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The role of policy in improving diets: experiences from the Pacific Obesity Prevention in Communities food policy project

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Summary

There is global interest in using multisectoral policy approaches to improve diets, and reduce obesity and non-communicable disease. However, there has been *ad hoc* implementation, which in some sectors such as the economic sector has been very limited, because of the lack of quality evidence on potential costs and impacts, and the inherent challenges associated with cross-sectoral policy development and implementation. The Pacific Obesity Prevention in Communities food policy project aimed to inform relevant policy development and implementation in Pacific Island countries. The project developed an innovative participatory approach to identifying and assessing potential policy options in terms of their effectiveness and feasibility. It also used policy analysis methodology to assess three policy initiatives to reduce fatty meat availability and four soft drink taxes in the region, in order to identify strategies for supporting effective policy implementation.

Keywords: Diets, obesity, Pacific Islands, policy.

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Introduction

Non-communicable diseases (NCDs) create significant health and economic problems in Pacific Island countries, and articles in this supplement have highlighted the risk factors already prevalent among adolescents in Fiji and Tonga. While efforts to prevent NCDs through behaviour change can achieve some improvements in diets and physical activity, particularly when targeted to children and adolescents, the success of such interventions is often limited (1). In the Pacific Island region, interventions targeting different population groups have had little if any impact on the escalating problems of obesity and NCDs.

There is long-standing global recognition that health promotion initiatives must include a policy component (2), and also that public policies are an essential part of strategies to improve diets and tackle the problem of obesity and NCDs (3). Recommendations for policy interventions span multiple sectors, including health, education, agriculture, taxation, trade and communications, which are needed in order to successfully address the broader environmental changes that have contributed to obesity and

NCDs (4). This paper describes the Pacific Obesity Prevention in Communities (OPIC) food policy project, which focused on policy interventions that create supportive environments for healthy diets – for instance, through changing the food supply to improve the availability and price of healthy compared to unhealthy options (5).

Despite these recommendations, there has been limited implementation of policy interventions to create a healthier food environment, and there is particularly a shortage of action from sectors outside of health and education (6). Engaging sectors outside of health in policy implementation has proved challenging for many reasons. Common barriers include the difficulty of getting health on the agenda of other sectors, insufficient information to guide policy making, lack of a strong evidence base about relevant policy options and limited resources for implementation (7). In addition, the long-term investment and delayed returns required for effective public health intervention makes it politically unattractive (8).

Problems in the current food environment and policy actions so far

Pacific Island countries have experienced recent and extensive dietary change. Rising food imports have accompanied a marked shift away from a traditional diet. In the past 50 years, traditional starchy roots such as taro and cassava, and local fish have been replaced with a 'modern' diet based on low-fibre foods, high in refined carbohydrates (particularly sugar), salt and fat, such as noodles, white bread and crackers, with fatty meats being of particular concern (9,10).

The rapid food supply and dietary changes in the Pacific have not been mirrored by related actions to control the food environment. While existing Pacific Island NCD strategies identify a range of policy interventions, including control of food advertising, taxation on less healthy foods and price control for healthier options, there has been little implementation (11,12). There exist, however, multiple policies which affect food supply which were implemented for reasons unrelated to health, e.g. import taxes are higher on imported processed foods in some countries to protect local industry (11). Some of these policies are counterproductive to efforts to stem NCDs, such as the inclusion of fats, sugar and white flour on price control lists (which enforce low retail mark-ups to address poverty), despite NCD strategies that aim to discourage consumption of such foods.

The Pacific Obesity Prevention in Communities food policy project – methods

Diet-related chronic diseases are the greatest single cause of death in the Pacific region (13). While multiple lifestyle aspects are contributing to this growing health problem, dietary changes are a key factor.

Pacific Island countries have implemented a small number of innovative policy interventions in sectors outside of health, and their high rates of NCDs make them likely settings for further policy-based actions. The food policy component of the Pacific OPIC project combined multiple methods, including health impact assessment, policy analysis and case study research, to learn from existing activities and identify potential new strategies (Fig. 1).

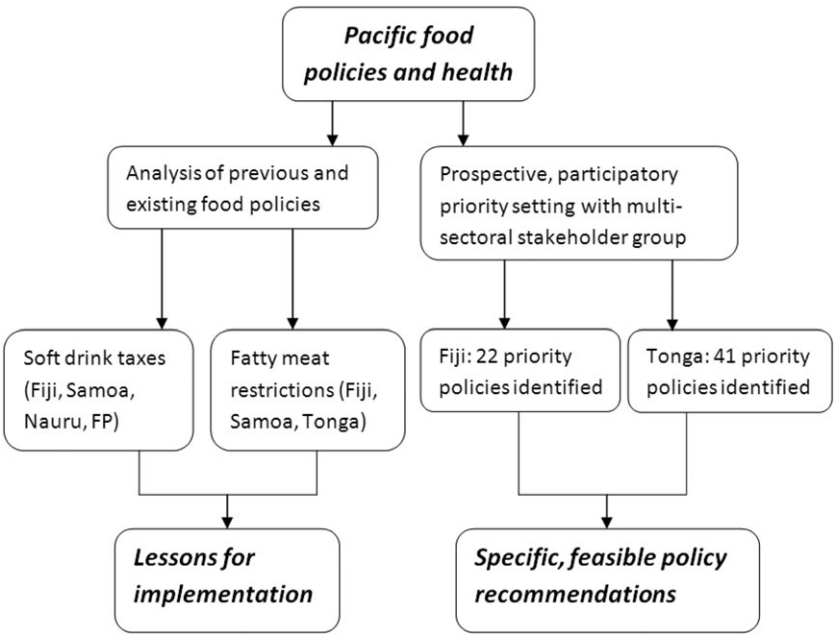

Figure 1 Overview of the Pacific Obesity Prevention in Communities food policy project.

Researchers worked collaboratively within countries, partnering with in-country Pacific OPIC offices and policy makers across multiple sectors. The process emphasized sharing of information with key local stakeholders to build local capacity for future work and awareness of relevant evidence. This research focused on 'policy' as action by government through various mechanisms (particularly legislative).

There were two main components of the Pacific OPIC food policy project. First, seven innovative policy initiatives in five Pacific Island countries – Fiji, Tonga, Samoa, Nauru and French Polynesia (only Fiji and Tonga were participating in the Pacific OPIC study) were analysed. These case study policies increased the cost of soft drinks (14) or sought to control fatty meat supply (15). Policies were analysed using stakeholder interviews complemented by data analysis. The research provided a clear picture of the process through which policies were developed and implemented, and aimed to improve local, regional and international understanding of the process of developing and implementing cross-sectoral interventions (14,15). However, the lack of available consumption and pricing data meant that it was only possible to partly assess policy impacts.

The second component of the Pacific OPIC research was the identification of the most effective, sustainable and feasible policy interventions to improve diets and prevent obesity and NCDs in Fiji and Tonga. We used a participatory approach, built around a multi-sectoral group of stakeholders from across multiple government and non-government sectors in Fiji and Tonga. These stakeholders analysed the existing policy environment and its influences on key dietary problems, such as low fruit and vegetable intake, high intake of fatty processed meats and sugary drinks. The process used different participatory tools, in particular modified problem and solution trees (mPASTs) (16), to facilitate this identification process and also to identify potential policy solutions. Policies were identified from all sectors, particularly trade, commerce, finance and agriculture. The existing policy problems identified had been developed for reasons unrelated to diet, but had effects on foods supply. The stakeholder groups then carefully considered all the options, assessing health/social impact, likely effectiveness, feasibility and acceptability (17) and cost-effectiveness (18). By the end of this component of the research, a comprehensive list of possible policy interventions was developed along with projected health and economic impacts, from which to draw and select future interventions (18).

The results of the Pacific OPIC food policy research have been reported in the papers cited (14–19). In this article, we summarize key findings of the project as a whole, and discuss the implications for Fiji, Tonga, the region and elsewhere.

The Pacific Obesity Prevention in Communities food policy project – findings

Soft drink taxes

Four soft drink tax case studies were investigated (14). In 2006, Fiji introduced an import excise duty of 5% on soft drinks and an excise duty (on locally manufactured soft drinks) of 5 cents L^{-1}. These taxes were developed by the Ministry of Finance to compensate for losses due to tariff reductions with trade liberalization, and the domestic excise tax was subsequently removed due to local soft drink industry pressure. In Samoa, the excise and import excise taxes on soft drinks were primarily for revenue raising and originated from within the Ministry of Finance. Despite this, there was also a stated aim of improving health, likely due to ongoing promotion of messages on healthy eating from the Ministry of Health. While evidence of impact on consumption is lacking, bottled water (which is not subject to the soft drink excise tax) is now cheaper than soft drink in the stores.

In contrast, the tax in Nauru which was studied – a 'sugar levy' of 30% on imported sugar, confectionery, carbonated soft drinks, cordials, flavoured milks and drink mixes (Nauru has no local production) – was primarily a health-promoting measure. It was raised by the Minister for Health and designed to shift consumption habits. However, the tax was also implemented in the context of the government seeking alternative sources of income, and significant revenue has been collected via the tax. The retail price of a 375 mL can of soft drink increased by 20%.

In French Polynesia, taxes were implemented on sweetened drinks, confectionery, ice cream and beer, and were marketed as health measures. Their intent was not to lower consumption but to raise revenue for a prevention fund. The funding mechanism was subsequently modified so that the funds from the tax go to the general government budget, and 80% of these funds are then earmarked for the Ministry of Health's general budget.

Initiatives to restrict fatty meat supply

High consumption of fatty meats is an issue in the Pacific, and has received considerable attention from policy makers. At least three countries have in response to this, attempted to control the supply of specific fatty meat products (15). The Prime Minister of Samoa targeted turkey tails with an import ban, supported by the Minister for Health. As a direct outcome of the ban, turkey tail imports ceased. A consumer survey conducted by the Nutrition Centre in 2008 found that over half of consumers supported the ban. However, the ban may be changed as part of Samoa's negotiations to accede to the World Trade Organization (WTO) (20).

Fiji implemented a sales ban on mutton flaps (lamb flaps), on the basis that they are harmful to human health. Although this was a supply/sales (rather than import) ban, the New Zealand government argued that the ban effectively amounted to an import ban because the product is primarily imported. The result of the ban was an immediate decline in the import and availability of lamb flaps, although imports subsequently rose. The ban was identified by stakeholders in this research as being weakly enforced and requiring amendment. However, a follow-up survey revealed that most consumers and retailers were supportive of the ban (21).

Tonga similarly was concerned about mutton flaps, but despite high levels of interest, has not undertaken any specific actions to date. The Prime Minister of Tonga publicly commented that mutton flaps are 'hardly edible' in 2002, and in 2003 Cabinet discussed a proposal to apply an import quota (restriction on volume imported) to mutton flaps. However, concerns about the policy's acceptability in light of ongoing WTO accession negotiations resulted in the submission of the paper to Cabinet being postponed (22). Concerns about mutton flaps continue, and the issue was heavily debated during the Pacific OPIC research by stakeholders from across sectors.

Potential areas for further policy action

Despite these examples of innovative policy actions, it is clear from the research with the stakeholder group and from ongoing obesity-related health problems that existing policy environments in many Pacific Island Countries and Territories are not supportive of healthy eating and there is still ample scope for action. In the second component of the OPIC research, the multi-sectoral stakeholder group considered possible policy changes to improve diets. More than 80 were identified in both Fiji and Tonga. Again, these spanned multiple sectors, and most were in fact outside the Ministry of Health's immediate control. The impacts, feasibility and acceptability varied considerably between policy options, and it was clear that no single policy was likely to be sufficient by itself, and that all policies had advantages and disadvantages. There was a large range of costs and effectiveness, e.g. some had one-off costs just a few hundred dollars to implement while others would require substantial sums over long periods. Similarly, for effectiveness there was a considerable range, with the least effective likely to avert less than one NCD-related death, while the more effective could avert more than 100 (around 3% of all related NCD deaths). Based on all of these assessments, Fiji prioritized 22 policies for action, and Tonga 41. These spanned multiple issues, and targeted pricing, availability and accessibility of healthy and unhealthy foods. Sectors involved included education, trade, commerce, health, finance and communications. While there were some similarities in the recommendations between Fiji and Tonga, the lists were country-specific. For example, Fiji identified that it wished to further regulate supply of fatty meats, whereas Tonga preferred to raise taxes on these same meats to control intake. Both countries recognized the need to control food advertising to children, and school food environments. There were multiple policies in each country which targeted prices of foods and drinks, specifically lowering import taxes and implementing price controls on items such as fish, fruits and vegetables and lentils, while also increasing duties and/or removing from price control items like fatty meats, butter, oils and sugar. Increasing access to healthier foods was targeted through policies such as targeted subsidies for fishermen and cooperatives.

The next stage for both countries is to move towards implementing the policy recommendations. Tonga has adopted the recommendations in its next national NCD strategic plan, and Fiji has also incorporated many of the recommendations in similar documents. This will be no guarantee of success, or that changes made are maintained; however, it will assist with the process. As previously highlighted, there is often a gap between interest in pursuing policy change and policy implementation. The work with the stakeholder groups has helped to develop a clear, focused and targeted policy action list for each country. This is likely to be more useful for countries than previous more vague recommendations such as to 'alter prices of healthy and less healthy foods' or 'encourage importation of healthy foods'. It is clear, however, that those in the health sector need to consider how to progress from policy commitments to policy action.

Discussion

Strategies to facilitate action

Many of the policy options identified during the participatory process were from sectors other than health. This is consistent with widespread consensus that multisectoral policy initiatives will be required to improve diets (10,23). While the Pacific OPIC research generated extensive evidence about the need for actions, and justification for the specific actions, this may not be enough to produce policy change. The analysis of existing innovative policy implementation highlighted that political and cross-sectoral support is critical to policy change, and it is therefore relevant to consider this issue further.

This section presents lessons from this research that are relevant to future implementation of policies from other sectors to improve diets and health. The key lessons for implementation are: the need for strategic advocacy to get policy interventions on the political agenda, the benefits

of minimizing administrative costs and working closely with partner Ministries, and the importance of considering international issues affecting policy making (14,15). Considering these political dimensions of policy making will also help to overcome barriers presented by international commitments (e.g. WTO, priorities of donor countries) and the potentially unsupportive influence of the food industry.

Getting policies on the political agenda

The Pacific OPIC research identified political acceptability and cultural acceptability as key components of the prioritization process for potential policy options (17). The political agenda refers to the active consideration of policy options by politicians and policy makers, who have power to enact policy decisions. The Pacific OPIC research policy analysis identified multiple factors that assisted with the adoption of issues onto the political agenda. These included long-term advocacy by Ministry of Health staff, particularly about the importance of healthy eating. There is potential for non-government organizations to support such health advocacy, and for building partnerships and coalitions that broaden the support base for health-promoting policies. Non-governmental groups can have significant influence on policy making, and can assist with supporting health efforts, if collaborative links are strong. While perceptions may be that community's views on policy are less important than those of politicians or the private sector, they may be underestimating their influences.

Contextualization of policy options also helped to attract political commitment. Contextualization involves linking health concerns to other current policy debates that relate to food and health, and using these as forums for raising the need to improve the food supply. For example, in Fiji and Samoa, health concerns regarding fatty meat consumption were linked to concerns over dumping of fatty meats, and the use of revenue raised was an explicit contributor to development of three out of four soft drink taxes. This can be a beneficial strategy for increasing political interest in, and the acceptability of, policies.

Implementation and administration

The analysis of existing policies suggests that active ownership by more than one stakeholder is critical for policy implementation. Although the Ministry of Health is often the key advocate for policies to improve the food supply, the power to implement and enforce these policies usually lies with other stakeholders, such as Ministries of Trade, Education or Finance. It is therefore important for the Ministry of Health to engage the implementing agency and other stakeholders at an early stage, to help ensure that the proposal is feasible and to secure their support for the policy proposed. Supporting more evidence-informed policy making by non-health sectors is a key strategy. Highlighting any side benefits of a policy (such as increased revenue) to the implementing agency can improve its acceptability and increase ownership of the intervention. Finally, minimizing administrative costs, e.g. through proposing the use of existing legislative mechanisms, can also increase the political acceptability of a policy proposal. Collaboration also allows the early identification of any restrictions related to international commitments.

International issues affecting policy making

Other regional and international actions and support can also have a great influence – either positive or negative – on the implementation of policies to improve the food supply. For example, the move by one or more countries to tax sugary drinks has likely had an impact in terms of the acceptability and familiarity of this approach in other countries in the region. On the other hand, global and regional forums and institutions provide opportunities for other countries to raise objections to policies that may affect their business interests or set an undesired precedent. Actively seeking support during policy development from influential neighbouring countries, such as New Zealand and Australia who are major donors in the region, can help to reduce the likelihood of later objection. Similarly, support from regional and international organizations such as the World Health Organization and the Forum Secretariat may help to increase the acceptability of policy proposals.

Many of the policies discussed in this article seek to influence pricing and/or trade in foods, which opens up the issue of international trading rules and regulations, which are governed globally by the WTO. The research found that understanding of the requirements of global trading rules was limited, particularly among health policy makers. It is important that policy proposals that may affect trade are well justified, and that policy makers are well versed in the requirements of the trade agreements to which their country is party (24).

Lessons for other regions

The nature of Pacific Island countries as Small Island Developing States must be taken into account in considering the application of these findings to other regions, particularly their small size and high level of vulnerability to both natural disasters and fluctuations in the global economy. However, it is likely that the findings of the Pacific OPIC project can inform obesity-related policy development and research in other contexts, because of the growing global epidemic of NCDs.

While information on cost-effectiveness and priorities for action are likely to be very country-specific, the methods used in this research can be adapted to undertake similar investigations in other countries. The combination of health impact assessment, modelling and qualitative research provided a holistic and realistic list of potential policy options to address obesity and NCDs, tailored to the situations in the countries involved.

The lessons from previous policy implementation are likely to have relevance in other contexts, although they will need to be adapted to different circumstances based on political factors. The lessons highlight important considerations for those interested in promoting cross-sectoral food policy implementation, such as the influence of international commitments, the importance of effective advocacy and collaboration with other sectors, and the benefits of minimizing administrative costs to other sectors.

Limitations of the study

The Pacific OPIC research relied on limited data, some of which was quite dated, for a number of its components. In analysing existing policies, the research focused on a gap in the policy literature relating to policy development and implementation. However, the lack of data on population food and beverage consumption meant that the impact of the already implemented policies on population health was not available. The modelling was reliant on a large number of assumptions due to limited data availability, particularly for price elasticity (17). The size of the policy effect could therefore differ markedly from the modelled results. Efforts are needed to enhance access to good quality and relevant data in the region, in particular making greater use of routinely collected data, combining multiple indicators into surveys and working more effectively with researchers to ensure that their work targeted in areas of need would be of benefit (25).

In relation to methodology, the policy stakeholders who elected to participate in the study may also have been biased due to self-selection. In addition, the selection of Small Island Developing States as the research countries may limit the applicability of findings to other countries due to cultural and geographical factors.

Conclusion

This innovative study has developed a clear picture of how policy has been and can be used in the control of NCDs in the Pacific and more widely. The in-depth analysis of the factors involved in policy making across different sectors, combined with the clear identification of specific preferred policy changes, offers health promoters in the Pacific valuable information for improving health. The extensive modelling undertaken also allows the limited data available to be utilized to support the development of evidence-informed policy.

It is evident from this research that policy across multiple sectors has the potential to significantly alter food supply and contribute to a healthier population. It is also clear that it is possible to implement policies in sectors outside of health, in order to improve the food environment. Even in economic sectors, such as trade and finance, policies have been implemented that had a significant impact on the food supply in the Pacific. The processes involved in policy making are clearly complex, but this research has enhanced understanding of this, and provides valuable lessons for future actions.

The participatory nature of this study, which actively involved policy stakeholders, has contributed to capacity building in these individuals, along with an increased understanding of the role of their sector in influencing diets and health.

Using policy interventions to improve the food environment is an underused area of NCD prevention and control. This study highlights the need to increase the skills of policy makers to access and utilize relevant evidence for policy development. There is clearly a need for further research regarding the impacts of existing and potential policies on diets and NCDs, both in the Pacific and globally.

Conflicts of Interest Statement

B. A. Swinburn's institution has received grants from the National Health and Medical Research Council. Support was provided to cover the cost of travel to New Zealand and to Investigator meetings. The author was employed by Deakin University.

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