

Pacific Island Food Revolution

PIFR Year 3: Impact Assessment Report

July, 2021



Executive Summary

Pacific Island Nations are facing a crisis of non-communicable diseases (NCDs). NCDs, including cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, represent the single largest cause of premature mortality in the Pacific Islands (World Health Organization, n.d). Currently NCDs account for around 70-75% of all deaths in the Pacific Islands and the situation is worsening (World Bank, 2014). The top 10 countries with the highest rates of diabetes in the world are in the Pacific Islands; 52.5% of adult males in Tonga are estimated to be obese; in Kiribati, Federated State of Micronesia, Tonga and Samoa adult female obesity is estimated to be 50% or more. In Fiji, 82% of deaths are NCD related, there are 3-4 diabetes-related amputations every 24 hours and there is an increased prevalence of diabetes in the younger population (Pratibha, 2019).

The economic impact of the NCD crisis on Pacific economies is yet to be fully calculated, but it is significant. In addition to the escalating health expenditure, there is also the loss to future GDP due to the loss of human capital, years of productive life and potential income. A 2017 study by the University of South Pacific (USP) calculated the economic cost of NCDs, given their impact on the productive age population, at USD 68 mil in Fiji, USD 16 mil in Vanuatu, USD 6 mil in Tonga and Samoa. Overall, the economic cost was found to be at 1-2% of GDP (Chand and Singh, n.d, pg 8).

The Pacific Island Food Revolution (PIFR) offers a new and innovative solution to the growing crisis, directly tackling the root causes of NCDs by encouraging Pacific Islanders to switch away from eating foreign, imported food toward healthier indigenous food. PIFR is funded by the Australian and New Zealand governments, and uses a range of communication modalities – television, social media, radio and community engagement – all designed based on behaviour change principles in order to shift perceptions and break down barriers to healthy eating. In just over two years of operation, PIFR has become highly popular, reaching over 5 million people in the Pacific on television alone.¹

Since 2018, Busara Center for Behavioural Economics has partnered with PIFR to incorporate behavioral science into the program's monitoring and evaluation activities. This report outlines findings from the year 3 impact assessment and is building on extensive pre- and post-exposure assessments, the design of the PIFR's theory of change (2018) as well as a causal experimental lab study conducted with

¹ There are no available ratings for Pacific TV stations. The viewership numbers are based on the self-reported reach of each of the 20 individual TV stations across the Pacific, which screened PIFR Season 2 at prime time between August-October 2020.

USP in Fiji (2019). Under the lab study, women were found to be 147% more likely to choose a healthy local dish after watching PIFR, as compared to women who watched a different program.

The objective of this impact assessment is to understand PIFR's potential impact after two years of programming. Throughout the analysis, we will be comparing two groups; those who have actively followed PIFR and those who have not. This does not qualify as a causal study given the lack of randomisation and control with PIFR exposure. However, the fact that watching PIFR can be causally linked to an increase in consumption of local and healthy food was proved in the 2019 lab study. The lab study results constitute the foundation for the current analysis, and allows us to meaningfully look at correlations between watching PIFR and a series of behaviour change measures.

Key areas of interest in this round of data collection were:

1. Level of engagement with PIFR
2. Practice: Understanding respondents' diets and potential shifts in theirs/their communities' diets
3. Knowledge and attitudes: Shift in perceptions of local food vs. foreign food
4. Perceptions and motivation: Shift in relationship with local food
5. Impact of COVID-19 and Tropical Cyclone (TC) Harold

As part of the year 3 impact 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 were conducted with 40 people across the four countries in order to answer outstanding questions that arose in the quantitative analysis. This report highlights the findings from this work.

Research Highlights

Through this research, Busara finds evidence that PIFR has:

- Inspired, educated and promoted local healthy food and the individual countries' respective cultures.
- PIFR has changed the perception of local food from being perceived as 'traditional village food' towards being perceived as interesting and even trendy. Respondents feel that PIFR has modernized local foods by showcasing new ways of preparing it.

- Improved respondents' understanding of healthy foods and food preparation strategies.
- Improved respondents' access to healthy local recipes, via the show's media presence (e.g., TV, website, facebook, etc.).
- 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. This is distributed relatively evenly across countries; 51% of respondents in Fiji, 63% in Tonga, 65% in Samoa and 83% in Vanuatu.
- Supported respondents in their shifts towards local and healthy food. Respondents appreciate PIFR for guiding them in their shift rather than simply telling them to shift.

This survey also offers suggestive evidence that:

- PIFR has increased the share of individuals reporting shifting their diets towards more local and healthy food over the 2020 period. Overall, among respondents who reported improved diet changes, 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 more heavily viewed experienced larger PIFR-lead shifts towards healthier diets consisting of more local food. For example, in Tonga and Samoa where 85% and 84% of respondents have engaged with PIFR, we find the highest respective improvements in the likelihood of shifting towards including more local and healthy foods in diets. In Fiji and Vanuatu, where 63% and 49% of respondents have engaged with PIFR, we find somewhat smaller improvements in the likelihood of shifting to healthier diets. This suggests that increased PIFR viewership is associated with larger shifts towards healthier eating.
- Overall, we find high shares of respondents who believe local food has become more popular over the past year. This is particularly driven by Fiji and Vanuatu. Interestingly, similar to shifts in diets, we find the perception of local food being more popular to be positively correlated with having followed PIFR. This goes for most countries (114% increase in Fiji, 270% in Samoa and 1800% in Tonga²), except for Vanuatu where the share of respondents believing local food has become more popular is already very high for both groups (74% for respondents who have not seen PIFR and 66% for respondents who have).

² Again due to extremely low levels in non-exposed group; only 1% compared to 19% in exposed group.

There is a high level of engagement with PIFR across all four countries

We find 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). 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. Participants in Ni-Vanuatu have watched an average of 3 or more episodes. In Samoa, most of the respondents who watched the show indicated having watched an average of 6 episodes.

In order to compare the two groups; those who have seen PIFR and those who have not, we define '*having seen PIFR*' as having seen 2+ episodes and being able to generally explain the purpose of the show. In the total sample, we find that 63% in Fiji, 85% in Tonga, 43% in Vanuatu and 67% in Samoa belong to this group, which is considered to be very high given the respondents were sampled randomly.

Similarly, we find that a relatively high share of PIFR viewers specifically mention having tried out a PIFR recipe: 50% of the Fijian viewers, 50% Tongan viewers, 37% in Vanuatu and 78% in Samoa. On average, we find that 52% of respondents who have watched PIFR would like to try out a PIFR recipe, suggesting that PIFR content is a prominent source of inspiration and knowledge for preparing unfamiliar local healthy dishes in all countries. We find that women are most likely to try out the recipes - a finding that closely aligns with the previous research findings suggesting women as the decision makers when it comes to household meals.

We find that respondents who follow PIFR are more likely to believe local food has become more popular in the past year. This indicates PIFR is driving a shift in perceptions of social norms of key importance for overall behavior change. In Fiji 60% of those who have seen PIFR compared to 28% of those who have not seen, in Tonga 19% of those who have seen PIFR compared to 1% who have not, in Samoa 37% of those who have seen PIFR compared to 10% who have not and finally, in Vanuatu the level is overall high skewed towards the opposite correlation between seeing PIFR and not, 66% of those who have seen PIFR compared to 74% of those who have not, believe local food has become more popular in the past year. Behavior change theory describes how individuals are more likely to change their behavior if they believe others are doing the same. Therefore, it is important for individuals to perceive shifting to local food as a social norm in their community.

Having seen PIFR is associated with shifts towards local food

In order to assess the impact of following PIFR on shifting diets towards more local food, we first asked whether the respondent believed they have shifted their own diet

over the past year, and how (self-reported which can overestimate the effect). We then asked whether the respondent believes people in their social circles/community have shifted their diet over the past year, and how (assessing others rather than oneself likely leads to an underestimate). We use these two variables to create an interval of an upper and lower boundary within which we believe the likelihood of PIFR being associated with a positive shift in diets lies.

Across all four countries, we find that having seen PIFR is correlated with having shifted one's diet, and believing others shifted theirs, for the better in the period of February 2020-February 2021 - In Fiji, 38% who have seen PIFR 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.

Across all countries, there is consistently a higher share of female respondents who have experienced a positive change in their diets over the past year. The gap is the largest in Samoa (58% of female respondents vs. 37% of male respondents) and smallest in Vanuatu (55% of female respondents vs. 53% of male respondents). This is consistent with the findings from the 2019 lab study, which showed women to be more likely to change behavior due to PIFR.

The absolute level of respondents who have shifted their diets towards more local food over the past year is influenced by a multitude of factors; for instance COVID and Tropical Cyclone Harold, which have affected the countries included in this study disproportionately. Therefore, this analysis is looking at relative differences within countries between the group who have followed PIFR and those who have not. We see no clear reason to believe that factors such as COVID would affect those who have followed PIFR and those who have not disproportionately.

Overall, we find clear correlations between following PIFR and shifting diets towards more local and healthy food both for the individual and for the perception of community shifts.

A Shifting Environment for Promoting Local Foods

Foreign foods are increasingly expensive due to restricted imports, and more people report growing local healthy food at home. Additionally, many respondents report that going through a global pandemic has caused them to think more about taking care of their health. In Vanuatu in particular, respondents also mention the risk of

NCDs. Thus, 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 encourage individuals to **act** on their stated interests in preparing local healthy dishes.

This research has found that COVID helped create an environment, where people are more interested and willing to learn about local food. This is because of reductions in personal income, restricted availability and the higher pricing of imported foods, and greater availability of time at home to prepare meals. COVID also led to an overall increase in health awareness, which translates into a desire to consume more healthy food. Health messaging has encouraged people to eat healthy to strengthen their immune systems against COVID. We find evidence that the pandemic provides a very strong foundation for PIFR's messages to resonate with its audience.

Tongan respondents explain that foreign food has become cheaper over the course of 2020 due to the strict price control on imported food, which lead us to expect less likelihood of Tongans having shifted away from foreign food towards local food. Interestingly, we find that Tongans who have watched PIFR are much more likely to have shifted towards local food, which suggests that PIFR's opportunity for impact is still significant even when structural factors, such as the price control, is working against it.

This study finds compelling evidence of PIFR viewership being associated with shifting diets towards more local and healthy food, as well as believing others are doing it. In the last section of the report, we provide a set of recommendations which broadly fall into the categories of how to ensure accessible recipes, how to most effectively use reminders and social interventions, and finally potential engagements to support and sustain the maintenance of the observed positive dietary shift.

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Background

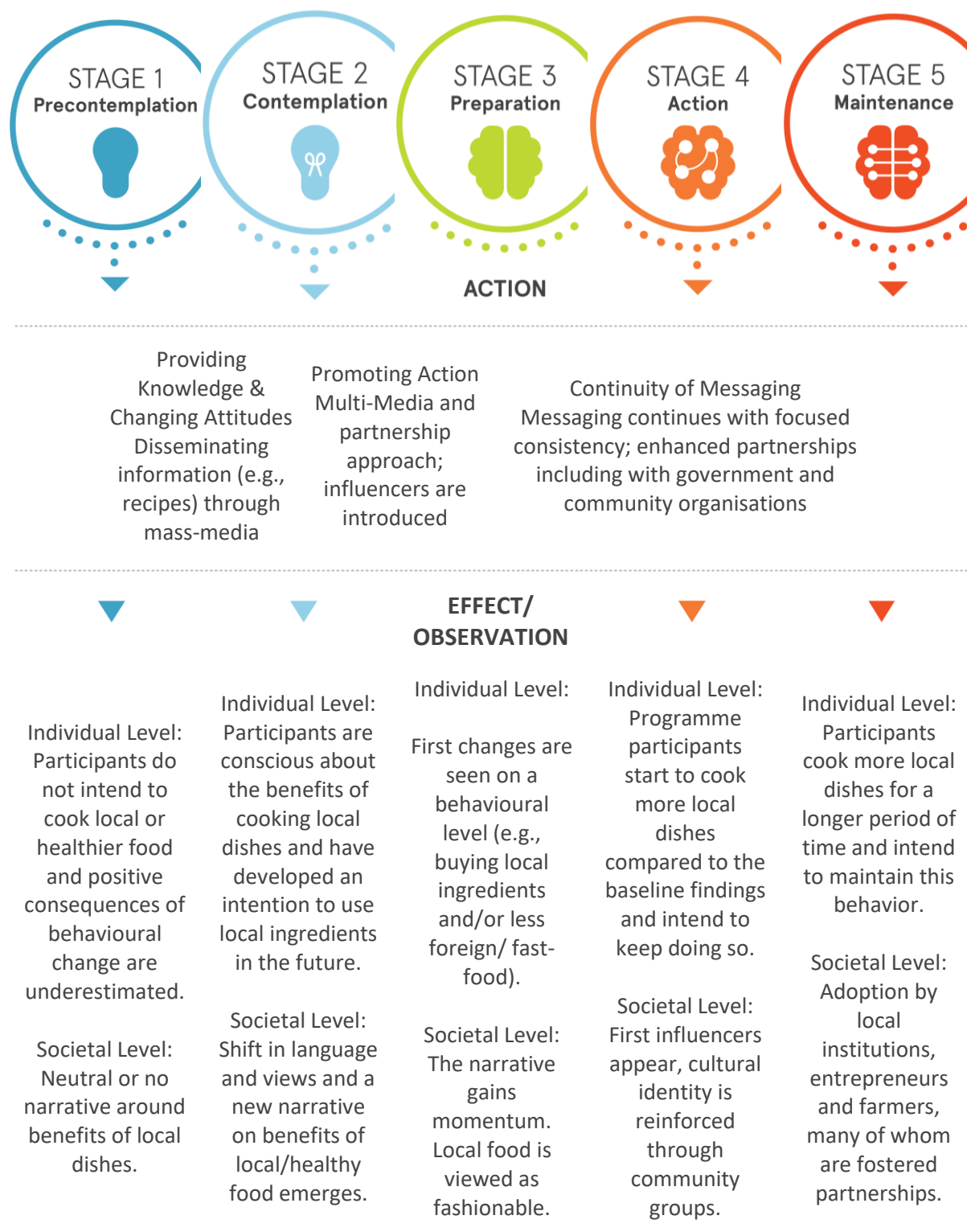
Pacific Island Nations are facing a crisis of non-communicable diseases (NCDs), chronic diseases which are the result of a combination of genetic, physiological, environmental and behavioural factors. NCDs are the leading causes of death in the region, accounting for 75% of the deaths (World Health Organization, 2018). Unhealthy diets in particular are a risk factor for high rates of obesity. Pacific Island Nations people have some of the highest rates of overweight and obesity in the world, with 92.9% and 80.7% of adults in Nauru and Kiribati being overweight, respectively (World Health Organization, 2018). This crisis, according to the World Health Organization (WHO), has been attributed to “an increased reliance on excessive intake of calories and increasing consumption of processed foods high in salt, fat, and sugar coupled with inactive lifestyles” (World Health Organization, 2018).

A potential solution to the crisis is to encourage Pacific Islanders to switch away from eating foreign food, which is typically rich in calories, low in nutritional content and high in salt (e.g., breakfast biscuits, noodles, pizza, etc.), toward healthier, indigenous and organic Pacific food (e.g., lovo, fish etc.). The Pacific Islands Food Revolution (PIFR), an innovative multi-media program, encourages this switch by using the power of entertainment. PIFR is innovative because it uses a range of communication modalities – television, social media radio and community engagement – combined with behaviour change principles in order to shift perceptions and break down barriers to healthy eating. PIFR has been highly popular, and has broken into mainstream media, reaching over 5 million people in the Pacific on television alone. PIFR tackles the root, societal causes of NCDs and focuses on enhancing awareness and popularity of indigenous food while making traditional food more accessible in terms of meal preparation skills, time and costs.

Busara Centre for Behavioural Economics has partnered with PIFR for the past three years to incorporate behavioral science into the program’s monitoring and evaluation activities. Busara in cooperation with PIFR developed a theory of behavior change to assess the various stages leading an individual to shifting their diet from unhealthy foreign foods to healthier local food.

The theory is illustrated in the diagram below. We will refer to this diagram as the **behavior change model** throughout the analysis. It is important to note, that with such a wide and diverse target audience as PIFR’s, individuals will naturally be at different stages, and we cannot conclusively state that the majority is now in a certain stage. We can however, use the model as guidance of progress and direction when analysing responses to the survey.

PIFR Behavior Change Model



Previous PIFR Research

During our three-year partnership, Busara and local partners have conducted mixed methods research in each of the program countries - Fiji, Tonga, Samoa and Vanuatu. Below is a summary of research activities to date:

Research activities in 2018:

Busara provided support to PIFR in 3 key areas: refining and clarifying PIFR's theory of change (ToC), advising on interventions to utilise PIFR's ToC and advising on monitoring and evaluation (M&E) activities to track key indicators.

To achieve this, Busara, in partnership with local Fiji-based partner Salt Inc., conducted qualitative interviews with a cross-section of Fijians living in and around Suva, (1) to understand their perceptions towards local food ingredients and cuisines and eating habits, (2) to validate PIFR's draft Results Framework and finalise the ToC, (3) to identify areas for interventions and how to monitor their impact.

Research activities in 2019:

Lab study: Busara designed and implemented an innovative laboratory experiment with ~800 participants at the Institute for Applied Sciences at the University of the South Pacific (USP) in Suva, Fiji. The experiment sought to measure the impact of the PIFR TV show on participants' immediate food choice, attitudes and beliefs related to Pacific food. The experiment was conducted before the show had aired, which allowed researchers to control who was exposed to the show and who was not. Thus, differences in food choices could be attributed to the impact of viewing the show.

Participants were randomly assigned to watch either a compilation of clips from PIFR or a documentary on climate change in Kiribati. We found that women were 18 pct points more likely to choose a healthy Pacific dish over an unhealthy foreign dish after watching PIFR compared to the climate change documentary. Interestingly, only 13% of the women in the control group who did not watch PIFR chose the local healthy dish, whereas 29% of the men in the control group did. Hence, the women in the study caught up to the men's rate of choosing local healthy meals after watching PIFR. The lab study provided very promising findings, indicating PIFR's potential of shifting viewers to the action stage of behavior change in terms of healthy food choices simply by exposure to the show.

Pre-Post surveys April - November 2019: Busara conducted in-depth interviews using a mixed methods instrument in each of the program countries - Fiji, Tonga, Samoa and Vanuatu - *before* and *after* the TV show aired. The aim of this research was to better understand the following three themes and how they varied before and after the airing of Season 1: (1) knowledge, attitudes and practices related to food choice and eating behavior, (2) household decision-making dynamics

around food and (3) exposure to healthy eating messaging. This research also sought to assess the accuracy of the Theory of Change (ToC) guiding the program and to elicit Pacific Islanders' ideas for interventions to encourage healthy eating.

Findings from this research suggests individuals were shifting from the contemplation stage to the preparation stage: prior to PIFR exposure, there was high awareness of health benefits of traditional and local food. However, in the post-PIFR exposure survey, we observed more intentions to shift towards eating more local food. We also observed a positive shift in individuals' perceptions of the barriers to eating healthy local food: After PIFR exposure, barriers appeared to be less about the taste or popularity of the food, but rather time and availability. This is promising as well as it indicates PIFR's potential to break down the behavioral barriers for local food uptake. In multiple rounds of our research, we have found respondents to report that dining is a social activity in the Pacific, hence the common perception of what food is good will be a determining factor of what food is served. With social norms shifting towards perceiving local food as tasty and popular, this creates a key foundation for PIFR to achieve the program goals. In this survey, we also found multiple respondents requesting access to the PIFR recipes further indicating intentions to start cooking more local dishes.

The main conclusions from our previous work are:

- Watching PIFR leads women to make healthier food choices in a restaurant-like setting.
- Ni-Vanuatu communities seem to have more interactions with radio as a medium of entertainment and information. Expanding the program to include radio spots could potentially enable reach of a wider range of Pacific islanders when combined with the television show.
- There is a demand for time-efficient recipes for traditional/local food as preparation time and methods is a significant barrier.
- People can be encouraged to practice small-scale farming in their backyards to increase the availability of traditional food items.
- There is strong evidence of the purpose and messages of PIFR being well received, understood and internalized by the audience. While the research has shown PIFR to be very successful in communicating its main purpose, the focus should now be on ensuring the approach, contestants and cooking methods are relatable to a broad audience.

Research Objectives for Year Three

While earlier research efforts sought to uncover tweaks to improve effectiveness of PIFR program design, for research activities in 2020-2021, Busara aimed to understand PIFR's potential impact after two years of active programming in the Pacific Islands. As such, the focus of our research shifted away from the household decision-making dynamics, media sources consumed and

uncovering new intervention ideas. Instead, our key areas of interest in this round of data collection included:

1. Engagement with PIFR: assessing familiarity and viewership of PIFR
2. Practice: Understanding respondents' diets and potential shifts in theirs/their communities' diets
3. Knowledge and attitudes: Perceptions of local food vs. foreign food
4. Perceptions and motivation: Shift in relationship with local food
5. Impact of COVID-19 and Tropical Cyclone Harold

This allowed us to strike a balance between comparing data directly to previous studies and unpacking the behavior change theory, while also obtaining new insights on the areas related to understanding potential impact of PIFR exposure.

The principal focus of this round of analysis is demonstrating short-term outcomes as per the PIFR MEL framework. The insights generated enable us to identify signs of behavior change. As the research questions focus on respondents' potential shifts in diets, their perceptions and attitudes towards local food, we are able to outline how shifts in knowledge, interest and motivation led by engagement with PIFR are influencing respondents' dietary behaviors, and how these can be interpreted within the behavior change theory.

Given the ongoing COVID-19 pandemic, an additional area of interest is how factors related to the pandemic either threaten or support PIFR's agenda in creating the aimed behavioural change.

We will also be able to further assess through time, the accuracy of the theory of change guiding the program (problem, goal and preconditions) and elicit a measure of impact on Pacific Islanders' healthy eating.

This document outlines the comprehensive analysis conducted on both quantitative and qualitative survey data based on a total of 330 respondents across four countries.

Methodology

Busara, in collaboration with PIFR and local in-country partners, Further Arts Committee Inc. in Vanuatu, CocoNew The Agency in Tonga and Samoa and Salt Inc Ltd in Fiji - implemented a series of mixed-methods surveys in PIFR's four implementation countries. This round of data collection was designed to complement our previous research.

The overarching goal of PIFR is to promote a healthy shift in Pacific Islanders' diets, however, measuring long-term food intake presents numerous methodological challenges and was not

practically feasible for this study given time and cost limitations. Therefore, this study looked at a broad range of indicators that are reflective of current eating behaviors, as well as predictive of future behaviors and individual propensity to make dietary changes. This was done via measuring attitudes and perceptions of Pacific foods, as well as knowledge and motivation to access, prepare and consume healthy dishes.

Furthermore, gaining insights into how people engage with PIFR can help illuminate the role PIFR plays in shifting knowledge and dietary decisions as a part of broader shifts in health awareness and dietary trends.

We used an inclusive and interactive approach to develop the current study, which consisted of 4 individual phases:

- 1) **Initial workshops with local in-country partners:** Busara created the quantitative instrument, which was then presented to local partners for their input and feedback. Instrument was then iterated and adapted based on feedback.
- 2) **Quantitative data collection:** In-country partners collected data using the co-developed survey instrument. Data was collected from Dec 2020 - Feb 2021.
- 3) **Follow-up workshops with local partners:** Busara presented findings from the quantitative analysis, and the qualitative guide was co-developed with their participation.
- 4) **Qualitative data collection:** In-country partners revisited a pre-selected group of previous respondents for an in-depth qualitative interview in Feb-Mar 2021.

A total of 330 quantitative surveys were conducted in PIFR's four implementation countries, followed by 36 in-depth qualitative surveys with a sub-sample of the previously interviewed participants in each country. Developing the qualitative guide after concluding the quantitative data analysis allowed us to dive into more nuances on behavioral patterns and changes to supply richer content to understand the quantitative findings.

Limitations

- This study is **not** designed to capture the **causal** impact of PIFR on food choices. Said otherwise, this study cannot prove experimentally that engagement with PIFR content is the cause of observed changes in diet. We can however understand and make linkages between self-reported shifts in eating habits, knowledge and awareness, and self-reported engagement with PIFR content. A correlation between engagement with PIFR and healthier eating habits is thus suggestive evidence that PIFR has a positive influence on eating habits. Conducting a causal analysis in this case would demand controlling which individuals have access to PIFR and having full visibility of study participants' diets. This controlled set up was

proxied in the lab study conducted in 2019, however is impractical for an at-scale study of a live program.

- This study relies on self-reported data, which has several limitations:
 - Participants may have poor accuracy in recall of eating habits or frequency of PIFR engagement.
 - Participants may be influenced by the social desirability effect, where they feel unspoken pressure to give answers that they perceive to be more desirable, e.g., reporting eating more local foods and less fast foods.

We are able to in-part control for some challenges with self-reported data through the design of our survey instruments. For example, questions may be formulated to reduce tendency for social desirability bias, however the extent to which outcome measures contain bias is unknown.

- Sample and generalizability: Sample selection was not completely random and thus does not provide accurate representation for the demographics of each participating country. We note that the sample across Ni-Vanuatu, Samoa and Tonga was largely female participants. In Fiji, the sample was almost balanced in terms of the gender split. Sample characteristics are influenced by both known and unknown factors. Known factors include geographic location, as sample households must live within reasonable distances, thus rural homes are likely to be underrepresented (note: this is appropriate in the context of PIFR, which targets primarily urban and peri-urban demographics). Unknown factors may include willingness and availability to participate in the study, which may be predictive of employment status, income, education, etc. This said however, a sample size of over 80 interviews in each country is a robust basis for both within- and cross-country analysis, offering reasonable generalizability of findings to the four focus countries and the Pacific region.

Sample Demographics

A total of 330 quantitative surveys were conducted in PIFR's four implementation countries, followed by 36 in-depth qualitative surveys with a sub-sample of the previously interviewed participants in each country. The sample is purposefully skewed towards a higher share of women than men. This is based on the results from the 2019 lab study, where we found that only 9% of the women in the control group chose the healthy local meal, compared to 29% of the men in the control group, as well as the findings from the 2019 pre-post surveys, where we found women to be the main decision makers of household meals. Hence, we believe that understanding the impact of PIFR on women is of key importance.

Total Sample					
Country	# of respondents	Gender distribution	Age distribution	Area of residence	Employment
Samoa (Quant)	81	74% females 23% males 3% missing	52%- over 25 years (max=60 years) 48% - 25 years and below (minimum 17 years)	56% peri-urban 44% urban	69% formally employed 7% self employed 6% informally employed 17% unemployed
Samoa (Qual)	12	92% females 8% male	Average age-28 years	50% peri-urban 50% urban	75%- formally employed, 17%-self-employed, 8% - informally employed
Fiji (Quant)	72	54% female 46% male	17-74 years, 26% below 26 years	65% in urban 35% in peri-urban	51%- formally employed, 29%-unemployed, 13%-self-employed, 7%-informally employed
Fiji (Qual)	8	63% female 37% male	Average age-37 years	25% peri-urban 75% urban	37.5% - Formally employed, 37.5% - Unemployed, 25% - Informally employed
Tonga (Quant)	85	68% female 32% male	18-78 years, 39% below 26 years	75% in urban 25% in peri-urban	44%-Formally employed, 21%-unemployed, 34%-self-employed, 1%-informally employed
Tonga (Qual)	10	70% female 30% male	Average age-31years	20% per-urban 80% urban	40%-Formally employed, 40%-Self-employed, 10%-Informally employed, 10%-Unemployed
Vanuatu (Quant)	92	23% Male 77% Female	18-56 years, 41% below 28 years	45% in peri-urban 35% in urban 20% in rural	27% Employed 21% Unemployed 52% Self-employed

Vanuatu (Qual)	6	67% female 33% male	Average age- 29years	83% peri urban 17% urban	67% - Unemployed 33%- Self-employed
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Summary of Findings & Analysis

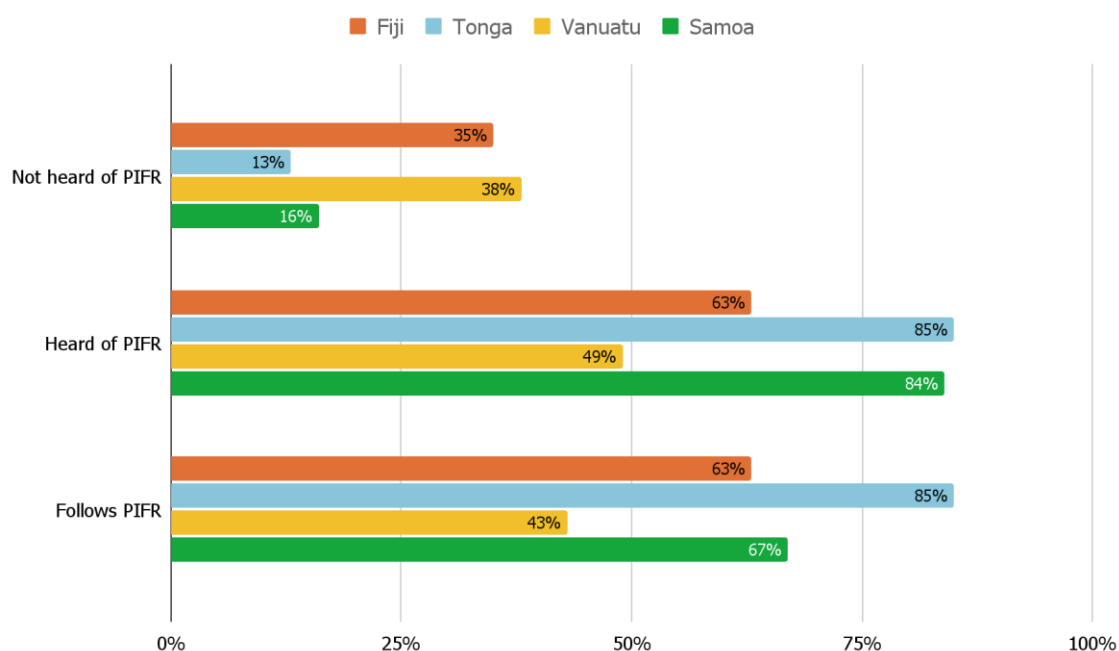
This section summarizes the findings across our five key areas of interest:

1. Engagement with PIFR
2. Practice: Understanding dietary habits
3. Knowledge and attitudes: Local vs. foreign food
4. Perceptions and motivations: Shift in relationship with local food
5. Impact of COVID and TC Harold

1. Engagement with PIFR

In order to assess whether there has been any behavior change potentially led by PIFR, we must first understand to what extent the respondents have interacted with PIFR. We first asked a series of questions to understand how familiar they are with the program and how much they have followed it, either through TV, radio or social media. We then looked at respondents' perceptions of PIFR's goals, participants, dishes and potential to shift eating behavior.

Figure 1. Level of engagement with PIFR, by country



- A high share of respondents across all countries have heard of PIFR (63% in Fiji, 85% in Tonga, 84% in Samoa and 49% in Vanuatu). In Fiji and Tonga, the share of respondents who have

heard of PIFR corresponds to the share of respondents who follow the show. In Vanuatu and Samoa, we see a few respondents who have heard of PIFR but not followed the show - this is due to the fact these respondents are not watching TV.

- Most respondents have watched the show on TV. The average respondent in Fiji and Tonga has watched 6 or more episodes. Samoans report to have watched 6 episodes while ni-Vanuatu have on average watched 3 episodes.
- Looking at the share of respondents, who have watched multiple episodes of the show (63% in Fiji, 85% in Tonga, 43% in Vanuatu and 67% in Samoa), we find that a relatively high share of the PIFR viewers specifically mention having tried out a PIFR recipe: 50% of the Fijian viewers, 50% Tongan viewers, 37% in Vanuatu and 78% (7 out of 9) in Samoa. On average, we find that 52% of respondents who have watched PIFR would like to try out a PIFR recipe, suggesting that PIFR content is a prominent source of inspiration and knowledge for preparing unfamiliar local healthy dishes in all countries.

Through this survey, we find evidence that PIFR has:

- Inspired, educated and promoted local healthy food and the individual countries' respective cultures.
- Improved respondents' understanding of healthy foods and food preparation strategies.
- Improved respondents' access to healthy local recipes, via the show's media presence (e.g., TV, website, facebook, etc.).
- 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. This is distributed relatively evenly across countries; 51% of respondents in Fiji, 63% in Tonga, 65% in Samoa and 83% in Vanuatu.
- Improved official health messaging around shifting to local food in Vanuatu, although there's little guidance on how to do it. Respondents appreciate PIFR for guiding them in their shift rather than simply telling them to shift.
- Particularly in Samoa, 43% of respondents believe PIFR can be effective in changing eating habits.

This survey also offers suggestive evidence that:

- PIFR has increased the share of individuals reporting healthier diets over the 2020 period. Overall, among respondents who reported improved diet changes, we find PIFR may be responsible for an excess improvement of between 33% in Fiji, as much as 262% in Tonga, 38% in Vanuatu and 146% in Samoa.
- Countries where PIFR was more heavily viewed experienced larger PIFR-lead shifts towards healthier diets. For example, in Tonga and Samoa where 85% and 84% of respondents have engaged with PIFR, we find 262% and 206% respective improvements in the likelihood of shifting towards including more local and healthy foods in diets. In Fiji and Vanuatu, where 63% and 49% of respondents have engaged with PIFR, we find somewhat smaller improvements in the likelihood of shifting to healthier diets, of 46% and 28% respectively.

This suggests that increased PIFR viewership is associated with larger shifts towards healthier eating.

- On average, watching PIFR is associated with an increased preference for local foods and a reduced preference for foreign foods, however this finding should not be interpreted as causal (people may be more inclined to watch PIFR when they already like local foods).
- Overall, we find high shares of respondents who believe local food has become more popular over the past year. This is particularly driven by Fiji and Vanuatu. Interestingly, similar to shifts in diets, we find the perception of local food to have become more popular to be positively correlated with having followed PIFR. This goes for all countries (114% increase in Fiji, 270% in Samoa and 1800% in Tonga³), except for Vanuatu where the share of respondents believing local food has become more popular is already very high for both groups (74% for respondents who have not seen PIFR and 66% for respondents who have).

This survey also uncovered certain persistent critiques of the show. For one, younger participants feel a lack of representation as they consider the participants in the show to be older. Respondents generally find the participants on the show to be more skilled than the average person (a finding consistent with the previous 2019 pre/post assessment). Respondents also requested more variation in participants' cooking skills, although the frequency of this response decreased significantly in the most recent season of PIFR. Participants also recognised that there is a trade-off between presenting impressive and inspiring dishes, while balancing the relatability of participants. Given the generally improving feedback, PIFR is heading in the right direction in terms of tailoring content to the interests of its audience.

2. Practice: Understanding dietary habits and potential changes over the past year

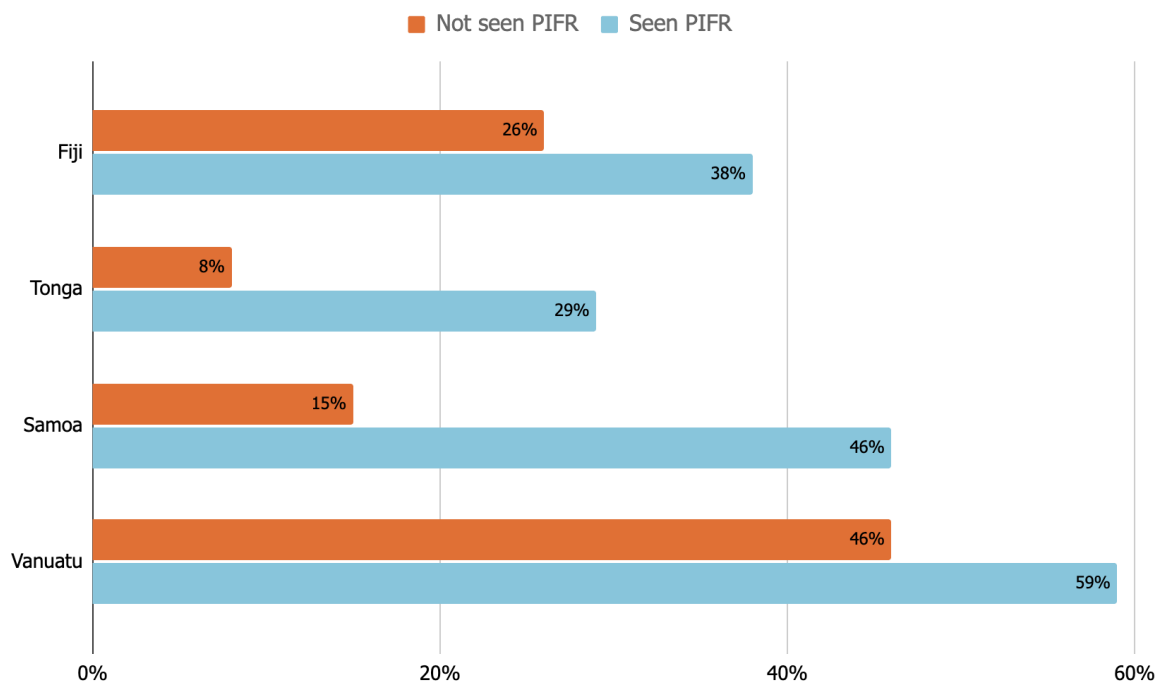
To better understand participants' dietary habits, we asked respondents about their current dietary practices and if they believe their eating habits and that of people in their community had changed over the past year. Asking the individual about their own behavior change in relation to healthy eating can lead to an overestimate of how well it is going, whereas asking the individual about others can lead to an underestimate. When asking both these questions, we get a range where the real situation is likely to lie somewhere in the middle.

The absolute level of respondents who report to have or believe others have shifted their diets towards more local food over the past year is naturally influenced by a multitude of factors; for instance, COVID and TC Harold, which have affected the countries included in this study disproportionately, will be discussed later in the analysis.

³ Due to extremely low levels in the non-exposed group. Only 1% of Tongan respondents who have not seen PIFR have shifted their diet compared to 19% of those who have seen PIFR.

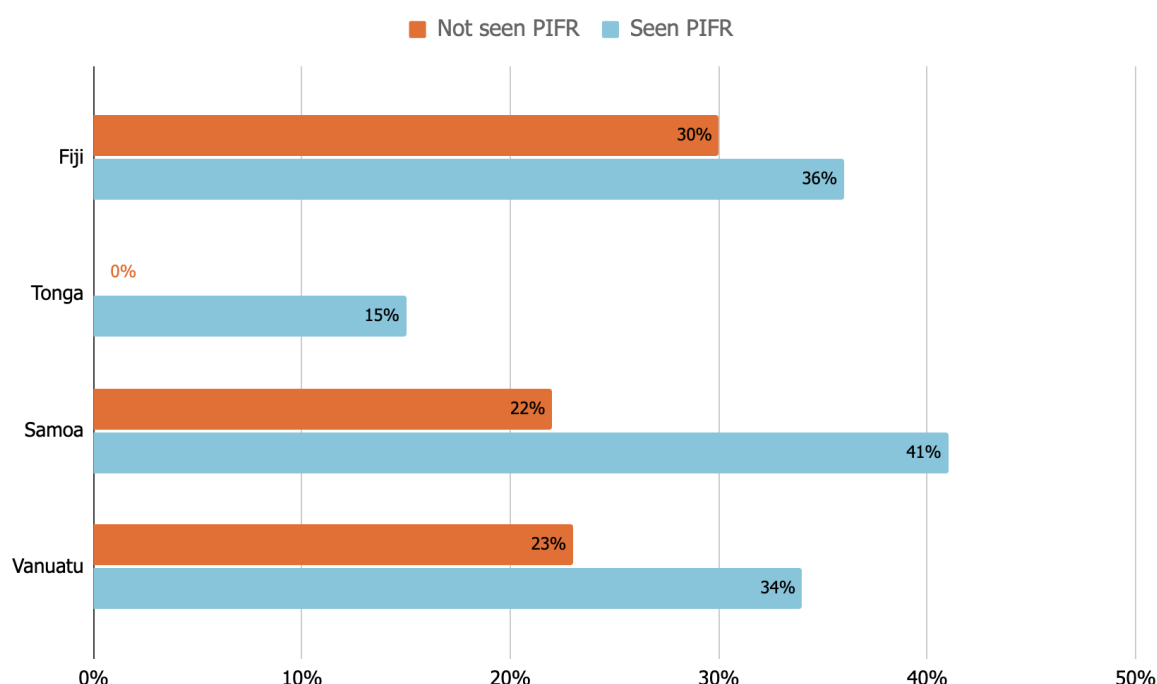
In this section, the focus is on understanding whether following PIFR actively is associated with an increased likelihood of having changed diets away from foreign food and towards local food. For the purpose of assessing correlations between following PIFR and changing diets, we split the sample into respondents who have actively followed PIFR⁴ and those who have not. As previously stated, the absolute level of respondents in each country having shifted their diets towards more local food is complicated to compare directly. Therefore, the following analysis is looking at relative differences within countries between those who have followed PIFR and those who have not. We see no clear reason to believe that factors such as COVID or TC Harold would affect those who have followed PIFR and those who have not followed PIFR disproportionately. Overall, we find convincing correlations between following PIFR and shifting diets towards more local and healthy food both for the individual and for the perception of community shifts.

Figure 2.1. Share of respondents shifting their own diets towards more local and healthy food over the past year, by country



⁴ This variable will be referred to as 'Seen PIFR' throughout the analysis, and is defined by the respondent having watched 2+ episodes of PIFR and displays a general understanding of the purpose of the program.

Figure 2.2. Share of respondents believing their community shifted their diets towards more local and healthy food over the past year, by country



Fiji Dietary Changes

Overall, 33% of participants reported changing their diets for the better over the past year. Changes include consuming more local food, food with less sugar/salt/oil/fats and more home-grown food rather than take out/fast food. Similarly, 33% believe their community and social circles changed their diets towards consuming more local and healthy food. In Fiji, we see a correlation between having shifted your diet for the better and following PIFR: 38% of those who follow PIFR reported shifted their diets, compared to 26% of those who do not follow PIFR, suggesting that watching PIFR is associated with an estimated 33% increase in likelihood of improving diets. Those who follow PIFR, are also more likely to believe their communities have changed diets - 36% for PIFR followers compared to 30% of those who do not follow PIFR. Taken together with the biases inherent with self-reported data, and our triangulation in asking beliefs about diet changes within the community, we estimate watching PIFR may lead to a between 6 and 12 percentage points increase in the likelihood of improving diets (or an estimated 20-46% increase in likelihood).

In Fiji, there is evidence to suggest that PIFR has changed the perception of local food from being perceived as 'traditional village food' towards being perceived as interesting and even trendy. Respondents feel that PIFR has modernized local foods by showcasing new ways of preparing it. Interestingly, in the in-depth interviews, Fijian respondents explained that it used to be very difficult finding recipes for local meals online. Now, respondents cite PIFR as a platform where they can access recipes for Fijian food. They furthermore explained that the show has offered them new ideas

for preparing local dishes, and they access these via different platforms, including facebook, television and cookbooks.

Samoa Dietary Changes

Overall, 36% of respondents reported changing their diets for the better over the past year, and believed that others in their community did the same. However, these overall averages conceal a strong difference in these shifts based on whether one has or has not watched PIFR. For those who have followed PIFR, we find that 46% report having shifted their diets, compared to 15% of those who have not followed PIFR, suggesting PIFR may be responsible for an increase in likelihood of improving diets. In terms of beliefs about diet changes in the community, 41% who have followed PIFR believe their community's diet has shifted, compared to 22% of those who have not followed PIFR. Together, we estimate watching PIFR in Samoa may lead to between 19 and 31 percentage points increase in the likelihood of improving diets (or an estimated 86%-206% increase in likelihood%). For the case of Samoa, where 84% of respondents have heard of or engaged with PIFR, we find support for the hypothesis that countries where PIFR was more heavily consumed experienced larger shifts towards healthier diets.

Vanuatu Dietary Changes

Overall, 43% of respondents reported changing their eating habits towards more local than foreign food. Out of the respondents who changed their diet this past year, a total of 75% reported having changed their cooking methods away from deep frying and instead they are boiling or baking the food, which corresponds to the healthier cooking methods demonstrated on PIFR. For beliefs about the eating habits of others in their community, 22% believed community level diets had changed for the better during the past year. This larger discrepancy between own changes and beliefs about others may be influenced by prevalence of social gatherings, where more rice and foreign foods are consumed, thus influencing beliefs about the habits of others.

When splitting the sample in terms of PIFR viewership, we find 59% of those who follow PIFR shifted their diet towards more local food, while 46% of those who do not follow PIFR reported improving their diet. This suggests PIFR may be responsible for a 13-percentage point increase in likelihood of improving diets. Similarly for the beliefs around community diet shifts, 34% of PIFR viewers believe diets have improved compared to 23% of those who do not follow PIFR. Together, we estimate the watching PIFR in Vanuatu may lead to between 11 and 13 percentage points increase in the likelihood of improving diets (or an estimated 28-48% increase in likelihood).

Tonga Dietary Changes

Overall, the share of respondents reporting an improvement in diet over the past year is lower at 26%. Similarly, only 13% of the respondents believe others in their community have changed their diets for the better. In-depth interviews with respondents help to explain a contrast with the other countries: the COVID-19 pandemic has corresponded with increased availability of foreign foods in

Tongan supermarkets. This may be due to government regulations on imported food prices. While such policy changes may be intended to protect consumer well-being amid a Global economic crisis, crowding out of local healthy foods may be an unanticipated consequence of the policy.

While the overall magnitude of the self-reported shift is lower in Tonga, we nonetheless see a clear correlation between following PIFR and shifting one's own diet and perceptions of diet shifts in the community. Among those who have seen PIFR, 29% reported improving their diets in the past year, relative to 8% among respondents who had not seen PIFR, indicating a 21-percentage point improvement in diets may be due to watching PIFR. In terms of beliefs about diet changes in the community, 15% who have followed PIFR believe their community's diet has shifted, compared to 0% of those who have not followed PIFR. This suggests that PIFR may be particularly important to guiding diet preferences and behaviors in Tonga, where citizens face greater emotional (e.g., availability) and economic barriers (e.g. relative pricing) to avoiding unhealthy foreign foods.

While the overall levels of diet shifts are lower in Tonga relative to other included countries, we still find watching PIFR to be a highly robust indicator of the likelihood of shifting diets and perceptions of food in the Tongan context. Together, we estimate the relative likelihood of an improvement in diets due to watching PIFR in Tonga to be between 15 and 21 percentage points (or an estimated 265% increase in likelihood).

Similar to the case of Samoa, Tonga also offers support for the hypothesis that countries where PIFR was more heavily viewed experienced larger shifts towards healthier diets. In Tonga, 85% of respondents have heard of or engaged with PIFR. This exists at the same time as our estimated 265% increase in likelihood of improving diets based on whether the respondent watches PIFR. So, while overall levels of diet shifts are lower, likely due to the competing effect of government policies protecting imported food prices, the relative difference in self-reported diets among PIFR viewers and non-viewers is the largest among our 4 target countries.

Reported Reasons for Dietary Changes

Respondents give various reasons for the shift:

- More focus on local food in the media; respondents specifically mention PIFR as well as other sources;
- Influence from the church on seeking health;
- Desire to be healthier and avoid NCDs and,
- A decrease in disposable income over the past year due to the Covid-19 pandemic resulting in more people growing their own vegetables and eating out less.

Not all observed dietary changes were improvements, however. Among Samoan and Tongan respondents, 10-15% reported eating more unhealthy foods in the last year due to busy schedules or general stress.

Gender Effects on Dietary Changes

Across all countries, there is consistently a higher share of female respondents who have experienced a change in their diets over the past year relative to men. The gap is the largest in Samoa at 21 percentage points (58% of female respondents vs. 37% of male respondents) and smallest in Vanuatu at 2 percentage points (55% of female respondents vs. 53% of male respondents). This aligns with findings from the earlier lab study, which showed watching PIFR content to be more impactful in shifting women's food choices towards healthier options.

3. Knowledge and attitudes: Local vs. Foreign food

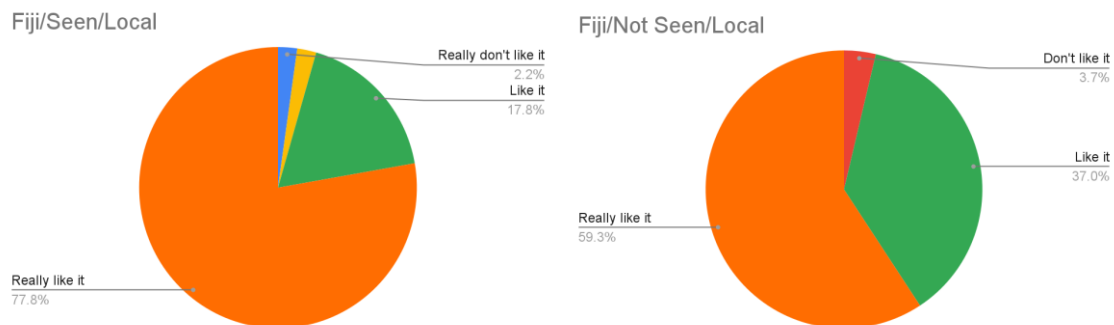
To grasp a deeper understanding of shifts in respondents' knowledge and attitude towards local and foreign foods, we asked respondents about their food preferences and how these preferences had evolved over the past year. In addition, we asked respondents questions about local dishes and how to cook them with the aim of assessing whether people had retained detailed information from the PIFR content they had engaged with.

It's important to define what is understood from the concepts of local and healthy food. A majority of the participants describe local food as food grown in the respective country and as cultural food. Healthy food is mainly considered to depend on the food being rich in fruits and vegetables and being a part of a balanced diet. This for instance means that 'healthy' is not necessarily associated with low fat or sugar levels.

Looking at the preferences first, we find a clear majority of respondents across all four countries liking or really liking local food. In the 2019 pre-post assessment, we found a correlation between having seen PIFR and preferring local food over foreign food. In the post-survey particularly, 33% of Fijians, 27% of Tongans, 48% of ni-Vanuatu and 38% of Samoans said local food tastes better than foreign food. In this round of data collection, we asked respondents to rate each type of food individually rather than one over the other. Our focus is on relating rankings to engagement with PIFR rather than simply assessing preferences.

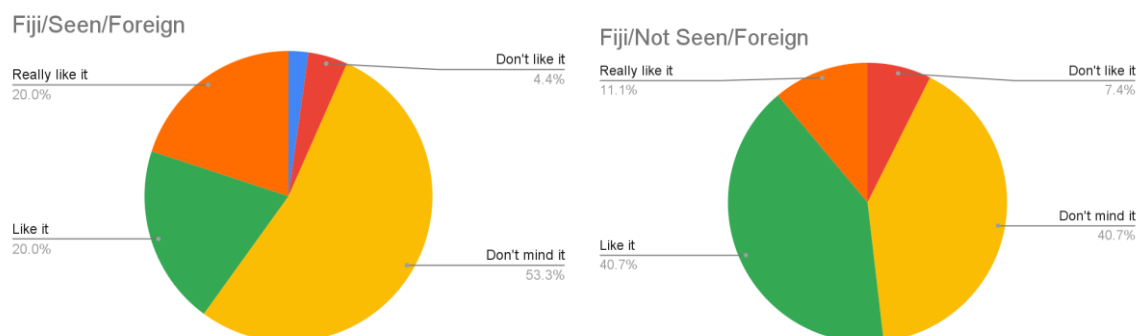
Overall, we find that the majority of the respondents reported liking local food more than foreign food. In this section we will highlight the most interesting differences between rankings by engagement with PIFR. The full set of graphs and analysis from all 4 countries can be found [here](#).

Figure 3.1. Ratings of Local Food by Fijians who have seen and not seen PIFR



Fijians who **have seen** PIFR are more likely to respond ‘really like it’ (78%) to **local** food, compared to Fijians who have not seen PIFR (59%). This suggests viewing PIFR is associated with greater preferences for local food, which may be due to greater awareness due to watching the show, changing tastes due to trying featured recipes, or shifting attitudes in a community-level PIFR effect.

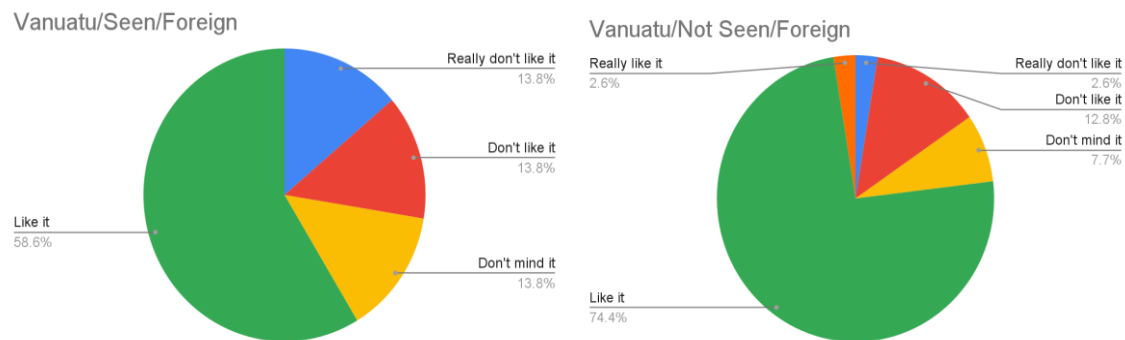
Figure 3.2. Ratings of Foreign Food by Fijians who have seen and not seen PIFR



Fijians who have **not seen** PIFR are on average more positive about **foreign** food 51.8% either likes or really likes foreign food, compared to 40% of Fijians who have seen PIFR. This aligns with the findings above, suggesting that viewing PIFR tips preferences way from the status quo preference for foreign foods.

Both in **Tonga and Vanuatu**, we find very positive ratings of local food irrespective of PIFR engagement.

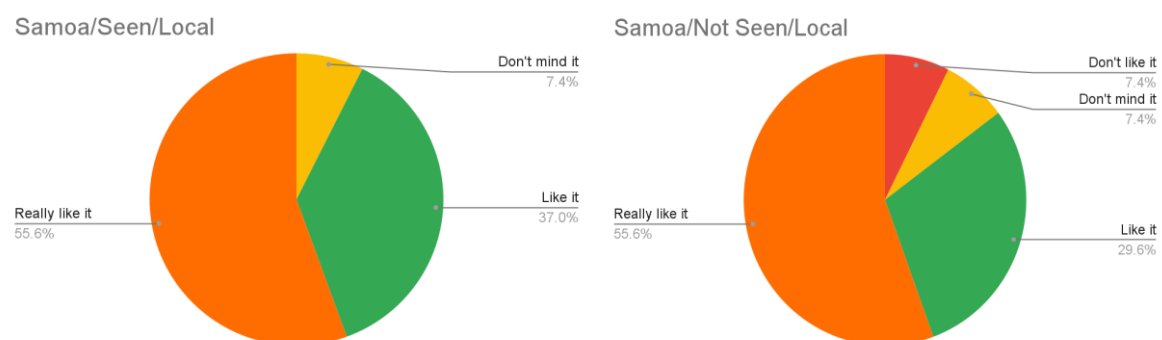
Figure 3.3. Ratings of foreign food by ni-Vanuatu who have seen and not seen PIFR



When ni-Vanuatu respondents are ranking foreign food, we find a more mixed picture with 27.6% of respondents who have seen PIFR responding not liking or really not liking, compared to 15.4% of those who have not seen PIFR.

In Samoa, we find that only respondents who have not seen PIFR, respond that they really do not like local food.

Figure 3.4. Ratings of local food by Samoans who have seen and not seen PIFR



On average, we find correlations between PIFR engagement and more positive ranking of local food as well as more negative ratings of foreign food in all countries except Tonga, where the picture is more mixed.

Respondents' knowledge and attitudes towards local vs. foreign food

- Respondents across all four countries state that local food is healthier than foreign food. The majority of respondents across all countries rate local food very highly; however, this is due to a variety of factors such as health, traditions, culture and, only for some respondents, taste. Acknowledging the health benefits is considered as reaching the 'contemplation' stage in the behavior change model.

- In this assessment, we find that respondents who have made a shift towards eating more local food report incorporating new ways of improving the taste and flavors of food, such as adding different types of spices or changing the cooking method. These are skills that PIFR has focused on, thus findings suggest that PIFR has influenced the cooking behavior of viewers.
- One of the reasons given by respondents who say they prefer foreign food, was the monotony of always having the same local dishes. This finding is consistent with insights from the pre-post surveys where we found that many respondents were not able to mention 10 entire local dishes. This shows a clear need for greater access to a larger variety of local recipes, which PIFR is addressing via sharing online recipes.
- Findings in this study also suggest there is an increase in home food preparation. Among the participants who have watched PIFR, a majority expressed willingness to try out the new recipes at home if access to the recipes is available. This is consistent with findings from pre-post, and indicates that PIFR should do more to advertise to viewers where they can access the recipes.
- Across all four countries, there is a high willingness to learn how to prepare local dishes among the participants. This was particularly salient in Vanuatu (96%) and Fiji (86%) compared to Samoa (71%) and Tonga (71%). These findings are fairly consistent with the pre-post findings, except in Tonga where 98% of participants expressed willingness to learn in the pre-post compared to 71% now. As previously mentioned, there are several structural changes in Tonga, and we see that policy changes may work against the overall regional shift in interest in local food. Hence, we believe the decrease has less to do with PIFR compared to the current environment in Tonga.
- We also see some gender variations where more women than men mention that they would like to learn how to prepare local dishes. This is particularly true in Vanuatu (68% of men, 88% of women), Samoa (43% of men, 57% of women) and Tonga (43% men, 59% women). There is an even larger gender difference in Fiji (33% men, 63% women) with both men and women expressing desire to learn. The main reasons given is to be able to cook traditional meals for their family and through that respecting and honoring their cultures. As well as learning more, the majority of respondents also report that they would like to eat more local food.
- Participants especially in Tonga (80%) and Fiji (50%) reported actively searching for new recipes through online platforms such as youtube and traditional media. We find that PIFR is able to fill a perceived gap of lack of online recipes using local ingredients. The majority explain they want to diversify their meals and maintain their culture by learning how to cook local dishes. Unlike participants in Tonga and Fiji, only 17% of the participants in Samoa and 29% in Vanuatu reported looking up new recipes online. In Samoa, 58% of the respondents expressed the need for physical demonstrations on how to prepare different types of local meals.

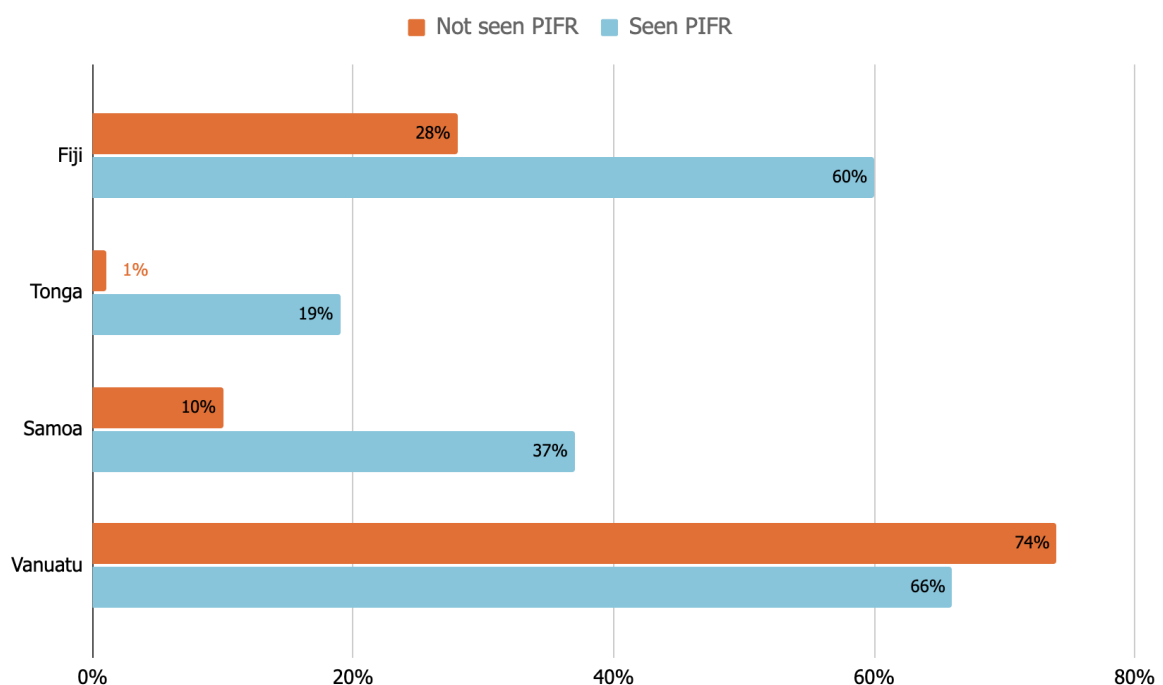
4. Perceptions and motivation: Shifts in relationship with local food

To better understand respondents' perceptions of local food, we asked respondents about their food preferences, motivations and barriers to eating local foods and whether people had an increased interest in cooking and eating local food as compared to previous years.

Overall, we find high shares of respondents who believe local food has become more popular over the past year. This is particularly true for Fiji and Vanuatu. Interestingly, similar to shifts in diets, we find the perception of local food becoming more popular to be positively correlated with having followed PIFR. This goes for all countries, except for Vanuatu where the share of respondents believing local food has become more popular is already very high for both groups.

Linking back to our model of behavior change, it is important for individuals to perceive shifting to local food as a social norm in their community. This is a key feature of the action stage. Behavior change theory describes how individuals are more likely to change their behavior if they believe others are doing the same. Thus, our finding that following PIFR on average correlates positively with believing local food has become more popular over the past year, suggests the popularity of PIFR has influenced social norms, which can lead to maintained behavior change.

Figure 4. Share of respondents believing local food has become more popular over the past year, by country.



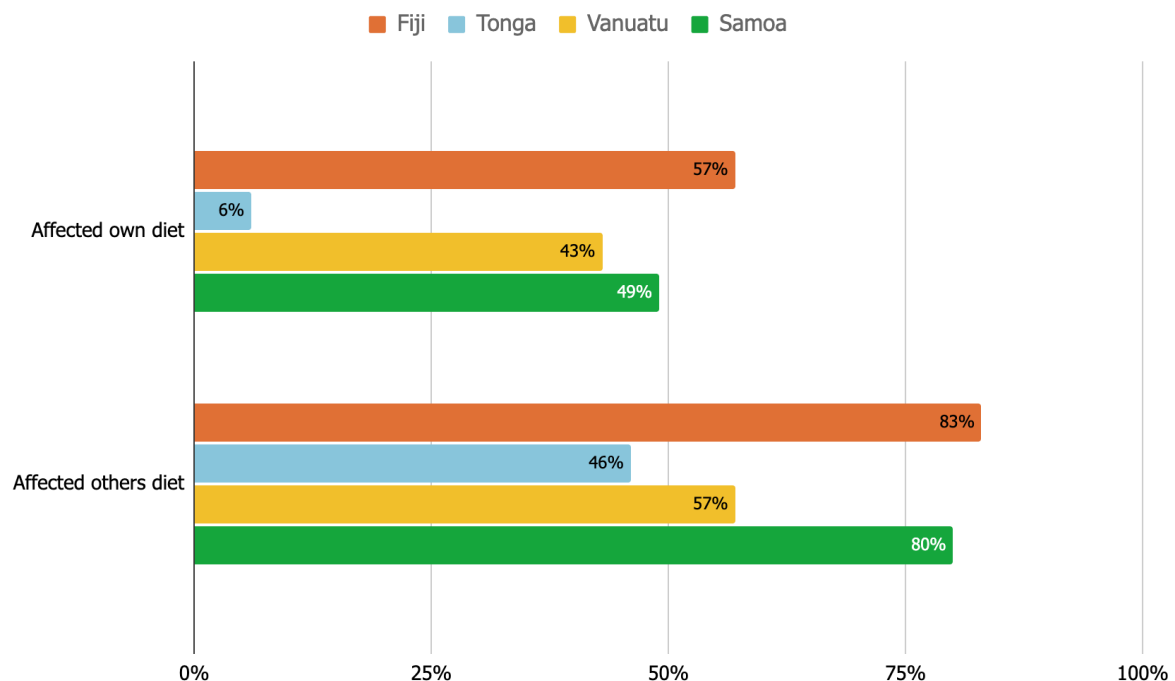
From our findings on **shifts in relationship with local food**, we see that:

- Across Fiji (88%), Samoa (47%) and Vanuatu (66%), the majority of participants report an **increase in popularity of local food over the past year**. Most respondents (56% in Fiji, 31% in Samoa, 24% in Vanuatu) attribute the increase in popularity of local food to the COVID-19 pandemic. They say more people grow local healthy food at home, foreign food is more expensive due to restricted imports and that going through a worldwide pandemic has made them think more about taking care of their health. More so in Vanuatu than the other countries, respondents also mention the risk of NCDs and the many awareness programs which emphasize the importance of eating locally produced food.
- In Tonga however, 75% of respondents believe the opposite, and say local dishes have not become more popular in the past year. Tongan respondents explain that foreign food has in fact been cheaper due to strict regulations on imported food prices during COVID. Tongan respondents also report experiencing peer pressure and influence from seasonal workers who bring foreign preferences back to Tonga after working in Western countries.
- Respondents' **food choices across the four countries are most often driven by their mood, time constraints, cooking skills and availability/affordability of ingredients**. Particularly, Tongan respondents mentioned that local food requires many steps and is very time consuming, whereas foreign food can be prepared in just one pot. In Fiji, we see an age variation similar to previous studies as well, where younger respondents are more likely to prefer foreign food due to convenience and easy access, whereas older respondents more often prefer local food due to traditions and health considerations. Overall, we find that women (42%) are more likely than men (30%) to prefer local food, which again is in line with our lab study findings of PIFR having greater impact on female viewers.

5. Impact of COVID and TC Harold

The COVID-19 pandemic has affected Pacific Islanders in Fiji, Tonga, Samoa and Vanuatu and resulted in behavior change in diets, dining home vs. out, and in food produced through backyard farming. By influencing generalized awareness of health, the pandemic may have initiated an environmental change that allowed PIFR's message to take root and in some cases, flourish.

Figure 5. Impact of COVID-19 on diets, by country



- In Vanuatu, 57% feel like other people's eating habits in the community have changed due to COVID - note this number includes changes both for the better and for the worse. It is considered a change for the worse, when the shift is related to entirely reducing the amount of food one has available, shifting towards cheaper canned food, increasing the amount of plain rice eating, and everything else that does not include shifting towards more local produce or healthy ways of cooking.
- Interestingly, in Fiji, we had three respondents who reported an increase in the number of local food restaurants and markets during the pandemic, which encouraged them to eat more local food.
- Opposite to Fiji, a majority of the participants in Tonga reported that foreign foods were now more readily available in supermarkets and shops at discounted prices. This offers people in Tonga a variety of food options when making food purchase decisions.
- In Samoa, a few respondents believe more people will avoid imported food in the future months because they consider there to be a potential risk of contracting the virus from the food.
- In Tonga, prices of local food went up due to TC Harold. TC Harold also affected Vanuatu, which also led to an increase of prices and lack of availability of local food, which combined with the effects of COVID, appears to have led to an overall decrease in food availability and increase in food prices in Vanuatu.

- Tongan respondents report the disaster led to increased unity among community members, where they would pull resources and share food amongst each other especially for those whose crops were destroyed by the cyclone.
- In Vanuatu, most people state that the cyclone mostly affected housing by destroying property and their farms. Due to the destruction of farm produce, most participants have observed an increase of local food prices.

Detailed Qualitative Interview Findings

The following section provides an overview of findings from the qualitative in-depth interviews conducted in each country after the quantitative survey. These findings help illuminate more of the nuances, attitudes and motivations behind reported shifts in dietary changes towards consuming more local and healthy foods.

Fiji Qualitative Interview Findings

Fiji: Dietary Habits & Practice

Our quantitative survey in Fiji uncovered that roughly a third of respondents report changing their diet for the better over the past year. Changes in respondents' dietary habits include consumption of foods with less sugar, salt, oils/fats and spices and less fast foods. Respondents also report adopting more healthy/fresh foods and more fruits and vegetables in their diets. But not all diet changes were for the better. In contrast, 6% of respondents in Fiji report changing their diets to unhealthy foreign foods over the past year. Respondents whose diets changed for the worst attribute this change to the availability of money (remittances) to purchase foreign foods and lack of time to prepare local meals, which may be symptoms of the COVID-19 pandemic's economic impact on the country.

In the follow-up qualitative research, most respondents expressed happiness for having made a shift to more local foods, and also noted that this change supported them in maintaining their cultural food practices, including renewed opportunity to once again pass down traditional cooking skills from generation to generation. A few others noted that the shift will lead to a decrease in the prevalence of NCDs. Good health and fewer illnesses were also said to be characteristic of their ancestors who consumed local foods.

“Since birth we’ve been eating local food and that is also resulting in the way we are built. As we get older and also with the world evolving, we start to earn good money, start wanting to try out the foreign food coming in because we can now afford it.” [Male, 52 years]

"I totally agree, especially in Viti Levu. We have grown accustomed to the foreign food that we start forgetting our local food and recipes. The tragic part of it all is the fact that most of our generation of today do not know how to cook local dishes." [Female, 33 years]

From the quantitative survey, we note a clear correlation between the COVID-19 pandemic and a shift towards healthier local eating. Many respondents report that the pandemic has resulted in the loss of jobs, reduced household income and reduced access to imported foods. To manage these effects, respondents note various behavioral changes in their dietary habits they have adopted in the past year. These include, growing vegetables and herbs in their backyards, developing meal plans that utilize the readily available ingredients, usage of leftover food to minimize food waste and food budgets.

Roughly a fifth (22%) of respondents in Fiji mention a heightened effort by the Ministry of Health and other health organizations to communicate health messages on COVID-19 and NCDs. For most respondents, this communication made salient the overall importance of health and thus increased desire to practice self-care, primarily through eating healthy foods and lifestyle changes. PIFR appears to have played an important role in facilitating diet and lifestyle changes, by providing access to recipes and instructional content that enabled citizens to act on health advice from official sources.

Respondents also report that family members with pre-existing health conditions have influenced their own dietary changes. Several respondents report changing their diets to cater to the health needs of sick family members, and on the advice of health practitioners.

"Ever since I got sick and was admitted to the hospital in December due to low white blood cells count, my doctors advised me to change my diet and eating habits to less fizzy drinks and more fruits." [Female, 32 years]

"I made the change in 2011 when I first found out I have diabetes. My doctors and nutritionist advised me to eat less carbohydrates and meat and smaller food portions to cater to my diabetic needs. I was 94kg in 2011 and am now 67kg (2020)." [Male, 39 years]

Respondents with a family history of NCDs portray a high-risk perception and an increased desire for self-care. Some respondents report imposing personal dietary restrictions with some guidance from health practitioners to minimize their risk of getting sick. In most cases, respondents report they have changed their food preparation methods from frying to boiling and shifted to eating smaller portions.

"Watching stories of how people are affected by NCDs and my pregnancy also played a major role in changing my diet. We have been including more fruits and vegetables in our diet. Sugar intake has been less and more boiled food is being consumed." [Female, 29 years]

“2 years ago, since I was sick and admitted to hospital I had to change my diet to more local, fresh foods. It was my idea and also advised from the Health Ministry.” [Male, 64 years]

Implications

Small scale farming and the shift to growing vegetables in the home backyards may affect food availability and food choices of Fijian people. The shift to growing own vegetables in the advent of COVID increases the availability of nutritious local food and its affordability. This is consistent with the pre-post survey results which showed that overall, the most noticeable shifts in perceptions away from foreign food towards Fijian food occur in terms of perceived affordability and availability.

Assessing weekend cooking habits

Respondents were asked how many times they had prepared any healthy or local meals in the past two weekends prior to the interview. We see that a majority of respondents had prepared local and healthy foods 8 times in the past two weekends, which correspond to all meals. On average, local and healthy foods were prepared more often than not.



Respondents' definitions of what constitutes local or healthy food

A majority described local food as fresh, healthy and locally available. The place where food is grown/produced was also characteristic of local foods. A majority of respondents described local food as food grown in Fiji (65%), food grown in local communities (61%) and cultural food (61%). Healthy food was defined as a balanced diet (63%) rich in fruits and vegetables (70%).

Inspiration to try new dishes

We asked respondents if they had changed the way they cook and what inspired them to make the changes. 44% of respondents report making changes to their food preparation methods. Respondents specifically report consuming less fatty foods by making a shift from frying to boiling or steaming foods. Foods consumed were said to be fresh local foods, and meals consisted of more

fruits and vegetables and less sugary, oily and salty foods which is characteristic of foreign foods. This is of particular note for PIFR, because we see respondents incorporating many of the cooking skills showcased on the show, including experimenting with new ways of improving the taste and flavors of food by adding available ingredients from their backyard garden. Experimentation with garden produce may signal an increase in respondents' cooking confidence and may lead to a sustained shift towards healthier local diets, as it is seen as one of the determining factors for maintaining the shift i.e., going from stage 4 to stage 5 in the behavior change model.

A majority (71%) of respondents had tried a new dish in the past two months and expressed willingness to try the dish again. Unlike previous findings where younger respondents were seen to try new dishes, this was not specific to any age group. Respondents' inspiration to try out new dishes is derived mainly from their social environment. A majority got the ideas from their family and friends as well as from the community. A few others report a trial-and-error approach based on recipes they found on the internet, cookbooks and social media. One participant mentioned getting new ideas and inspiration specifically from watching PIFR.

Fiji: Knowledge & Attitudes about Local vs Foreign Foods

All respondents clearly distinguish between local and foreign foods. A majority describe local food as fresh, healthy and locally available, while expensive and unhealthy were the most salient characteristics of foreign foods.

Although respondents' levels of awareness of local food as the healthy option are high, about half (49%) of respondents in Fiji do not mind foreign foods while about a third (28%) prefer foreign foods over local foods. Foreign foods are mainly preferred for their taste and ease of preparation. Respondents who prefer a mix of both foods mentions that foreign foods enhance the taste of their local foods and are convenient, requiring limited time to prepare.

Respondents who had made a shift to local food report incorporating new ways of improving the taste and flavors of food. A majority said they had started to incorporate new ingredients to improve the taste. For some this was a case of trial-and-error while others report learning this from watching PIFR. This suggests that there is potential for PIFR to counter taste as a barrier to healthy food choices by providing innovative ways of flavouring food.

"We've been adding some new ingredients and some new spices to our food to make it more delicious so that our family members will enjoy it." [Male, 21 years]

"The meals {on the show} were quite creative especially the one with the mango being incorporated in it, [I think] the meals are delicious as well." [Female, 32 years]

Taste preferences may also be influenced by early exposure and previous experiences. Respondents who prefer local foods to foreign foods acknowledge that it was the food they were brought up on by their parents and it is therefore an acquired taste and appeared to set the standard for the dietary food choices in their adult lives. Similar to previous findings in the 2019 pre/post study, we find that passing recipes down through generations is still a common way for people to learn local recipes.

"I grew up with local food, it's in my taste buds. You can't live without something you love." [Female, 62 years]

Majority of the respondents report being aware of how to cook local dishes and are able to easily give examples, however the significance of resources required for food preparation such as time, money and availability of these foods is emphasized.

We also see an increased willingness to learn how to prepare local dishes with the readily available ingredients among the respondents. A majority of respondents mention actively searching for new recipes through online platforms such as youtube, through Radio and TV cook shows, such as PIFR. We also see an increase in respondents' cooking confidence evidenced by respondents' behavior in translating cooking ideas from food media into experimenting with what ingredients they have readily available.

In the qualitative research, the respondents explained that it has been hard to find relevant recipes online as few use the locally available ingredients. Now respondents mentioned PIFR as a platform where they can access recipes for Fijian food. They furthermore explained that the show has offered them new ideas for preparing local dishes on different platforms e.g., facebook, television and cookbooks.

"I look for new recipes for some of these local dishes and recipes I see through television and also magazines- e.g. a book called me'a kai - by the producer of PIFR/host - most of the local ingredients are included in it for us pacific islanders." [Male, 31 years]

"I'm always trying new recipes especially for my kids and honestly I found them on the show PIFR. Amazing and I have been trying them out in everyday meals." [Female, 41 years]

Fiji: Perceptions, Motivations & Shifts in Relationship with Local Food

We asked respondents whether they had noticed a shift in the popularity of local foods in the year. **A majority of respondents in Fiji (88%) shared the view that local foods had increased in popularity this year.** This is mainly attributed to the impact of COVID-19. Respondents report that the response by the Ministry of Health to the pandemic led to increased awareness about health in general and healthy diets. The pandemic also led people to shift to small-scale farming and home gardening of

local foods. This was to manage food expenditure due to the reduced household income resulting from loss of jobs.

There appears to be a shift from foreign food towards local food related to the age of respondents. For example, one respondent reports being motivated to learn how to prepare local foods as she will soon be a wife and feel it is expected of her to know how to prepare local foods. Another respondent reports being motivated to eat local and healthy foods as she is pregnant, while another reports feeling motivated to eat healthy foods since she is turning 40 years and feels that her age puts her at risk of NCDs. In contrast, younger respondents e.g., students claim that being independent and living alone motivates them to consume less healthier foods due to the ease of preparation and convenience as well as competing priorities for their time such as schoolwork.

“Because when I get married, I should at least learn more about it {local food} and also on how to cook it for example, crabs, lairo, lumi. If the boy likes seafood, then should know how to cook it.” [Female, 21 years old]

“I want to begin my 40s healthier, fit and trim so I can live to see my great grandchildren. Healthy foods prolong long life.” [Female, 40 years old]

Fiji: Willingness to Learn about Local Food

79% of respondents mention that they have learned more about local foods this year. The new insights are mainly from their social circles particularly from the female members of the family (mother, wife, grandmother and aunties) as well as from the church, and media sources. Cooking skills learned from the social environment of respondents are said to be passed down from generation to generation as a way of preserving Fijian culture. TV/radio shows, the internet and newspapers are also mentioned as sources of information for learning about local foods.

“Because the more we learn, the more we know and can pass down to the next generation and not to lose our tradition.” [Male, 31 years]

“I have learnt to produce my own vegetables in my backyard. When planted, I also learnt it’s nutritional values.” [Female, 25 years]

Respondents also mention learning about how to grow local foods. This shift towards home-grown foods and small-scale farming motivates respondents to learn more about how to grow local foods and which foods are most nutritious. Those who report learning how to grow local foods mention that they learned from other subsistence farmers as well as from the initiatives by the Ministry of Agriculture, such as the agricultural shows.

Fiji: Engagement with PIFR

63% of respondents had heard of PIFR through television and social media particularly facebook and instagram; 38% men and 62% women of our study sample. On average respondents who have watched the show have seen 6 or more episodes. Majority of the respondents report the final episode as their favorite episode. This is attributed to the winning team being team Fiji hence there is a sense of pride and identity. The kids show was highly ranked by some respondents.

On PIFR participants

We asked respondents what they thought about the participants on the show and a majority reported that they were skilled, talented and knowledgeable about the local foods. Skill, talent and knowledge were pegged on the ability of PIFR participants to prepare meals using the available ingredients, and prepare meals that represent the culture of their respective countries and within the time given. A few respondents mentioned they loved the sense of humor portrayed on the show, and others were delighted that PIFR participants showcased different cooking ideas to represent the unique cultures of the different countries.

"It's good that there were people from different countries because we all use the same ingredients but different preparation styles. So, we can learn their different techniques." [Male, 22 years]

"I wondered where they got their knowledge to make such food. They use such easy recipes, but we don't do it." [Female, 38 years]

"They did an amazing job in bringing their local food and promoting them. I believe it also serves as a tool to educate the people, listeners on the diversity of food found in the pacific." [Male, 21 years]

"It was gender balanced and was really good to see multicultural participants participate in the show." [Male, 27 years]

On PIFR dishes

We asked respondents what they thought about the meals prepared on the show. Delicious, expensive, authentic, and creative were terms used to describe the meals prepared. One downside reported by the respondents was the relatability of the show. To some extent, the meals as prepared and presented did not relate to the participants. In one instance, respondents describe the meals as, *"for me, most dishes they prepare are for the tourists"* [Male, 64 years] while others felt that it was something new to them: *"[The meals were] something new for us to see. The way they prepared them was very professional."* [Male, 22 years].

When asked about the preparation, respondents felt that the dishes prepared on the show required more time to prepare in practice than was portrayed on the show. A few respondents mentioned that they lacked the ingredients used on the show.

"It takes 5 hours to cook and 2 minutes to eat. I don't want to spend more time cooking." [Female 53 years]

"It's too much of a hassle for me, I prefer to eat and not cook." [Male, 21 years]

PIFR may have increased the cooking confidence of respondents who follow the show. 52% of respondents who had watched PIFR expressed willingness to try out the new recipes at home and about 20% of the respondents reported having tried at least one of the dishes from the show. Those who were willing to try out the dishes but had not done so mentioned time, lack of recipes and ingredients as reasons why they had not tried making the dishes. The accessibility of recipes will be a determining factor for ensuring maintenance of the positive dietary shifts. We will focus on ways of doing so in the final recommendations section.

"No, because he might fail in cooking that particular meal from the show." [Male, 27 years]

"Yes, If I had a cooking book for it then I would love to try some of those dishes." [Male, 41 years]

Participants who were unwilling to try the recipes from the show said they lacked the confidence to cook fearing that their dishes may not resemble those prepared on the show.

"{I would not want to try the dishes on the show} because the way they cook the meal is very complicated. I wouldn't want to spoil the meal or waste the ingredients." [Male, 41 years]

"I'll end up burning it as I don't know how to cook food." [Female, 30 years]

"I would like to try the dish they are making but for them to prepare it. If I cook it then it will taste different, it's not like they cooked it and we eat it." [Female 37 years]

PIFR improved respondents' understanding of healthy foods and food preparation strategies

Participants reported learning new ways of preparing local dishes from the show, such as using locally available ingredients to improve the flavors of their food. A few others reported experimenting with the recipes using basic ingredients that were readily available to them. The show also provided respondents with new ideas on how to improve taste of local foods, such as using locally available ingredients to improve the flavors of their food.

"The show was quite informative on local food. It shows how to use and cook local foods in different ways and offers new ideas on food preparation" [Female, 39years]

"It taught me new ways of cooking locally grown food. I found how to make vegetarian patties on this program" [Female, 26 years]

“Yes, because it {PIFR show} has showcased that ingredients for local food aren't hard to get. We can grow them or get them in our local markets. In order to cook watery dishes people just need to be creative in a way of using local ingredients. [Male, 31 years]

For the respondents involved in the qualitative research, we find that the majority felt that they used to always prepare the same meals in the same way, and after watching the show, they: (1) learnt new ways of cooking the same dishes they prepared at home, (2) learnt new ways of improving taste and flavours using locally available spices and herbs and (3) increased home food preparation. One participant mentioned that watching the show with her children changed their attitudes towards local foods and encouraged them to consume local foods by helping out with preparation of meals using recipes found on the show.

“Yes, after watching the show I came to realise that healthy eating deals with our local food which can be prepared using different techniques and the ingredients are available as it is locally produced. I have learned to make my meals more creative and attractive for my family. It also helped me to encourage my children to eat more local food by including them in watching and preparing the meals with me.” [Female, 42 years]

The respondents in the qualitative research, who have tried recipes report that **familiarity with the ingredients, availability and affordability of ingredients, ease of preparation and prior exposure to the meals** was the driving factor towards their choices of which recipes they chose to make.

“I prefer to cook Shamim and Manasa’s Twist of Spinach and Rourou Soup, because the recipe is simple and easy, I have it on the shelf. It is great for children as children like chicken a lot and it's more suitable for diabetic patients.” [Female, 42 years]

“Pacific Island Crave because I am very adventurous when it comes to cooking and this menu seems interesting and mouth-watering. I know it's going to be a hit with my family. We love our seafood especially as we are from the Islands and we rarely get to visit our island home, seafood places an important part in our culture as it promotes our identity and it nourishes our cravings. It also brings forth an appreciation for our vanua (land) and the mana (resources) in our land.” [Female, 41 years]

“Shamim and Manasa’s Rourou soup with coconut milk and charred kumala- Because it's cheap and the ingredients are readily available.” [Female, 33 years]

Fiji: Impact of COVID-19 and TC Harold

COVID-19 has had both positive and negative impacts on people’s food choices and economic lives. Respondents report the loss of jobs, reduced household income, reduced imports of foreign foods and increased food prices as negative impacts of COVID. Respondents who are most affected by the

pandemic are mainly those living in urban areas. Respondents in rural areas report having access to local foods from their own land.

The pandemic seems to strongly influence respondents' behavioral changes in relation to food choices for local vs. foreign foods in Fiji. For example:

- A majority of respondents mentioned they had shifted their priorities from purchasing food to growing vegetables and herbs in their backyard gardens.
- Respondents, who have no land to farm, report being more intentional about purchasing local organic foods and making healthy food choices.
- Respondents reported an increase in home food preparation.

“Yes, people are relying more on local produce. Less expensive restaurants are visited, and more home cooking is being done.” [Male, 24 years]

Respondents also report a heightened awareness of their health in general attributable to the government interventions to educate them about the pandemic and other NCDs. Respondents said they make healthier food choices to protect their own health and that of their dependents.

Our previous research highlighted time constraints as a barrier to food preparation and healthy food choices. COVID-19 has presented ideal conditions for driving change towards more home food preparation, since people have more time at home. In addition, respondents mention that they are more willing to learn how to cook local foods.

To counter the effects of the pandemic on income flow, respondents report having learnt to stretch their food budgets and make changes to their food utilisation. For example, some respondents said they develop recipes with the basic ingredients available in their homes and make use of leftover food to minimize waste, while others create meal plans for the foods grown in their backyards.

“Yes, it has made me aware of how much local people need us to invest more on local food. I buy more local produce from the market and choose ingredients that fit my budget.” [Female 33 years]

In the qualitative research, we explored the respondents' perceptions of the sustainability of the shift towards farming. All Fijian respondents believe that this increase in backyard farming will last even after COVID-19, as the habits will be formed. PIFR is also mentioned as a contributing effect, to ensure the increase in backyard farming will last.

“The show [PIFR] for one would definitely have a huge impact on people to start growing their own food.” [Female, 45 years]

Respondents also reported an increase in the number of local food restaurants and markets during the pandemic which they said encouraged them to eat more local foods.

Yes, my uncle sells the market and he has noticed that most people are now requesting local food/ingredients. Which is a good thing due to Covid 19 people are now well aware of the local food is more cheaper than imported goods [Male, 21 years]

"{Local meals are becoming more popular because} more local restaurants are opening up and offering local dishes such as fish with coconut milk, Kokoda, sui and others". [Male, 27 years]

"{Local foods became more popular} when the hotspot program came in which most of the restaurants displayed local foods." [Female, 26 years]

Tonga Qualitative Interview Findings

Tonga: Dietary & Practice Habits

Overall, 26% of the Tongan respondents report having changed their diet for the better over the past year. They describe it as a shift towards eating healthy foods which include more vegetables, root crops and proteins, mainly seafood. This change is mainly driven by high-risk perception of NCDs, aspirations to keep healthy and fit and the lack of money to procure foreign foods. A few other respondents (5%) report shifting to foreign foods while (4%) respondents report having changed to eating a mix of both foreign and healthy foods.

Only 13% of respondents report that their friends and relatives had shifted to eating more foreign foods. This change is attributed to various trends observed over the past year; (i) the availability of more foreign foods in supermarkets. (ii) an increase in employment overseas, (iii) increase in the number of buffet restaurants, (iv) remittances and (v) peer pressure. The availability of more foreign foods, mostly Chinese foods, in supermarkets is interesting as we see some notable differences between the endline and pre-post survey results. In the pre-post survey, respondents reported that Tongan local foods were more accessible to them compared to foreign foods. However we now see a shift away from Tongan local foods to foreign foods in terms of accessibility.

"It's cheaper and quicker to eat out. Also when all your friends are out eating at restaurants - you will not be liked if you don't do what the others are doing. Also there are more restaurants and fast-food bars available for us everywhere now. Before you only find them in town - now we have them closer to our home." [Female, 19 years]

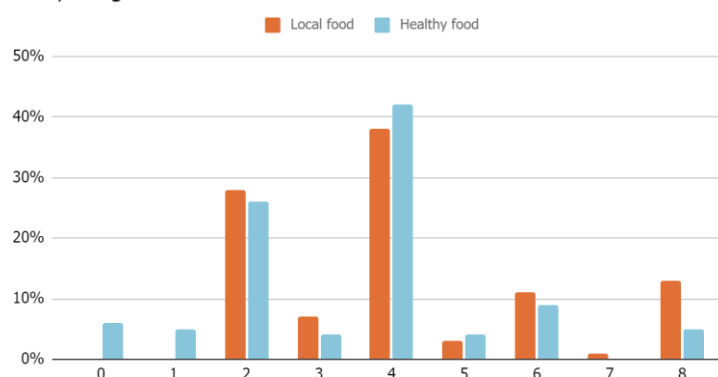
In the qualitative research, we see a difference in opinion for younger and older people. Younger participants agree that foreign food tastes better while the elderly prefer their local foods and feel they have the cooking skills necessary to prepare a tasty local dish.

“Yes it does. It really comes down to your cooking skills and whether or not you know how to add the different flavours/spices/condiments available in your home to give the food better flavour.” [Female, 37 years]

Assessing weekend cooking habits

We see that a majority of respondents had prepared local and healthy foods 4 times in the past two weekends.

In the past 2 weekends, how many meals consisted of local or healthy food, Tonga



Differences between local and healthy food

Nearly all respondents described local food as food grown in Tonga and sold in the local community and local markets. Healthy food was described as a balanced diet (81%), rich in fruits and vegetables (75%).

Inspiration to try new dishes

37% of respondents had tried a new dish in the past two months and expressed willingness to try the dish again. The inspiration to try new dishes is mainly found on the internet through Youtube as well as through TV and radio shows, including PIFR. Respondents also mentioned getting ideas from observing chefs in restaurants and discussions with friends, family and community members from the church.

Tonga: Knowledge & Attitudes about Local vs Foreign Foods

All respondents describe local food as food grown in Tonga and sold in the local community and local markets while tasty and unhealthy were the most salient characteristics of foreign foods.

Although respondents' levels of awareness of local food as the healthy option are high, more than half (53%) of respondents report that they really liked foreign foods and about 42% of respondents liked it or did not mind it. Foreign food is mainly preferred for its taste and ease of preparation i.e. fast and easy to prepare and allows for one pot meals. It is also said to be readily available and affordable in supermarkets and shops. A few others preferred foreign foods due to it being durable and not requiring refrigeration.

Local foods are mainly appreciated because they are healthy, energizing and filling. A majority of respondents also shared that they have been raised on local foods, a childhood pattern that set the standards for their food choices into adulthood. Trust and availability are other reasons for choosing local foods. Those growing their own vegetables feel that local foods are readily available and therefore free compared to foreign foods.

"I am more familiar with our local food - and I know where it comes from. I am not always confident about the origins of foreign food. The Chinese sell imitation products - and we don't know where it has come from."
[Female, 44 years]

"Local food is healthier, and it makes you feel more full for a longer period". [Female, 53 years]

A majority of respondents report that foreign foods complement local dishes and improve the taste hence they loved to combine both during meal preparations. A few others think both dishes offer them the liberty to choose especially since the food prices for both local and foreign foods are increasing.

"The taste is so much better than Tongan food and there is more variety." [Male, 24 years]

"Complete our local dishes. Without it our Tongan food is not as enjoyable." [Female, 40 years]

"Both are delicious and depending on what it is that you are eating and when. The price differs, i.e. during the week for simple meals it is cheaper and for special occasions foreign food and some Tongan food gets expensive." [Male, 25 years]

The findings also show that a majority of study respondents were actively searching for new ways to prepare their meals. Food media used to access recipes and ideas for preparing meals included the internet (youtube), traditional media (radio and TV shows), magazines/recipe books and social media (facebook/instagram). One participant mentioned getting ideas from PIFR. Other sources through which respondents reported learning new ways of cooking included their social circles mainly from family members, friends, community and church members.

Two reasons were reported for actively seeking new ways of cooking. (i) Those growing their own food crops desired to find new ways of preparing meals with the food that was available to them. The aim was to diversify their dishes and improve the taste. (ii) Those who preferred foreign foods mentioned that there was a wide variety of foreign foods readily available in the supermarkets and they were curious to try out the new foods using recipes they obtained from the internet.

"We just see these new foods at the supermarket and store, and if it is on special or discount then we take it home and try it. We go on the internet to look for a recipe to use it. An example is olives and parmesan cheese - we saw that it is good for pasta - so we make it with pasta." [Male, 21 years]

Food variety and monotony was also seen to influence preference and consumption of food. In addition, monotony could occur even for preferred foods influencing food choice at a given time. A majority of respondents who preferred foreign foods mentioned they were tired/bored of eating the same local dishes at home and opted to diversify their options with foreign foods and break that monotony.

“My family usually eats the same dishes all the time and we get bored and sick of it, so I am being inspired to try new dishes”. [Female, age is missing]

“We eat a combination of local and restaurant food because I like to take a rest from eating the same food throughout the week.” [Female, 22 years]

In the qualitative, we find that, similar to Fijians, respondents in Tonga would like to find recipes that show their local dishes and how to prepare them. What stands out in Tonga is that new recipes are often shared in conversation with others and other sources of information come secondary to this. Respondents reported that ladies will talk through their recipes when they cook together, or when they have attended a function.

“If we go to someone's house or a kai pola or function and we try something different - usually the ladies will talk about how they made the dish.” [Female, 20 years]

“When I am on Facebook, Youtube and Instagram – If I see dishes/food that looks easy and delicious I will look at the recipe so that when I am thinking about a meal I will make it.” [Female, 37 years]

Tonga: Willingness to Learn about Local Food

33% of respondents report having learned more about local food in the past year. They have mainly learned from their social circles particularly from the female members of the family (mother, wife, grandmother and aunties) as well as from the church. TV/radio shows and the internet are also sources of information for learning about local foods. Motivations to learn more about local food are mainly the perceived identity, as Tongans and the desire to preserve the cultural heritage. Many respondents mention that they wanted to learn how to prepare local food in order to teach their children and also provide Tongan dishes to their family members. Others want to learn so they can help out in home food preparation and at events and functions

“So I can teach my kids how to make traditional meals.” [Female, 34 years]

“Because I am Tongan and the food is my history.” [Female 22 years]

Respondents who do not express willingness to learn how to prepare local foods mention that they already have someone to prepare the local dishes for them. Others, mostly younger respondents, feel that they will learn at later stages in their life for example when getting married.

“My mother does all the cooking and I have older sisters who do all the cooking. Maybe when I get married I will.” [Female, 19 years]

Similar to previous findings in the pre-post survey, time and ease of preparation are barriers to the shift to local foods. Foreign foods are preferred because they can be prepared in one pot. A majority of respondents feel that local dishes involve many steps and are time consuming.

Tonga: Engagement with PIFR

85% of respondents have heard of PIFR through television, radio and social media particularly facebook and instagram. 32% men and 68% women of our study sample. On average respondents who have watched the show have seen 6 or more episodes. The show is most popular among women aged 18-40 years, and men between 19-43 years. The majority (19/50) of female respondents who had heard of the show reported to be the ones responsible for cooking in the household while only (6/24) of male respondents identified as the main cook. Cooking however was said to be a shared responsibility within the household. There is a slight change in the findings compared to the pre-post survey whereby just over half of the respondents (57%) had watched the show; 38% of the men and 63% of the women of our sample. The average age of viewers was 26, with the majority of viewers (36%) being between the ages of 20 and 24.

On PIFR participants

Tonga respondents feel they can relate to the participants on the show with some reporting that they were normal people and not celebrities as is popular with other shows.

“It's good to see normal people - not sports people or models or beauty pageant people. We relate more when we see people like us” [Female, 28 years]

“Good that you use normal everyday people and not celebrities or sports stars” [Female, 40 years]

There are several interesting contrasting opinions on the PIFR participants. Some respondents feel that the PIFR participants portray the true image of Tongan people in terms of their body weight. *“It's good you use real people like Tuiofu and Mia who are not skinny but they represent what true Tongans are.” [Male, 40 years].* On the contrary, one respondent feels that the PIFR participants do not appear as healthy with reference made to their weight. *“They don't look as healthy” [Male, 40 years]*

Views about PIFR participants vary based on the different segments of our study sample. Some respondents think the show should be more targeted towards women as they do most of the cooking in the household, *“There needs to be more women because they are the ones that do most of the cooking at home.” [Male, 43 years]* while others feel empowered when men are represented on the show. *“I liked seeing men cooking because it inspires me especially when people think only women should cook.” [Male, 27 years]*. Younger respondents prefer having young contestants represented on the show, and further, respondents want to see contestants with varying levels of cooking skills e.g. beginners, intermediate and experts represented.

“They need more, young inexperienced people” [Male, 37 years],

“It would be nice to see a mix of people who don't have cooking experience on the show” [Female, 44 years]

These findings are consistent with results from the pre-post survey which showed that the majority of the respondents could relate to PIFR participants as they were Tongans, and those who did not relate said that it was because the contestants were older and more experienced than them.

On PIFR dishes

PIFR meals are said to be delicious, beautiful, creative and healthy. While there are mixed reactions about the ease of preparation, a majority, specifically the youth aged between 19-33 years, believe the meals are hard to prepare, requiring too many steps and ingredients that they do not have available. The findings are consistent with the pre-post survey findings that showed most respondents felt that the dishes were a lot of effort to prepare and would take more time, ingredients and steps than they are used to.

“They looked delicious but also managed to make cooking local food complicated.” [Male, 19 years]

“Too hard too many steps - not simple.” [Female, 20 years]

Findings suggest that PIFR may have increased Tongans' willingness to learn how to prepare local dishes. 56% of respondents who had watched PIFR expressed willingness to try out the new recipes at home and about 22% of the respondents reported having tried at least one of the dishes from the show. Those who were willing to try out the dishes but had not done so mentioned time, lack of recipes and ingredients as reasons why they had not tried making the dishes. A few others felt they lacked the skills needed to prepare the dishes and would require help from someone.

“I don't have time to make the dishes and I would need someone to show me the steps.” [Female, 29 years]

"I don't have ingredients and recipes. Also my cooking skills is very basic compared to what i see on TV" [Female, 32 years]

Respondents who are unwilling to try the recipes are mainly younger men and women. Respondents report that the main cook at home prefers having autonomy on how they prepare their meals and were rigid when it came to learning new ways of preparing the meals. This speaks to the Tongan culture whereby cooking skills are passed down from generation to generation mainly by the female head in the family.

"[In] my mother's kitchen it is not easy to go in there and cook what you want and she is not really interested in changing dishes or the way we eat local dishes." [Female, 23 years]

"My mother will get angry if I want to go into the kitchen." [Male, 20 years]

A few respondents also report that they do not have the equipment needed to prepare the meals as was shown in the show such as a nice kitchen. For the show to be more relatable, respondents mention it should be based on settings that are familiar to most Tongan people, for example, a typical Tongan kitchen.

"No time or recipes and my kitchen is not like western kitchen." [Male , 37 years]

"Yes keep making more shows but would it be possible to show cooking in a real Tongan kitchen because not everyone has a full kitchen to be able to cook like they do on the show. Stay true to how our homes and kitchens look like." [Female, 37 years]

The in-depth interview respondents all report a shift in their motivation to experiment with new ways of cooking local dishes after watching PIFR. Examples of the new ways of making food tastier is by adding ingredients, herbs and spices that are readily available. A few others think the show dispelled the myth that local foods are for the poor. Many felt that the show portrayed the culture of Tongan people and made them proud to see their food practices showcased on television.

"It motivated me to continue to eat local food - which we do. That eating local food is not a sign that you are poor - or that you cannot afford foreign food - but that actually we are better off than others who prefer foreign food." [Female, 37 years]

On PIFR recipes

After showing respondents examples of 3 different recipes, the respondents said that their reason for choosing one of these dishes to make would be driven by how it looks on the picture. All respondents believe the format of the recipes was easy to replicate. Two respondents however wanted the recipes translated into their local language and preferably complimented with short videos that outline the steps to follow.

“Yes - but need to translate into Tongan and maybe a video that shows me all the steps.” [Female, 20 years]

Respondents confirmed the current method of sharing recipes as the most optimal; through a webpage and advertised on Facebook.

Tonga: Impact of COVID-19 & TC Harold

In Tonga, only 6% of the respondents report to have changed their eating habits due to the COVID-19 related restrictions and impact. However, 22% of respondents have been affected financially through lack of jobs due to travel restrictions for those working overseas, reduced remittances, reduced household income and purchasing power as the main impact of the pandemic on their lives.

“Yes we have less money in our household as we rely on my husband and children to send money from NZ and Australia to help with the family bills, church and school supplies and food” [Female, 53 years]

Similar to Fiji, we note an increase in backyard farming in Tonga. Respondents explain more people have started growing their own vegetables as food prices (especially local food) went up due to cyclones that destroyed a lot of produce.

A majority of respondents in urban areas reported making a recent shift to home gardening and small-scale fishing. This shift was said to have many positives such as cost cutting and eating healthier, fresh foods. In addition, it provided a source of income for families who sold their produce locally.

“Definitely - in all my life I have never seen so many Tongans growing their own food and having their own free-range chickens and eggs.” [Female, 37 years]

“You see now more people have plantations and gardens. Food is becoming more expensive now. Both local and foreign food.” [Female, 37 years]

In Tonga, the shift to farming has seen increased efforts from the Ministry of Agriculture whereby funding is being provided to allow access to seedlings as well as sensitization efforts for small scale farmers.

“It brings a lot of good things! A lot of time with family and saves time and money rather than them using money to buy food! I would say it is a good change!” [Male, 31 years]

“I have only become aware of this in the last few months with a group of ladies from my church who have all got together and formed a group called 'Green Goddesses'. They have gardens and supply each other and their restaurants/take-aways with fresh produce. They have shown me how to grow,

but how they have been able to share their stories about their work with people, and how it has really helped with their businesses and their families' diet. They don't go to the market for fresh veggies now and they support one another. This is a great initiative!" [Male, 37 years, Tonga]

In the qualitative research, we find mixed beliefs regarding the sustainability of the shift to farming. A few respondents feel that the shift to farming will last if the Ministry of Agriculture continues to supply seedlings to farmers. In contrast, some respondents feel the shift will not last and people in Tonga will revert back to consuming foreign foods which are convenient and easy to access.

"If the pandemic continues - then yes. I suppose we all like to see what our hard work results in - a great harvest for family, business and health. But forming habits and keeping them is one thing. It takes time for a habit to be ingrained. So time will tell - and I believe that women will shape this behaviour, attitude and behaviour." [Male, 37 years]

"I hope so - but not really sure - I think once people get more money and the imports come back - people will go back to shopping in the stores again." [Female, 31 years]

Respondents reported coming together as members of the community to pull resources and share food amongst each other especially for those whose crops were destroyed in the cyclone. While this is the culture in Tonga heavily influenced by religion:

"Not so much about eating or cooking - but more about food as a way to bring our family, village and church together - we work together, we will be healthy together and we all have better lives together." [Female, 20 years]

Samoa Qualitative Interview Findings

Samoa: Dietary & Practice Habits

Overall, 36% of Samoan respondents reported having changed their diet for the better over the past year. Most of the respondents who reported a change, describe it as eating more healthy foods (less salt, less oil and less fried foods, less carbohydrates, eating more homegrown and homemade vegetables, no sugar, balanced diets, smaller portions) or eating out less.

"We use more vegetables in dishes because we grow our own vegetable garden now. And we cook smaller portions." [Female, 25 years]

"I'm using healthy ingredients more now, I use olive oil over regular oil. We also eat less dairy and sugar in our diet. We also use almond milk and steam and roast rather than frying our foods" [Female, 33 years]

36% of the respondents also reported that they think people in their social circles have changed what they eat over the past year. Most of them said that they have noticed a change towards healthy eating among their friends and relatives as indicated by the consumption of foods less in carbohydrates, oils, balanced meals and adequate portions.

On the contrary, 14% of the respondents said that they have moved towards unhealthy eating (fast foods and eating out more). These respondents attribute the unhealthy eating behavior to their busy schedules, which left them with minimal time to prepare homemade meals.

About 16% of the respondents said that they had been prompted to start a healthy eating behavior by health concerns like excess weight gain, sick family members or even family members who had succumbed to lifestyle illnesses.

“We cook more healthy meals now, especially since we have a family member in the medical field now encouraging us to eat healthier. And because my dad especially was having health problems so that changed our household diet completely.” [Female, 31 years]

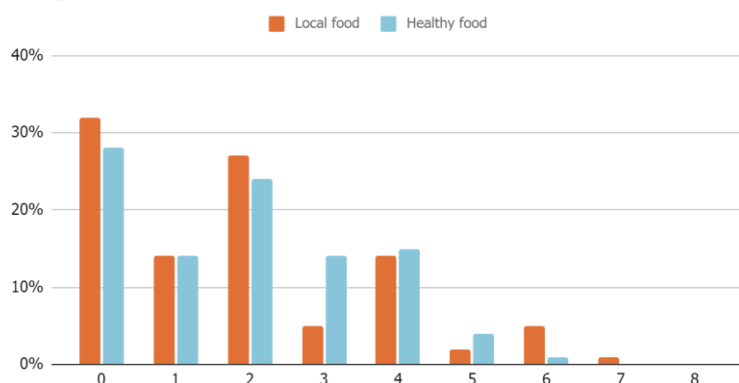
In the qualitative research, all except one respondent believe there is too much foreign food consumed and people should shift to local foods instead.

“Yes, Samoans have been the victims of Westernization from times of colonies up until now and their health has paid a big price for it. Samoans are very basic people and will always opt for the most affordable meal option. Samoans are always saving for their children’s medical and educational needs, and the usual Faalavelave costs instead of buying fresher and healthier food.” [Female, 29 years]

Interestingly, 50% of those who reported a change in diet over the past year stated that the COVID-19 pandemic drove the change to healthy eating habits, this is primarily driven by an increase in backyard farming during the lockdown period. One respondent said that she was inspired to do healthy eating by TV shows advocating for healthy eating. Overall, we see several factors that led to the respondents starting healthy eating behavior. These factors include the need to adopt a healthier lifestyle by losing weight, health concerns about obesity and NCDs, and social influence by observing the health status of sick family members.

Assessing weekend cooking habits

In the past 2 weekends, how many meals consisted of local or healthy food, Samoa



The majority of the respondents had relatively few healthy or local meals, which given the majority reporting shifting their diets for the better, indicates a very low starting point (i.e. Samoan diets were particularly unhealthy prior to 2020).

In our assessment of the factors that influence the respondents'

dietary habits, *available ingredients*, *food preferences* (what the household members want/feel like consuming that particular time) and *affordability of the foods/ingredients* are mentioned as the most common driving forces in determining the kind of dish to be cooked by the household members. Looking at the pre-post survey findings, availability of the foods is a consistent factor determining the dietary habits of the Samoan people. 10% of the respondents stated that *time* (especially if the dish takes long to prepare and they have a busy schedule) is also a key factor that influences what dish they typically cook. We also see the presence of either sick household members or children can greatly determine the food being cooked.

Samoa: Knowledge & Attitudes about Local vs Foreign Foods

65% of the respondents define local foods as those that are grown/produced in Samoa, 31% define them as those that are grown in the local community while 22% and 9% define local foods as those sold in the local market and sold in the local community respectively. Foreign foods are defined as those imported from outside Samoa. 85% define healthy foods as foods that are fruit and vegetable based.

Overall, we see most of the respondents differentiate local versus foreign foods but there are foods that some of the respondents mention as Samoan yet they are foreign, for instance, chop suey, chow mein and curry are largely considered local Samoan foods. We had 6% of the respondents with the perception that local foods are quite expensive/pricey. This may be due to the fact that they do not have backyards to establish their own vegetable gardens.

Foreign foods are strongly associated with fast foods, preservatives to prolong shelf life and easy and convenient to prepare. Most of the respondents say that local foods are quite time consuming to prepare. This finding is different from the pre-exposure survey where the majority of respondents

reported feeling that there was not much difference between foreign food and Samoan food when it came to ease of cooking.⁵

We saw an interesting mix in the food ratings, 56% of respondents said that they really like local foods while 52% of respondents said that they like foreign foods.

While 25% of the respondents said they knew local foods were healthier than foreign foods, they still preferred foreign foods. They stated that they would rather have foreign foods because they are tasty/delicious unlike local foods that are bland.

Samoa: Perceptions, Motivations & Shifts in Relationship with Local Food

47% (37% female; 7% male; 3% non-conforming) of the respondents in Samoa say that they think local meals have become more popular among the Samoan people in the past year. The majority of them attribute the change to the COVID-19 pandemic. The respondents say the pandemic led to a number of effects including: limited imports of food items into Samoa due to closure of borders, decline in disposable income to spend on food due to job loss, lockdown driving people to innovative ways like preparing a vegetable garden and generally people becoming more health conscious. All these effects prompted the Samoans to consume more local foods compared to the period before COVID-19 pandemic.

The COVID-19 pandemic was mentioned as the biggest driver for respondents to shift towards consuming more local meals, while TV and social media have provided the know-how to prepare local dishes. Other drivers mentioned by respondents;

- Government's intentional efforts through the ministry of health for healthier lifestyle for instance the school feeding programs shift into healthier lunch options
- Proactive advocacy for healthier eating behaviors through cooking shows, TV and local food documentaries that promote local food production, including PIFR.
- Social media programs - health and fitness challenges. A smaller share of respondents say they had signed up for some of the health and fitness challenges.

Samoa: Willingness to Learn about Local Food

We find that 31% of the respondents report to have learned more about preparing local foods over this past year. Out of these, 46% cited family members as their source of information. A few others state to have learned through TV cooking shows, such as PIFR, and social media programs, friends, health and fitness trainers, recipe books, and through a church program.

⁵ However, as mentioned in the pre-post report, we have reasons to believe the data from Samoa in that round may not have been accurate.

The majority of the respondents (70%) expressed the interest in knowing more about local foods. Most of them are curious to know how to cook local foods for their families. They believe that it is a necessary skill to have, especially in the Samoan culture. Respondents mentioned PIFR as an example of this, although some of the respondents felt that the show needs to consider other platforms like physical demonstration in the villages or cookbooks with the recipes that the respondents can refer to later. One of the respondents said: *"it implies you are embracing our culture"*. Other respondents say that they would want to know how to cook the local foods so that in the event the COVID-19 pandemic persists they will be able to cook and enjoy local meals as they usually do with the foreign foods. One of the respondents said that she would like to learn more about local foods so that when she gets married, she will be able to prepare tasty meals for her family and children.

"It would be helpful when I am married and have children of my own" [Female, 29 years]

Those who do not want to learn more about preparing local foods say that either they knew how to prepare most of the Samoan dishes, they do not like local foods or they just do not have any interest in learning about them.

"Because I am comfortable with what I currently know on local foods at the moment - I know how to make most if not all Samoan dishes" [Male, 29 years]

"I can cook any local food because I grew up watching my family make it, my current knowledge on the topic would do. Also, there's not that much variety of local foods so not that much to learn" [Male, 58 years]

Besides learning about local foods, **84% of the respondents say that they would like to eat more local foods.** They give various responses regarding what would encourage them to eat more local foods. Most of them say that they would, if they have the ingredients available or if they are shown how to cook them. Some also say that they would, if the foods are affordable, accessible and easier/quicker to cook. A few others say that they would, if the foods taste good. Overall we see cost and availability of ingredients as the main factors that would encourage consumption of local foods among the Samoan respondents.

Respondents who say that they do not want to eat more local foods say that they would not want to do so because local foods are bland/not tasty. Some say that they have already eaten enough local foods while a few others say that local foods are difficult and time consuming to prepare.

Samoa: Engagement with PIFR

84% of the respondents have heard about PIFR through either television, social media or both. Out of this, only 9% said that they are following the show. This may indicate the need for a more

traditional advocacy approach for instance demonstrations in the villages, road shows to reach the Samoans. Regarding the number of episodes watched, most of the respondents said that they had watched more than 6 episodes⁶. The respondents who watched the episodes consider them very interesting, educative, entertaining and fascinating how local ingredients can be used to produce delicacies on the show.

"I loved local food even before I watched the show. And after, I loved it even more." [Female, 26 years]

In the qualitative survey, most of the respondents said that they were motivated to eat/make local food after watching the show. Quite a number saw the way the foods looked appealing and wanted to try out.

"Actually yes. I tried making the luau balls after seeing the lady (competitor) make them on the episode" [Female, 29 years]

Half of the respondents in the qualitative analysis reported that they think the show has been successful in getting people in Samoa to eat more local food.

"Yes, I have also seen some people trying to cook the dishes that were displayed on the show, which is great. People are excited to experiment or try new ways of cooking our local ingredients, which we have been cooking using the same methods for as long as I can remember." [Female, 25 years]

Those who said they did not think so believe changing eating habits to be an individualized choice that cannot be influenced by external factors like watching the show. One of the respondents cite lack of relatability as a key barrier:

"The show makes the food look expensive. In Samoa we have big families so we try to cook meals that can feed these large numbers, and the ingredients used in the show can be expensive. The show is not relatable to regular Samoan families." [Female, 26 years]

On PIFR participants

Most of the respondents who watched PIFR consider the participants on the show to be very talented, have great culinary skills, and were very creative and innovative. They noted that they are also similar to them, which is a clear shift from the survey findings from the previous season where the main point of criticism was the participants being unrelatable and too professional.

"Very good choice of participants. I appreciated that some of them were normal citizens and not known professional chefs, as it made me feel that I could relate to the show more when I saw these particular participants. If they can do it, I can too." [Female, 39 years]

⁶ However, these findings are a bit mixed, as some people who said they did not watch the show have also indicated the number of episodes that they watched.

Two respondents felt that some of the participants did not represent the Samoan culture very well and that there were others who could have done a better job but were not selected.

“They were okay, I didn't see too much energy from them. And I felt they didn't represent Samoa well - not enough energy and it appeared like they did not know how to do some of the basic Samoan tasks required in cooking traditional meals.” [Female, 24 years]

On PIFR dishes

Regarding the respondents' perception of the meals that were prepared on the show, the respondents generally describe them as delicious, appealing, colourful, appetising, and healthy. Many respondents complimented how the foods are presented and are fascinated by the fact that the participants used local ingredients. This matches the pre-post findings where the respondents gave universally positive feedback of the dishes, saying that they looked “delicious”, noting that they were impressed by how good they looked with such easy-to-access local ingredients.

7% of the respondents said they have tried making a recipe from PIFR. 57% of the respondents said that they would like to try cooking some of the dishes prepared on the show. This relates well to the pre-post findings where the respondents noted that they would like to try some of the dishes though they indicated that it seemed to take up much effort.

In the qualitative research, we showed respondents 3 examples of PIFR recipes. All the respondents said that the format of the recipes is easy to understand and replicate and most of them indicated that the recipes were very easy to make.

Almost all the respondents say that they are confident that the recipes would turn out good. They draw their confidence from following the instructions keenly and a few say that they have great culinary skills that will complement the steps given to prepare the dishes.

Respondents' perceptions of PIFR's potential to change behavior

Nearly all the respondents consider PIFR a useful initiative to educate and promote use of local foods among the Pacific Island people. It is very clear that the respondents understand the purpose and goals of PIFR. They said that through PIFR, people can learn good culinary skills which help them prepare dishes from locally available ingredients which are healthy as opposed to the overreliance on processed foods that they mostly acquire from the stores.

“It was pretty interesting to see how some of the local or traditional foods we love so much being cooked differently in an inadvertent way that makes them more healthier” [Female, 26 years]

The respondents pointed out several factors about the show that motivate people like them to start eating /preparing more local foods. Most of them cite seeing the participants and the ingredients,

others say the way the meals are presented. One respondent highlighted the mentioning of the health benefits of each ingredient used.

However, one respondent said that the meals prepped on the show are in small quantities which do not relate to the quantities that she usually prepares for her family. She added that, for her to prepare such quality meals for her family it will turn out to be expensive.

On the downside, two respondents doubted the relatability of the show saying that the foods shown on the show were of restaurant quality and the complexity of kitchen appliances and spices used which does not compare/ is not relatable to what they usually prepare at home.

"I felt it was too foreign for a program that promotes local eating (too staged). For e.g. too many kitchen appliances used as well as the spices and sauces used throughout the show" [Female, 51 years]

When asked whether respondents believe PIFR can be effective in changing the way people eat, opinions vary on how much PIFR one needs to engage with for it to have an impact. Most respondents report that the show can be effective only if there are repeated/multiple exposures of the content. A few of the respondents do not think the program can be effective to change what Samoans eat. Responses centre around the following themes;

- Change is an individual's choice: A small number of respondents were unconvinced in the potential of PIFR to change diets, arguing that exposure to the program alone may not be enough to change what people in Samoa eat unless the people themselves are willing to change.
- Status quo biases: Some of the respondents stated that some people may be resistant to change their routine way of cooking/preparing meals or even the type of meals that they eat as they are comfortable with how things currently are. In behavioral science, this is known as the status quo bias.
- Context matters: A few of the respondents report that some of PIFR may not be effective for people in Samoa to change what they eat because of the way the program is designed. For instance, they said that the show is filmed at a fancy/5-star restaurant and some of the ingredients used may not be relatable to a rural Samoan.

Samoa: Impact of COVID-19 & TC Harold

The COVID-19 pandemic just like in any part of the world has impacted the lives of the Samoans in one way or another. The majority of respondents reported having been affected negatively by the pandemic. Most of them mentioned that the loss of jobs/income or reduced remittances as a result of COVID-19 constrained them financially. This reduction in income consequently affected the choice of diets consumed at the households. As a coping mechanism, the respondents said that they were

currently living on a budget and optimizing on the available ingredients for household meals, most of which were available from their farms.

On a rather promising perspective, COVID-19 was a key trigger that saw some people start eating healthy and becoming more health conscious. Some respondents said that with the onset of COVID-19, they had more time at home which allowed them to tend to their kitchen/vegetable gardens and Taro/banana plantations.

"It has changed our diets to healthier meals as we become more health conscious. We now eat more of our own homegrown produce." [Female, 29 years]

Similar to results from Fiji, it appears that PIFR is supporting people in making a successful shift towards local food.

"With the pandemic, many have leaned towards growing, eating or selling their fresh produce. Some families may also be struggling to look for other ways to cook their food so I feel PIFR is right on track as it encourages locals to experiment with the ingredients we grow." [Female, 27 years]

In the qualitative research, the respondents unanimously stated that they think the shift to do more home gardening is a positive change that the Samoan people should sustain. When considering sustainability, the majority of the respondents stated that they think the change to backyard gardening will last. Interestingly, while some believe it is a habit that the Samoan people have formed and will continue to practice, some are uncertain and think that it will last only if the COVID-19 pandemic persists, once the pandemic lapses, people will bounce back.

"I do not know if it will last but I have a feeling COVID will continue for a year or so and the longer it will go on the more likely people will continue with their home gardening as now it will have become more of a routine or habit for many" [Female, 27 years]

"I feel like it is going to be here for the long run. Because I feel the pandemic will be here for quite a while and when you add that with the constant programs pushed by the ministry of agriculture and fisheries, it will definitely push people to continue with their home gardens." [Female, 24 years]

There is a mix of respondents who think that COVID-19 would affect people's decisions to eat more local food. Some say they will make the decision to eat more healthy/local foods only if they are having low incomes, as they adhere to government's directive on healthy eating to boost one's immunity or in the event COVID-19 pandemic persists limiting imports to the country. On the other hand, those who think that the pandemic will not affect think so either because they have the perception that COVID-19 has not hit Samoa yet and that even with the restrictions people are still able to access the foods from the stores. Interestingly, there are some respondents who think that COVID-19 will lead to some people switching to local foods due to fear of contracting COVID-19 from foods imported from other countries.

“As the borders are closed and the possibility that food from overseas can no longer be imported due to the pandemic, our people will have no choice but to focus back on growing and eating our local crops. With the pandemic being in the air it also scares people of what could be in their imported food so this can lead them to choose our local food.” [Female, 24 years]

Vanuatu Qualitative Interview Findings

Vanuatu: Dietary & Practice Habits

Overall, 43% of ni-Vanuatu respondents report to have changed their diet for the better over the past year. The respondents explain the shift being towards consuming more local food. The change to local food is motivated by the need to adopt or maintain a healthier lifestyle due to an increase in non-communicable diseases (NCD). Most people consider local food to be tastier and more filling, making more people attracted to it.

22% of the participants believe that other people within their social networks have changed what they consume over the last year by eating more local food to maintain their health. 7% report other people have begun consuming more foreign food as local food has become more expensive (due to TC Harold).

“We stopped eating foreign food and started eating a lot of local food” [Female, 19 years]

“Due to financial issues, when my family lost their jobs, we had to get more involved in backyard gardening at home. Now we consume more boiled food like sweet potato and yam” [Female, 26 years].

75% of the participants have changed how they cook their meals to mostly baking and boiling food instead of frying. The changes in cooking habits are primarily influenced by observations and guidance from social networks such as parents and friends. Most people have been forced to change how they themselves or members of their family eat towards healthier choices, due to illnesses and chronic conditions such as diabetes and asthma.

51% of the respondents feel that COVID has affected what they eat as they have been consuming their farm produce, and as such, their eating habits have remained consistent.

All the participants affirm that the pandemic has caused a shift for people in Vanuatu to consume more local food in the household. 50% feel that the change to local food is necessary since the pandemic affected people's employment status that reduced their financial capacity to purchase food. 17% feel that PIFR and the pandemic positively influenced people to consume more local food as a way to take care of themselves and their families (Health reasons). 33% of the participants also

think that the overall shift to consuming more local food is good as one participant affirms that local foods help to reduce the likelihood of contracting lifestyle diseases.

Vanuatu: Knowledge & Attitudes about Local vs Foreign Foods

All respondents clearly distinguish between local and foreign food. Local food is seen as being healthier, fresh, filling and expensive for the urban population but cheap for the rural population, whereas foreign food is seen as processed, easier to cook and expensive.

91% of the respondents prefer local to foreign food as they perceive it to be healthier and more filling unlike foreign food. Most people also prefer local food as they consider it cheaper as they can quickly get food from their farms.

“Local food is the type of food that protects us from sick{ness}; when you eat it, you have a lot {of} energy. Foreign food is processed and can cause disease.” [Male, 21 years]

“When I consume foreign food sometimes it makes me weak but when I consume local food it keeps my body strong and healthy” [Male, 19 years]

To a great extent, ni-Vanuatu respondents look for new recipes from various networks. They take initiative to develop their own recipes and they also learn from PIFR episodes. The ministry of Health also has a booklet with recipe guidelines for mothers. Some people also mentioned that they learn new recipes from their social networks.

“Yes, but most of the time I come up with my own recipes and I have to write them down so that I don't forget how to make them for next time” [Female, 37 years]

Vanuatu: Perceptions, Motivations & Shifts in Relationship with Local Food

Most respondents (66%) feel that local food has become more popular within the last year due to COVID-19. One of the critical impact areas from the pandemic is an increase in unemployment levels, which significantly limits household purchasing power. As such, more people turned to farming and consuming local foods that are easily accessible. Local food has also become popular within the last year as the population desires to be healthier/ fight NCDs. The respondents also credit many awareness programs within the community that emphasize the importance of consuming local food.

“Since COVID-19, high rate of sickness so people choose to eat more local food” [Female, 25 years]

Vanuatu: Willingness to Learn about Local Food

Most people credit learning about local foods from their social networks (parents, friends, and the community). The second most common source of knowledge on local foods is through awareness programs from medical personnel and health organizations that raise awareness on the health benefits of consuming local food. A few people directly credit PIFR as their source of knowledge on local foods.

“When my father became sick, we learnt to change our diet to local food” [Female, 25 years]

“Yes I have learned from my Grandparents/parents who taught me about local food” [Female, 37 years]

Most people are motivated to learn about preparing local food to improve their ability to make various local and tastier dishes. Respondents clearly consider local food to be healthier, and this motivates them to learn more. Other reasons that motivate people to learn more about local food include: the need to preserve the cultural heritage of Vanuatu through food, local food perceived to be interesting and to encourage more people to eat local food.

“To make good food for my family to enjoy it and also make them interested in eating local food” [Female, 49 years]

“Because learning more about local food is my identity” [Female, 20 years]

Maintaining good health is the most common reason that would drive people to eat local food. People also consider farming to be a driver of local meals as it makes local ingredients cheaper and more accessible.

“To eat a lot of local food to keep us strong and healthy” [Female, 27 years]

“We must eat a lot of local food because if we don’t have money we can plant and rely on our gardens” [Female, 36 years]

Only 1 respondent would not wish to eat more local food as he is living with a disability. He considers local food to be generally hard to prepare due to his disability.

Vanuatu: Engagement with PIFR

49% of the participants have heard of PIFR, and 38% follow the show. 87% of those who watch the show follow it on TV while the other 13% watch it on social media platforms such as Facebook and YouTube.

“It's good because we have participants from Vanuatu and it also taught us how to prepare local food in different ways” [Male, 27 years]

Respondents perceive the contestants to be very knowledgeable about local food ingredients. Other adjectives used to describe the contestants include: smart, confident and tough.

On PIFR dishes

Most people perceive the food cooked in the show to be healthy as it uses local ingredients. The food seems to be equally delicious and it is made within a short period of time. People also described the dishes as time consuming to make but they are still inspired to try making the food at home.

A majority of respondents report they would like to make the recipes at home, but they consider the barriers to be lack of time, inadequate ingredients, lack of the right cooking equipment especially modern cook stoves as well as, lack of technical knowledge on making the food.

Most people perceive the critical difference between the PIFR dishes and what they make at home to be the ingredients. They feel that the contestants have access to many different foods and spices that are not readily available for most people at home.

“In the show, they are fast cooks because they are well trained. Also the ingredients in the show aren't similar to the ones I have at home” [Male, 27 years]

The respondents who have seen the recipes, all say the format is easy to follow.

PIFR's potential to shift food behavior in Vanuatu

Most participants find PIFR beneficial as it promotes the consumption of local foods. It is also considered to be a knowledge exchange forum as the contestants share their knowledge and ideas of local foods with the public.

“Teach us that our local food are better, before we used to say that foreign food is better, our local food is better seeing the show it shows us that we can prepare in a different style so that people will like it” [Female, 42 years]

Most people feel like the show will encourage the consumption of local foods as NCDs have steadily risen over the years and there is a need to put them under control by eating local foods which are healthier. However, a few people feel like the show will not achieve the desired impact as foreign food is cheaper and with high unemployment rates, most people can afford to consume foreign food.

“Yes, it is effective because it shows us different ways of cooking island food and this can make a difference” [Female, 21 years]

“Affected us through our income and the only thing that we can afford to buy is the cheapest food from the shop / foreign food” [Female, 22 years]

In the qualitative survey, respondents credit the show for motivating them to consume more local meals.

“Before the show, I didn't eat much local food but afterwards I became more interested in our local food” [Male, 21 years]

“Prior to watching the show, I wasn't eating much local food and I didn't experiment with it. But now after watching the show, it has really helped me to try new things and my children are more interested in eating local food” [Female, 49 years]

All respondents further agree that the show has influenced the ni-Vanuatu community to consume more local foods as it shows the different ways the community can prepare local meals.

“PIFR is a successful program because it has a positive impact in the life of a family, like mine. We can now prepare local food in different ways and improve the taste so that it's nicer for the family to enjoy” [Female, 49 years]

“Yes, the program has been successful because many local ni-Vanuatu have new ideas and styles of preparing our local dishes” [Male, 22 years]

Respondents explain they have heard a lot of health messaging, but often it is with simple instructions and not guidance on how to follow through as outlined by this respondent:

“We heard some of the health messages, but many are just saying to eat more local food to not get sick. However, they don't give any guidance on how to cook local food. But PIFR really helped people because it drew on familiar local dishes but just prepared in a new way” [Male, 22 years]

Vanuatu: Impact of COVID-19 and TC Harold

Most respondents state that their lives have been affected by COVID-19. The most common impact of the pandemic in people's lives is an increase in unemployment rates as well as reduced financial capacity. Respondents also state that they have experienced reduced sales in their businesses.

“Before I had a full-time job but now I have to work part time also my salary cannot afford to buy food for my families at home” [Male, 41 years]

“My parents lost their jobs and so did I” [Female, 28 years]

49% of the respondents feel that COVID has not affected what they eat in any way as they have been consuming their farm produce, and as such, their eating habits have remained consistent. On the other hand, 41% attribute changes to their eating habits to COVID-19 as they are increasingly unable to afford food and people consume more local food as it is readily available in their farms. In addition, a few more people have started farming as it is a cheaper source of food than buying.

"People are planting a lot more local food" [Female, 21 years old].

"We are eating more local food than before" [Female, 19 years old]

"My family and I are eating more local food" [Female, 28 years old]

Most respondents also report taking up farming/gardening as a productive activity due to loss of employment as an outcome of COVID-19. Since it is unclear how long the pandemic will last, most respondents feel that gardening will continue to be sustainable even after the pandemic. In addition, most people have now seen the positive outcomes of having their own gardens and will make efforts to maintain it as a means of obtaining local food.

"It's necessary the price of food in the market has increased so we are forced to plant food in our gardens to be able to eat" [Female, 28 years]

"I am one of those who has had to make a change. I have to have a garden because food in the market is too expensive, I can't afford it" [Female, 37 years]

"Yes, it will be for a long time because I see the importance of backyard farming" [Female, 37 years]

"Yes, because we don't know how long the pandemic will last, but farming will help us to have healthy local food" [Female, 49 years]

57% feel like other people's eating habits in the community have changed due to COVID because of reduced income that has equally reduced the consumption of foreign food as more people now consume local food.

"Yes, a lot of people lost their job so they can't afford to buy foreign food" [Female, 37 years]

"People grow their own food" [Female, 30 years]

Respondents also state TC Harold as a big disruption to livelihoods in the past year. The cyclone mostly affected housing and farms. Due to the destruction of farm produce, most respondents have observed an increase of local food prices.

"Destroyed some food and fruit trees" [Male, 20 years]

"Destroy our root crop like banana and taro" [Male, 40 years]

Our findings indicate that Vanuatu has been hit hard on food availability and prices. Local food prices went up due to cyclones, and foreign food prices went up due to the COVID-19 pandemic.

Conclusion & Recommendations

The findings of this study suggests that overall, there is an increasing trend towards consuming more local and healthy foods across all four countries of study. However, individuals who have seen PIFR and those who have not are at different stages of progression through the PIFR Behavior Change Model. Those who have seen PIFR are more likely to have reached the **‘Action’** stage, relative to those who have not seen PIFR, who are more likely to be in the **‘Precontemplation’** or **‘Contemplation’** stages.

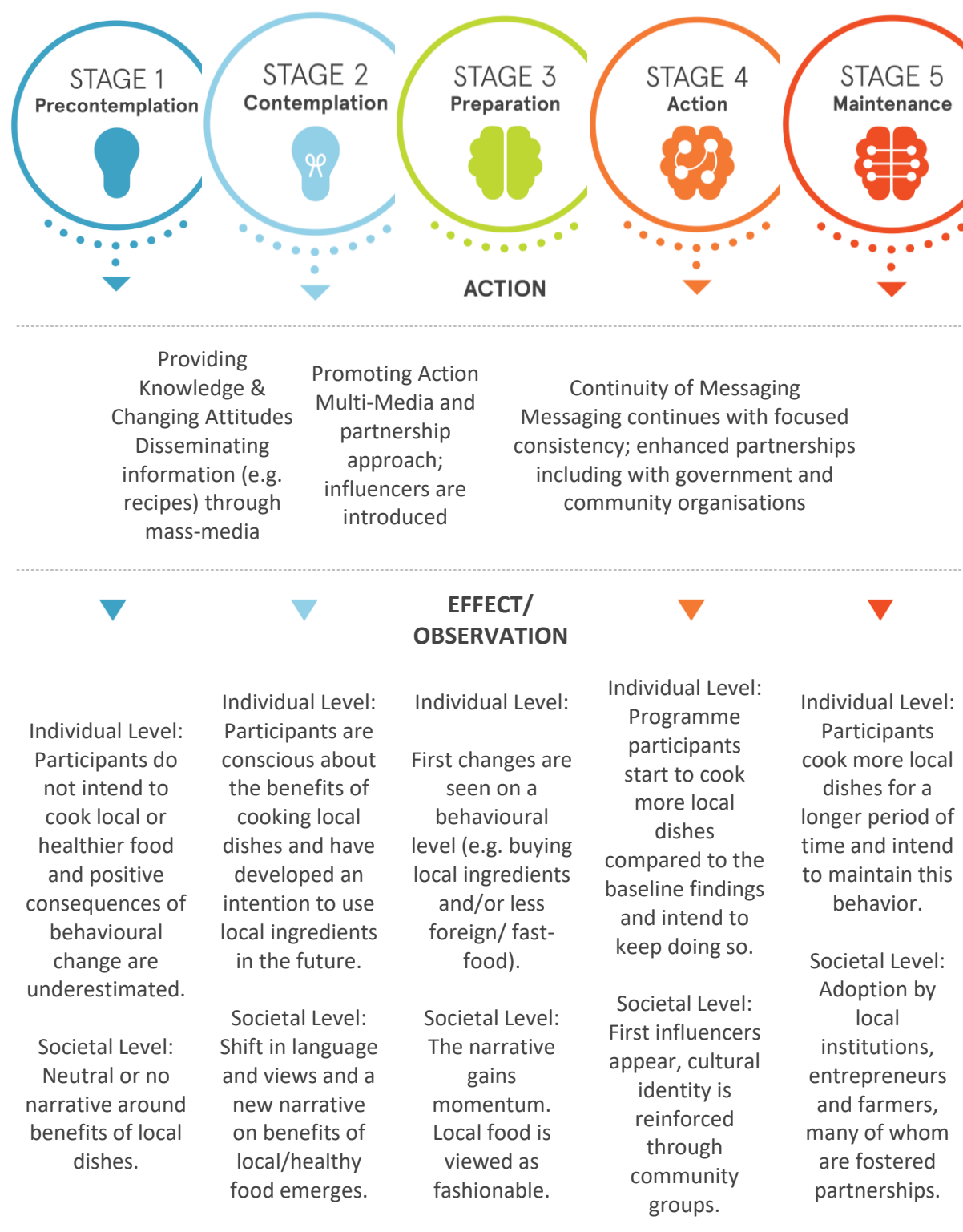
The PIFR Behavior Change Model is designed to acknowledge that behavior change and habit formation is a process that takes both time and effort, and may include steps backwards (for example, due to changes in finances, time, or food availability) on the path to attaining sustained habits of healthier eating. One respondent from Tonga shared the insight related to maintaining diet changes fuelled by the COVID pandemic;

“Forming habits and keeping them is one thing. It takes time for a habit to be ingrained.” [Male, 37 years, Tonga]

We have found that the conditions created by the COVID pandemic have been favorable in promoting positive changes in diets, specifically, a shift away from foreign food towards consuming more local food. PIFR has played a role in supporting this shift, specifically in facilitating the know-how to access and prepare healthy recipes. As time passes, PIFR can play a role in facilitating the continuation of diet changes through the **‘Maintenance’** stage.

This section provides recommendations based on this current study as well as behavioral science insights on how PIFR best can support the populations to maintain such positive shifts.

PIFR Behavior Change Model



Recommendations for maintaining positive diet shifts

This section presents recommendations focused on the large share of the population who have been following PIFR and have reached the **‘Action’** stage and will now need support to transition to the **‘Maintenance’** stage. The suggested recommendations fall broadly into the categories of (1) accessibility of healthy recipes, (2) agricultural interventions, (3) reminders and (4) social support.

Operational recommendations

(1) Ensure recipes and educational materials are accessible

*Overall, respondents report that knowing **how** to prepare healthy food using local ingredients has been a challenge in making positive diet shifts, and that PIFR has been a good resource to access this knowledge. However, findings also suggest several ways that PIFR could improve access to recipes and instructional cooking:*

- Translate all recipes into local languages and allow options on the PIFR web page to choose the language you want to see the recipe in.
- Ensure recommendations are accessible through different options such as video and audio to support the inclusion of a wider audience.
- Continuous sharing of recipes and updating repositories of recipes for different skill levels and cooking time.
- Categorise recipes by ingredients, simplicity (for instance weekday vs. weekend food) rather than by PIFR participant names. This will make the recipe page easier to navigate.
- Ensure that the recipes provided feature ingredients that are locally available, and ideally offer potential substitutes for ingredients that may be hard to find or expensive.
- Based on the insights on how recipes are passed down through generations, encourage the audience to write up their recipes and share with PIFR through Facebook. PIFR can then publish these recipes and make them accessible to a wider audience.
- Host video Q&A sessions with the contestants from the show where they can give a live demonstration and viewers can contribute by asking questions and the contestant will answer them while on livestream.
- Expand the recipes/food ingredients to also include food items from other Pacific countries like Papua New Guinea.
- Educational links posted on social media about recipes and food items that combat NCDs should direct users to a specific section of the website instead of redirecting them to a general landing page.

Behavioral recommendations

(2) Reminders for continued engagement

Habit formation takes time, and particularly so for changing dietary practices that are often established in childhood. Reminders for continued engagement with PIFR or other content that

promotes healthy eating can improve the likelihood that diet changes are maintained in the long-term.

- Continuity of Messaging: messaging continues with focused consistency; enhanced partnerships including with government and community organisations.
- Conduct different food challenges on social media such as people sharing videos/pictures of themselves making meals at home that have been inspired by PIFR episodes. Also post a video of a local meal and ask people to remake the dish and the best dish could win a prize/PIFR branded merchandise.
- Create and distribute merchandise that people can have in their home as a reminder. This could be cards/posters/magnets with eating messages or calendars with featured recipes for each month. The messaging for reminder merchandise should focus on the current behavior (we are cooking local ingredients/we are eating healthy food) rather than the end goals (I am losing weight/combating NCDs).
- For those who actively follow PIFR, SMS reminders for when new PIFR episodes will show.

(3) Social support

Food and eating are important parts of Pacific cultures, and communities and social networks play important roles in the provision and consumption of food. The impact of PIFR's educational content can potentially be improved by leaning into the social aspect of Pacific food.

- Focus on in-person demonstrations as much as possible and allow community members to be a part of the cooking.
- Share personal success stories on social media; how have people benefited from the shift? This study found both weight loss and wellbeing improvements. This is particularly relevant as many respondents mention family members living with NCDs as a reason to shift towards more local food.
- Use a climate change focus in messaging. How does shifting towards more local food benefit one's entire community and not just oneself?
- Food challenges on social media as seen in other contexts. Followers being 'in it together' when trying one week with zero sugar or something similar.

Structural recommendations

(4) Enable local community leaders

Ensuring local community leaders are at the forefront of PIFR messaging is key for the audience to relate to the messages, as well as to ensure messages are aligned with traditional community values and appropriate for each individual context.

- Partnering with influential local leaders in each country can increase PIFR's influence, while also ensuring that messages are tailored to the different communities.

- Supporting and partnering with stakeholders, such as religious organisations, schools, women's' groups etc., in continuously communicating the importance of dietary changes.

(5) Agricultural interventions

Findings suggest overall increases in backyard farming and kitchen gardens, often supported by church or community groups providing access to farming inputs such as seeds or advice. However, for many urban dwellers, lack of farming knowledge presents a persistent barrier to attempting to grow their own food. The following suggestions may help to overcome barriers to attempting a kitchen garden:

- Partner with agricultural organisations or Ministries of Agriculture to make a clear link between growing one's own vegetables and shifting to local food. Respondents from this study recommend that providing seeds or training materials could increase attempts at urban farming. As PIFR may not want to go too deep into the topic of agriculture, creating partnerships where PIFR directs the viewers to sources of information may be sufficient.
- Partner with local producers to create 'PIFR meal boxes' where a set number of ingredients from their local produce is sold along with PIFR recipes.

Appendix

The appendix is structured as follows;

[A.1. Quantitative instrument](#)

[A.2. Qualitative interview guide](#)

[A.3. Operationalisation and initial methodology report](#)

[A.4. Report against PIFR MEL framework](#)

[A.5. Detailed summary tables by country](#)

[A.6. Additional rating graphs](#)

[A.7. Access to raw data](#)

A.1. Quantitative instrument

The quantitative instrument can be found [here](#).

A.2. Qualitative interview guide

The qualitative guide can be found [here](#).

A.3. Operationalisation and methodology

This section outlines the initial plan for operationalisation. More details can be found in the PIFR Year 3 Methodology report [here](#). We will partner with local organizations in each of the four countries for conducting the endline surveys, and IDIs. While we will design and oversee the methodology, quality control and analysis, the local organizations bring their significant in-country MEL expertise and will coordinate the field officers' team to conduct the survey and interviews.

We propose to undertake this assignment across a period of 4 months (October 2020-January 2021) with a sample size of 70-80 for each country for the endline survey, and around 7-8 per country for the IDIs. We plan to go through the following activities:

Activities:

- Develop methodology for endline survey, ensuring alignment with PIFR MEL and intended outcome areas.
- Review and adjust survey instruments as per lessons learned from pre-and-post intervention surveys, feedback from DT Global and from in-country partners.
- Develop selection criteria and survey instrument for IDIs.
- Conduct small pilot to test methodology and tools for endline survey in 4 countries
- Conduct remote training sessions for all four in-country partners.
- Quality Control and remote support during implementation
- Selection of participants for IDIs, with heavy consultation from in-country partners.
- Analyse intervention results to ascertain what (if any) change from pre-and-post conditions has resulted from engagement with the PIFR program (if any).

- Prepare a report summarising findings and potential impact, if any, of the program. Make recommendations for improvement and highlight ways to best communicate findings as part of PIFR's sustainability plans and building of the value proposition
- Facilitate a presentation with DT Global/DFAT outlining key findings and trends to enable the further development of PIFR Sustainability Plan and value proposition as well as document any lessons learned.
- Attend a brief debrief with in-country partners.

A.4. Report against MEL framework

Report table which links survey questions to PIFR's MEL framework can be found [here](#).

A.5. Summary tables

Improving the taste of local foods	Supporting quotes	Country
Adding spices, herbs and sauces	<p>By adding a few spices, lemon zest, chillies or secret ingredients learned from your Bubu(Grandmother) this could boost the taste." [Female, 41 years]</p> <p>We buy spices from the store and also we get sent sauces and condiments from our family overseas. My wife has also come home with different herbs from her cousin's garden for us to use. But we use coconuts, chilli, salt and pepper to flavour our dishes" [Male, 37 years]</p>	<p>Fiji</p> <p>Tonga</p>
Mixing foreign and local foods	"Trying to bring some foreign ingredients with some of the flavour and use canned stuff (tinned fish) to cook with our local food e.g. rourou to give a sense of aroma to the food and makes it tastier." [Male, 31 years]	Fiji
Experimenting different recipes with the readily available ingredients	"Just by experimenting on the types of ingredients available at home and changing a bit of the recipe but making sure that the food still would come the same or better." [Male, 21 years]	Fiji
Changing food preparation methods and tools	<p>"Instead of just cooking a one pot, fry or bake in the umu - I have tried to expand our cooking methods to having salads - eating raw veggies with seafood, to baking in the oven. [Female, 37 years]</p> <p>"She has started to cook food in the fireplace using firewood. She said it is tastier when prepared in the fireplace rather than on the stove." [Female, 42 years]</p>	<p>Tonga</p> <p>Fiji</p>

Using freshly grown herbs and changing cooking methods	"I use traditional methods of cooking which helps with the taste. And we use local herbs. And we are now also starting to grow herbs that we did not normally grow before. For e.g. parsley, coriander etc." [Female, 29 years old]	Samoa
Using local food ingredients and local herbs	"By changing how it is cooked and replacing the foreign goods with the local produce". [Female, 26 years old] "I use lots of local herbs and I also use coconut milk to cook with. That gives it a good flavour." [Female, 37 years old]	Samoa Vanuatu

Communication Channels	Supporting quotes	Country
Door to door visits/ Community gatherings that leverage community elders to rally community members	"For villagers we can go door to door or meet up with the elders of the villagers in the village hall and give out general information on local food, ingredients and more ways to develop their food taste." [Male, 31 years] "Also working with the town officers to organise events with their villages. Awareness programs within the community and collaboration with Ministries that are working in the villages." [Female, 37 years]	Fiji Tonga
Social media	"Youtube channels are great" [Female, 41 years] "Social media is also accessible by many, especially the younger generation so this platform is effective if you wish to reach them." [Female, 25 years old]	Fiji Samoa
Display advertisements on advertising billboards	"Advertisements on large screens in public spaces are good as well. The huge screens situated behind the Nabua Police Station Drug Unit and opposite Wespec are always playing these advertisements. When I'm on the bus, I enjoy watching them." [Female, 41 years]	Fiji
Newspapers	For the people in the village who aren't able to access social media it would be a good idea to also advertise or put the dishes made on the newspaper; as newspaper is one thing that is distributed everywhere. The newspaper is one thing that the villagers look forward to reading because most do not have access to the internet." [Male, 21 years]	Fiji
PIFR mobile app	"I think probably create an app that we can visit or give us alerts on recipes and messages especially for	Fiji

	us mums.” [Female, 35 years]	
Print media -Pamphlets	<p>“If you can also provide pamphlets for the unreachable (those who live in the interior, outer islands who are not able to get connected on any network. I can also say if you can do advertisements on the radio, that is one of the best ways to let them know about PIFR.” [Female, 45 years]</p> <p>“Workshops and Trainings at our community and church hall” [Female, 31 years]</p>	<p>Fiji</p> <p>Tonga</p>
Live demos/workshops	<p>We should implement workshops/awareness or even bring the show to the villagers who do not have access to the program and at the same time get ideas from the old people which know best about local dishes.” [Male, 52 years]</p> <p>“Having live shows in villages where our people can see first-hand how to effectively use some of our local ingredients so that the outcome is excellent” [Female, 25 years old]</p>	<p>Fiji</p> <p>Samoa</p>
Popular TV channels	<p>People are so into watching tv series on sky. I think PIFR should try getting a channel on sky pacific. When there are no good programs people can watch PIFR cooking shows.” [Female, 42 years]</p> <p>“A lot of people have TVs so the show would most likely reach them” [Female, 25 years old]</p>	<p>Fiji</p> <p>Samoa</p>
Village programs/ influencers/local personalities	<p>“Our youth groups, Sports teams, villages and community programs.” [Female, 22 years]</p> <p>You should try using some local personalities and comedians in village programs or on radio and social media to promote PIFR. Nonga from Tutu on the Beach is good, Radio Nukualofa - Dj Lala & Lipe are entertaining and are really good at explaining what is happening, and then comedian composer Tupou Lotoaniu - he has a great way with music, comedy and talanoa to explain and promote things to Tongan people. Tupou is a great advocate for organic farming and eating local and healthy food.” [Female, 37 years]</p> <p>“We should use the chiefly system and network in the nakamal (traditional meeting place) to generate awareness.” [Female, 28 years]</p> <p>“I think we have to work through the chiefs and also radio programs to reach people in the communities.” [Female, 37 years]</p>	<p>Tonga</p> <p>Tonga</p> <p>Vanuatu</p> <p>Vanuatu</p>
Churches/Government programs	“Church and lalanga groups, work with govt programs.” [Female, 43 years]	Tonga

Cellphones	"Most families have TVs and cell phones. So it does not matter which one they use, the program is available on all platforms so it is effective. Families can watch it together" [Female, 26 years old]	Samoa
Radio	<p>"Radio, when people are making their way to work in the morning or when they're on their way home in the evening. People are usually listening to the radio at those times so the programs will reach a bigger community at those times." [Female, 25 years old]</p> <p>"Radio. Because some areas don't have access to electricity whereas if you buy batteries for a radio, everyone can hear/listen to information through it." [Male, 22 years]</p>	<p>Samoa</p> <p>Vanuatu</p>
Local partnerships with ministries and hospitals	"Have a partnership with the tourism industry where flyers etc can be made to give to the targeted community. Also outreach programs to villages or do programs together with the hospitals to push nutritional local foods" [Male, 25 years old]	Samoa

Encourage people in the community to grow their own food	Supporting quotes	Country
PIFR	<p>"The show for one would definitely have a huge impact on people to start growing their own food." [Female, 45 years]</p> <p>"I think we have to go around to communities to talk about what PIFR is doing about our local food." [Female, 37 years]</p>	<p>Fiji</p> <p>Vanuatu</p>
Workshops and trainings	<p>"Workshop is also important on how to grow fruits and vegetables in the backyard as some people don't know how to plant fruits and vegetables." [Female, 42 years]</p> <p>"Programs to teach us how to do it. I don't know how to grow a garden because i was never shown this - i was only taught how to look after the house - not gardening which is outside." [Female, 22 years]</p>	<p>Fiji</p> <p>Tonga</p>
Supply of seeds/seedlings	<p>"By giving out seedlings Educational program on how to plant and grow your own garden." [Female, 33 years]</p> <p>"Give out seeds, help mothers like me to know how to even start a garden. They are giving out seeds and think we automatically know how to use it." [Female,</p>	<p>Fiji</p> <p>Tonga</p>

	<p>31 years]</p> <p>"I think if the show can provide plants, pot plants, seeds and many other things to help people start their home garden, that would motivate people to grow their own." [Female, 25 years old]</p> <p>"Offer free seedlings to people and not have them buy it. Give it out to them for free." [Female, 24 years]</p>	<p>Samoa</p> <p>Samoa</p>
Social farming/community initiatives	<p>"Use the existing strictness - Solesolevaki whereby a family's garden, all the neighbors are tasked to work there and the next day/week the scheme is allocated at another family's house. So it's a routine, collective work by the group and at the end of the day, they are able to bless a family in need with food fresh from the farm." [Female, 41 years]</p>	Fiji
Market the benefits of organic farming	<p>"Need a program or presentation of organic farming in the villages and their health benefits to families." [Female, 24 years]</p> <p>"Encouraging one another to plant their own homegrown gardens and for people that have already reaped the benefits of their gardens, they should speak of these benefits and share maybe seeds to those who are without gardens to motivate or encourage them to start growing." [Female, 25 years]</p> <p>"Through constant advertisements on various platforms, such as TV, social media, radio." [Female, 26 years]</p>	Samoa
Awareness programs	<p>"Awareness programs. Educational material that tells them food won't always come from overseas, eventually it will stop or become too expensive." [Female, 29 years]</p> <p>"Establish more of an awareness for local people on the importance of growing your own food. Not only does it save money but it can also be a potential income earner for families." [Female, 27 years]</p> <p>"We need to talk to communities more/do awareness especially for those who aren't working anymore. They need to have a garden so they can survive and live long." [Male, 22 years]</p>	<p>Samoa</p> <p>Vanuatu</p>
Limit importation of foreign food	<p>"Stop importing food into the country and instead concentrate on growing local food. We also need more awareness about healthy local food." [Female, 19 years]</p>	Vanuatu

A.6. Additional rating figures

Additional rating figures including analysis can be found [here](#).

A.7. Access to raw data

Quantitative findings

- [Fiji](#)
- [Tonga](#)
- [Samoa](#)
- [Vanuatu](#)

Qualitative findings

- [Fiji](#)
- [Tonga](#)
- [Samoa](#)
- [Vanuatu](#)

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