
Bridging Trade, Culture and Taxation in Addressing Non-communicable Diseases in Polynesian Samoa and Tonga

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Non-communicable diseases (NCDs), including cardiovascular diseases, diabetes, cancers, and chronic respiratory conditions, are a global health crisis, responsible for 74 per cent of all deaths worldwide in 2019. In the Pacific nations of Samoa and Tonga, the NCD mortality rates are even more alarming, at 82 per cent and 79 per cent, respectively. NCDs impose severe economic and social burdens, exacerbating poverty, depleting public health resources, and threatening sustainable development. Central to this crisis in Polynesia is the dietary transition from traditional, nutrient-rich foods to highly processed, unhealthy imports – a consequence of globalisation and trade liberalisation.

While the World Health Organization (WHO) has advocated fiscal interventions to combat NCDs, over 75 per cent of Pacific Island nations have implemented these measures with limited success. Fiscal policies using excise taxes on harmful products have been adopted to address NCDs, but cultural factors and the lack of a holistic policy framework have limited their effectiveness. The rising prevalence of NCDs in Samoa and Tonga underscores the insufficiency of fiscal policies when isolated from broader cultural and contextual considerations, including trade obligations. Samoa and Tonga's integration into global trade agreements has restricted their ability to regulate unhealthy imports effectively. Simultaneously, cultural norms surrounding food and body image, deeply embedded in Polynesian society, complicate public health efforts.

This article examines the intersection of fiscal policy, economic factors and cultural dynamics on NCDs in Samoa and Tonga. It analyses the effectiveness of current fiscal approaches and how fiscal measures can be undermined by cultural and contextual factors influencing food consumption. It argues for a more integrative, culturally responsive policy framework, where fiscal tools are complemented by interventions attuned to their specific societal and cultural norms. This holistic approach, which blends economic measures with culturally informed public health initiatives, offers a more robust pathway to mitigating the NCD crisis and addressing its significant socioeconomic impacts.

1.0 INTRODUCTION

Non-communicable diseases (NCDs) – including cardiovascular diseases, diabetes, cancers, and chronic respiratory diseases – have emerged as the leading cause of death globally, responsible for 74 per cent of all fatalities in 2019. In the Pacific, the crisis is particularly acute, with Samoa and Tonga experiencing some of

the world's highest NCD-related mortality rates at 82 per cent and 79 per cent,¹ respectively. Alarming rates of obesity accompany these staggering figures, with nine Pacific Island nations ranked among the top ten globally for obesity prevalence. These are: American Samoa (1), Nauru (2), Tokelau (3), Cook Islands (4), Niue (5), Tonga (6), Tuvalu (7), Samoa (8), French Polynesia (9) and United States ranked as 10.² The strong correlation between obesity and NCDs³ underscores the urgency of addressing this public health epidemic in the Pacific Islands.

The economic and social costs of NCDs are profound. NCDs can result in lost lives, diminished productivity and quality of life, with escalating healthcare expenditures. These diseases exacerbate poverty, deplete household resources, and hinder national economic growth. The five leading NCD causes – cardiovascular disease, chronic respiratory disease, cancer, diabetes, and mental health were estimated to cost US\$47 trillion between 2010-2030.⁴ For collectivistic Samoans and Tongans, the burden extends beyond those with NCDs, affecting healthy individuals who must provide care, resulting in lost income and savings for the entire family. This dynamic is further exacerbated by these nations' dependence on remittances and foreign aid, making them particularly vulnerable to the economic consequences of widespread illness.

Dietary shifts driven by globalisation and trade liberalisation have played a pivotal role in the rise of NCDs in Polynesia. Historically, Polynesian diets centred on nutrient-dense, locally sourced foods. However, the influx of inexpensive, highly processed imports – facilitated by reduced trade barriers – has transformed dietary patterns. These processed products, often high in sugar, salt, and unhealthy fats, have displaced traditional staples. These dietary shifts and declining physical activity due to urbanisation and modernisation have created an “obesogenic” environment.

Economic policies prioritising trade liberalisation have facilitated the influx of these processed imports. As members of the World Trade Organization (WTO), Samoa and Tonga have gained access to global markets but face constraints on their ability to regulate imports that contribute to NCDs. For example, Samoa was required to lift its ban on turkey tails – a high-fat product linked to obesity – as a condition of WTO accession.⁵ While trade agreements have brought economic opportunities, they have also undermined public health objectives by limiting regulatory autonomy.

Fiscal measures, such as tariffs and excise taxes on unhealthy products, have been advocated to mitigate the impact of NCDs. Since 2011, more than 75 per cent of Pacific Island nations have adopted such policies, often in alignment with the World Health Organization's (WHO) recommendations. For example, Samoa introduced excise taxes on tobacco and alcohol to reduce consumption by raising prices. It also introduced excise taxes on sugary beverages in 2017 to combat rising obesity and diabetes rates.⁶ However, the limited success of these measures in curbing NCD prevalence highlights the inadequacy of fiscal tools when implemented in isolation.

1 World Bank Group *Causes of Death, by Non-Communicable Diseases (% of Total)* (2019), <<https://data.worldbank.org/indicator/SH.DTH.NCOM.ZS?locations=TO>>.

2 Global Obesity Observatory *Ranking (% Obesity by Country)* (2022) <<https://data.worldobesity.org/rankings/>>.

3 E Reeve, P Lamichhane, B McKenzie, G Waqa, J Webster, W Snowdon and C Bell “The Tide of Dietary Risks for Non-Communicable Diseases in Pacific Islands: An Analysis of Population NCD surveys”(2022) 22 (1521) *BMC Public Health* 1.

4 NCD Alliance *Financing NCDs* (2024) <<https://ncdalliance.org/why-ncds/financing-ncds>>.

5 A Thow, E Reeve, T Naseri, T Martyn and C Bollars “Food Supply, Nutrition and Trade Policy: Reversal of an Import Ban on Turkey Tails” (2017) 95 *Bulletin World Health Organisation* 723.

6 A Teng, W Snowdon, S Tin, M Genc, E Na'ati, V Puloka, L Signal and N Wilson “Progress in the Pacific on Sugar-Sweetened Beverage Taxes: A Systematic Review of Policy Changes from 2000 to 2019” (2021) 45 *Australian and New Zealand Journal of Public Health* 376.

Traditional food practices in Polynesia are different and are significantly influenced by interactions with Western cultures and overseas remittances. Imported unhealthy foods such as corned beef, mutton flaps, and sugary beverages are now symbols of wealth and status, preferred over healthier local options.⁷ These foods are integral to social and ceremonial contexts. During important events like births, marriages, and funerals, high-fat imported foods often replace traditional staples like taro and seafood, contributing to high consumption of unhealthy foods with widespread obesity.⁸

Obesity is culturally accepted and sometimes encouraged, as large body sizes are associated with high social status and wealth.⁹ Influential figures, such as church ministers and political leaders, are often overweight, reinforcing the perception that power and obesity are linked. There are also cultural practices like “fattening rituals” for women of high rank, which makes larger body sizes acceptable.¹⁰ These cultural practices negate the need for healthy living and healthy body sizes.

This article examines the intersection of fiscal policy, trade liberalisation, and cultural norms in shaping NCD outcomes in Samoa and Tonga. It critiques and assesses existing fiscal measures on products contributing to NCDs and their limitations within cultural and economic contexts and argues for an integrated approach to addressing NCDs. Addressing the NCD problems will help reduce healthcare costs and productivity loss and improve the quality of life. By addressing these factors holistically, policymakers can better navigate the complex interplay between economic policies, fiscal measures, cultural practices and public health outcomes. It will also assist policymakers, health organisations, aid providers, and governments in understanding the fiscal measures’ success (or otherwise) in combating NCDs. Furthermore, the lessons from Samoa and Tonga will be relevant and beneficial to other Pacific Island countries facing similar NCD challenges. Document reviews have been adopted for this study, and it employs the following sources of data:

1. Government documents, websites and formal media announcements.
2. The World Bank, World Health Organisation, Asian Development Bank, and Samoa and Tonga development and aid agencies conducted surveys.
3. NCD surveys and research by the World Bank and the WHO in Samoa and Tonga.
4. Health, medical, business, trade and political reviews and literature.

Document reviews and analysis offers many advantages in research. Firstly, researchers have had no influence on their production.¹¹ As this method does not directly involve interaction with individuals (participants), it reduces the risk of the Hawthorne effect (where participants alter their behaviour when being observed or asked). Secondly, conducting a document analysis can reduce some of the ethical concerns associated with qualitative interviewing methods or Talanoa.¹² Thirdly, public documents from reliable sources often

7 T Tong, M Mohammadnezhad and N Alqahtani “Determinants of Overweight and Obesity and Preventive Strategies in Pacific Countries: A Systematic Review” (2022) 6 *Global Health Journal* 122.

8 T Kessaram, J McKenzie, N Girin, A Roth, P Vivili and G Williams “Noncommunicable Diseases and Risk Factors in Adult Populations of Several Pacific Islands: Results from the WHO STEPwise Approach to Surveillance” (2015) 39 *Australia and New Zealand Journal of Public Health* 336.

9 A Brewis and S McGarvey “Body Image, Body Size, and Samoan Ecological and Individual Modernisation” (2000) 39 *Ecology of Food and Nutrition* 105.

10 V Lameko and P Schoeffel “Are ‘Behaviour Change’ Approaches to Obesity and Health Effective? A Case Study from Samoa” (2021) 21(8) *Pacific Health Dialog* 549.

11 G Bowen “Document analysis as a qualitative research method” (2009) 9(2) *Qualitative Research Journal* 27.

12 H Morgan “Conducting a qualitative document analysis” (2021) 27(1) *The Qualitative Report* 64.

contain precise information and details that might not be readily available especially from less developed nations.¹³

This article is organised as follows. The next section introduces the background of Samoa and Tonga, followed by a discussion on economic policies and NCDs in section three. Section four discusses the fiscal policies in combating NCDs, followed by the cultural factors of NCDs in section five. Section six explores the present NCD strategies used in Samoa and Tonga, with recommendations to strengthen the existing NCD strategies. The article concludes in section seven.

2.0 BACKGROUND OF SAMOA AND TONGA

Samoa and Tonga, small island developing states (SIDS) in the South Pacific, are distinguished by their unique cultural heritages and shared Polynesian ancestry. Despite their geographical proximity and cultural similarities, each nation has distinct social, political, and economic structures that shape their contemporary development trajectories. Understanding these differences is essential for evaluating their responses to NCDs and the impact of fiscal and trade policies.

Samoa's modern history blends indigenous Polynesian traditions and Western colonial influences. Following periods of colonial interest from Germany and the United States, Samoa came under New Zealand administration after World War I, gaining independence in 1962. On the other hand, Tonga avoided formal colonisation, though it entered a protectorate agreement with Britain in 1900. It attained complete independence in 1970 while retaining its hereditary monarchy.¹⁴ The Tongan monarchy remains a central institution, significantly influencing governance and society.

Economically, both nations operate mixed economies that combine subsistence agriculture with reliance on tourism, remittances, and foreign aid. Samoa's agricultural sector, including cultivating coconuts, taro, and bananas, remains critical, employing a significant proportion of the population.¹⁵ Tonga's agricultural exports include squash, vanilla, and fish. However, remittances play a particularly vital role in these economies. In 2022, remittances comprised 49.9 per cent of Tonga's GDP and 33.7 per cent of Samoa's GDP,¹⁶ primarily sent by expatriates in New Zealand, Australia, and the United States. These remittances bolster household incomes and national economic stability and introduce external influences on consumption patterns.

Both nations face inherent challenges as SIDS, including geographic isolation, limited natural resources, and narrow economic bases. Their vulnerability to natural disasters further undermines economic resilience. Participation in regional and international trade agreements, such as the Pacific Islands Forum, has been pursued as a strategy to mitigate these challenges. Samoa and Tonga play active roles within the Pacific Islands Forum, advocating for climate change action, economic cooperation, and sustainable development. By leveraging partnerships with institutions like the World Bank and Asian Development Bank, both countries seek to enhance infrastructure, diversify their economies, and increase resilience to climate and economic shocks. Bilateral relationships with larger nations, including Australia, New Zealand, Japan,

13 V Nosa, N Pili and L Tatui "A document analysis for improving Oral Health Services in Niue" (2021) 8(12) *Advances in Social Sciences Research Journal* 139.

14 R Crocombe *The South Pacific* (7th ed, IPS Publications: University of the South Pacific, Suva, 2008).

15 P Fairbairn-Dunlop "Women and the Privatization of the Coconut Oil Mill, Samoa" (2001) 16(1) *Pacific Economic Bulletin* 64.

16 World Economic Forum *Animated Chart: Remittance Flows and GDP Impact by Country* (2023), <<https://www.weforum.org/stories/2023/01/chart-remittance-flows-impact-gdp-country/>>.

and China, have also been instrumental in funding critical infrastructure projects, such as those under China's Belt and Road Initiative.

Culturally, Samoa and Tonga adhere strongly to collectivistic traditions that emphasise kinship, communal living, and hierarchical social structures. *Fa'a Samoa* (Samoan way) and *Faka Tonga* (Tongan way) serve as guiding frameworks for social organisation, governance, and daily life. Chiefs (*matai*) in Samoa and nobles in Tonga hold considerable power and influence in both social and political spheres due to their possession of significant land ownership rights.¹⁷ They play central roles in decision-making and resource distribution, reinforcing hierarchical structures, reciprocity, and community cohesion values.

Collectivistic cultural traditions and principles extend to dietary practices in Samoa and Tonga, where food is a source of sustenance and a symbol of status and generosity. Integrating imported calorie-dense foods into ceremonial and social events underscores the cultural dimensions of dietary choices. These dietary shifts, combined with the economic pressures of globalisation, contribute significantly to the escalating rates of NCDs in Polynesia.

3.0 THE ROLE OF ECONOMIC POLICIES AND NCDS

NCDs constitute a critical global health concern, accounting for 79 per cent of all deaths in 2010¹⁸ and 74 per cent in 2019.¹⁹ In 2019, the proportion of deaths attributed to NCDs in Samoa and Tonga was 84 per cent and 79 per cent, respectively, which exceeds the global average, highlighting the severity of the crisis in Polynesia. These diseases are closely linked to lifestyle factors, including poor nutrition caused by globalisation and dietary transitions.

Historically, traditional Polynesian diets consisted of nutrient-dense foods such as fresh fish, root vegetables, tropical fruits, and coconut-based dishes. These diets were balanced, seasonal, and locally sourced. However, trade liberalisation and globalisation have facilitated an influx of processed, nutrient-poor food products high in sugar, salt, and unhealthy fats. This dietary transition has been a primary driver of obesity, which directly contributes to NCDs, including diabetes, hypertension, cardiovascular disease, and certain cancers.²⁰

Samoa and Tonga acknowledge the central role of poor nutrition in the NCD epidemic.²¹ Approximately 89.1 per cent of Samoans are overweight, with 63.1 per cent classified as obese.²² Similarly, in Tonga, over 90 per cent of adults are overweight or obese.²³ These alarming statistics reflect the widespread consumption of processed imports, which have displaced traditional diets. Economic policies promoting trade liberalisation have inadvertently created an obesogenic food environment where processed imports

17 S Taua'a "The Samoan *Fa'amatai* System: Social Protection and Governance Issues" (2014) 34 *Journal of Pacific Studies* 59.

18 World Cancer Research Fund International and the NCD Alliance *The Link Between Food, Nutrition, Diet and Non-Communicable Diseases* (London, 2014) at 1.

19 At 1.

20 At 2; J Connell and L Soutar "Free Trade or Free Fall? Trade Liberalisation and Development in the Pacific and Caribbean" (2007) 56(1&2) *Social and Economic Studies* 241.

21 Ministry of Health Samoa *National Non-Communicable Disease Policy and Action Plan 2018–2023*. Government of Samoa publication 2018); Ministry of Health Tonga, Australian Aid & Pacific Community *Tuiaki 'i he 'Amanaki ki ha Tonga Mo'ui Lelei – Persevering Together Through the Crisis to a Healthier Tonga: Tonga National Strategy for the Prevention and Control of Non-Communicable Diseases 2021–2025* (Ministry of Health of Tonga and Tonga Health Promotion Foundation, 2021).

22 A Fruean "Non-Communicable Diseases Still a Challenge" (19 March 2021) *Samoa Observer* <www.samoobserver.ws/category/samoa/81014>.

23 The World Bank Using Taxation to Address Noncommunicable Diseases: Lessons from Tonga (World Bank, 2019).

are more affordable and accessible than local alternatives.²⁴ The transformation of the Polynesian food system is closely linked to the priorities of trade agreements and economic policies.

The NCDs in Samoa and Tonga cannot be fully understood without considering the broader economic policies and global forces that shape dietary patterns and health outcomes. Trade liberalisation, a hallmark of globalisation, is driven by the neoliberal goal of economic growth by reducing trade barriers. While this approach has provided significant economic benefits, it has also created unintended public health challenges.

Samoa and Tonga’s participation in the World Trade Organization (WTO) and regional trade agreements, such as the Pacific Agreement on Closer Economic Relations (PACER) and PACER Plus, reflects their commitment to leveraging global trade frameworks for economic development – see Table 1. Samoa and Tonga’s participation in these trade agreements is to leverage regional and international trade platforms to overcome geographic and economic constraints. Through their participation in trade agreements, both nations have gained access to broader markets, enhanced trade facilitation, and economic cooperation essential for economic growth.

Table 1: Trade agreements and WTO membership for Samoa and Tonga

Trade Agreements	Year	Trade Partners	Function
1. South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA)	1980	All Pacific Island nations, plus Australia and New Zealand	SPARTECA is a non-reciprocal trade agreement that allows Pacific Island countries to export goods to Australia and New Zealand without tariffs or quotas.
2. Pacific Agreement on Closer Economic Relations (PACER)	2001	All Pacific Island countries, including Tonga and Samoa	Encourage trade liberalisation and tariff reductions amongst the Pacific Island nations.
3. PACER PLUS	2017	10 Pacific Island countries, including Tonga and Samoa, with Australia and New Zealand	Trade facilitation, investment, development cooperation, opportunities for economic growth and regional collaboration.
4. Economic Partnership Agreement (EPA) with the European Union	2018	EU, Samoa and Tonga	Support sustainable development and regional integration in the Pacific.
5. World Trade Organisation (WTO)	2007 – Tonga 2012 – Samoa	WTO members	It enables Samoa and Tonga to benefit from global trade rules, gain access to international markets, and have a platform to address trade disputes.

Source: Ministry of Foreign Affairs and Trade Samoa (2024) “Trade Arrangements” at <<https://www.mfat.gov.ws/trade-agreement/>>; Ministry of Trade and Economic Development “Tonga Trade Policy Framework 2017 – 2025” (Kingdom of Tonga, 2020).

24 N Bunkley, J McCool and K Garton “A Review of International Trade and Investment Agreements and Nutrition Policy Space in the Pacific” (2023) 10 *Frontiers in Nutrition* 1.

These trade agreements aim to reduce trade barriers, increase market access, and promote economic development by facilitating the free flow of goods and services.²⁵ Regional and multilateral agreements have facilitated capacity building, infrastructure development, and technical assistance, contributing to Samoa and Tonga’s overall economic development. For instance, PACER Plus includes provisions for development assistance to improve trade-related infrastructure and capacity in these countries. Joining WTO also enabled these nations to integrate into global markets, attract foreign direct investment, and expand their export sectors.²⁶ However, these benefits come with significant trade-offs.

WTO imposes requirements on member countries, and they are obligated to adhere to trade rules which can limit their ability to regulate harmful products. Member countries are restricted from imposing high tariffs or bans on imported goods, even those with known health risks. For example, Samoa’s attempt to ban turkey tails – a product linked to obesity and NCDs – was overturned as a condition of WTO accession.²⁷ Similarly, the availability of high-fat mutton flaps in Tonga remains unregulated despite their documented health impacts.²⁸

Trade liberalisation has facilitated the influx of cheap, processed, unhealthy foods into the Polynesian markets. Reducing tariffs and trade barriers has made imported products more affordable than local alternatives, undermining traditional agricultural systems. Local farmers face increased competition from multinational corporations, whose economies of scale allow them to dominate the market.²⁹ The dominance of multinational corporations (eg Coca-Cola and McDonalds) and their aggressive marketing strategies has further entrenched unhealthy dietary practices, contributing to the rising incidence of NCDs.³⁰ As a result, traditional food systems – which once prioritised cultivating nutrient-rich, locally sourced produce – have been displaced, reducing food sovereignty and greater dependency on imports.³¹

The broader socioeconomic effects of trade liberalisation are also significant. While these policies have stimulated economic growth, they have widened health disparities. The affordability of processed imports relative to local produce presents an economic barrier to healthier eating. Trade liberalisation has lowered the costs of harmful imports, while locally produced foods, such as fresh fruits and vegetables, remain comparatively expensive. Low-income households, disproportionately affected by rising NCD rates, are often the most reliant on cheap, processed imports due to their affordability.³² This dynamic creates a paradox: economic policies intended to enhance prosperity contribute to the public health crisis by prioritising market efficiency over health outcomes.

25 W Snowdon and A Thow “Trade Policy and Obesity Prevention: Challenges and Innovation in the Pacific Islands” (2013) 14 *Obesity Reviews* 150.

26 R Steinberg “In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO” (2002) 56(2) *International Organization* 339.

27 A Thow, E Reeve, T Naseri, T Martyn and C Bollars “Food Supply, Nutrition and Trade Policy: Reversal of an Import Ban on Turkey Tails” (2017) 95 *Bulletin World Health Organisation* 723.

28 E Reeve, P Lamichhane, B McKenzie, G Waqa, J Webster, W Snowdon and C Bell “The Tide of Dietary Risks for Non-Communicable Diseases in Pacific Islands: An Analysis of Population NCD surveys” (2022) 22 (1521) *BMC Public Health* 1.

29 K Garton, A Thow and B Swinburn “International Trade and Investment Agreements as Barriers to Food Environment Regulation for Public Health Nutrition: A Realist Review” (2021) 10(12) *International Journal of Health Policy and Management* 745.

30 A Thow, P Heywood, J Schultz, C Quested, A Janes and S Colaquiri “Trade and Nutrition Transition: Strengthening Policy for Health in the Pacific” (2011) 50(2) *Ecology of Food Nutrition* 18.

31 World Health Organization *Noncommunicable Diseases in the Western Pacific Region: A Profile* (World Health Organization, 2012) <www.who.int/>.

32 E Reeve, P Lamichhane, B McKenzie, G Waqa, J Webster, W Snowdon and C Bell “The Tide of Dietary Risks for Non-Communicable Diseases in Pacific Islands: An Analysis of Population NCD surveys” (2022) 22 (1521) *BMC Public Health* 1.

Recognising the deadly nature of NCDs, the World Health Organization (WHO) has recommended using fiscal measures such as taxes on harmful products. However, any efforts to combat NCDs through fiscal measures are constrained by the regulatory environment established by trade agreements. For example, while Samoa and Tonga have introduced taxes on sugary beverages and tobacco, the overall impact of these measures is diluted by low tariffs on processed imports and sometimes with inconsistent classification of harmful products. In addition, trade obligations often limit the scope of fiscal interventions, forcing governments to navigate complex negotiations to prioritise public health without violating trade rules.³³ The following section examines the effectiveness of fiscal measures to address product consumption and NCDs in Samoa and Tonga.

4.0 FISCAL POLICIES AND NCDS

Fiscal policies, particularly taxation on unhealthy products, have been widely endorsed by the WHO as practical tools to combat NCDs. Samoa and Tonga impose import duties, excise, and consumption taxes to regulate goods entering their markets. These taxes aim to discourage the consumption of harmful goods by making them less affordable. Excise taxes are taxes charged on selling products considered harmful to public health, such as sugar-sweetened beverages (SSBs) and tobacco. Customs duties are taxes imposed on imports. The rates of customs duties are either specific or on an ad valorem basis, i.e. based on the value of products. Consumption taxes are taxes imposed on consuming the product.

Given that Samoa and Tonga are members of the WTO, compliance with WTO rules significantly restricts the scope of their fiscal policies. They are forbidden to impose trade barriers or high taxes on traded products unless given special permissions from the WTO. An example includes Samoa's intention to ban turkey tail imports due to its links to NCDs. This ban was disallowed, and as a compromise, the WTO allowed Samoa to impose a 300 per cent tariff over 2 years.³⁴ This high tariff has since been removed, and the current excise and import duties on turkey tails and other harmful imports remain comparatively low, as shown in Table 2 (below). Table 2 shows products with import and excise taxes, including alcohol, cigarettes, SSBs, instant noodles, turkey tails, mutton flaps, fruits and vegetables. Both countries also impose 15 per cent consumption taxes on all products.

Samoa and Tonga have implemented fiscal interventions as part of their broader strategies to address rising NCD rates. However, the effectiveness of these policies is undermined by inconsistencies and issues with implementation. Table 2 reveals some inconsistencies in applying the import duties and excise taxes on products to influence consumption. The implementation and structural issues of the fiscal measures identified are:

4.1 Inconsistent Tax Application: Import duties and excise taxes are inconsistently applied to similar products, creating opportunities for substitution.

It has been found that similar categories of products have different custom duties and excise taxes that allow for perfect substitution and confusion. For instance, in Tonga, lamb products such as mutton flaps – a known health risk³⁵ – are taxed at different rates than other lamb cuts. This inconsistency allows consumers

33 C Bell, C Latu, E Na'ati, W Snowdon, M Moodie and G Waqa "Barriers and Facilitators to the Introduction of Import Duties Designed to Prevent Noncommunicable Disease in Tonga: A Case Study" (2021) 17(136) *Globalisation and Health* 1.

34 A Thow, E Reeve, T Naseri, T Martyn and C Bollars "Food Supply, Nutrition and Trade Policy: Reversal of an Import Ban on Turkey Tails" (2017) 95 *Bulletin World Health Organisation* 723.

35 W Snowdon and A Thow "Trade Policy and Obesity Prevention: Challenges and Innovation in the Pacific Islands" (2013) 14 *Obesity Reviews* 150.

to opt for cheaper, equally harmful alternatives. In Tonga, tariff items 0204.22.10, 0204.22.10, 0204.43.10 and 0204.10.10 (lamb breasts, lamb flaps, mutton flaps and lamb carcasses) have different taxes. Import duties of 15 per cent were applied to the lamb breasts, lamb flaps and mutton flaps. However, excise taxes of \$1.15 per kg were excluded for mutton flaps even though mutton flaps were unhealthy and were banned in Fiji.

Furthermore, no customs duties nor excise taxes are applied to lamb carcasses, even though they belong to the same product category. Doing so motivates the Tongan public to switch to lamb carcasses as they are cheaper. This allowed for the continued consumption of lamb products with high-fat content.

On the other hand, Samoa consistently applies the same import taxes to all lamb products, including mutton flaps, at 20 per cent without any excise taxes. In Samoa, a more uniform tax structure on lamb products reduces the likelihood of substitution. Still, it fails to classify these products, especially mutton flaps, as unhealthy, resulting in the absence of excise taxes.

Table 2: Excise taxes and import duties on selected products in Samoa and Tonga

Tariff Items	Description	Samoa		Tonga	
		Import Duties	Excise Tax	Import Duties	Excise Tax
0204.22.10 and 0204.42.10	Lamb Breast	20%	0	15%	\$1.15/kg
0204.22.20 and 0204.42.20	Lamb flaps	20%	0	15%	\$1.15/kg
0204.10.10	Lamb carcasses – fresh or chilled	20%	0	0	0
0204.43.10	Mutton flaps	20%	0	15%	0
0207.14.10	Chicken leg quarters	10%	0	0	40 senti/kg
0207.14.10	Turkey tails	20%	10%	15%	\$1.50/kg
0406.10.00	Fresh cheese	8%	0	15%	0
0704.90.91	Leafy vegetables	20%	0	0	0
0713.20.00	Beans	20%	0	20%	0
0801.21.00	Brazil nuts	15%	0	15%	0
0805.10.10	Fresh oranges	8%	0	0	0
0805.50.10	Lemons	20%	0	0	0
0808.10.10	Apples	0	0	0	0
0808.30.50	Pears	0	0	0	0
0810.50.00	Kiwifruit	10%	0	0	0
0813.30.00	Dried apples	20%	0	15%/kg	0
1207.40.00	Sesame seeds	20%	0	15%	0
1207.70.00	Melon seeds	8%	0	15%	0
1501.10.00	Lard	8%	0	0	\$2/kg

Tariff Items	Description	Samoa		Tonga	
		Import Duties	Excise Tax	Import Duties	Excise Tax
1601.00.10 and 1601.00.20	Beef and pork sausages	20%	0	8%	0
1902.19.11	Instant noodles – locally made	8%	8%	0	50 cents/kg
1902.19.10	Instant noodles - other	8%	8%	\$1/kg	\$2/kg
1902.40.00	Couscous	8%	0	15%	0
1904.30.00	Bulgur wheat	20%	0	15%	0
1905.31.00	Sweet biscuits	20%	0	15%	\$1.50/kg
1905.32.00	Waffles and wafers	20%	0	0	\$1.50/kg
2001.10.00	Preserved cucumbers and gherkin	20%	0	15%	0
2002.10.10	Preserved tomatoes	20%	0	15%	0
2005.51.00	Beans	20%	0	15%	0
2005.60.00	Asparagus	20%	0	15%	0
2005.70.00	Olives	20%	0	15%	0
2008.20.00	Pineapples	20%	0	15%	0
2008.30.00	Citrus Fruit	20%	0	15%	0
2008.40.00	Pears	20%	0	15%	0
2009.41.00	Fruit and vegetable juices	20%	0	15%/litre	\$1.50 to \$4/ litre*
2103.09.10	Mayonnaise	20%	0	15%	\$2/kg
2105.00.00	Ice cream	20%	0	15%	\$1.5/litre
2402.20.10	Cigarettes – manufactured locally	90% CIF **	\$256.62/1000 sticks	0	\$350/1000 sticks
2402.20.90	Cigarettes - Other	90% CIF **	\$244.31/1000 sticks	15%/kg	\$450/1000 sticks
220110.00	Water	\$1/litre	33 cents/litre	0	0
2202.10.10	Beverages containing added sugar	\$1/litre	36 cents/litre	0	\$1.50 to \$4 per litre *
2203.00.10	Beer - local	\$2/litre ***	\$3.08/litre	0	\$20 per litre of alcohol
2203.00.91	Beer - other	\$2/litre ***	\$3.08/litre	15%	\$60 per litre of alcohol

Sources: Tonga Customs – Customs Tariff Schedule – Fifth Edition 2012 (Customs Duty Amendment effective 5/7/2016; Tonga Customs(Amendment) Tariff Order 2010, 2011, 2013, 2015, 2016 and 2017; Tonga’s Excise Tax (Amendment) Rates Order

2010, 2011, 2012, 2013, 2015, 2016, 2017; Samoa Ministry of Customs & Revenue –Tariff Chapters 1-10, 11-20, 21-30 at <www.revenue.gov.ws/>.

* Depending on the sugar level content per 100 ml.

** (Cost, Insurance and Freight) plus \$7 per kg or \$80 per 1000 sticks, whichever is higher.

*** If alcohol is greater than 30 per cent.

In terms of other unhealthy products, such as high-fat turkey tails Samoa can only impose a 20 per cent import duty and a 10 percent excise duty now since 2014 when they were allowed to impose temporarily a 200 per cent excise tax in 2013-2014. The 200 per cent excise tax has been considerably reduced to 10 per cent due to trade obligations under the WTO.³⁶ Tonga applied a 15 per cent import tax and a \$1.50 per kg excise tax on turkey tails. These low import and excise taxes resulted from complying with WTO trade requirements. With low tariffs and excise taxes, turkey tails are sold at low prices, thus encouraging consumption and contributing towards high NCD rates.³⁷ To encourage healthier protein choices, chicken leg quarters (0207.14.10) have a lower 10 per cent import tax in Samoa and 40 seniti per kg excise tax in Tonga. This also applies to lard (1501.10.00), of which Samoa applied an 8 per cent import duty, whereas Tonga imposed a \$2 per kg excise tax. These two countries disagree on whether chicken leg quarters and lard are harmful, imposing different taxes.

Regarding fruits and vegetables, Samoa and Tonga agreed that apples and pears are healthy and have no import duties or excise taxes. However, they differed in the level of taxes for leafy vegetables (0704.90.91), with Samoa imposing a 20 per cent import tax – to discourage imports and to protect their domestic production. On the other hand, leafy vegetables are tax exempted in Tonga. Despite fresh oranges (0805.10.10), lemons (0805.50.10) and kiwifruits (0810.50.00) are healthy produce, Samoa imposed unequal import duties of 8 per cent, 20 per cent and 10 per cent, respectively, on them – which could be confusing to both sellers and buyers. On the other hand, Tonga recognised these products as healthy (like apples and pears) with no import or excise taxes, a more consistent approach to taxing similar products and promoting healthier eating.

Both countries are consistent with their approach to import duties and no excise taxes on beans and Brazilian nuts (0713.20.00 and 0801.21.00) at 20 per cent (Samoa) and 15 per cent (Tonga), respectively. As these products are healthy protein alternatives, no excise taxes are included. As for seeds, Samoa imposed unequal import taxes on sesame seeds (1207.40.00) and melon seeds (1207.70.00) at 20 per cent and 8 per cent, respectively, whereas Tonga imposed a flat 15 per cent import tax. The unequal import taxes by Samoa can confuse sellers and buyers, and it can inadvertently motivate greater consumption of melon seeds due to lower pricing.

4.2 Penalising Healthy Products: In some cases, healthy products are subjected to import duties or excise taxes, inadvertently discouraging their consumption.

Samoa imposes both an import duty and an excise tax on bottled water, while sugary beverages face slightly higher excise taxes. Water (2201.10.00), which is a healthy product, has an import duty of \$1 per litre and an excise tax of 33 cents per litre, whereas they are tax-exempt in Tonga. Samoa makes little differentiation

36 A Thow, E Reeve, T Naseri, T Martyn and C Bollars “Food Supply, Nutrition and Trade Policy: Reversal of an Import Ban on Turkey Tails” (2017) 95 *Bulletin World Health Organisation* 723.

37 M Estime, B Lutz and F Strobel “Trade as a Structural Driver of Dietary Risk Factors for Noncommunicable Diseases in the Pacific: An Analysis of Household Income and Expenditure Survey Data” (2014) 10(1) *Globalisation and Health* 1.

between water and SSBs (2202.10.10) – considered unhealthy³⁸ with the same import duty as water and a slightly higher excise tax of 36 cents per litre. The minuscule difference in the excise tax between water and SSBs dilutes the potential impact of taxation as a deterrent for consumption. The low differential in the excise taxes between water and SSBs is primarily due to the significant influence of multinational corporations such as Coca-Cola. Coca-Cola, a prominent manufacturer and employer in Samoa, has lobbied against excise taxes on beverages.³⁹ On the other hand, Tonga imposes no import duty on SSBs but has a high excise tax of \$1.50 to \$4 per litre, depending on the sugar content per 100 ml. Their high excise tax sends a message regarding the deadly nature of SSBs.

As for fruit and vegetable juices (2009.41.00), Samoa and Tonga imposed import duties of 20 per cent and 15 per cent, respectively. However, Samoa does not consider juices unhealthy and has no excise tax. On the other hand, Tonga recognises the high sugar content of juices, thus imposing excise taxes (like SSBs) of \$1.50 to \$4 per litre depending on the sugar content per 100 ml. Tonga seems to have a more consistent tax policy regarding water and beverages than Samoa. In Tonga, fruit juices with high sugar content are taxed more heavily than in Samoa. Still, Samoa's inconsistencies in classification across other beverages reduce the clarity of health signals sent by tax policies.

Regarding mayonnaise (2103.09.10) and ice cream (2105.00.00), 20 per cent and 15 per cent import duties were introduced in Samoa and Tonga, respectively. However, like water, they are not considered unhealthy in Samoa and, therefore, are exempt from excise taxes. This was not so for Tonga, as these items are classified as unhealthy, with excise taxes of \$2 per kg and \$1.5 per litre imposed on mayonnaise and ice cream. Again, Tonga appears stricter in classifying unhealthy foods and uses excise taxes to raise prices to discourage consumption.

4.3 Differential tax treatment of domestic and imported goods

Tonga imposed lower excise taxes on locally produced instant noodles and cigarettes than their imported counterparts. This differential tax treatment undermines the goal of reducing consumption of harmful products, as consumers may substitute imported goods with domestic alternatives. In Tonga, locally made instant noodles (1902.19.11) have lower excise taxes of 50 cents per kg compared to \$2 per kg for imported instant noodles (1902.19.10).

Tonga gave preferential tax treatments to locally made Tongan cigarettes (2402.20.10) with no import taxes and a \$350 excise tax per 1000 sticks compared to imported cigarettes (2402.20.90) with a 15 per cent import tax and \$450 per 1000 sticks excise tax. On the other hand, Samoa was inconsistent with its tax treatments for all cigarettes, with a lower excise tax for imported cigarettes (see Table 2). Beer produced locally (2203.00.10) in Tonga also had lower excise tax (one-third of \$60, i.e. \$20) compared to imported beer (2203.00.91) with 15 per cent import duty and \$60 per lal (per litre of alcohol). This considerable difference in the excise taxes is to protect local industry.

Samoa, by contrast, applied uniform taxes to domestic and imported products, aligning more closely with public health objectives. Samoa imposed the same tax treatment for local or imported instant noodles regardless of the origin of production. It also does not differentiate between local or imported beer, of which

38 A Teng, W Snowdon, S Tin, M Genc, E Na'ati, V Puloka, L Signal and N Wilson "Progress in the Pacific on Sugar-Sweetened Beverage Taxes: A Systematic Review of Policy Changes from 2000 to 2019" (2021) 45 *Australian and New Zealand Journal of Public Health* 376.

39 J Fa'alili-Fidow, J McCool and T Percival "Trade and Health in Samoa: Views from the Insiders" (2014) 14 *BMC Public Health* 1.

the same import duty and excise taxes were imposed. In this aspect, Samoa appears more consistent with their tax treatment of locally produced or imported harmful products of the same category.

Given the above discussion regarding the structural and implementation issues of taxing harmful products, it is unsurprising that the taxation policy is not as effective in achieving its health objectives. These implementation and structural issues include inconsistent classification of harmful or healthy products, restrictions from trade agreements, lobbying from multinational companies, and the protection of local industries. The following section discusses another critical factor undermining taxation policies' effectiveness in achieving health goals. This critical factor is the role of modernisation and culture regarding food consumption and their impact on health.

5.0 MODERNISATION, CULTURE, AND IMPACTS ON HEALTH

The intersection of modernisation and traditional cultural norms in Samoa and Tonga has significantly influenced dietary changes and health outcomes. These dietary changes, compounded by urbanisation and globalisation, have contributed to the rise of sedentary lifestyles, altered food consumption patterns, and, ultimately, the prevalence of NCDs. Hence, addressing the NCD crisis would require a nuanced understanding of these cultural and societal dynamics as they shape the public's health behaviours and receptivity to policy interventions.

Modernisation and urbanisation have brought significant lifestyle changes to Polynesian societies. Physical activity has declined as many Polynesians have transitioned from labour-intensive agrarian livelihoods to more sedentary, urban lifestyles.⁴⁰ Technological advancements have further reduced opportunities for physical activity, while time pressures have shifted preferences toward convenient, processed foods over traditional meals that require preparation.

Urbanisation has also influenced dietary patterns. The shift from local, seasonal produce to imported, processed foods reflects broader economic and social changes. Busy schedules and the increased availability of low-cost imports have normalised the consumption of packaged foods, which are often nutrient-poor and calorie-dense.⁴¹ These changes have had a profound impact on health, contributing to obesity and other NCDs.

Polynesian societies are deeply rooted in collectivist traditions that emphasise communal living, reciprocity, and the social importance of food. In Samoa, *fa'a Samoa* (the Samoan way) governs daily life, strongly emphasising family (*aiga*) and community obligations. Similarly, *faka Tonga* (the Tongan way) reflects Tongan kinship, hierarchy, and communal responsibility. Food is often used to reinforce social bonds in celebrations and ceremonies.⁴² Food practices are not just about sustenance but are integral to social cohesion and identity within the community.⁴³

Imported foods such as mutton flaps, turkey tails, and sugary beverages have become integral to these cultural food practices. These products are often featured prominently during *fa'alavelave* (family

40 M Estime, B Lutz and F Strobel "Trade as a Structural Driver of Dietary Risk Factors for Noncommunicable Diseases in the Pacific: An Analysis of Household Income and Expenditure Survey Data" (2014) 10(1) *Globalisation and Health* 1.

41 N Hawley and S McGarvey "Obesity and Diabetes in Pacific Islanders: The Current Burden and the Need for Urgent Action" (2015) 15(29) *Current Diabetes Report* 1.

42 A Brown, G Tower and R Taplin "The Importance of Oral Communication in a Pacific Island Countries' Context" (2005) 7(2) *Journal of American Academy of Business, Cambridge* 133.

43 C Conn, R Cammock, K Ford, G Kloet and S Nayar "Our People, Our Food, Our Planet: Sustainable Food Systems Policy in the Pacific" (2020) 3 *Pacific Health* 1.

obligations) in Samoa or *lukuluku* (communal feasts) in Tonga. They are seen as symbols of wealth and generosity, frequently replacing traditional staples such as taro, yams, and fresh seafood.⁴⁴ The extravagant feasts at these cultural events, marked by abundant servings of unhealthy imported foods like mutton flaps and SSBs, reflect the host's social status, generosity and ability to care for their community.⁴⁵ In addition, the social practice of *faikava* (kava drinking) is prevalent as it has cultural and social significance.⁴⁶ Kava is consumed during gatherings to promote relaxation, social interaction and communal ties.

The cultural influences on food consumption in Samoa and Tonga are profoundly significant in shaping dietary habits, which, in turn, play a pivotal role in the rising incidence of NCDs.⁴⁷ Cultural norms and practices in both countries, rooted in the value of communal eating and social gatherings, often centred around finishing large meals when served, as mentioned by a Tongan participant in a 2023 study:

If you have something in front of you, you're going to eat it all ... you're going to finish your meal ... even in large gatherings for Pacific Islanders and Tongans ... a lot of our comradery and relationships are built around food ... if we have an eating, you know, for a celebratory reason, or, you know, even in mourning for someone's passing ... a lot of that is spent with eating food.⁴⁸

These cultural norms present challenges for health promotion efforts. Efforts to encourage healthier eating or reduce portion sizes may be perceived as disrespectful or contrary to deeply held values of generosity and reciprocity.⁴⁹ Any efforts to promote healthier diets often face cultural pushback for disrespecting long-held social norms and traditions.⁵⁰ Furthermore, any attempts to increase taxes on popular imported foods such as mutton flaps and turkey tails can be met with resistance, as they are perceived to challenge long-standing customs. Resistance to changing their diets to healthier options may be a significant barrier to achieving health objectives.

Polynesian perceptions of body size further complicate public health efforts to address NCDs. In Samoa and Tonga, larger body sizes have historically been associated with wealth or royalty, upward mobility, and protection against wasting diseases.⁵¹ These cultural ideals, once linked to the consumption of nutrient-rich traditional foods, now intersect with modern dietary habits that fuel the NCD epidemic. Influential figures, such as church ministers and political leaders, are often overweight, reinforcing the perception that power and obesity are linked.⁵²

44 V Lameko and P Schoeffel "Are 'Behaviour Change' Approaches to Obesity and Health Effective? A Case Study from Samoa" (2021) 21(8) *Pacific Health Dialog* 549.

45 T Tong, M Mohammadnezhad and N Alqahtani, "Determinants of Overweight and Obesity and Preventive Strategies in Pacific Countries: A Systematic Review" (2022) 6 *Global Health Journal* 122.

46 A Perminow "Recreational Drinking in Tonga – Kava and the Constitution of Social Relationships" (1995) 18(1-2) *Canberra Anthropology* 119.

47 N Hawley and S McGarvey "Obesity and Diabetes in Pacific Islanders: The Current Burden and the Need for Urgent Action" (2015) 15(29) *Current Diabetes Report* 1.

48 M Playdon, T Rogers, E Brooks, E Petersen, F Tavake-Pasi, J Lopez, X Quintana, N Aitaoto and C Rogers "Sociocultural Influences on Dietary Behavior and Meal Timing Among Native Hawaiian and Pacific Islander Women at Risk of Endometrial Cancer: A Qualitative Investigation" (2023) 34 *Cancer Causes & Control*, 34, 23 at 27.

49 A Brewis and S McGarvey "Body Image, Body Size, and Samoan Ecological and Individual Modernisation" (2000) 39 *Ecology of Food and Nutrition* 105.

50 V Lameko and P Schoeffel "Are 'Behaviour Change' Approaches to Obesity and Health Effective? A Case Study from Samoa" (2021) 21(8) *Pacific Health Dialog* 549.

51 C Wang, A Abbot and et, al. "Ideal Body Image and Health Status in Low-Income Pacific Islanders" (2002) 9 *Journal of Cultural Diversity* 12.

52 V Lameko and P Schoeffel "Are 'Behaviour Change' Approaches to Obesity and Health Effective? A Case Study from Samoa" (2021) 21(8) *Pacific Health Dialog* 549.

Additionally, traditional practices like “fattening rituals” for women of high rank promote a preference for larger body sizes. This cultural ideal celebrates plumpness as a beauty, fertility, and social status marker.⁵³ These perceptions are often at odds with global public health messaging that emphasises the risks of obesity with larger body sizes. Hence, contrary to their cultural beliefs, Polynesians are less motivated to reduce their body sizes.

While some health initiatives emphasise the risks of obesity and NCDs, these efforts are often undermined by social messaging such as the “Big is Beautiful” narrative.⁵⁴ This perception is further compounded by scepticism toward Westernised health metrics like the Body Mass Index (BMI), which many Polynesians view as inappropriate for their unique body compositions, as mentioned by a Tongan participant in a 2023 study:

For me, as a Pacific Islander, I’m like ... I look pretty great. I felt really in shape if you want to compare stature to other Pacific Islander women. But then I compare myself to my White counterparts, and I’m like ... I’m so fat. We’re always considered obese on a BMI scale, and we know that that’s not reflective of who we are ... it’s not made for our body types, and this Westernised culture doesn’t always match up with ourselves and our body types.⁵⁵

In Polynesia, food practices’ cultural and social implications exacerbate the impact on public health. Imported foods, including sugary beverages, mutton flaps, and corned beef, have become staples in household diets and are deeply embedded in social and cultural practices. The consumption of such foods is linked to the cultural prestige of generosity and hospitality, complicating efforts to promote healthier dietary habits.⁵⁶ Existing fiscal measures have failed to account for these cultural contexts. Hence, any efforts to address NCDs through fiscal measures alone face significant challenges due to these deep-rooted cultural practices and societal norms regarding imported foods.

The intersection of modernisation and cultural practices in Samoa and Tonga illustrates the complexity of addressing NCDs. Therefore, efforts to address NCDs in Samoa and Tonga must navigate the complex interplay between trade liberalisation, dietary shifts, and cultural norms. Fiscal measures, such as taxes on harmful products, have been introduced to curb consumption and encourage healthier choices. However, these fiscal measures are often constrained by trade obligations and fail to address the cultural dimensions of food consumption. Public health efforts must account for the structural changes brought by globalisation and the deeply rooted traditions shaping food and health behaviours. Only by integrating these considerations into policy frameworks can Samoa and Tonga effectively combat the rising tide of NCDs.

6.0 NCD STRATEGIES FOR POLYNESIA

Samoa and Tonga have acknowledged the critical threat posed by NCDs and have undertaken integrated approaches to mitigate their impact. They have unified their national NCD policy, fiscal measures, public health initiatives, and community engagement to address NCDs. However, despite these efforts, significant challenges remain in reversing the rising prevalence of NCDs.

53 Above.

54 C Wang, A Abbot and ors “Ideal Body Image and Health Status in Low-Income Pacific Islanders” (2002) 9 *Journal of Cultural Diversity* 12.

55 M Playdon, T Rogers, E Brooks, E Petersen, F Tavake-Pasi, J Lopez, X Quintana, N Aitaoto and C Rogers “Sociocultural Influences on Dietary Behavior and Meal Timing Among Native Hawaiian and Pacific Islander Women at Risk of Endometrial Cancer: A Qualitative Investigation” (2023) 34 *Cancer Causes & Control* 23 at 27.

56 World Health Organization *Noncommunicable Diseases in the Western Pacific Region: A Profile* (World Health Organization, 2012) <www.who.int/>.

Over the past decade, Samoa and Tonga have developed comprehensive policy frameworks to address NCDs, aligning their national strategies with global health priorities. Samoa's "National Non-Communicable Disease Policy and Action Plan 2018–2023"⁵⁷ emphasises prevention through risk factor reduction, including addressing unhealthy diets, tobacco use, physical inactivity, and harmful alcohol consumption. Similarly, Tonga's "National Strategy for the Prevention and Control of NCDs 2021–2025", also known as "*Tuiaki' i he 'Amanaki ki ha Tonga Mo'ui Lelei*",⁵⁸ employs a systems-based approach to tackling NCDs by addressing individual behaviours and broader social determinants of health. Both frameworks prioritise multi-sectoral collaboration, integrating health considerations into education, agriculture, and trade policies. These efforts aim to create supportive environments for healthier lifestyles, ensuring public health objectives are embedded across sectors.

Community engagement is central to NCD strategies in Samoa and Tonga. These programs, leveraging traditional social structures, such as village councils and church groups, emphasise culturally appropriate health education and behaviour change. For instance, Samoa's "*PEN Fa'a Samoa*" initiative adapts the WHO's *Package of Essential Non-Communicable Disease Interventions* to the local context.⁵⁹ This program trains community members to conduct health screenings, monitor risk factors, and educate others about NCD prevention, fostering grassroots ownership of public health goals.

School-based interventions have also been pivotal in promoting healthy behaviours from a young age. In Samoa, nutrition education and physical activity programs are integrated into school curricula, while BMI monitoring helps identify at-risk children for early intervention.⁶⁰ Similarly, Tonga has implemented initiatives such as the "Healthy Tonga Tomorrow" campaign,⁶¹ which empowers families with the knowledge and skills to prevent NCDs through healthier eating and active living.

Media campaigns have played a significant role in raising awareness about NCDs. These initiatives use radio, television, and social media platforms to disseminate messages about healthy lifestyles. For instance, cooking shows feature traditional recipes and exercise programs tailored for Polynesians and were aimed to make healthier choices more accessible. However, the reach of these campaigns can be limited in rural areas, where traditional communication channels such as community meetings may be more effective.⁶²

Despite these efforts, Samoa and Tonga continue to grapple with high obesity rates and the economic costs of NCDs. The persistence of harmful dietary practices reflects the deep-seated cultural and economic barriers to change. Imported foods remain central to communal and ceremonial events, and the affordability of processed imports relative to local produce continues to undermine health promotion efforts. The following subsection offers further suggestions to enhance existing NCD strategies in Samoa and Tonga.

57 Ministry of Health Samoa *National Non-Communicable Disease Policy and Action Plan 2018–2023*. Government of Samoa publication 2018).

58 Ministry of Health Tonga, Australian Aid & Pacific Community *Tuiaki' I He' Amanaki Ki Ha Tonga Mo'ui Lelei – Persevering Together Through the Crisis to a Healthier Tonga: Tonga National Strategy for the Prevention and Control of Non-Communicable Diseases 2021–2025* (Ministry of Health of Tonga and Tonga Health Promotion Foundation, 2021).

59 World Health Organization *PEN Fa'a Samoa – Strengthening NCD Prevention, Detection and Management Through Community Participation (Expansion 2016–2017)* (WHO, 2016).

60 World Health Organization *STEPwise Approach to Surveillance (STEPS) Report: Samoa* (WHO, 2018).

61 Tonga Health Promotion Foundation (2024) <www.tongahealth.info/>.

62 World Health Organization *STEPwise Approach to Surveillance (STEPS) Report: Tonga* (WHO, 2018).

6.1 Suggestions for enhancing NCD strategies

As discussed in the previous sections, NCDs in Polynesia are caused by a culmination of economic, social and cultural factors. Samoa and Tonga must consider these factors when implementing NCD strategies. This demands a multifaceted and holistic approach by integrating cultural, economic, and regulatory dimensions within their NCD strategies. The limitations of fiscal policies highlight the need for a comprehensive strategy that integrates public health, trade regulation, and cultural awareness. They must balance the benefits of trade liberalisation with safeguarding public health. This includes advocating for health-centric trade agreements that allow for greater regulation of harmful imports, supporting local agricultural production to enhance food sovereignty, and integrating health considerations into economic policymaking.⁶³ Only by addressing the structural drivers of dietary transitions can Samoa and Tonga mitigate the public health impacts of globalisation and economic liberalisation. Hence, the key recommendations include:

- **Strengthening fiscal policies:** Taxation on harmful products must be standardised and consistently applied across product categories to reduce substitution effects. Uniform import duties and excise taxes should be applied to all harmful products within the same category to minimise substitution effects. For example, all high-fat meats, regardless of cut or origin, should be subject to equivalent taxation. Higher taxes on processed imports and subsidies for local produce would enhance the affordability and appeal of traditional diets.

Governments should provide subsidies for producing and distributing traditional, nutrient-dense foods to ensure affordability and accessibility. Enhancing food sovereignty would reduce reliance on harmful imports and support public health objectives. Supporting traditional agriculture through subsidies would strengthen food sovereignty and reduce reliance on unhealthy imports.⁶⁴ Taxes on healthy products such as fresh produce and water should be reduced or eliminated to incentivise consumption. These adjustments would send more precise health signals and improve affordability.

- **Prioritising health in trade negotiations:** Both nations should advocate for health-centric provisions in trade agreements. They should negotiate trade agreements prioritising health objectives, including seeking exemptions or flexibilities within trading rules to allow higher tariffs or ban harmful imports. To strengthen their position on health priorities in trade negotiations, they should get support from the WHO regarding the NCD crisis in Polynesia. Their support can pressure the WTO or trading partners to allow greater flexibility and autonomy to regulate products entering their markets. Greater alignment between trade and health policies would empower governments to prioritise public health without violating international obligations.
- **Leveraging cultural institutions:** Cultural values and norms must be carefully considered when designing and implementing NCD prevention strategies. Policies disregarding these cultural dimensions risk alienating the communities they aim to serve. Instead, interventions should be culturally sensitive and leverage existing structures of authority and influence, such as matai (chiefs), nobles, and church leaders. Being collectivistic Polynesians, these authoritative figures are influential and are highly regarded within the community. They can influence the community to live healthier lives with well-designed campaigns and be health champions/exemplars. Their influence can help align public health messaging with cultural values, enhancing the acceptance of interventions.

63 Conn e C Conn, R Cammock, K Ford, G Kloet and S Nayar “Our People, Our Food, Our Planet: Sustainable Food Systems Policy in the Pacific” (2020) 3 *Pacific Health* 1.

64 S Capstick, P Norris, F Sopoaga, W Tobata “Relationships Between Health and Culture in Polynesia - A Review” (2009) 68 *Social Science & Medicine* 1341.

- Health education campaigns, for example, could be embedded within communal events and religious gatherings, where authoritative figures can champion healthier dietary practices. Prominent figures, including religious leaders, rugby players and government officials, can also be role models to promote physical activity and better eating habits.⁶⁵ By aligning public health messaging with cultural values of care, reciprocity, and social responsibility, policymakers can enhance the acceptance and effectiveness of interventions.

By adopting these strategies, Samoa and Tonga can hopefully build on their efforts to combat and reverse NCDs. Integrating fiscal measures with culturally sensitive health initiatives offers a more sustainable path for reducing NCD prevalence and improving public health outcomes in Polynesia.

7.0 CONCLUSION

The rising prevalence of NCDs in Polynesia underscores the urgent need for multi-dimensional strategies that address the interplay between fiscal policies, cultural practices, and global economic systems. While Samoa and Tonga have made commendable efforts to combat NCDs through taxation and NCD interventions, the persistence of these diseases reveals the limitations of these measures. Trade liberalisation, cultural norms, and economic pressures continue to shape dietary patterns and health outcomes in ways that undermine existing interventions.

Globalisation has brought economic opportunities to Samoa and Tonga and created structural challenges for public health. Trade agreements, while promoting market access and economic growth, often restrict the ability of governments to regulate harmful imports. Fiscal measures, such as excise taxes on harmful products such as SSBs, high-fat processed foods, alcohol and cigarettes, are constrained by these trade obligations, reducing their effectiveness. Additionally, inconsistencies in applying these taxes weaken their impact on consumption behaviours.

Cultural factors play a significant role in shaping dietary choices and perceptions of health in Polynesia. The centrality of food in communal and ceremonial life, coupled with the cultural idealisation of larger body sizes, complicates efforts to promote healthier eating and physical activity. These deep-rooted norms highlight the importance of culturally informed approaches to NCD prevention.

Addressing NCDs in Samoa and Tonga requires more than fiscal measures; it demands integrated solutions that align public health initiatives with cultural, economic, and trade policies. Recommendations for achieving this include:

- **Enhancing fiscal policy design:** Uniform and consistently applied taxes on harmful products and reduced taxes or subsidies for healthy alternatives would create more explicit incentives for healthier consumption.
- **Advocating for health-centric trade policies:** Policymakers should negotiate trade agreements prioritising public health, allowing for greater regulatory control over harmful imports.
- **Strengthening local food systems:** Investments in traditional agriculture and subsidies for nutrient-rich local produce would enhance food sovereignty and reduce reliance on unhealthy imports.
- **Leveraging cultural leadership:** Influential figures such as chiefs, nobles, and church leaders must actively promote health education and lifestyle changes within their communities.

⁶⁵ E Reeve, P Lamichhane, B McKenzie, G Waqa, J Webster, W Snowdon and C Bell “The Tide of Dietary Risks for Non-Communicable Diseases in Pacific Islands: An Analysis of Population NCD surveys” (2022) 22 (1521) *BMC Public Health* 1.

These strategies must be implemented within a framework that respects and incorporates Polynesian cultural values. Health campaigns should leverage communal events and authoritative voices to ensure public health messages resonate with societal norms. By integrating fiscal, cultural, and trade considerations into a cohesive policy approach, Samoa and Tonga can potentially combat the NCD crisis more effectively.

Like all research, this article is subject to some limitations. The platform in which government and their official sources and statistics were obtained may not always be up to date; as a result, some statistics may not be the latest data. This is common for developing nations, particularly for SIDS. The data collection took place from December 2023 to December 2024, and the analysis is based on the status of these government and official data as of that date. Hence, an area of future research would be to examine the latest updates from the SIDS government and official sources. In addition, the use of an alternative research method involving interviews or Talanoa on key participants such as government officials, trade negotiators, health officers and the public may shed further insights on the role of culture, trade, fiscal policies and NCDs.

Despite the above limitations, this study aligns with the current efforts of the Polynesian governments to lessen the NCD burdens by uncovering some of the contributing factors to the (in)effectiveness of their fiscal measures in combating NCDs. It has been found that fiscal measures used in isolation are not the panacea for addressing NCDs. Instead, fiscal and complementary non-tax measures are needed to combat NCDs better. Lessons from this research can provide some insights into NCDs' global public health impact as countries progress in their nutritional and economic transitions.

The contributions of this study are twofold. Firstly, this study offers guidance for the future design of both tax and non-tax interventions aimed at addressing NCDs in Pacific Island contexts. Secondly, this study contributes to the literature by integrating fiscal policy and cultural/contextual considerations into existing discussions on trade and health, thereby offering a more nuanced understanding of the persistence of NCDs in Samoa and Tonga.

The Polynesian experience offers valuable lessons for other Pacific Island nations and SIDS grappling with similar NCD challenges. It demonstrates the importance of balancing economic development with public health priorities and the need for culturally sensitive interventions. Bridging fiscal policies with cultural sensitivity leads to healthier, more resilient communities. Such an approach not only addresses immediate health concerns but also enhances the long-term well-being and productivity of the population, laying the foundation for sustainable development in Polynesia and beyond.

Accepted for publication on 1 July 2025