

Growing our future: Introducing the Pacific School Food Network to support healthy school food and nutrition environments for better nourished children in the Pacific Islands

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Commentary

Food systems in the Pacific Islands (P.I.) are transitioning from local, traditional diets to those with low fruit and vegetable intake and largely based on ultra-processed foods that are often, but not always, imported. Alongside changes in diet and health outcomes, there is a loss of traditional and sociocultural dimensions of food, resulting in poor quality diets in many P.I. populations, including children. Besides high rates of overweight and obesity, in some areas stunting rates are up to 48.4%,¹ and prevalence of anaemia (5–14 years) as high as 45%.² After many years of limited multisectoral action and effort to enact sustainable change across policy and practice, there is growing interest in improving school food and nutrition environments (SFE) in the region.

SFE offer an entry point to reach children, parents, school staff and the wider community to improve food consumption behaviours and can include relevant policy and standards, provision of nutritious food in and near schools, nutrition education and complementary

activities, for example integrated curriculum using school gardens for practical learning experiences.³

A dearth of research and evidence, due to geographical location, constrained human, financial and physical resources, and lack of coordination, is a critical barrier to the development of regional policies and practice conducive to healthier SFE.⁴ Where policies exist at a national or local level, they are not well monitored, often leading to poor compliance.^{4–5} Additionally, limited standards are used to ensure that food provided in and near schools is nutritious and safe.

Schools can support nutritious food choice, through provision of healthy food in school meals and in canteens/tuckshops. School feeding programmes, like those in Palau, Nauru and planned for Kiribati, act as a crucial social safety net, ensuring children have access to at least one nutritious meal a day, and incentivise attendance, especially for girls. Given global evidence of the impact of similar programs,⁶ these could improve food intake and health, and enhance educational outcomes for generations to come. Expanding these programs could enhance social protection and support local livelihoods, by better linking school food provision from local smallholder farmers⁷ as recommended in the Global Action Programme (GAP) for

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Food Security and Nutrition in Small Island Developing States (SIDS).⁸ Currently, limited healthy food options are available within many schools, particularly in canteens/tuckshops, while unhealthy foods are often directly marketed by vendors and readily accessible to students within and outside school grounds.⁴

As nutrition transition continues in P.I., developing food literacy; the skills, knowledge and behaviours required for healthy food choice,⁹ through well-developed and delivered, and contextually appropriate curriculum, can support children to navigate food environments as they grow and increase awareness of the link between nutrition and health. This may foster stronger connections between communities and food systems, through promotion of healthy, including organic, food production and preparation activities. This may assist with preservation of traditional elements. For example *Vanua* in Fiji is the land, sea, resources, people and spiritual connectedness, demonstrated through dependence on and sustainable use of natural resources with traditional knowledge for food security. Enhanced education, and engaging teaching tools such as school gardens can encourage youth to choose agriculture as a preferred profession, reducing rates of maritime/rural emigration.

While global evidence shows healthy SFE have a positive, multi-layered impact on children and their local communities, there is no evidence for what model would work best for the P.I.⁴ The region's unique and often challenging contexts⁴ mean no one school-based strategy is likely to significantly change the health of P.I. children – country context specific solutions are required.

Against this backdrop of limited capacity, coordination, effort, research and evidence, the Pacific School Food Network (PSFN) was formed (panel). Through a regional coordinated and multisectoral approach, the PSFN focuses on policy, practice, and action, and addresses recommended actions in the GAP⁸ that aim to foster healthier school food environments. This will accelerate action on food and nutrition security, a key pillar of the SAMOA pathway.⁸ The PSFN also supports P.I. on a key recommendation of the **SIDS Summit for Health**, held in June 2021, that member states *implement appropriate policies and actions to create healthy, safe and sustainable food environments with a focus on healthy, safe and sustainable school food environments*.¹⁰ Further, the PSFN provides a regional platform for collaborative action in the aftermath of the UN Food Systems Summit, where improving school food is the focus of a new School Meals Coalition. The establishment of the PSFN is timely. We call on relevant government and agency staff, researchers, and school staff to consider joining the PSFN to help transform school food systems and the health and wellbeing of P.I. children, now and for generations to come.

Panel

The Pacific School Food Network

The vision of the Pacific School Food Network (PSFN) is to improve the health of Pacific Island children, their families and their communities through healthier school food and nutrition environments.

The idea for a PSFN was started by a small group of Pacific school feeding advocates at the Global Child Nutrition Foundation (GCNF) Forum in December 2019. Prior to the Forum, two regional studies explored the current state and capacity for school nutrition education (2018) and school food programmes (2019) in 14 P.I. A key recommendation from this work was the establishment of a mechanism to support collaboration and sharing of resources and experiences. As a recently developed network, the PSFN is currently supported by a partnership of stakeholders and their organisations. As the PSFN expands, we envisage this to occur as an independent entity and the network eventually being Pacific Island State-led and driven.

The PSFN is growing with members from government, UN agencies, academia, and NGO's representing the areas/sectors of agriculture, biodiversity, education, health, natural resource management, school nutrition and sustainable development involved. However, while there is now a concerted effort to focus on this important area and an opportunity as we move on from the COVID-19 pandemic to transform food systems, there is still an urgent need to address a lack of awareness, capacity, operational budgets and other constraints that can currently limit the provision of healthy food options, and the need for standards to guide food production and provision in and near schools in our Pacific Islands region.

From our knowledge, the PSFN is the only cross-country regional mechanism in the Pacific specifically focused on the issue of school food and nutrition environments. We expect that the PSFN, partnering with and alongside ongoing relevant initiatives including on NCD and diets, will help define future entry points, identify research/evidence gaps and priority areas of future investment in our region. Members of the PSFN are planning a situational analysis to explore the current state and work of regional forums, and how we can best complement these. An outcome of this situational analysis will be a deeper understanding of all relevant regional forums/initiatives that pertain to the PSFN, and a decision on how we best collaborate/interact with these and coordinate this activity. However, the PSFN intends to reach beyond policy and will have a primary focus on practice and action. Within the network we currently have several working groups; research, education and capacity building, advocacy and policy, and communications, led by experts to facilitate networking and collaboration, through online and in-person events. As an appropriate platform to share good practices, lessons learned, and valuable experiences, the PSFN expects to help national authorities and their partners to better inform decision-making and to improve policies and programmes.

How to get involved

Stakeholders who are interested in learning more or joining the PSFN can find more information at www.pacificschoolfoodnetwork.org.

Authorship

Sarah Burkhart and Danny Hunter led the literature review and writing, and revision. Pragya Singh, Jessica Raneri, Ann Hayman, Sefano Katz., Ulamila Matairakula, Clarissa Mackay, Bridget Horsey, Steven Underhill, Ateca Kama, Josephine Maelaua, Brynn Demei, Arlene Mitchell, Mamta Gurung Nyangmi, Tebwaatoki Taawetia, and Tabera Tekatu, contributed to the writing process and revision/editing of the commentary.

Declaration of interests

Dr Sarah Burkhart has received funding from the Food and Agriculture Organization of the United Nations for projects related to school food and nutrition education programmes and is a founding member of the Pacific School Food Network. Dr Pragya Singh is a member of the Pacific School Food Network. Ms Jessica Raneri is engaged as a full-time nutrition sensitive agriculture advisor to ACIAR. Ms Ann Hayman is a consultant; Food Safety and Nutrition for the Food and Agriculture Organization of the United Nations, was supported by the Food and Agriculture Organization of the United Nations for participation at the Global Child Nutrition Forum 2019 and is a founding member of the Pacific School Food Network. Mr Sefano Katz is a founding member of the Green Schools Program in Fiji. Ms Ulamila Matairakula works with the Pacific Blue Foundation. Mrs Ateca Kama is a member of the Pacific School Food Network. Ms Arlene Mitchell's organisation receives grants and donations from numerous entities

and individuals, none however have any direct connection to this work. All other authors declare no conflict of interest.

References

- 1 FAO, IFAD, UNICEF, WFP, WHO. The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all. FAO, Rome 2021 (Accessed 15 September 2021). <http://www.fao.org/publications/sofi/2021/en/>
- 2 National Food and Nutrition Centre, Ministry of Health and Medical Services. National Nutrition Survey Dashboard 2014-2015.
- 3 UNSCN. Schools as a system to improve nutrition: A new statement for school-based food and nutrition interventions. 2017 (Accessed 15 September 2021). <https://www.unscn.org/uploads/web/news/document/School-Paper-EN-WEB-nov2017.pdf>.
- 4 FAO. School nutrition education programmes in the Pacific Islands scoping review and capacity needs assessment - Final report. FAO, Apia 2019. (Accessed 10 September 2021). <http://www.fao.org/3/ca2935en/ca2935en.pdf>
- 5 Reeve E, Thow A-M, Bell C, Soti-Ulberg C, Sacks G. Identifying opportunities to strengthen school food environments in the Pacific: a case study in Samoa. *BMC Public Health* 2021;21(1):246.
- 6 WFP. State of School Feeding Worldwide 2020. World Food Programme, Rome 2020. (Accessed 11 September 2021). <https://www.wfp.org/publications/state-school-feeding-worldwide-2020>
- 7 FAO, WFP. Home-Grown School Feeding Resource Framework (Synopsis): FAO, WFP, 2018. (Accessed 11 September 2021). <http://www.fao.org/3/i8724en/i8724EN.pdf>.
- 8 FAO, UN-OHRLS, UNDESA. Global Action Programme on Food Security and Nutrition in Small Island Developing States. 2017. (Accessed 15 September 2021). <http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1027540/>
- 9 Vidgen HA, Gallegos D. Defining food literacy and its components. *Appetite* 2014;76:50-9.
- 10 WHO. Policy brief: Nutrition, food systems and biodiversity. 2021. (Accessed 9 September 2021). https://cdn.who.int/media/docs/default-source/sids-summit/sids-nutrition-policy-brief.pdf?sfvrsn=4e3185fb_5