.lowitja.org.au/wp-content/uploads/2023/05/CtG2020_FINAL4_WEB-1.pdf

Food and water for life: case study of the Yuwaya Ngarra-li' partnership, Walgett

Aboriginal Community-Controlled Organisations and community members in Walgett, located in north-west NSW, have been long concerned about the intolerable levels of food and water insecurity in their town. A community-driven partnership – called 'Yuwaya Ngarra-li'—led by the Dharriwaa Elders group with the University of New South Wales and others, including Walgett Aboriginal Medical Service, has been acting on Walgett community concerns about food, nutrition and water.

Yuyaua Ngarra li's 'Food and Water for Life Program', aims to address food and water insecurity, poor drinking water, costly and poor-quality food, and the associated health issues in Walgett. The degradation and drying up of the rivers over time has had 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. Due to the quantity and quality of river water, Walgett uses "bore" groundwater from the Great Artesian basin to supply the town with drinking water. UNSW experts and medical researchers from the George Institute have found concerning levels of sodium in Walgett bore water supplies. Walgett tap water is 15 times higher in sodium than medical practitioners recommend for people with severe hypertension or renal and heart issues, which is concerning given the high incidence of chronic disease in the community (Dharriwaa Elders Group & Walgett Aboriginal Medical Service 2023).

In 2020, the NSW Government installed a reverse osmosis plant to remove the sodium and improve the taste of tap water, after successful advocacy from the Dharriwaa Elders Group, supported by The George Institute. However, this plant had to be decommissioned as there was no place for the wastewater (brine), so the town was left again to rely on poor-quality bore water with high levels of sodium and a slimy texture (ABC 2023). The Dharriwaa Elders Group have since paid for drinking water kiosks (which rely on reverse osmosis) in the main street of Walgett to provide safe, free water for the community, who are spending significant amounts of money on bottled water. However, a long-term solution to Walgett's water insecurity has not been identified.

A survey of Walgett Aboriginal community members undertaken by UNSW and The George Institute in partnership with the Dharriwaa Elders Group and Walgett Aboriginal Medical Service found that water insecurity was having severe negative effects on household expenses and food security. Some respondents reported spending up to \$50 a week on bottled water to avoid using water from the tap which made it hard to afford healthy foods (UNSW 2023).

The case study of water insecurity in Walgett demonstrates the importance of integrating water security, including the health of the rivers, into policies and government interventions on food security. Community involvement, including shared planning, decision-making and evaluation, must be prioritised in identifying and acting on community food and water security needs. The most effective programs integrate genuine community involvement and leadership at all stages and target the social and cultural determinants of health (Dharriwaa Elders Group & UNSW 2019).

II. ***Terms of Reference 2: Options available to lower the cost of food and improve access to affordable, nutritious and culturally appropriate food.***

Incorporating food and nutrition into healthcare: 'Food is Medicine'

Food can be a powerful tool in preventing and treating disease and can have a significant impact on physical and mental health (Nat Med Editorial 2023). There is growing momentum for dietary healthcare interventions that aim to address the rising burden of non-communicable diseases, associated with poor diets (Magliano, Peeters & Vos et. Al. 2009). 'Food is Medicine' programs incorporate the provision of healthy foods into the healthcare system to prevent, or improve, chronic diseases such as Type-2 diabetes, particularly for people experiencing food insecurity. This is an example of an innovative approach to improve access to affordable, nutritious, and culturally appropriate food, that also seeks to improve the integration of nutrition services into healthcare to tackle socioeconomic drivers of health inequity. Food insecurity exacerbates both the risk of diabetes and predicts worse outcomes among those with type-2 diabetes (Wu, Trieu & Coyle 2022).

The George Institute is leading ground-breaking research on 'Food is Medicine' programs in Australia, which incorporates the prescribing of healthy foods or meals, in the same way that doctors prescribe drugs (Downer, Berkowitz & Harlan 2020). "Produce prescription" is the provision of food or financial incentives to patients with diet-related conditions, referred to by a healthcare provider as part of their usual care.

Together with colleagues at the Royal Prince Alfred Hospital, The George Institute researchers found that when implemented over an initial 12-week period, a produce prescription program was related to substantial improvements in diet quality, reduced food insecurity, weight loss and improvements to blood lipid profile (Wu, Trieu & Coyle 2022). The trial involved participants who were culturally and linguistically diverse with lower incomes and high rates of unemployment – and as such, more at risk of food insecurity and diet-related diseases (Abouzeid, Philpot & Janus 2013). These initial findings highlight prescribing fresh food as a promising healthcare-based, innovative strategy to enable the consumption of foods in accordance with the Australian Dietary Guidelines and reduce diet-related health inequities. Evidence from the United States overseas shows that Food is Medicine programs improve food security, diet quality, hypertension, self-reported mental health and are cost-effective for the health system (Mozaffarian, Aspry, & Garfield, et. al. 2024).

Based on these promising findings, The George Institute is currently progressing two Food is Medicine randomised controlled trials among individuals with type-2 diabetes and assessing the health impact and cost-effectiveness of these approaches to improve blood sugar control and overall wellbeing of the program participants. One of these trials is investigating produce prescription, with a larger cohort of patients and involving more healthcare partners, and a longer period (26 weeks) of produce support.

The second trial is assessing medically tailored meals. Rather than fresh produce boxes, this approach involves the provision of pre-prepared healthy meals delivered to those with type-2 diabetes, with the meals nutritionally tailored to their health needs. Prescribing healthy meals offers patients a new way of accessing the foods they need and for many disadvantaged patients with chronic diseases this will also make healthy foods more affordable. The George Institute is in the early stages of a new pilot project with a meals-based food relief organisation to provide medically-tailored meals for people with type-2 diabetes facing food insecurity in Melbourne.

The George Institute is also planning a randomised-controlled trial comparing home fresh produce delivery to usual care for women during pregnancy, who are at risk of gestational diabetes. Women diagnosed with gestational diabetes during pregnancy are more likely to be later diagnosed with type-2 diabetes as well as increased risks of cardiovascular disease and chronic kidney disease (Abouzeid Philpot & Janus et. al. 2013). We also plan to conduct a food and nutrition insecurity prevalence survey among women who have been diagnosed with gestational diabetes at a large hospital in NSW.

Conclusion

As highlighted in this submission, recognising and respecting the cultural determinants of health are crucial components of any policy or program on food security for Aboriginal and Torres Strait Islander peoples. There is an urgent need to re-think approaches to policymaking on nutrition and food security, to prioritise Aboriginal and Torres Strait Islander peoples' holistic understanding of health and wellbeing, and how food and food systems relate to that. Importantly, this process must be led by Aboriginal and Torres Strait Islander peoples and communities, in authentic partnership with governments through shared decision-making, and equitable and sustainable funding arrangements.

We hope that the Committee will integrate water security into its deliberations on food security and pay particular attention to community-led strategies to improve food and water security for First Nations communities that draw upon local knowledge, values and culture.

This submission also highlighted the promising role that "Food as Medicine" can play through the health care system, to reduce food insecurity and improve diets for people at risk of or living with chronic disease. Our ongoing work will contribute to an evidence base, which we believe will show the potential for this healthcare innovation to improve the availability of nutritious and affordable food.

We welcome further engagement with the Committee on the work of the Inquiry.

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References

Australian Broadcasting Corporation 2023, 'Aboriginal elders to provide clean water for Walgett after NSW government short-term solution fails', accessed at: [Aboriginal elders to provide clean water for Walgett after NSW government short-term solution fails - ABC News](#).

Australian Government Department of Prime Minister and Cabinet 2024, 'National consultations begin to improve food security in remote First Nations communities', *Media Release*, accessed at: [National consultations begin to improve food security in remote First Nations communities | Ministers Media Centre \(pmc.gov.au\)](#).

Australian Institute of Health and Welfare 2012, 'Healthy lifestyle programs for physical activity and nutrition' Resource sheet no. 9 produced by the Closing the Gap Clearinghouse, accessed at: <https://www.aihw.gov.au/getmedia/b849c9fb-d4a0-4b1d-83dd-ffaf6de0386/ctgc-rs09.pdf.aspx?inline=true>.

David, G, Wilson, R, Yantarrnga J et al. 2018, 'Health Benefits of Going On-Country', report provided for The Lowitja Institute, accessed at: https://www.lowitja.org.au/wp-content/uploads/2023/05/Lowitja_Inst_Health_Benefits_OnCountry_report_WEB.pdf.

Dharriwaa Elders Group & UNSW 2019, 'Yuwaua Ngarra-li: Food Forum Report', accessed at: [Yuwaua Ngarra-li Food Forum Report 27 June.pdf \(dharriwaaeldersgroup.org.au\)](#).

Downer, S, Berkowitz, S, & Harlan, T et al. 2020, 'Food is medicine: actions to integrate food and nutrition into healthcare', *The BMJ*, vol. 369. <https://doi.org/10.1136/bmj.m2482.23>.

Food and Agriculture Organisation of the United Nations 2002, 'Chapter 2: Food security: concepts and measurement', accessed at: <https://www.fao.org/4/y4671e/y4671e06.htm>.

Magliano DJ, Peeters A, & Vos T et. al. 2009, 'Projecting the burden of diabetes in Australia – what is the size of the matter?' *Aust N Z J Public Health*, vol. 33, no. 6, doi: 10.1111/j.1753-6405.2009.00450.x.

Mozaffarian, D, Aspry, K, & Garfield, K et. Al. 2024, "Food Is Medicine" Strategies for Nutrition Security and Cardiometabolic Health Equity': *JACC State-of-the-Art Review*. *JACC* vol. 83, no. 8, pp 843–864, <https://doi.org/10.1016/j.jacc.2023.12.023>.

Nature Medicine Editorial 2023, 'Food as medicine: translating the evidence'. *Nat Med* vol. 29, pp. 753–754, <https://doi.org/10.1038/s41591-023-02330-7>.

The Lowitja Institute 2020, 'We nurture our culture for our future, and our culture nurtures us', A report for the Close the Gap Committee, accessed at: https://www.lowitja.org.au/wp-content/uploads/2023/05/CtG2020_FINAL4_WEB-1.pdf.

UNSW 2023, 'New YN report on the findings from the Walgett food and water security survey, accessed at: [New YN report on the findings from the Walgett food and water security survey \(unsw.edu.au\)](https://www.unsw.edu.au/news/stories/2023/05/10/new-yn-report-on-the-findings-from-the-walgett-food-and-water-security-survey).

Wilson, A, Wilson R, & Delbridge R et. al. 2020, 'Resetting the Narrative in Australian Aboriginal and Torres Strait Islander Nutrition Research, *Current Developments in Nutrition*, vol. 4, no. 5, DOI:<https://doi.org/10.1093/cdn/nzaa080>.

Wu, J, Trieu, K, Coyle, D., et. al. 2022, 'Testing the Feasibility and Dietary Impact of a "Produce Prescription" Program for Adults with Undermanaged Type 2 Diabetes and Food Insecurity in Australia', *The Journal of Nutrition*, vol. 152, no.11, pp. 2409–2418, <https://doi.org/10.1093/jn/nxac152>.