

## Highlights from the PIFR Year 3 Impact Assessment

### Introduction

The Pacific Island Food Revolution (PIFR) is a social and behaviour change communication program that takes an innovative, evidence-based and culturally grounded approach to addressing the non-communicable disease (NCD) crisis in the Pacific. It combines entertainment with insights from behavioural sciences to tailor messaging and 'nudges' for impact. Its signature is a television show where contestants from Fiji, Vanuatu, Tonga and Vanuatu compete against each other using local cuisine. Ingredients and recipes are used that specifically address barriers to healthy eating.<sup>1</sup> Radio, social media and community engagement complement the television program in reaching different audiences, reinforcing messages and enabling a two-way dialogue with Pacific people and between Pacific people themselves. The goal is for Pacific people to routinely choose healthy, nutritious local food contributing to improved well-being by 2030.

PIFR has partnered with the [Busara Centre for Behavioural Economics](#) to incorporate behavioural science into the program's monitoring and evaluation activities across the three-year pilot. Busara's Year 3 Impact Assessment report seeks to understand PIFR's potential impact after 2.5 years of programming.<sup>2</sup>

This document summarises high level findings from Busara's report and outlines their implications in the medium to long term.

### Result 1: There is a large audience that watches and engages with PIFR across all four PIFR countries

- The research shows PIFR to be a well-known and popular edutainment series, **with a majority of respondents having heard of PIFR** (63% in Fiji, 85% in Tonga, 84% in Samoa and 49% in Vanuatu)<sup>3</sup> **and an almost equal share having engaged with PIFR** (63% in Fiji, 85% in Tonga, 67% in Samoa and 43% in Vanuatu).
- PIFR has also increased cooking confidence and interest in trying the recipes from the show. Overall, **64% of those who have followed PIFR said they would like to try a recipe from the show, with 53% on average reporting having tried out a PIFR recipe**. This is distributed relatively evenly across countries; 50% of respondents in Fiji, 50% in Tonga, 48% in Samoa and 37% in Vanuatu.
- In Fiji, 60% of those who have seen PIFR believe local food has become more popular in the past year compared to 28% who have not seen PIFR, and this is largely replicated across all countries. **This**

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<sup>1</sup> Through our research partners Busara Centre for Behavioural Economics we identified the following barriers to healthy eating: 1) affordability; 2) availability and 3) ease of preparation.

<sup>2</sup> As part of the Year 3 assessment, Busara, in close cooperation with local partner organisations (Further Arts Committee Inc. in Vanuatu, CocoNew - The Agency in Tonga and Samoa and Salt Inc Ltd in Fiji), surveyed 330 people across Fiji, Tonga, Samoa and Vanuatu using a mixed quantitative/qualitative instrument. Additional in-depth qualitative interviews with 40 people across the four countries were conducted to answer outstanding questions that arose in the quantitative analysis. This report highlights the findings from this work.

<sup>3</sup> The most common mode of engagement with PIFR is watching the show on TV, and the average respondent in Fiji and Tonga has watched 6 or more episodes.

indicates that PIFR is driving a shift in perceptions of social norms, which is of key importance for overall behaviour change and sustainability of impact.<sup>4</sup>

## Result 2: Watching PIFR is associated with positive shifts towards local, healthy food

- Across all four countries, **watching PIFR is correlated with shifting one's diet for the better, and believing others in the community have shifted theirs.**

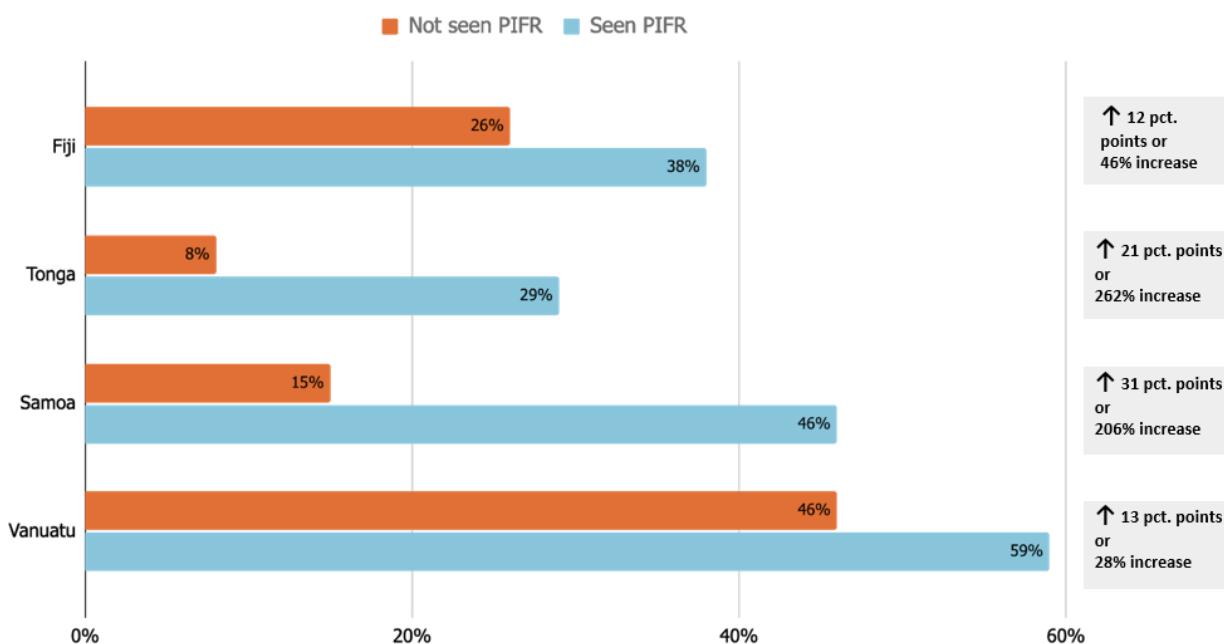


Figure 1: Share of respondents reporting shifting their own diets towards more local and healthy food over the past year, by country

- In Fiji, 38% who have seen PIFR have reported changing their diets over the past year, compared to 26% who have not seen (**46% increase**), in Tonga 29% of those who have seen PIFR compared to 8% who have not (**262% increase**), in Samoa 46% of those who have seen compared to 15% who have not (**206% increase**), and finally in Vanuatu 59% of those who have seen PIFR compared to 46% of those who have not seen PIFR (**46% increase**) have shifted their diets towards more local and healthy food.
- PIFR has increased the share of individuals reporting shifting their diets towards more local and healthy food over the 2020 period. When comparing improvements in diet changes at the individual and community level in each country for people who have watched PIFR and people who have not watched PIFR, we find PIFR is associated with an excess likelihood of diet improvements of approximately 33% in Fiji, approximately 262% in Tonga (due to extremely low levels for those who have not seen PIFR), ~38% in Vanuatu and ~146% in Samoa.
- **Countries where PIFR was viewed more heavily experienced larger PIFR-led shifts towards healthier diets.** For example, in Tonga and Samoa where 85% and 84% of the respondents have engaged with PIFR we find 72% and 67% respective improvements in the likelihood to make the shift to healthier diets. In

<sup>4</sup> According to behaviour change theory, individuals are more likely to change their behaviour if they believe others are doing the same. Therefore, the shifting of social norms aligned with PIFR messaging is likely to contribute to longer term sustainability beyond the time of the intervention.

Fiji and Vanuatu, where 63% and 49% of respondents engaged with PIFR, Busara found somewhat smaller improvements in the likelihood of shifting to healthier diets, of 31% and 22% respectively. This suggests that increased PIFR viewership is associated with larger shifts towards healthy eating.

- PIFR is valued for **guiding respondents in their shift rather than simply telling them to shift**. Respondents have commented that finding local, healthy and nutritious recipes has been difficult, with traditional recipes steeped in cultural traditions and handed down orally between generations. For the first time in the Pacific, respondents are able to readily access local, healthy recipes online that are easy to cook and simple to put together.

### Result 3: COVID-19 has created an environment where PIFR is more relevant and most effective

- This research has found that COVID-19 helped create an environment, where people are more interested and willing to learn about local food. This is related to reductions in personal income, restricted availability and the higher pricing of imported foods, and greater availability of time and interest to grow their own ingredients and prepare meals at home. COVID also led to an overall increase in health awareness, which translates into a desire to consume more healthy food. Health messaging led by governments across the Pacific has encouraged people to eat healthy to strengthen their immune systems against COVID.
- **The COVID-19 pandemic and resultant geo-political and socio-economic conditions may have inadvertently created prime conditions for PIFR content to positively influence food choices, and has encouraged individuals to act on their stated interests in preparing local healthy dishes.** This research has found evidence that the pandemic provides a very strong foundation for PIFR's messages to resonate with its audience.

### Future impact projections

- Whilst the human cost of NCDs on an individual level is devastating, so are the crippling economic effects they pose for public health services (Muka et al., 2015). Public expenditure on health, including external grants, is uniquely disproportionate in the Pacific, compared to lower-middle-income countries globally.
- **Conservative estimates (see Helble and Francisco, 2017) of the economic toll of NCDs suggest they account for between 2% and 4% of GDP in the Pacific region for treatment costs alone.** This is before factoring in human and economic costs associated with loss of life, productivity and other socio-economic impacts. Based on the latest GDP data, this amounts to a lower end cost of USD \$137.6 million per annum and an upper end of USD \$275 million per annum (or AUD \$183.76 million up to AUD \$367.51 million) across the four countries. (World Bank, 2021)
- **At an annual cost of AUD \$2.8 million, PIFR has the potential to result in delivering net economic benefits if it were to reduce NCD prevalence by just 1.3% per annum at the lower end or 0.7% on the upper end of the scale (average of about 1%).**
- If at least 1% of PIFR viewers can sustain the positive change in their diets over five years, the program will have positively impacted 13,856 people. At 5%, the program will have impacted 75,049 people and at 10%, 165,839 people.



Figure 2: Projections of healthy and sustained diet conversion rates of 1%, 3%, 5% and 10% over 5 years showing the number of individuals with changed diets, assuming a stable viewership.

- Adopting extremely conservative numbers of uptake at 1%, 5% and 10% per annum, the program's return on investment is significant after 5 years even if only 1% of those who claim to have changed their diets in the long term, have actually done so, and in response this prevents or reverses NCDs. At 1% uptake per annum the program will achieve a positive return on investment after 4 years. At 3% this will occur after the first year and accrue significantly after that.
- If 1% of PIFR viewers can sustain a positive change in their diets over five years, the program will have saved USD \$755,048 in GDP for treatment costs alone. If at least 5% of PIFR viewers can sustain the positive change in their diets over five years, the program will have saved USD \$20,863,622 and at 10%, USD \$46,103,242.

	PIFR cost per annum (USD)	1% uptake (individuals)	Benefit (USD)	5% update (individuals)	Benefit (USD)	10% (Individuals)	Benefit (USD)
Year 1	1,800,000	2,716	755,048	13,582	3,775,796	27,164	7,551,592
Year 2	1,800,000	5,460	1,517,880	27,843	7,740,354	57,044	15,858,232

<b>Year 3</b>	1,800,000	8,231	2,288,218	42,817	11,903,126	89,913	24,995,814
<b>Year 4</b>	1,800,000	11,030	3,066,340	58,540	16,274,120	126,068	35,046,904
<b>Year 5</b>	1,800,000	13,856	3,851,968	75,049	20,863,622	165,839	46,103,242

Figure 3: Cost and financial returns given uptake at 1%, 5% and 10% of viewers who claim to have changed their diets.

## References

Helble, M and K, Francisco (2017). The imminent obesity crisis in Asia and the Pacific: First cost estimates. ADBI Working Paper Series No. 743. Asian Development Bank Institute.

Muka, T., Imo, D., Jaspers, L., Colpani, V., Chaker, L., & van der Lee, S. et al. (2015). The global impact of non-communicable diseases on healthcare spending and national income: a systematic review. *European Journal of Epidemiology*, 30(4), 251-277. <https://doi.org/10.1007/s10654-014-9984-2>

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