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Monitoring and Evaluation of the Kava Pilot Program

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Final Report

November 2023

Asare-Doku, W., Settumba Stolk, S., Peacock, A., Shakeshaft, A., Waller, E., Nathan, S., Craig, A., Economidis, G., Ravulo, J., Meo-Sewabu, L., D'Este, C., Thapa, P., Abbott, T., Satour, T., Tulele, L., Wilson, K., Tyson, D., Doran, C., Mhey-Rivas, T., Macpherson, G., Lynch, M., Taylor, S., Santo, T., Graham, D., Baillie, G., Tran, A., Aiken, A., Harwood, E., Turner, A., Reeve, R., Degenhardt, L., & Farrell, M.

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Funded by: This project was funded by the Australian Government Department of Health and Aged Care.

Citation: Asare-Doku, W., Settumba Stolk, S., Peacock, A., Shakeshaft, A., Waller, E., Nathan, S., Craig, A., Economidis, G., Ravulo, J., Meo-Sewabu, L., D'Este, C., Thapa, P., Abbott, T., Satour, T., Tulele, L., Wilson, K., Tyson, D., Doran, C., Mhey-Rivas, T., Macpherson, G., Lynch, M., Taylor, S., Santo, T., Graham, D., Baillie, G., Tran, A., Aiken, A., Harwood, E., Turner, A., Reeve, R., Degenhardt, L., & Farrell, M. (2023). Monitoring and evaluation of the kava pilot program. Sydney: National Drug and Alcohol Research Centre, UNSW.

Acknowledgements of Country

The Project Team would like to acknowledge and pay respects to the traditional custodians, past and present of the various lands where this Project was conducted.

Acknowledgements

The evaluation could not have been possible without the support of a wide range of partners. We would particularly like to thank:

- Members of the Advisory Group for their ongoing support, expertise and knowledge from the project inception to completion Professor Michael Farrell; Dr Winifred Asare-Doku (Co-Chair); A/Professor Amy Peacock; Dr Stella Settumba Stolk; Dr. Anh Dam Tran; Ms Alexandra Aiken; Ms Elissa Harwood; Professor Catherine D'Este; A/Professor Sally Nathan; Professor Anthony Shakeshaft (Co-Chair); Dr. Adam Craig; Mr. Rod Reeve (Co-Chair); Ms. Tammy Abbott; Ms Atalanta Turner; Ms Kate Wilson; Dr Dan Tyson; Mr Trevor Satour; Professor Jioji Ravulo; A/Professor Litea Meo-Sewabu; Professor Chris Doran.
- Members of the Project Reference Group for their advice to the Project Team throughout the evaluation, including advice on evaluation methods, design of evaluation instruments and consultation approaches.
- Research assistants, research officers and supporting staff for assistance throughout the project (George Economidis; Dr Poshan Thapa; Tricia Mhey-Rivas; Emily Waller; Dr Loraini Tulele; Greta Baillie; Rachel Salkeld; Duncan Graham)
- Government, non-government, and community, participants, and commercial importers in this study for their contribution to this study. We appreciate them giving us their precious time and sharing their expertise and insights on the kava importation pilot program.
- Pacific community leaders across Australia and groups that assisted us in reaching your respective communities and participants for this study.
- Drug Trends (including the Illicit Drug Reporting System and Ecstasy and Related Drugs Reporting System) is supported by funding from the Australian Government Department of Health and Aged Care under the Drug and Alcohol Program. We would like to thank the Drug Trends chief investigators (Rachel Sutherland, Raimondo Bruno, Paul Dietze, Simon Lenton, Caroline Salom), the broader team, and all participants.
- The Australian Institute of Health and Welfare and jurisdictional data custodians for their provision of data from the Alcohol and Other Drug Treatment Services National Minimum Data Set. We also thank the Australian Institute of Health and Welfare for inclusion of items in the National Drug Strategy Household Survey.

- Professor Shane Darke for undertaking searches of the National Coronial Information System.
- The Victorian Department of Justice and Community Safety as the source organisation for the National Coronial Information System data presented here, and the National Coronial Information System as the data source. We would like to thank the staff at the National Coronial Information System.
- New South Wales Ministry of Health for the provision of their monitoring report.
- The Australian Government Department of Health and Aged Care for funding this project.

Terminology used in this report

The terms ‘Aboriginal and/or Torres Strait Islander’, ‘Aboriginal’, ‘First Nations’ and ‘Indigenous’ may be used interchangeably throughout this report. Through the use of these terminologies, we seek to acknowledge and honour diversity, shared knowledge and experiences as well as the right of individuals to define their own identities. We note that the preferred term of the Aboriginal Health and Medical Research Council of NSW is ‘Aboriginal’. The term ‘Pacific Islander communities’ and ‘Pasifika’ may be used interchangeably throughout this report to refer to Pacific Islander people in Australia. ‘

Abbreviations

Table 1: List of abbreviations

ABS	Australian Bureau of Statistics
ABN	Australian Business Number
ACCHSs	Aboriginal Community Controlled Health Services
ACT	Australian Capital Territory
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AIC	Akaike Information Criterion
AMSANT	Aboriginal Medical Services Alliance Northern Territory
AoD	Alcohol and other Drugs
AODTS NMDS	Alcohol and other Drug Treatment Services National Minimum Data Set
APAIS-ATSIS	Australian Public Affairs Information Service – Aboriginal and Torres Strait Islander Subset
AUD	Australian Dollar
CBA	Cost Benefit Analysis
CINAHL	Cumulative Index of Nursing and Allied Health Literature
COVID-19	Coronavirus Disease 2019
DCE	Discrete-Choice Experiment
DAFF	Department of Agriculture, Forestry and Fisheries
DFAT	Department of Foreign Affairs and Trade
EDRS	Ecstasy and Related Drugs Reporting System
EU	European Union
FGD	Focus group discussions
GP	General practitioner
GST	Goods and Services Tax
HREC	Human Research Ethics Committee
IDRS	Illicit Drug Reporting System
JBI	Joanna Briggs Institute
MNL	Multinomial logistic model
NCIS	National Coronial Information System
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NGO	Non-governmental organisation
NGT	Nominal Group Technique
NSW	New South Wales
NT	Northern Territory
ODC	Office of Drug Control

OOP	Out-of-pocket
PALM	Pacific Australia Labour Mobility
PHAMA	Plus Pacific Horticultural and Agricultural Market Access Plus Program
PI	Pacific Islander
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QLD	Queensland
RCT	Randomised controlled trial
REDCap	Research Electronic Data Capture
REDDS	Rapid Emergency Department Data for Surveillance
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNSW	University of New South Wales
UK	United Kingdom
US	United States
USYD	University of Sydney
VIC	Victoria
WA	Western Australia

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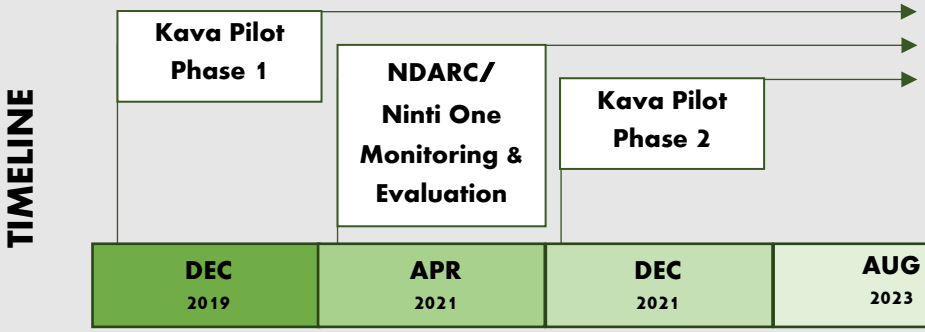
Overview of Kava Pilot

The purpose of the pilot is to:

1. Provide greater access to kava without compromising health and safety;
2. Understand the social, cultural, economic and health effects of increased availability of kava;
3. Ensure that the commercial importation of kava is respectful of state and territory governments' regulatory role; and
4. Increase trade opportunities for Australia & Pacific Island countries.



1. To what extent was the importation pilot implemented as expected?

Although there was strong support from some stakeholders for the pilot and its benefits to the Pacific Island countries and communities, some stakeholders expressed concern (e.g., lack of consultation during implementation).

2. To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

Overall, there has been greater access to kava in Australia; increased trade opportunities; and cultural, social and economic benefits, although there is limited data available to assess harms.

3. What have been the health, cultural, social, and economic outcomes?

There have been positive cultural, social and economic outcomes for Pacific Islander communities. However, there is limited evidence available to assess impacts on Aboriginal and/or Torres Strait Islander communities. The available evidence collected suggests minimal negative health outcomes and impacts on the broader Australian population to date, however, this requires further monitoring.

4. To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

The commercial importation has allowed greater access to kava in Australia, although COVID-19 likely impacted kava supply. The sale of kava in Australia is mainly via online and retail outlets.

5. To what extent has the pilot impacted the supply and use of kava to communities at higher-risk of kava-related harms including East Arnhem Land?

Evidence shows there is no significant uptake of kava within the general population and in Aboriginal and/or Torres Strait Islander communities, although limited data to assess uptake is noted and ongoing monitoring is critical to assess supply and use.

6. How effectively has the regulatory framework protected public health?

Public health regulatory framework provisions in place for kava are providing some protections for public health.

7. What are the cost implications of the pilot for Commonwealth and state/territory governments?

There is value for money in the pilot program. The economic benefits from trade, cultural and social impact, and bilateral cooperation outweigh the implementation costs of the pilot program to date.

8. Are there any unintended outcomes/ consequences associated with the pilot?

There have been unintended consequences of the pilot identified, including oversaturation of kava, black marketing, the possibility of poly-substance use, premature harvesting of kava, and the likelihood of online kava sale to people in the NT despite restrictions in place.

Limitations

Pacific Islander communities are overrepresented in the evaluation. There was also a lack of input from First Nations' communities and the drug and alcohol sector more broadly, a short timeframe for the data collection activities to be undertaken, relatively small sample sizes and COVID-19 impacts on travel and supply of kava.

Future monitoring

As part of this evaluation, a draft monitoring framework has been developed to inform future measurement of kava use and impacts (particularly harms). Adoption of this framework will require sufficient resourcing, cross-sector/inter-jurisdiction engagement, and partnership with key populations and communities.

Executive Summary

Recognising the cultural and economic significance of kava for Pacific Island nations, the Australian Government lifted importation restrictions and launched a kava pilot program over two phases:

1. December 2019 – increase in individual passenger limit of kava from 2kg to 4kg
2. December 2021 – allow commercial importation of kava for use as a food.

The aims of the kava pilot program are to: provide greater access to kava in Australia without compromising public health and safety; understand the social, cultural, economic and health effects of increased availability; ensure respectful integration of commercial importation with State and Territory regulations; and increase trade opportunities for Australia and Pacific Island countries.

To determine the impact of the pilot program, a monitoring and evaluation program was conducted between April 2021 to August 2023 by the National Drug and Alcohol Research Centre (NDARC) and Ninti One (Ninti), in collaboration with other partners and overseen by a Project Advisory Group. A mixed methods approach using both quantitative and qualitative data was used for the evaluation. This was complemented by a systematic review to understand existing evidence on kava (Panel A).

The evaluation concluded that there was broad support for the pilot program, however ongoing monitoring, especially among groups at increased risk of harm, will be critical.

This document is the final report for the monitoring and evaluation of the kava pilot program. Key findings are summarised around eight evaluation questions.

Panel A. Systematic review

A systematic review of 218 studies relating to kava in Australia and overseas published between 1980 and 2022 was conducted. Findings showed that:

1. Kava is central to the economies of several Pacific Island countries and its trade, distribution, and sale has been affected by various domestic and international policies.
2. Most prevalence studies comprised convenience samples in populations that consume kava in varying doses and for extended periods of time.
3. Studies included in the systematic review varied largely and were not generally representative of the broader population; prevalence estimates for kava consumption could therefore not be accurately obtained.
4. There remains a lack of certainty as to the degree kava can be attributed as positively or negatively affecting any of the outcomes identified in the review (including harms, benefits, pharmacological effects, social and cultural reasons for use, economic or policy implications), particularly regarding its potentially harmful or beneficial effects among those who regularly consume it.

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

Overall, findings across key stakeholders for the evaluation indicated that the kava pilot program was welcomed, with increased cultural wellbeing reported among the Pasifika community. Commercial importers and Pasifika communities sampled for this evaluation reported a general increase in the accessibility of kava which made it more affordable.

Some Pacific Islander community members and commercial importers raised concerns, predominantly about quality checks of imported kava. All stakeholder groups interviewed for this evaluation reported that the timing did not allow for broader consultation.

Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

Evidence relating to Aim 1a: Provide greater access to kava in Australia: Pacific Islander communities and commercial importers reported greater access to kava in Australia and supported greater relaxation of restrictions. Some of the Pasifika community sampled for this evaluation supported further increases in the kava limits allowed in personal luggage. However, some commercial importers expressed concerns this would increase black market activities. Many government stakeholders assumed there was greater access to kava in Australia but noted they had limited import volume data available to them to test these assumptions.

Evidence relating to Aim 1b: No net increase in harms (public health and safety is not compromised): Although it is too early to ascertain changes in use and harms, there was agreement across key stakeholder groups that ongoing monitoring of kava use and potential harms was critical as the use of kava for recreational purposes is likely to increase. Stakeholders emphasised particular populations at risk of harm, including young people, pregnant women, those with chronic illness and in Aboriginal and/or Torres Strait Islander communities. A draft monitoring framework has been developed as part of this evaluation (see Panel B).

Evidence relating to Aim 2: Understand the social, cultural, economic and health effects of increased availability of kava across Australia: Most government and non-government stakeholders raised concerns about how well the social, cultural, economic and health effects are known and can be known without better monitoring for these impacts. The economic evaluation showed that there was: i) no reported kava-related crime in the community, ii) high value for increased cultural impact in Pacific Islander communities, and iii) a positive large economic benefit from trade to both Australia and Pacific Island countries.

Evidence relating to Aim 3: Increase trade opportunities for Australia and Pacific Island countries: Most key stakeholders agreed that the pilot program had increased trade opportunities, with likely market access to Australia for Pacific businesses. The commercial importers interviewed reported perceived improved trade relations between Pacific Island nations and Australia.

Evidence relating to Aim 4: Respect for State and Territory regulatory role: There were diverse views as to whether this aim was achieved. Most government and non-government stakeholders acknowledged that the Commonwealth was responsible for the kava pilot program, but State and Territory governments bore the responsibility to regulate kava.

State and Territory government stakeholders reported challenges in regulating the kava changes, particularly given the short timeframe to respond to policy change and the limited import data available. They also reported that significant resources were required across all jurisdictions to deal with policy changes, with more populous jurisdictions better able to absorb the costs.

Commercial importers interviewed acknowledged that, although they do not distribute kava in the Northern Territory due to the restrictions in place, kava may have been sold to people in the Northern Territory because of online purchasing as a means of access. It is also possible that kava may be accessed across the border due to limited tracking system in place.

Evaluation question 3: What have been the cultural, social, health and economic outcomes on: Pacific Islander communities; Aboriginal and/or Torres Strait Islander communities; the broader Australian population?

The below summarises the key findings against each of these domains. These findings should be treated with caution and require further monitoring given the relatively short duration of the evaluation and the limited data available on outcomes, particularly for Aboriginal and/or Torres Strait Islander communities and the broader Australian community.

Cultural and social

Pacific Islander communities reported kava use for social gatherings/recreation and for cultural/ceremonial purposes including weddings and funerals. The traditional use of kava in the local diaspora was reported to improve cultural and social connections.

Concerns as to potential social harms through overuse were also expressed, such as family disruption, men neglecting their household duties, and even community harms and crimes. There was no significant evidence to support these concerns within the limited data available. Specifically, there was no reported kava-related crime resulting from kava use in the Pacific Islander community survey nor police data collected, and

only a few reports of neglect of home duties by people who use kava within the survey data.

Some government stakeholders, Pacific Islander community participants and commercial importers reported kava use is viewed as an alternative to alcohol consumption.

Economic

The economic evaluation showed increased consumer expenditure on kava. This translated to economic benefits of trade to Australian importers and retailers, exporting Pacific Island countries, and income to States and Territory governments from GST.

Interviews with some government stakeholders for this evaluation showed that the new kava trade agreements were perceived as central to improved economic and bilateral relations. Stakeholders believed the legislation has increased the revenue and overall economies of Pacific Island countries which are especially reliant on kava as an import-export commodity, although there is limited evidence to objectively determine whether this supposition holds true.

Health

Very few Pacific Islander community members surveyed reported any health problems following kava use in the last 12 months, with the main problem being a skin issue. Routinely collected national data (e.g., mortality) also showed few reports of harms, although only a few health indicators could be identified specific to kava and these were typically lagged.

In Commonwealth and State and Territory government stakeholder focus groups, health impacts associated with kava were predominantly articulated from a harms' perspective, including potential polysubstance use and harms (e.g. mixing kava with other substances, namely alcohol or prescription and recreational drugs). There is insufficient historical evidence to substantiate these concerns (Panel A), and just 20% of surveyed Pacific Islander community members reported using kava and alcohol in the same time period since the introduction of the pilot program.

Most government stakeholders noted that potential harms to youth and Aboriginal and/or Torres Strait Islander communities were of particular concern. Other health impacts of concern included mental health and impaired cognition (including driving performance), although it was acknowledged that the risk of these potential consequences, as well as other long-term harms, are presently unclear.

Very few community participants surveyed reported a health-related reason as a motivator for kava use; those who did cited 'relaxation' as the primary benefit. This aligns with systematic review findings pointing to the perceived anxiolytic and sedative properties of kava, however there was limited objective evidence to support these benefits.

More research is needed to understand the health benefits and harms of kava and the long-term effects of consumption.

Evaluation question 4: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

Between December 2021 (start of phase 2 of the pilot program) and May 2023 (most recent data available), there was a total of 235.64 tonnes of kava commercially imported into Australia. The volume of kava imported varied each month with the highest quantity recorded at 29.7 tonnes in July 2022. Also, anecdotal reports from commercial importers of import volumes currently compared to when the pilot program was first implemented were suggestive of an increase in kava supply, with importers noting they believed supply was highest in NSW, VIC and QLD.

Commercial importers reported a belief that COVID-19 significantly impacted the supply of kava into Australia, reporting anecdotally that prices reached as high as $700 AUD per kilo compared to between $70-$100 AUD per kilo post COVID-19. Most State and Territory government stakeholders also reported a perceived increase in supply, although some noted limited access to data to substantiate assumptions, particularly regarding the monitoring of distribution pathways from the port of entry across jurisdictions.

Government stakeholders and commercial importers highlighted two main new distribution sites of kava: online and nationwide grocery store chains. Commercial importers reported selling kava on social media and their company websites. They also noted anecdotally that some individuals who had travelled into Australia with kava for personal use were selling for commercial gain, leading to concerns about market oversaturation and black market activities threatening importer profits.

Evaluation question 5: To what extent has the pilot impacted the supply and use of kava to communities at higher-risk of kava-related harms including East Arnhem Land?

Limited data was available to assess uptake of kava within the general population and in Aboriginal and/or Torres Strait Islander communities (see limitations below for further information). Anecdotal information from key stakeholders was not suggestive of significant uptake but this should be treated with caution given the lack of data.

While government and non-government stakeholders agreed the importation changes supported Pasifika communities to enjoy and pay respect to their own culture, they did not support this at the expense of the health and wellbeing of Aboriginal and/or Torres Strait Islander people, and other at-risk groups such as young people and pregnant women.

Evaluation question 6: How well (effective) has the regulatory framework protected public health?

While it was largely agreed by government and non-government stakeholders that the public health regulatory framework provisions in place for kava are providing some protections for public health, there is insufficient evidence available to support this claim.

Generally, government and non-government stakeholder views about retaining or modifying existing kava legislation were wide-ranging and encompassed policy, regulation and evaluation frameworks relating to safety, quality control, labelling and marketing. Some stakeholders flagged that future regulatory changes may need to include restrictions on sale to those under 18 years and driving under the influence of kava.

Evaluation question 7: What are the cost implications of the pilot for Commonwealth and State and Territory governments?

The health economic evaluation used a Cost Benefit Analysis to estimate the total societal cost of the kava pilot program, the total societal benefit of the program, and the net-benefit of the program.

Overall, the estimated societal net-benefit of the kava import pilot program was 37.94 – 41.31 million AUD. This means that the net benefits from trade, cultural and social impact, and bilateral cooperation, outweigh the implementation costs and minimal reported harms of the program, demonstrating value for money in the importation of kava to Australia.

However, future monitoring will be necessary to determine if commonly held concerns of the potential increased cost burden on the health systems might change this outcome with increased access to, and use of, kava.

Evaluation question 8: Are there any unintended outcomes/consequences associated with the pilot?

In the course of the evaluation, stakeholders revealed concerns as to several potential unintended consequences of the pilot. These are outlined below, noting that availability of objective evidence assessing the validity of these concerns is variable.

- ***Poly-substance use*** was a concern raised by many government and non-government stakeholders, particularly the mixing of kava with alcohol, prescription medication, over-the-counter medication, cannabis and other drugs.
- There were concerns expressed by stakeholders regarding the ***quality control*** of imported kava. Increased demand may lead to the premature harvesting of kava, compromising purity and quality.
- ***Loopholes in legislation/regulation and marketing*** of kava require cross-sector and cross-jurisdictional monitoring. New kava marketing strategies and distribution sites such as clubs could increase use among young people.
- There was discussion of stricter regulation around who is issued ***importation permits***; a revision of the one permit per shipment process; and a more streamlined application process for commercial importers.
- There is concern from commercial importers around ***oversupply and an increase in black market sales*** due to the increase in personal importation limits.
- ***Lack of consultation*** of the pilot program with Aboriginal and/or Torres Strait Islander people on the possible impact of the changes to kava laws was deemed contrary to principles of self-determination.
- While the ***Northern Territory*** has continued to uphold its Kava Management Act (1998) to prohibit kava, it is likely it will be impacted by the increased availability of kava in Australia, especially through online sales.

Limitations of the evaluation

Although the evaluation sought to include the broader Australian population, Pacific Islander people are overrepresented in the evaluation data, as are the views of government stakeholders.

Support was not gained for the present evaluation from the peak body for Aboriginal Community Controlled Health Services (ACCHSs) and the Northern Territory Aboriginal Medical Services Alliance Northern Territory (AMSANT) and Aboriginal and/or Torres Strait Islander communities in the Northern Territory.

There are also limitations in the data sources used. Findings cannot be considered generalisable beyond groups sampled, and small sample sizes should be noted for some data sources.

Relevant to the rollout of the kava pilot program, COVID-19 travel bans significantly impacted importation of kava into Australia. It was also anticipated it would take time for the commercial market to be established and for people to have awareness of the pilot. Overall, this meant that monitoring and evaluation only occurred over a short window, with data collection occurring between June 2022 and June 2023. With the passage of time, there may be greater availability, access and harms of kava. As identified above, further monitoring and evaluation is required to get a clearer picture of the impacts and patterns of kava importation and use (Panel B).

Panel B: Further monitoring of the kava pilot program

Drawing on stakeholder responses, a draft monitoring framework has been co-designed with State, Territory and Commonwealth Government stakeholders as part of the evaluation. The monitoring framework sets out an approach to synthesize information across data sources to prospectively monitor use and the health, social and economic impacts associated with the use of kava. It is grounded in the need for sufficient resourcing, cross-sector and inter-jurisdictional input, and strong partnership with key populations (e.g., Aboriginal and/or Torres Strait Islander communities, Pacific Islander communities) and communities. It is proposed as a 'living document', whereby parts can be selected and adopted according to priorities and resourcing, and the framework could be updated as new information sources become available.

Chapter 1

Background

1 Introduction

Kava is a beverage or extract prepared from the crushed root of the pepper plant (*Piper methysticum*), that plays an important cultural role in Pacific Islander communities where it is traditionally cultivated by Pasifika communities as a ceremonial drink. Many Pacific Islanders who have migrated to Australia have continued drinking kava or using kava extracts. Kava is frequently consumed in several cultural contexts, such as at funerals, weddings, and graduation ceremonies, as well as for recreational purposes[1] Kava contains a group of ingredients with psychoactive properties within the class kavalactones. Kava is a depressant drug with short term effects that can include feelings of euphoria and relaxation, drowsiness or sleepiness, numbness of mouth and throat, reduced or loss of appetite, nausea, loss of muscle control, mild fever, red eyes, and pupil dilation. Longer term effects associated with regular use may include mood swings, apathy, dry and scaly skin, malnutrition, weight loss, liver, getting infections more easily and shortness of breath[2, 3]

1.1 Overview of the kava pilot program

In October 2019, the former Australian Prime Minister, the Hon Scott Morrison MP announced that the Australian Government would strengthen its commitment to the Pacific by launching the kava pilot program. The kava pilot program aims to increase stronger cultural and economic ties between Australia and Pacific Island nations. The purposes of the kava pilot program are to:

1. Provide greater access to kava in Australia, without compromising public health and safety;
2. Understand the social, cultural, economic and health effects of increased availability of kava across Australia;
3. Respect State and Territory governments' regulatory role; and
4. Increase trade opportunities.

The kava pilot program has been implemented in two phases.

1.1.1 Pilot Phase 1: Increasing the allowable quantity for those travelling with kava (personal importation)

The first phase of the pilot, implemented in December 2019, doubled the amount of root, dry form and beverage (obtained by aqueous suspension of kava root in cold water only) kava that can be imported to Australia by passengers over 18 from 2

kilograms to 4 kilograms[1]. It remains the case that personal importation does not require individuals to have a licence or permit to import kava.

1.1.2 Pilot Phase 2: Allowing commercial importation of kava

The second phase of the pilot commenced on 1 December 2021. The Customs (Prohibited Imports) Amendment (Commercial Importation of Kava as Food) Regulations 2021 (the Regulations) allows the commercial importation of kava as a food[2]. The forms of kava that are permitted are dried or raw kava root of the Noble variety in the form of kava root chips, kava root powder, or whole kava root and kava beverages. Only persons intending to sell kava food products as part of the entity's business can be granted permission to import kava food products. This permission must be granted before importation and importation cannot occur through the post. The permission is only available to importers that have an Australian Business Number and are registered for goods and services tax (GST). All kava imported as food must be packed in clean and new packaging, and free from biosecurity risk material.

1.2 Regulation of kava in Australia

1.2.1 National regulation

Kava is a prohibited import substance in Australia and the personal importation of kava is not permitted. There are, however, exemptions to this regulation: i) travelling with kava; ii) commercial importation; and iii) importation commercially into Australia for therapeutic or scientific purposes. Australia's national legislation governing both personal and commercial importation has been amended several times over the past 40 years and is covered by several Acts. Refer to Appendix 1 for more information.

Travelling with kava

Air or sea passengers who are at least 18 years of age are permitted to bring kava into Australia in accompanied baggage for personal use, but only in powder form. This personal importation does not require individuals to have a licence or permit to bring kava into Australia. From 1997 to 2019, the maximum allowance for personal importation was 2 kilograms per person, which was increased to 4 kilograms per person in December 2019 [5].

[1] This was achieved through the Customs (Prohibited Imports) (Kava) Approval 2019 (the Kava Approval) made under sub-regulation 5(3) of the Prohibited Imports Regulations.

[2] The importation of kava, for food use, is subject to Regulation 5F of the Customs (Prohibited Imports) Regulations 1956 – external site (PI Regulations). The importation of kava under the Regulations is consistent with the existing regulatory framework for the sale of kava as a food in Australia and New Zealand under the Australia New Zealand Food Standards Code (Food Standards Code) made under the Food Standards Australia New Zealand Act 1991

1.3 Overview of the evaluation of the kava pilot program

The purpose of the evaluation is to evaluate the impact of the kava pilot program (personal and commercial pilot) through answering eight evaluation questions:

1.3.1 The eight evaluation questions

The evaluation seeks to understand the social, health, cultural and economic impacts of the kava pilot program on the Australian community and aimed to address the following questions:

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?
- **Evaluation Question 2**: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful? The expected outcomes of the pilot include:
    a) Provide greater access to kava in Australia;
    b) No net increase in harms (public health and safety is not compromised);
    c) Understand the social, cultural, economic and health effects of increased availability of kava across Australia;
    d) Increase trade opportunities for Australia and Pacific Island countries; and
    e) Respect for State and Territory governments' regulatory role.
- **Evaluation Question 3**: What have been the health, cultural, social, and economic outcomes for Pacific Islander communities; Aboriginal and Torres Strait Islander communities; and the broader Australian population?
- **Evaluation Question 4**: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?
- **Evaluation Question 5**: To what extent has the pilot impacted the supply and use of kava to communities at higher-risk of kava-related, including East Arnhem Land?
- **Evaluation Question 6**: How effectively has the Commonwealth and State and Territory regulatory framework protected public health?
- **Evaluation Question 7**: What are the cost implications of the pilot for Commonwealth and State and Territory governments?
- **Evaluation Question 8**: Are there any unintended outcomes/consequences associated with the pilot?

Although Aboriginal and/or Torres Strait Islander communities were considered a key population due to the historical use of kava in the Northern Territory, after scoping and community engagement with stakeholders by Ninti One (Ninti), an Indigenous research organisation, evidence showed that some Aboriginal Community Controlled Health Services (ACCHSs) in the Northern Territory were not supportive of the evaluation in its current form. Further details provided at Section 2.9.

1.3.2 Overview of project governance

The project governance consisted of an Advisory Group (See Appendix 2 for list of Advisory Group members) and a Project Reference Group. The Advisory Group was responsible for the oversight of all aspects of the project, including project management, data analytics and management, report writing, and ensuring the completion of milestones and deliverables. The core Project Team based at the National Drug and Alcohol Research Centre (NDARC) met fortnightly with the Advisory Group to discuss project activities and action plans. Meetings were also held on need-basis with the Project Reference Group. The Reference Group comprised of State and Territory representatives and relevant Australian Commonwealth Government agencies, including the Department of Health and Aged Care (Health), the Department of Foreign Affairs and Trade (DFAT), the Department of the Prime Minister and Cabinet (PM&C), the Department of Agriculture, Fisheries and Forestry (DAFF), the National Indigenous Australian's Agency (NIAA) and the Australian Border Force (ABF).

Chapter 2

Methods

2 Methods

2.1 Summary of the methodology

A mixed methods research design was used for this evaluation. This comprised using both quantitative and qualitative data, drawing on the strengths of each to understand the situation better and answer the evaluation questions. It provides strengthened evidence and triangulation of data to enhance validity. The methods used for this evaluation included a systematic review[3], interviews, focus groups, community survey, analysis of routinely collected data and economic methods (see Table 2). Refer to Appendix 3 for detailed information on the methodology used in the evaluation.

Table 2: Summary of methods

Key evaluation questions	Data collection method					
	Quantitative data			Qualitative data		
	Health economic evaluation	Routinely collected data	Community surveys	Interviews commercial importers	Interviews and focus groups with govt/non-govt stakeholders	Interviews and focus groups with community members
1. To what extent was the importation pilot implemented as expected?	✗	✓	✗	✓	✓	✗
2. To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?	✗	✗	✓	✓	✓	✓
3. What have been the health, cultural, social and economic outcomes?	✓	✓	✓	✗	✓	✓

[3] Note that the systematic review was conducted to provide a background on existing evidence and was not mapped to specific evaluation questions

Key evaluation questions	Data collection method					
	Quantitative data			Qualitative data		
	Health economic evaluation	Routinely collected data	Community surveys	Interviews commercial importers	Interviews and focus groups with govt/non-govt stakeholders	Interviews and focus groups with community members
4. To what extent has the pilot increased the commercial supply and distribution of Kava in Australia?	✗	✓	✗	✓	✓	✗
5. To what extent has the pilot impacted the supply and use of Kava to high-risk communities?	✗	✗	✗	✓	✓	✓
6. How effectively has the regulatory framework protected public health?	✗	✗	✗	✗	✓	✗
7. What are the cost implications of the pilot for the Common-wealth and state and territory governments?	✓	✗	✗	✗	✓	✗
8. Are there any unintended outcomes/ consequences associated with the pilot?	✗	✗	✗	✓	✓	✓

Throughout this report, references to government stakeholders refers to people from the Commonwealth Department of Health and Aged Care (Health), Department of Foreign Affairs and Trade (DFAT), Department of Agriculture, Forestry and Fisheries

(DAFF), Office of Drug Control (ODC), as well as State and Territory stakeholders from the ministries of health, social services, police, and food standards and safety authorities. Representatives from nongovernmental organisations (NGOs) were also included, with a focus on Aboriginal and/or Torres Strait Islander people in the Northern Territory and Western Australia. Although effort was made to sample Australian South Sea Islander communities, only Pacific Islander communities were included in the community data collection because of non-response from Australian South Sea Islander organisations invited to participate in the data collection. However, in some parts of report where it is essential to have a broader interpretation, we refer to Australian South Sea Islanders.

2.2 Overview of the systematic literature review

A systematic literature review was conducted to summarise existing literature on kava globally. The review is an update of NDARC's systematic literature review completed in 2020 on use, harms and economic implications of kava use which involved a systematic search of the kava-relevant academic (peer-reviewed) and non-academic (non-peer reviewed) literature[4]. It was intentionally broad in scope to capture papers and reports relevant to a wide-range of kava-related issues. In building on the prior review, the current review also examined the benefits and pharmacological effects associated with kava use, and the social and cultural reasons for use. It also examined the economic, policy and governance frameworks adopted by both Australia and other countries to obtain a holistic perspective of kava in both the domestic and international contexts.

2.3 Overview of the qualitative methods

The qualitative methods utilised focus groups and semi-structured interviews with various stakeholders comprising: Aboriginal and/or Torres Strait Islander government and non-government organisations, Pacific Islander communities in Australia, Commonwealth and State and Territory government stakeholders and commercial importers. All participants were required to provide written informed consent before participating in the focus groups and interviews. Participation was voluntary. All interviews and focus groups were audio recorded and transcribed. Where appropriate, community participants were reimbursed with GiftPay vouchers valued at $50. GiftPay is an online platform for delivering bulk eGifts with 100+ brands across Australia and online.

[4] The review undertaken in 2020 was submitted to the Australian Government Department of Health and Aged Care and is not currently publicly published.

2.4 Overview of quantitative methods

The quantitative methods comprised community surveys with Pacific Islander communities. All participants were required to provide written informed consent before participating in the surveys. An online survey was initially planned but this was cancelled following identification of significant fraudulent responses. Paper surveys were used instead. Participation was voluntary. Similarly, participants were reimbursed with GiftPay vouchers valued at $50.

2.5 Overview of routinely collected data

The Project Team undertook initial work to identify, and secure access to, a range of relevant national routinely collected datasets. Further consultations were held with local and jurisdictional authorities, and with other routine dataset custodians, to identify additional relevant datasets that may be able to be utilised for ongoing monitoring of kava use and harms. Five national datasets with existing data on kava have been included in this evaluation:

1. The *Illicit Drug Reporting System (IDRS)* includes annual face-to-face interviews with cross-sectional samples of people who regularly inject drugs recruited from all Australian capital cities via needle-syringe programs and word-of-mouth.[29]
2. The *Ecstasy and Related Drugs Reporting System (EDRS)* includes annual face-to-face interviews with cross-sectional samples of people who regularly use ecstasy and/or other illicit stimulants recruited from all Australian capital cities via social media advertisements and word-of-mouth. [30]
3. The *Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS)* comprises data from publicly funded government and non-government agencies providing specialist alcohol and other drug treatment services. [31]
4. The *National Coronial Information System (NCIS)* is a database of medicolegal death investigation records provided by the coroners' courts in each Australian and New Zealand jurisdiction.
5. *National data on kava import permits and importation* were obtained from the Office of Drug Control, Australian Government. Data comprised monthly number of permits issued, and volume of kava imported since 1 December 2021 to 31 May 2023.

2.6 Overview of the health economic methods

The aim of the health economics component was to conduct an economic evaluation of the kava pilot program. Using a cost-benefit analysis, the program costs were weighed against the benefits to establish if the net-benefit showed value for money in the program. A standardised, best practice data collection and analysis guide for economic evaluations was used. The three key components of the economic evaluation were:

1. A costing analysis. A societal perspective, was used to estimate the total costs, including direct, indirect, and intangible costs, of the kava pilot program. This included costs to the Commonwealth and State and Territory governments and the Pacific Islander Communities in Australia.
2. An estimation of the benefits. The estimation of societal benefits included benefits to consumers and the wider Australian society including traders. A Discrete-choice experiment (DCE) was used to elicit policy preferences and to estimate intangible benefits. This quantitative method was used to estimate the value that government stakeholders attribute to increased availability of kava in Australia.
3. Calculation of the net-benefit. The total costs of the kava pilot program with its benefits to enable the calculation of the net cost or benefit associated with the pilot.

2.6.1 The Discrete Choice Experiment

The DCE approach adopted in this study combines the microeconomic theory of consumer behaviour, the random utility theory and Lancaster's theory of choice in consumer demand [37, 38]. DCEs have been used in Australia to assess various policy options [39-41]. The DCE method provides hypothetical choices incorporating multiple characteristics to simulate realistic scenarios. A DCE requires participants to choose between given alternatives after considering each alternative's characteristics (referred to as attributes), thereby enabling researchers to gain more in-depth insight into the relative importance of each attribute, the trade-offs between these characteristics, and the value participants place on these attributes.

The data generated from the DCE contributed to the cost-benefit analysis (CBA) through valuation of some of the benefits of the kava pilot program in terms of willingness to pay, i.e., the incremental willingness to pay for more benefits. The value of benefits used was that of Australian policy makers who were defined as government

stakeholders who were directly or indirectly involved in the kava pilot program formulation or implementation.

Initially, the DCE survey was intended to include both the Pacific Islander community and policy makers to make comparisons between preferences and value. Qualitative studies which are used to develop the DCE survey were conducted with both groups. However, due to logistical challenges, the DCE survey was only conducted with government stakeholders at the federal and state levels. This limitation should be considered in the interpretation of findings.

2.7 Overview of the development of monitoring framework

On the request of the Commonwealth Government and in addition to the existing evaluation questions, a sub-committee made up of members of the Advisory Group was formed to develop a proposal for a potential monitoring framework for kava use and harms. The goal was to design a framework for consideration that could be sustained over time and is aligned with the monitoring activities of the States and Territories. The Sub-committee consulted with various State and Territory governments to explore what they would like monitored in relation to kava use and kava-related impacts. Stakeholders from SA, VIC, NT, ACT, WA, QLD, TAS, and NSW were consulted between November 2022 – May 2023.

2.8 Ethics

The original methodology included both Aboriginal and/or Torres Strait Islander communities and Pacific and Australian South Sea Islander communities in the Evaluation. One condition of full ethical approval from the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) was the need to detail the support from Aboriginal Medical Services Alliance Northern Territory (AMSANT) and Miwatj Health Aboriginal Corporation. AMSANT is the peak body for Aboriginal Community Controlled Health Services (ACCHSs) in the Northern Territory. Miwatj Health is an independent ACCHS that operates across Eastern Arnhem Land to service several of the communities in the evaluation. Initial letters of support (to participate in the evaluation) were provided by the Arnhem Land Progress Aboriginal Corporation (ALPA), East Arnhem Regional Council and Mala'la Health Aboriginal Corporation. However kava is not a priority for all relevant ACCHS in AMSANTs member organisations in the NT. AMSANT did not support the involvement of Aboriginal and Torres Strait Islander communities in the NT in this evaluation (see further details at Section 2.9).

Ethics approval was granted by AIATSIS on 14th September 2021 (Reference Number: EO277-20210602) and on 8th August 2022 (EO312-20220222). UNSW

HREC ratified the ethics approval from AIATSIS. Ethical approval for IDRS was granted by UNSW and South Eastern Sydney Local Health District HRECs, as well as jurisdictional HRECs. Ethical approval for EDRS was granted by UNSW HREC, as well as jurisdictional HRECs. Ethical approval for use of AODTS NMDS data was granted by the Australian Institute of Health and Welfare HREC and UNSW HREC. Ethical approval for the use of NCIS data was received from the Justice HREC, Western Australia Coronial HREC and University of New South Wales HREC.

2.9 Aboriginal and/or Torres Strait Islander community participation in the evaluation

The Project Reference Group identified First Nations' communities in the Northern Territory as a high-risk group for potential harmful kava impacts. As mentioned, AMSANT did not provide approval for kava pilot consultations with members of First Nations' communities in the Northern Territory. This is due to AMSANT's policy position that individual ACCHSs determine their own research priorities and this support was not gained. As such, engagement with this community group was not able to take place. AMSANT's concerns related to kava not being identified as a priority in many communities, a lack of local governance in East Arnhem Land, a lack of renumeration for Aboriginal Community Controlled Health Organisations participating in the evaluation, methodology concerns, and potential cultural and social based risks. In the spirit of self-determination (see Panel C), the Project Reference Group agreed that the best approach was to respect AMSANT's position and not to engage AMSANT or the communities of the AMSANT member ACCHSs in community participation in the evaluation in the Northern Territory. To capture data relating to First Nations' communities, the scope of the kava pilot was adjusted to include additional consultation with First Nations' government, non-government, and social sector representatives and other agencies.

Panel C: Principles of self-determination for Indigenous peoples

The right to self-determination is a well-established universal human right. Article 1 of the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights refers to self-determination as the right of peoples to freely determine their political status and freely pursue their own economic, social and cultural development. The right to self-determination has particular application to Australia's Aboriginal and/or Torres Strait Islander peoples. These inherent rights were affirmed in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Australia signed the UNDRIP in 2009, demonstrating the commitment of the government to its human rights obligations for First Nations peoples. As governments and government agencies are committed to improving the

lives of all Aboriginal and/or Torres Strait Islander peoples, it is critical that all government agencies strictly follow all self-determination principles and practices in all aspects of their work.

The application of self-determination in the context of data sovereignty

The concept of Indigenous data sovereignty is emerging and is supported by the inherent rights of self-determination for Indigenous peoples as affirmed in the UNDRIP, as data can provide the means to pursue economic, social and cultural development. Within all processes governments should include the principles of Indigenous data sovereignty, to ensure adherence to federal government commitments and to the human rights of Indigenous peoples. Indigenous data sovereignty refers to the rights of Indigenous peoples to govern the collection, ownership and application of data that derives from or pertains to their communities, peoples, lands, knowledge and resources.

Indigenous data governance is built around two central premises: 1) the rights of Indigenous nations over data about them, regardless of where it is held and by whom; and 2) the right to the data Indigenous peoples require to support nation rebuilding.

In the context of the monitoring and evaluation of the kava pilot program, the project team adhered to the principles of self-determination and data sovereignty of Indigenous people not to participate in the evaluation.

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Chapter 3

Key Findings

3 Key Findings

This section presents the results from the various data sources used in this report. The results are presented by data source. For each data source, we first briefly summarise the key findings, and then provide the detailed findings under the relevant evaluation questions. There are limitations in the data sources used therefore findings cannot be considered generalisable beyond groups sampled, and small sample sizes should be noted for some data sources. The exception is the systematic review, which is provided as background context as to the global evidence base, and structured by key outcomes.

Key findings and results are presented below in this order:

1. Systematic literature review
2. Government and non-government stakeholders data
    - Interviews with government and non-government stakeholders
    - Focus groups with Commonwealth and State and Territory government stakeholders
    - Interviews with Pacific Island government representatives in Pacific Islands
3. Community members data
    - Interviews with Pacific community members
    - Focus groups with Pacific community members
    - Community survey of Pacific Islander communities
4. Analysis of routinely collected data
5. Commercial importers data
6. Health economic evaluation

3.1 Systematic literature review

Key findings

1. Kava appears to be an integral part of many consumers social and cultural identity, with many communities appearing to value its role in maintaining traditions, recreation and social unity.
2. Harms and benefits associated with kava consumption varied widely across studies, with many studies reporting conflicting findings. The extent to which kava may influence harms or benefits such as liver toxicity or a reduction in symptoms of anxiety remains unclear.
3. Kava is central to the economies of several Pacific Island countries and its trade, distribution, and sale has been affected by various domestic and international policies.
4. While most randomised controlled trials (RCTs) were low in overall risk of bias, most studies comprising all other designs were high in risk of bias because of an array of methodological and reporting shortcomings.
5. There remains a lack of certainty with which kava can be attributed as positively or negatively affecting any of the seven outcomes (including prevalence, harms, benefits, pharmacological effects, social and cultural reasons for use, economic or policy implications), particularly regarding its potentially harmful or beneficial effects among those who regularly consume it.

3.1.1 Prevalence of kava use

Thirty-two studies reported prevalence of kava, of which almost half (n=14, 44%) were from Australia[3, 44-54] (Appendix 10 Prevalence of kava). Almost all other studies were from Pacific Island countries (n = 14, 44%), comprising Vanuatu, Fiji, New Caledonia and Micronesia[55-68], with the remainder being from the US (n= 2, 6%), UK (n = 1, 3%) and Aotearoa/New Zealand (n= 1, 3%)[69-72]. Most studies consisted of convenience samples (n= 14, 44%), followed by random samples (n=5, 16%), or a combination of convenience and random samples (n=4, 13%), with participant samples ranging from 28 to 13,300. In five studies (n=5, 16%), the sampling method was unclear[49, 51, 53, 54, 59].

Kava was mainly consumed as a dried powdered kava[114, 115, 171]; herb[117]; tea[83, 116, 120, 137]) or tablet/capsule[92, 95, 97, 104, 110, 125]. Kava was usually consumed using cups/coconut shells or bottled[113, 119, 170]. Around half (n= 15, 47%) of all prevalence studies reported on the dose of kava consumed, although the terminology used to describe this was variable among studies. Four (13%) studies specified kava being consumed using a shell, cup, or bowl, which ranged from 20 to 52 cups or 1-12 bowls

in one session or sitting, or between 2-6 shells per day[50, 52, 55, 57]. Five (16%) others specified grams used by duration, ranging from 2383 to 6917 ml per week (or <40-2250 grams per week)[3, 48, 49, 51, 53] whereas others reported kava in terms of the intensity of drinking sessions. Two (6%) studies reported level of use, where 90% were regular kava drinkers (n=66), 27% were heavy/very heavy drinkers (n = 20) and 21% were very heavy drinkers (n=15), respectively[52, 53]. However, another study reported kava consumption among their sample as light-to-moderate (n = 48)[44]. One (3%) study reported up to 90% of participants being regular consumers among Tongan men in Macarthur, Australia[52], while another study among Aboriginal and/or Torres Strait Islander Peoples in the Northern Territory reported as little as 1.2% of participants consuming kava in the past 12 months[45]. Most studies reported that at least a quarter to half of participants were consumers of kava either weekly, monthly, or within the last 12 months. As the samples across studies varied largely and were not generally representative of the broader population, prevalence estimates for kava consumption could not be accurately obtained.

3.1.2 Benefits related to kava use

Thirty-nine studies reported potential benefits of kava use and incorporated various study designs such as RCTs (n= 25, 64%), observational studies (n= 10, 26%), and case reports (n= 3, 8%). RCT samples ranged from 20 to 141 participants, while observational studies, mainly cohort designs, consisted of samples ranging from 21 to 3000 participants. Duration of interventions ranged from a few hours to 25 weeks.

Thirty-four (87%) of the included articles reported benefits related to improved mood, relaxation or reductions in symptoms of anxiety, stress, depression, insomnia or related conditions[73]. The remaining records examined the role of kava on cognitive ability (n= 7, 18%)[74-80], potential anti-carcinogenic effects (n= 2, 5%)[81, 82], anti-craving properties (n= 1, 3%)[83], attenuation of extra-pyramidal side effects (n= 1, 3%)[84] and effects on adiposity (n= 1, 3%)[60].

Eight RCTs observed significant reductions in anxiety symptoms among those who consumed kava, compared to those on placebo[82, 85-90]. However, three RCTs did not observe any significant differences in reductions to anxiety symptoms between kava and placebo conditions[91-93]. One (3%) study suggested kava may be useful in treating symptoms associated with panic disorder and could potentially be considered as an alternative to other pharmacological treatments[94].

Thirteen (33%) studies reported few to no serious adverse events or withdrawal symptoms, or suggested kava was well tolerated among participants[86, 87, 89, 94-103]. One (3%) study reported no significant difference in withdrawal symptoms between kava and other treatment groups[88]. Of studies exploring the benefits of kava

consumption, reports of adverse events included headaches, fatigue, dermatitis, stomach upset, poor memory, shakiness, liver function abnormalities[79, 103-109], though whether these are causally attributable to kava ingestion remains dubious.

One (3%) study called for more safety data before recommending kava for clinical practice[110]. Two (5%) studies explored the effects of kava on driving performance, observing no significant impairments among those consuming kava[77, 79]. Overall, most of the included studies demonstrated the potential value of kava preparations in treating anxiety and related conditions, with a smaller subset of studies reporting no significant differences compared to placebo or other drugs or providing inconclusive results.

3.1.3 Harms related to kava use

Seventy-four studies reported harms associated with kava use. Over half (n = 42, 57%) of all studies comprised a case report or case series design, largely consisting of small samples (typically of a single individual) presenting with one or more of the harms described below. Of the 23 RCTs identified, sample sizes ranged from 40 to 172 participants[111, 112].

Three (4%) studies (one observational study, one case report and one online survey) found that the consumption of kava negatively impacted driving ability and behaviour and was significantly associated with serious-injury road crashes[67, 70, 113]. These findings contradicted four (5%) studies (two RCTs, two observational studies) which identified no impact of kava on cognitive performance and driving ability[79, 112, 114, 115].

Twenty-one (28%) studies included reported cases of harms associated with liver damage or failure [112, 116-131]. In some cases, these effects were severe enough to require liver transplants[116-118, 126]. Additionally, kava use has been linked to dermopathy[132], a skin condition that is characterized by rashes, itching, and scaling.

In terms of cognitive and motor function, some studies suggested that kava may impair these functions. For example, two (3%) studies found that kava disrupted processing speed[55], motor coordination and visual attention[133], while another found that it hindered the ability to perform divided attention tasks[113]. However, an additional study reported no impairment in attention or reaction time[115][115].

Although several studies indicated that kava may be effective in reducing symptoms of anxiety[86, 110, 112, 123], some studies reported that kava was not superior to placebo for treating generalised anxiety disorder[94], and that it was associated with poorer memory and tremors[90].

Finally, several studies reported that kava was generally well-tolerated with minimal adverse effects[66, 96, 101, 102, 105, 106, 134, 135]. For example, one study found that kava was well-tolerated in patients with generalized anxiety disorder[134], while another reported excellent overall tolerability[105]. However, some studies did report adverse effects associated with kava use, such as gastric pressure and nausea[109], possible links to suicidal behaviour[66], and potential for drug interactions[136].

3.1.4 Pharmacology

One hundred and sixteen studies examined the pharmacological and physiological properties of kava and its interactions with other drugs. These ranged from small (n=1) to large studies (n=1000) [3, 95, 113, 132, 137]. Fifty-one (44%) studies comprised either case reports or case control methods[3, 67, 95-97, 113, 116-118, 120-122, 124-131, 135-165]; thirty-six (31%) studies used either randomised/non-randomised controlled methods[55, 74-77, 79, 80, 82, 83, 85-90, 92, 94, 96, 99, 100, 102, 105, 106, 109-112, 114, 115, 123, 134, 166-168] and fourteen (12%) studies used surveys[3, 53, 55, 58, 60, 61, 66, 70, 83, 119, 169, 170].

The pharmacological properties of kava in the context of harms and benefits were mixed or unclear overall. For example, physiological and chemical observations and/or analyses of kava were reported in potential treatment options for stress, anxiety, panic attacks and depression, with moderate improvements in presentations[3, 89, 91, 95-97, 108, 110, 116, 117, 122, 132, 167, 172]. In addition, the physiological effects of kava on memory and attention impairment were observed in three (3%) studies[55, 113, 115]. These effects were also described for intoxicated drinkers who reported behavioural and physical symptoms such as nausea and vomiting, sore eyes, headache, drying of skin, generalized muscle weakness and abdominal pain, hallucinations and seizures[111, 117, 121, 139, 147, 156].

3.1.5 Economic impact of kava use

Fourteen studies on the economic impacts of kava were included, reporting on its trade, manufacturing and production, and/or sale. Countries for which economic information on kava was identified include Australia, Germany, the United States, Vanuatu, Aotearoa/New Zealand, Canada, and Fiji, published between 1995 and 2020. The population source was reported in just over half of all studies (n = 8, 57%), ranging from individual consumers, drinkers and traders, to communities, producers, health food stores and pharmacies[173-180]. Only four (29%) studies specified the study type, consisting of a case study, ethnographic study, pre- and post-policy implementation study, and website review[173, 176, 177, 180]. Of the three economic outcomes of interest, 11 (79%) studies reported on sale [173, 174, 176-184], 10 (71%) on trade imports and exports [173-176, 178, 181, 183-186], and five (36%) on manufacturing and production [174, 176, 178, 185, 186].

Studies reporting on the sales of kava discussed the regulatory, financial and production constraints associated with the bans adopted by various European Union (EU) countries in the early 2000s. Such constraints include Germany revoking the status of kava as a medicinal product following the kava ban, and the subsequent impact of this on the production, retail sales and labelling misinformation of kava[178]. Other studies reported on the conditions of sale for kava (i.e., the differences in the classification standards of kava as either an herbal remedy or a dietary supplement, as well as in the prescription or medical advice required for the pharmaceutical dispensation of kava)[179, 182].

Studies documenting the sales of kava typically distinguish between a domestic drinking market, and export drinking, pharmaceutical and dietary supplement markets. Trade importation and exportation of kava has largely been reported from the perspective of the EU-enacted kava ban in the early 2000s on various international markets and kava-dependent occupations, particularly in Fiji, Vanuatu, Hawaii, and the South Pacific more broadly[181, 183]. The increase in the sale and distribution of kava in the 1990s in Australia, as well as the impacts of the post-EU ban of kava in Germany in the early 2000s, were also reported in two studies[173, 181]. The manufacture and production of kava were variably discussed among four studies: 1) active ingredients no longer approved as medicinal products, yet continually sold as dietary supplements; 2) kava cleaning and checking processes adopted in the South Seas; 3) processes that differentiate the production of kava for domestic consumption or exportation; and 4) the growth of the Hawaiian ‘awa industry[174, 176, 178, 186].

3.1.6 Policies related to kava use

The Australian and international policy, regulatory and advocacy frameworks of kava have been published in 36 studies since 1980. Most of these studies were in Australia (n=13, 36%)[3, 51, 173, 174, 185, 187-194] and Germany (n=8, 22%)[152, 184, 195-200]. Other countries with policy-related publications relating to kava include the United Kingdom, France, the United States, Sweden, Vanuatu and Aotearoa/New Zealand. Half of these studies referred to kava as a “beverage and/or food” (n= 19, 53%)[3, 51, 173, 174, 185, 187, 189-191], with about a quarter of studies labelling kava a “herbal medicinal drug” (n= 8, 22%)[184, 195, 196]. Australian studies commonly referred to kava as a beverage and/or food, whereas Germany and the broader European Union classified kava as an herbal medicinal drug. In the UK, kava was classified as an “unlicensed herbal medicine” (n= 3, 8%)[201-203], and two (6%) German studies used the term “kava extracts” synonymously with “antidepressants”[199, 200]. In the remaining studies, kava was typically referred to as a drug and dietary supplement root extract, medicines containing kava, natural medicine, or the type of kava was described in a multitude of

ways (e.g., as a food, psychoactive substance, herb and dietary supplement) or not specified at all[152, 182, 188, 204-207].

Studies that examined kava-related policy could be broadly distilled into five categories: 1) health authorities, medicinal agencies, or committees; 2) councils, departments and advocacy groups; 3) judicial decisions or legislation; 4) kava prescription databases and 5) the measurement and assessment of kava. Forty-seven percent of studies (n= 17) discussed judicial decisions or legislation relating to kava[3, 51, 173, 178, 182, 184, 188-190, 192, 194-196, 201, 203, 205, 207] and 25% (n= 9) discussed the role of councils and departments in the enforcement, advocacy or promotion of kava[185, 187, 191, 198, 202, 204, 208-210]. Discussion of legislation concentrated on the establishment of licensed areas in which kava could be legally possessed and consumed by Aboriginal communities in Australia (e.g., the legal implications of the Kava Management Act 1998 and its subsequent amendments on the Aboriginal peoples of Arnhem Land, North Territory), and the decision by the German Administrative Court to overturn the kava ban enacted by Germany in the early 2000s. This repeal was enacted because the court found that the causal connection between kava ingestion and liver toxicity could not be reliably established by the German health authority (BfArM) (i.e., the basis on which Germany banned kava in the early 2000s)[184, 195, 196]. Other legislation documents highlighted the various ways in which kava has been classified by law in countries, such as a 'psychoactive substance' in Aotearoa/New Zealand (Psychoactive Substances Act 2013)[182], or as a 'food' in Australia (Food Standards Code 1994)[191]. Other frameworks or policies provide international guidance on the manufacture, sale and production of kava for stakeholders to adhere to, such as the Pan-Pacific kava legislation (Kava Quality Standardization Code, 2011)[207].

Of the council, departmental and governmental literature describing kava, Australian organisations comprise bodies involved in the agricultural research (Australian Centre for International Agricultural Research), distribution and trade (Consumer Affairs and Trading), licensing provisions (Northern Territory Licensing Commission) and the research and investigation of the individual, community, and societal impacts of kava (National Health and Medical Research Council). Other international, U.S. or EU-based organisations have the same roles and responsibilities, but for their respective jurisdictions.

Most health authorities and medical agencies or committees were from Europe. These UK, German and French studies largely discussed the actions taken by various health departments and agencies in each of these countries. Most of these organisations advocated for the kava ban in the early 2000s following reported cases of liver hepatoxicity and even death associated with the overconsumption of kava. In addition, two German studies examined the role of kava as an antidepressant to understand

the extent to which physicians and doctors adhere to the recommended daily dose when prescribing kava[199, 200], and two German studies looked at the measurements of kava obtained from validated international instruments (e.g., the Word Health Organization and Naranjo scales) and the dilution and yield rate of packaged patch tests sold in the European market.

3.1.7 Social and cultural reasons for kava use

Twenty-five empirical studies reported on the social or cultural reasons for kava use. Most of these studies were from Fiji (n= 9, 36%), followed by Australia (n= 3, 12%), Vanuatu (n= 3, 12%), Aotearoa/New Zealand (n = 2, 8%), the Federated States of Micronesia (n= 2, 8%), Indonesia (n= 1, 4%), Hawai'i (n= 1, 4%), Canada (n = 1, 4%) and Tonga (n= 1, 4%). Two (8%) studies were conducted across multiple locations including Fiji, Western Polynesia, Tonga, United States and Aotearoa/New Zealand. The number of participants in included studies ranged from one to 300 participants. Fourteen (56%) studies did not specify the number of participants[63, 175, 211-222]. Varied study designs were used, including surveys, questionnaires, interviews, observation, ethnographic and phenomenological techniques, as well as traditional methods consisting of Talanoa and the Vanua research framework.

Fifteen (60%) studies reported on the use of kava in social settings, as a recreational activity, to aid social bonding and unity, or for developing or maintaining alliances[47, 52, 61-63, 175, 211, 212, 214, 218, 221-225]. Four (16%) studies discussed kava use as a means of asking for forgiveness or to aid in conflict resolution[62, 214, 226, 227]. Two (8%) studies reported on the use of kava as a social lubricant, suggesting some people may use it as an alternative to alcohol[212, 223]. However, studies have emphasised that its consumption is vastly different to alcohol, producing calming and passive effects[214, 217].

Three (12%) studies discussed kava use an integral part of the consumer's sense of identity[52, 224, 228]. Seven (28%) studies discussed the social order or ranks underlying kava consumption, with some suggesting that traditionally only men or people of higher social status or age were permitted to consume kava[63, 215, 216, 220, 222, 225, 227]. One (4%) study suggested that participation in kava ceremonies may demonstrate strength and endurance, facilitating their ascent in social rank[225]. While the consumption of kava has traditionally been considered relatively formal, one study suggests there may be a shift in consumption patterns to less formal use[218]. This, however, appears to vary by region, as one (4%) study highlighted different patterns of consumption across different areas of Fiji, with some areas consuming kava for everyday use and others only drinking it on important occasions, such as funerals or weddings[217].

One (4%) study highlighted how kava cultivation in Vanuatu has strengthened self-reliance among people who have abandoned wage work and seasonal labour to farm kava, believing this practice to be preferable to working overseas[213]. Furthermore, one (4%) study suggests that kava enables state and community partnership for many Fijian schools, as well as promoting academic achievement, identity formation and school function[228].

Fourteen (56%) papers highlighted the cultural reasons for kava use[52, 61-63, 114, 214-217, 221, 224-226, 229]. These largely surrounded solidification of one's cultural identity and connection to their country[230]. It appears kava plays a central role in sacred traditions such as funerals, weddings, ceremonial banquets and other special occasions[62, 217, 226, 227]. Kava may also facilitate attendance and engagement with the church, as well as preserving language, culture, tradition and song[52, 221, 225, 229]. One (4%) study highlighted the importance of drinking kava for many Pacific Island peoples as a way of maintaining traditions and opposing perceived threats posed by Western modernity[228].

Given the importance of kava to Pacific Islander communities, we also included non-empirical studies discussing the social and cultural aspects of kava use (Appendix 13 social & cultural reviews that informed the systematic review)

3.1.8 Risk of bias

Of the 36 RCTs, the overall risk of bias was low in 26 studies and high in the remaining ten. RCTs that were rated as high typically employed an inappropriate study design or did not account for deviations, and/or did not ensure participant or researcher blinding, or the baseline exchangeability between participants in the intervention and comparison groups (Appendix 14 Risk of Bias for Randomised Control Trials). Of the 13 quasi-experimental studies, two were rated as low, but the remaining 11 were rated as high, largely because they lacked a control group (Appendix 15 Risk of Bias for Quasi-experimental Studies). The one qualitative study had an overall low risk of bias, however received unclear ratings for four out of ten domains – congruity between the philosophical perspective and methodology; congruity between methodology and the research objective; locating the researcher culturally or theoretically; and addressing the influence of the researcher on the research (Appendix 16 Risk of Bias for Qualitative Studies). All but one of the 17 cross-sectional studies were high in bias because of several reasons, but mainly in the insufficient reporting of strategies used to control for confounding and the lack of confounding factors identified and reported (Appendix 17 Risk of Bias for Cross-sectional Studies). All 18 case series studies were rated as high, largely due to the lack of clarity regarding the reporting of presenting sites/clinics and demographic information, as well as of outcomes and follow-up

results of cases (Appendix 18 Risk of Bias for Case Series). All 29 case report studies were rated as high as most of them did not identify and describe adverse or unanticipated events (Appendix 19 Risk of Bias for Case Reports). Of the 33 studies reporting on prevalence, the majority were rated as high (26/33), mainly because of issues relating to the recruitment of participants, or the insufficient reporting of participant and setting information (Appendix 20 Risk of Bias for Prevalence Studies). As a result, it is recommended that the prevalence estimates reported in these studies, particularly generalising estimates to the broader kava using population in individual countries and worldwide, is interpreted with caution.

3.2 Government and non-government stakeholders data

3.2.1 Interviews

Key findings

Key findings from the interviews with government and non-government stakeholders:

1. There was widespread support for Pasifika diaspora to practice their cultural ceremonies and traditions in Australia; however, this should not come at the expense of Aboriginal and/or Torres Strait Islander people and vulnerable groups.
2. There was a lack of satisfaction with the consultation process prior to the pilot program across and within jurisdictions and relevant sectors, with insufficient time to prepare for the policy change.
3. Personal importation changes were a relatively uncontroversial component.
4. The commercial importation component revealed some nascent challenges, but appears to be going as expected. Greater accessibility of kava is expected given legislative changes allowing for its commercial importation.
5. There was limited data available to State and Territory representatives to make an informed assessment on commerical supply and distribution.
6. The expected outcomes of the pilot include:
    - *Provide greater access to kava in Australia:* Participants assume there is greater access to kava in Australia, but do not have the requisite data to make an informed comment.
    - *No net increase in harms (public health and safety is not compromised)*: Re-introducing a substance that has been associated with some known harms requires ongoing monitoring especially with young people and use outside traditional cultural practices for social and recreational.
    - *Understand the social, cultural, economic and health effects of increased availability of kava across Australia*: Most participants did not have access to data to make an informed comment, but many raised a range of concerns.
    - *Increased trade opportunities*: Increased trade opportunities and market access for Pacific businesses likely but form of kava allowed will limit imports.

- *Respect for State and Territory regulatory role*; Short timeframe to respond to the kava importation policy change and diverse views on how it has been managed.

7. There was disappointment at lack of consultation with Aboriginal and/or Torres Strait Islander people on the possible impact the change to kava laws may have on Aboriginal and/or Torres Strait Islander communities and individuals, with the process to date being contrary to principles of self-determination.
8. There are concerns held about the potential impact of kava in Aboriginal and/or Torres Strait Islander people's health and wellbeing at the individual, family and commuity level but, it was not largely viewed as an immediate priority.
9. There is a need for sensitively designed prospective monitoring of the use and impact of kava on Aboriginal and/or Torres Strait Islander people and other vulunerable groups to ensure evidence-informed decision-making and identify emergent harms, along with education of health and related social services to monitor locally and manage harms.
10. Economic benefits related to kava distribution and sales in Aboriginal and/or Torres Strait Islander communities must be led by or shared with communities.
11. There are inconsistencies in the legislation/regulation and marketing of kava. New kava distribution sites and marketing could increase use among young people. Future regulatory changes may need to include restrictions on sale to those over 18 years
12. Understanding of the policy changes needs to be communicated to health and social services to support the monitoring of any harms and education efforts to potentailly at-risk groups given the limitations of warning label.
13. There is a need for a mechanism for sharing of experiences and approaches across States and Territories and approaches, and evidence from other countries, to inform any future regulatory changes and support harmonisation across jurisdictions as a longer term goal.
14. Significant in-kind human resources were needed to respond to the kava policy change, resulting in diversion from other priority issues.
15. Ongoing monitoring of harms and benefits, as well as awareness-raising are important, but collecting the data required will be challenging and there is a question as to whether kava is a priority and worthy of diverting resources.
16. The potential for an increased direct and indirect cost burden on the health and social systems were commonly held concerns.

17. Polysubstance use could rise with the mixing of kava and alcohol, which needs to be monitored. Monitoring of harms, particularly among at risk groups, such as young people and those with chronic conditions, were seen as critical.
18. There is greater potential for kava to enter the Northern Territory with the changes made to importation rules at a national level. There may be cost implications for the Northern Territory even though they are not participating in the pilot program.

Results

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

This section examines government key participants' general views of how the pilot program has been implemented in Australia, including both the personal importation and commercial importation changes. Participants were asked for their views on the successes versus the challenges with the implementation of the personal and commercial importation components of the pilot program. The following are the key findings from these discussions:

There was widespread support for Pasifika diaspora to practice their cultural traditions in Australia; however, not at the expense of Aboriginal and/or Torres Strait Islander people and other vulnerable groups

There was consensus that the decision to implement that kava pilot program was driven by a desire to strengthen economic and cultural ties between the Pacific Island nations and Australia. The Department of the Prime Minister and Cabinet managed the first phase of the pilot program, and then transferred management for the second phase of the program to the Department of Foreign affairs and Trade and the Department of Health and Aged Care (ODC), though some delays ensued during COVID-19 where priorities were focused on the pandemic.

Participants noted that the decision to increase allowable amounts of the personal importation of kava and renew commercial importation of kava in Australia was an important gesture of support to Pasifika communities in Australia so they could more freely practice cultural ceremonies, unburdened by legal restrictions impeding access to cultural traditions.

> *"Pacific Islander communities struggle[ed] with the access of kava for cultural ceremony, and otherwise very law-abiding citizens [found] themselves turning to the black market for major cultural events or family gatherings. From what I understand, that pressure has [now] been alleviated [due to the pilot program]" [INT 40 NGO].*

One participant noted that the Pasifika population in Australia is continuing to grow, hence this change in kava rules is likely to positively impact more people.

> *"Under the new government, our Pacific Labor Mobility program is increasing, which means that Pacific diaspora will be larger in Australia than what it has been previously, and I think that the kava pilot will then be benefiting a greater number of people in Australia as well" [INT 04 GOV CMW].*

However, government participants also voiced concern that kava use could extend beyond the original intent outlined in the change of regulation. There was consensus amongst participants that the potential negative health and social impacts on communities in Australia were not properly considered and researched prior to the decision to allow commercial quantities of kava back into Australia. In particular, Aboriginal and/or Torres Strait Islander people, as well as young people, were singled out as those whom health and other officials expressed particular concern about the impacts of the kava importation changes (Further detailed in sections below).

> *"I think the issue here is around access to kava from communities unfamiliar with its appropriate consumption, and unfamiliar with its occasional use in a traditional and cultural context" [INT 19 GOV S/T].*

Participants noted a framework for monitoring kava in Australia was yet to be developed, leading to a thin patchwork of jurisdictional monitoring and surveillance mechanisms to glean some understanding of the impact of kava on communities and alert authorities to potential misuse and harms. The data is currently being collected and/or shared were generally considered insufficient in providing a clear picture of where, how and by whom kava is being used in Australia and, importantly, of how to understand where potential harms are emerging. Participants agreed that there needs to be a more monitoring process to capture the kava supply, use and harms in Australia. Significant upscaling of a data collection framework and harmonising monitoring and surveillance plans across jurisdictions were recommended. Questions were raised as to the amount of resources that would be required to properly monitor kava use given other competing demands, anecdotally low uptake in the general community, and kava being a generally low-risk substance.

Most participants agreed that the majority of Australians are unaware that kava is now widely available in Australia (except in the Northern Territory), and many noted this is a positive outcome, given the main purpose was to serve the Pasifika diaspora. It was noted that it is worth considering that exporting countries may wish to expand their markets in Australia in the future and that efforts to promote supplies beyond the diaspora should not be ruled out despite the current strict constraints on the type and form of kava that may be imported (addressed further below).

Overall impressions highlight a lack of satisfaction with the consultation process across and within jurisdictions, relevant sectors and Aboriginal and/or Torres Strait Islander communities and individuals, and insufficient time to prepare for the policy change

There were several participants who voiced their concerns for the way the kava importation pilot program had been implemented, especially for the sudden annoucement re-opening Australia to the commercial importation of kava. Participants were unified in their surpise at the announcement.

> *"It certainly appeared to land out of nowhere" [INT 08 GOV S/T].*

> *"I felt like perhaps the jurisdictions hadn't been involved right from the start, which didn't allow us enough time to prepare any measures to prevent harm occurring, and also to monitor the impacts in [name of jurisdiction]. So, it felt like it was announced and it was happening, and there wasn't sufficient time for us to make any changes to allow us to track the impact and prevent the harm" [INT 15 GOV S/T].*

Participants indicated the nature of the announcement did not allow for casting a wider net during the consultation process. Notably absent from consultations more generally were peak bodies representing Aboriginal and/or Torres Strait Islander communities and the alcohol and drug sector. Some jurisdictions did make an effort to approach peak bodies for comment; in particular, it was reported the Minister in the Northern Territory sought comment from some Aboriginal and/or Torres Strait Islander organisations regarding the proposed changes and their concerns were relayed to the Minister for Health and Aged Care.

At the time of the interviews, participants recounted they had not received any response from the Department specifically addressing the concerns raised by Aboriginal and/or Torres Strait Islander groups in the Northern Territory. Furthermore, it was reported in Queensland that outreach to Aboriginal and/or Torres Strait Islander organisations regarding the proposed kava importation changes were made, but kava was not identified as an immediate priority amongst other more pressing priorities. Other jurisdictions, such as the ACT and Victoria, made efforts to seek comment from relevant organisations, but feedback was limited. Not ensuring consultations had a wider reach beyond government jurisdictions to include peak bodies representing the communities most likely to be impacted by the kava importation rule changes was disappointing to many participants, and was an important lesson learned for inviting more viewpoints to possible future consultations on kava.

To foster better communication across jurisdictions, a concerted effort from different departments led to the establishment of a Project Reference Group (inclusive of Commonwealth and State and Territories) to ensure stakeholders were kept engaged and informed during the two-phase pilot process. The working group allowed for State and Territory governments to share their concerns about the possible health implications, and discuss food standards and safety issues, especially the request for an urgent proposal to review the kava standard through the Food Standards Australia New Zealand (FSANZ), a bilateral statutory authority responsible for developing unified food standards for both Australia and New Zealand. From a food standards and safety perspective, the sudden and unexpected change to the kava importation rules raised specific challenges. Relevant authorities were required to seek risk advice through the FSANZ, which assessed an urgent proposal (P1057) it prepared to clarify the existing permission for kava in the Australia New Zealand Food Standards Code to ensure continued protection of public health and safety.

Further challenges to the nature of the policy change was the lack of proper planning for the ongoing monitoring of kava in Australia. Specifically, from the outset, it was not clear what the objectives were of the policy change, the overarching framework for monitoring the impact of increased access to kava, and a lack of coordination amongst jurisdictions.

> *"I'm reasonably unclear on how the Australian government is monitoring the implementation. Certainly, I'd say that there's been little apparent engagement with jurisdictions both in terms of the proposal of the program moving forward, with the structuring of the program, and as we get into the gathering of inputs for the evaluation of the program." [INT 19 GOV S/T].*

While it was reported that there was some initial sharing of data from the Office of Drug Control related to granting of importing permits, most participants indicated they had not received additional data from the Commonwealth. Participants expressed a need to have better understanding of the how much kava is in Australia, where is it being distributed, who is using it, and what are the harms captured in current data sets? Even the term "pilot" attached to the program raised questions from participants. One participant noted that:

> *"It was announced as a pilot, but there's no date set when the commerical imports would finish… it's kind of on the assumption that there won't be any problems… [and] two years may not be enough time and that we might have difficulty finding out where there are issues" [INT 13 GOV S/T].*

While most of the participants were critical of the change to the kava importation laws and concerned about the regulatory response and framework for monitoring potential

harms, there were others who were very satisfied with the implementation of the pilot program.

> *"I think it's been implemented well… I think what made it successful in the [name of jurisdiction] is that the health protection department did engage with the South Pacific Islander community and, more broadly, the Indigenous community through the National Kava Forum, and then we held some separate meetings with South Pacific and Islander groups with regards to potentially opening up kava cafes and those sort of institutions, and what they needed to do to do that. So, it was well introduced before it went live" [INT 11 GOV S/T].*

Personal importation was considered to be relatively uncontroversial component

Many participants did not have strong opinions about the changes to the personal importation limits raising the allowable amount from two kilograms to four kilograms. One participant noted "*it is a fairly non-controversial aspect*" [INT 01 Gov CMW].

However, some questioned how the change to four kilograms was decided, as there was no apparent rationale shared or evidence to support this change.

> *"I don't understand how they came up with the four kilograms, for example… I couldn't find much around their justification for that increase" [INT 28 GOV S/T].*

The Department of the Prime Minister and Cabinet were reportedly responsible for this first phase of the pilot focusing on the personal importation limit changes; however, no representative from the Department participated in this evaluation. Therefore, it was not possible to query the logic behind this change.

Some key participants suggested more communication and information-sharing is necessary regarding the changes in the personal importation limits, as they suggested some Pasifika communities may not be aware of the changes.

> *"Nothing's really made the press since the pilot's come out so…not much has changed" [INT 11 GOV S/T].*

> *"I don't necessarily have a formed view about whether four is better than two or worse than for two, or anything. I think, understandably, for people who want to import kava for personal use, if it means they have to leave the country to source it from outside the country, I can understand why more would be regarded as better or more convenient, and potentially more efficient" [INT 17 GOV S/T].*

However, participants did raise concerns about the lack of information on the personal importation changes.

> *"In terms of the information that we've received about [personal importation of kava], it's just minimal. We just don't know how much is being imported through that personal importation pilot. So, it's really hard to track" [INT 15 GOV S/T].*

> *"I guess with the increasing amount of kava that's able to be carried by one person, you increase the risk of consumption of kava by secondary supply and, if we're thinking about the particular risks that are posed by secondary supply, I guess it begs a question about whether it might be more likely that young people are able to access kava" [INT 16 GOV S/T].*

Some participants questioned the framing of 'personal importation' or 'personal consumption' as a very Western concept that was antithetical to the core aim of sharing kava – a communal experience.

> *"And it's also interesting in a cultural context because personal use takes on a different face when you're sharing…Personal use and personal consumption in a cultural context might mean within a family; within multiple families or broader community. So, it will be quite difficult to know what that means in that context" [INT 16 GOV S/T].*

Commercial importation had some nascent challenges, but appears to be going as expected

One of the successes of the program that data demonstrates is an increase of exported products from Pacific Island nations to Australia. The resulting increased market access was a positive outcome for Pasifika communities and diaspora in Australia, as well as for improving trade relations between Pacific Island nations and Australia. Some participants were glowing in their assessment of the pilot program, generally, but also the commercial component more specifically and noted the potential positive impact regulatory frameworks could have on improving the safety of the product.

> *"With the exception of [the one-year delay due to] COVID, I think it's gone really well. I think the two-phase approach was a great idea. Allowing people to double the quantity of kava that they could consume personally to be brought from their home country into Australia was a good idea to start with because that showed that we were focusing on the diaspora and their consumption of kava. And then expanding to the second phase, then opening up to growers*

and supplies in the Pacific being able to export to Australia. I think it was rolled out very well" [INT 05 GOV CMW].

"I understand in a trading context that there's opportunities for supporting the economic success of our neighbours and that's a potential positive. Particularly smaller farms and the like. That's great" [INT 16 GOV S/T].

"I think the success was that the Commonwealth was able to identify who wanted to import kava into Australia and to have a look at the grades to make sure that it was safe and high quality. And then also tracking how much those people were intending to import into Australia" [INT 14 GOV S/T].

Another potential success of the program – though it is yet to materialise as it will take time – is the opportunity to raise public health awareness around kava.

"With changes in kava, if appropriately implemented, I think there's an opportunity to raise people's awareness of the potential health impacts, particularly, people with underlying heart conditions and the like. I understand that there's an overrepresentation of heart disease in Pasifika communities so [it may] open up discussion around safe consumption and signs of overdose and that kind of thing. So, I think that [could be] a positive" [INT 16 GOV S/T].

Some participants expected to see greater interest in kava importation, but that has not necessarily materialised yet partly due to the food standards code restrictions.

"We didn't see a flood of applications for new businesses" [INT 11 GOV S/T].

"[DAFF] were saying there certainly has been an increase in importation - [though] lower than they expected - and a lot of it's driven by the fact that the food standard code is very tight and tries to limit consumption patterns to traditional use" [INT 08 GOV S/T].

It was reported that there was trouble with labelling compliance, though a collective effort between DFAT, DAFF and foreign posts provided education to help suppliers and growers comply with the labelling requirements. Reported data revealed that compliance increased from 70 per cent to 100 per cent after these support interventions, though these rates may dip when shipments from smaller suppliers are received. One of the challenges identified by a participant was the lack of follow-up data on actual supply volumes imported into Australia and their distribution across jurisdictions:

"I think probably the challenge with [tracking who wants to import into Australia] that has been once those permits were received, we don't actually know how

much those people imported into Australia. And there's been a lack of information about the distribution channels." [INT 14 GOV S/T].

It was reported that the commercial importation phase of the pilot program triggered quite a bit of concern about the potential impact on communities. Some of the concerns raised were in relation to Aboriginal and/or Torres Strait Islander communities, poly-substance use and young people's access to kava. One key participant gave a response to the challenges the commercial importation changes had for their particular jurisdiction:

"From a jurisdictional perspective, we had a ban on commercial importation of kava going back to the mid-nineties for a whole bunch of reasons, where in a previous environment there was commercial importation of kava that gave rise to a whole bunch of harms; a mixture of public health harms, social harms, and community harms … And then, all of a sudden, kava importation was coming out as a real thing from first of December 2021. From a jurisdictional perspective, we then had to look at a standard that was reviewed at a point in time where there was no commercial importation, and then try and ask ourselves the question: Would it be fit to manage the mixture of public health, community, and safety risks and harms … there was enormous challenges at jurisdictional level. And then trying to work that up to a position of national consistency through the Australian New Zealand Food Standards Code. So, certainly, from a jurisdictional perspective, challenges were enormous" [INT 19 GOV S/T].

One of the criticisms of the commercial phase of the pilot has been the foregrounding of commerce over public health.

"It's been more commercially driven than a public health kind of approach… I really agree that there's been some really successful things that's happened with the commercial aspect, but there's probably just a bit more from a public health point of view that would be helpful to know: like how it's been packaged for example, what's on the packaging?" [INT 14 GOV S/T].

Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

This section is focussed on participants' views on the five expected outcomes of the kava pilot program as outlined in the evaluation guidelines for the project. These expected outcomes for the pilot program were not generated from the outset of the program, rather developed by the Commonwealth Government as part of the research evaluation guidelines. In commenting on the expected outcomes, many key

participants noted that they did not have sufficient data or evidence to provide a fully informed opinion but shared their general views on the outcomes they felt qualified to comment upon. The following are the key findings for each of the expected outcomes.

Participants can only assume there is greater access to kava in Australia

The first expected outcome of the kava pilot program evaluation is to "provide greater access to kava in Australia." Most participants assumed there was greater access to kava in Australia given the changes to allow for the commercial importation of kava into Australia; however, they did not have enough data to support their assumption.

> *"We don't know. We don't have any way of knowing how much kava is coming into [name of jurisdiction]. We have no way of knowing how much kava is sold in [name of jurisdiction]. We have no idea of how much people are using kava. So, everything is just a bit of a guess" [INT 25 GOV S/T].*

Some participants indicated that they received limited information from the Office of Drug Control (ODC) on the number of permits that were issued, but have not received subsequent data on how those permits translated into importation quantities at airports and ports, where and how imported kava was being distributed across State and Territory borders (including the Northern Territory where tight restrictions remain in place), where it was being sold (e.g. supermarkets or online sales) and who was consuming kava. It is unclear whether such granular information is available and whether the ODC have coverage of this.

Another participant noted that the Department of Agriculture, Fisheries and Forestry's imported food section has provided some data on the compliance rates of products coming through importation; however, these updates are only semi-regular and have not been provided as a consistent data source to gauge the amounts of kava that have been imported. Many participants indicated that they would value having more data from the Commonwealth Government to better understand exactly how much of an increase in kava has occurred in their jurisdiction. Others raised concerns that there is also no way to monitor cross-jurisdictional border distribution.

Re-introducing a substance that has been associated with some known harms requires ongoing monitoring

The second expected outcome for the kava pilot program is that there are "no net increase in harms (public health and safety is not compromised)." Like the responses above, most participants did not have access to data to make an informed comment on this expected outcome, especially given the pilot program's commercial component had only been in place for a little more than a year at the time of interviews.

> *"In the absence of evidence, it's really difficult to say" [INT 25 GOV S/T].*

> *"It's not coming up on our radar in terms of our work as a problematic drug that's causing any harm in community; but, having said that, it does take time for things to present in treatment services as problematic use or even to come up in our data systems. Even though that might be the situation now, things could change over time" [INT 14 GOV S/T].*

One participant noted it would be impossible to assume no harms would emerge from the reintroduction of commercial amounts of kava into the community, especially given the historical evidence of use of kava, as well as reportedly research highlighting growing concerns around harmful use of kava in Pacific Islands nations[231]

It was reported in one jurisdiction that outreach to both Pasifika communities (albeit a relatively smaller population group compared to other jurisdictions in Australia) and Aboriginal and/or Torres Strait Islander communities about changes to accessing kava did not yield much response, leading the participant to assume it is not a current priority. In another jurisdiction, health department officials reached out to a multicultural affairs department, Aboriginal and/or Torres Strait Islander peak bodies, and an alcohol and drug peak body to gauge their opinion on the impact of kava in the community.

> *"Neither of those peak bodies have said that through their member services that kava's coming up as a problematic substance. I guess that informs my perspective on kava, really. If it's not a problem, then it's all well and good. Having said that, we need to really monitor this and keep an eye on it because it could become a problem over time" [INT 14 GOV S/T].*

This participant emphasizes the importance of cross-departmental and cross-sector communication on kava, as well as establishing a monitoring system to alert for potential harms as early as possible.

Despite lacking data to make a definitive comment on the kava importation pilot program's effect on public health and safety, several participants recognised that there are potential harms and offered their concerns about the possible harmful impacts on certain sections of the population stemming from the reintroduction of commercial importation of kava. Some of the concerns raised were for specific groups of people, such as Aboriginal and/or Torres Strait Islander communities, pregnant women, and young people, particularly if the more novel products eventually became available rather than just the traditional-use products currently allowed through the regulation changes.

> *"I guess the concern would be any population groups where there's not a traditional use. Whether it gets into the hands of Indigenous communities, or teenagers, who are taking it outside of the traditional context, I guess that's where we would be concerned" [INT 07 GOV CMW].*

The way kava could be distributed and used beyond traditional contexts was also raised as an issue by some participants and the impact on young people.

> *"We have some concerns that it's not licensed and so there would be nothing…to stop someone opening a kava bar next to a primary school. And there's no age restriction on consumption and those kind of issues of broader concerns. Whether they become a real concern or not, I don't know" [INT 08 GOV S/T].*

Other concerns were related to how kava is consumed, such as excessive use or poly-substance use.

> *"What are the interactions of [kava] with other depressant medication, both prescription medication and over the counter medication? Because, unfortunately, experiences being, if you put an intoxicating substance in the hands of certain people, it is not substituted: it is added on…From a jurisdictional perspective, we had very strong concerns that we did not have the legislative machinery in place to then deal with turning back on a commercial kava industry" [INT 19 GOV S/T].*

> *"Obviously people, when they consume substances, range across all kinds of things, whether legal or not, alcohol and medications. I think kava, potentially, could be in the mix as well into the future. And we're definitely interested in that" [INT 16 GOV S/T].*

Acute, chronic and social impact were all raised by a number of participants: reduced kidney function, liver damage, malnutrition, weight loss, skin issues, mental health, emotional and social wellbeing, mood swings, and secondary impacts on families and community were some of the specific potential impacts raised. The challenges were seen as knowing if these harms are occurring to take preventative action.

> *"That sort of general sense of becoming unwell over time or using to the point at which you're neglecting other duties and role responsibilities, and stuff like that, I question whether we'd pick that up, broadly, unless a whole community became really affected. And then those harms are experienced on a community level. If it's small, isolated families, I question whether we'd pick it up" [INT 40 NGO].*

Several participants noted that data collection has only just started if at all and this is against the background of a lack of awareness about the pilot and kava in the community and among key government agencies and service providers. There was concern that decisions related to the pilot program's extension may need to be made without relevant data or time to understand uptake and impacts, both positive and negative.

> *"There's not enough time yet to know whether there is an increase in harm because often that takes several years to develop" [INT 15 GOV S/T].*

> *"There's obviously some evidence of harms from kava, particularly at use at high levels, and I think because of that, I would have [had] more of a precautionary approach to increasing importation of kava in Australia, given there's probably evidence of harm" [INT 37 NGO].*

There was a nuanced understanding of the potential harms and specific groups who may benefit and those who may be at risk of individual harms or at the family or community level.

> *"I think the success would probably be for sections of the Pacific community, but I also think we need to be really careful about that because it's really important for cultural reasons, but it's such a difficult topic. Even across the Pacific, there is growing concern about the social use of kava and when kava use is really heavy…And I think it's a slow burn. I think we're unlikely to see anything major for another few years, if there was to be something. I mean overall, it's a relatively low-risk product but it's not no risk…" [INT 40 NGO].*

There are also other harms at the community level that need to be monitored, including impaired driving and road accidents which were highlighted by some participants (see systematic literature review at Section 0). Questions about whether or not kava should be listed in relevant jurisdictional Road Safety Drug Acts, how to determine what level of kava use is safe for driving, and how to test for kava if it may be a contributing factor to impaired driving were raised and warrant further cross-jurisdictional discussion and debate amongst the law enforcement sectors.

> *"The police and our justice, department of justice…they're obviously very concerned about the potential for road accidents. So, that's their primary concern" [INT 13 GOV S/T].*

> *"There was some thought that we could potentially find accident and emergency data, but we haven't investigated that yet. One of the problems there is getting it coded when they're admitted. So, someone might come in. It might be just*

recorded as like a drug event or something like that; not necessarily as specifically for kava. I have put an enquiry into our Poisons Information Centre and then the medical toxicologists that support the Poisons Information Centre" [INT 13 GOV S/T].

Some comments were also about not knowing what is a level of use that is harmful or causes significant impairment and the indirect harms in community.

"What personal use amount might be over a certain timeframe, and kind of think about, you know, what's some benchmarking around, you know, a reasonable amount, recognising that people's tolerance, you know, and frequency of use, and things will vary quite a lot" [INT 17 GOV S/T].

"So, it's unclear what even a baseline measure looks like with respect to determining a type of harm, particularly around the community safety component. The other component there, and again it goes back to that indirect consideration, when you're mapping out what that harm actually is say as an indicator on that harms index, it really is important that we do map out those indirect harms… that come from substance misuse may not be recognised now but the effects of those indirect harms will come to fruition in years to come. They will contribute to decreased cultural competency in a community. It really needs to be expressly considered that it's not just acute harms with respect to this evaluation, to any evaluation, of substance availability and use" [INT 24 GOV S/T].

To understand the social, cultural, economic and health effects of increased availability of kava across Australia

The third expected outcome is to "understand the social, cultural, economic and health effects of increased availability of kava across Australia." Like comments above, government participants emphasised a lack of data to make informed comments. *"At this point in time, I don't think it has increased our understanding because I don't think there's enough data"* [INT 15 GOV S/T], though they were interested in the findings from this evaluation, especially from any community consultations.

Participants highlighted positive and negative impacts across the four categories of social, cultural, economic and health. The findings are presented in three categories below, combining 'social' and 'cultural', before addressing 'economic' and 'health'; it should be noted that impacts across these categories are inter-related.

Social and cultural

On the positive side, like sentiments presented in earlier sections of this report, key participants were supportive of Pasifika diaspora in Australia having increased access to kava to participate in their cultural traditions and ceremonies. However, beyond supporting Pasifika diaspora and broader geo-political and trade objectives, participants did not identify any other strong benefits for the Australian community of greater access to kava and had concerns about widespread social and recreational use.

> *"Even across the Pacific, there is growing concern about the social use of kava and when kava use is really heavy. And this is the same within - maybe not so much the Fijian community but, certainly, speaking to some Tongan women - there was concerns about the amount of kava being used. It gets very complicated when people say, obviously, it's better than alcohol. And, look, at the end of the day, it is. But it's not to say there's no critics of kava within Pacific communities. It's not spoken about. I think people aren't particularly comfortable raising opposition to it because the cultural use is so important. But the recreational and social use, there's quite a grey area" [INT 40 NGO].*

There was often discussion about the potential negative social and cultural impacts of kava use in Australia and the importance of not just focusing on individual harms but considering social and cultural impacts.

> *"[The] social impacts [are] in two components: first, the functionality of people as a member of their community compromised when they were either intoxicated or unwell; and, secondly there are anecdotal reports…that illicit kava has sold for up to a thousand dollars a kilogram in East Arnhem at times. And the impact of that sort of expenditure on a cohort that already has low incomes, that the effect on the social determinants [of health] is quite profound" [INT 23 GOV S/T].*

Social harm was also talked about at the family and community level with one participant commenting on the potential impact on care of children and noting of problematic social issues evident now in some Pacific communities.

> *"Teachers have mentioned that kava affects kids in that they're coming to school and not being looked after at home, nutritionally. I think the comment that I heard was that they're kind of being a bit more neglected because kava's in the house. So it will just form another layer on that problem" [INT 29 GOV S/T].*

Some participants did talk about the kava and its potential positive impacts in communities, but acknowledged there was no data to support these views.

> *"I think it would be around 'Does it actually improve community cohesion and community connectivity, which would then have an impact on mental wellbeing?'" [INT 25 GOV S/T].*

> *"But then, in regard to mental health and the mental health of the communities, kava is such a powerful tool … where it's been used right, it's shown to bring people away from those harmful kind of behaviours and bring them into the kava circle…. it's a gateway back to a culture. But it's also a gateway back to that kind of positive behaviours of community, of being communal, of making sure we look after the family at home first, as opposed to going out there to the club or pub you know…" [INT 34 NGO].*

In contrast some participants challenged why we need kava use in Australia beyond Pacifica communities.

> *"And I don't see a real need for kava to be used in Australia and particularly in Aboriginal communities, given there's no cultural significance to it whereas Pacific Island people to have a cultural significance to it and it's grown there, and that's part of their way of life. So, I think there's obviously benefits for people from the Pacific Islands who live in Australia, having access to small amounts for those purposes. But, as another substance to be introduced into Aboriginal communities where there are already issues with substance use, I don't really see a benefit in that" [INT 37 NGO].*

Finally, there was a participant who talked about use being culturally governed and safe use from both a health and cultural perspective.

> "I think there absolutely should be guidance on what is safe use. But what is safe use from a health perspective and what is safe use from a culturally governed perspective as well? Because this is a cultural medicine or a cultural source. So, what is the rules *around that? People should know that too"* [INT 36 NGO].

Economic

The insights into the economic effects were limited and this issue is likely better informed by other methods (the NGT; see Section 0) and participants (commercial importers; see Section 0). There was some discussion of new businesses being established to import, distribute, and sell kava which could have economic benefits. In contrast the negative economic effects on families and their budgets were noted with

concern that families with limited incomes could face further financial burdens with another non-essential product potentially being purchased from limited household or community funds. Some concerns were also raised around the potential black market for kava in the Northern Territory and how the changes in the national kava importation rules will impact the illicit market for kava given it remains prohibited based on the NT *Kava Management Act (*1998).

> *"But certainly the changes in border restrictions, the levels of kava being transported — illicit kava — certainly has increased, and that is a priority concern for Northern Territory Police because of what it does to the communities that it's destined for" [INT 24 Gov S/T].*

Health

There was a range of concerns about specific groups within the community who may be more at risk of harms, such as young people or those who already had chronic conditions, as well those who may use kava excessively.

> *"I don't know whether you would call them cohorts but certainly people with elevated risk for negative effects from kava use, whether kind of regular kava use or, what might be considered excessive use of kava. But that's anyone in the community, really... outside of the cultural context, excessive use is probably more likely and risky use" [INT 16 GOV S/T].*

> *"Well, we know that it can impact on pre-existing, chronic health conditions and liver conditions" [INT 27 GOV S/T].*

Health harms were often seen as intricately linked to the context of kava use.

> *"Is it just a ceremonial, occasional use, or are kava bars considered part of the cultural context or not? Yeah, you raised a question in myself in terms of how we understand the cultural context and what's appropriate" [INT 16 GOV S/T].*

Again, the issue of how much kava is being used was raised often in relation to harms.

> *"I think there is, you know, a substantial body of existing research that indicates that there are harms in all of these domains with anything other than rather modest kava use. And this is the I guess issue … relatively modest therapeutic use as a sedative or for relatively low-dose use in ceremonial purposes versus using it, in what is often called a sort of 'self-medication' sense to compensate for other harms, traumas, that exist" [INT 23 GOV S/T].*

Further, the layering of kava use upon other individual and community issues, such as trauma, mental health and unemployment, was noted by a number of participants to increase the risk of harms to people, families and communities. A strong view was the need to address the root cause of issues like alcohol use, including improved access to mental health services and employment opportunities.

> *"And we know that, the cohort we are, talking about in East Arnhem, are dealing with longstanding intergenerational trauma. They are of generally lower socio-economic status. There is high levels of unemployment. There is, little prospect of, real and meaningful work for many people, so, when you add a substance into the mix that can come in non-therapeutic quantities, it can cause substantial physical harms. It causes various social harms and it sort of undermines the spending on the essentials of health" [INT 23 GOV S/T].*

However, there were some participants who were more pragmatic about its use and the possible harms given the use of other substances and that it was not seen as being a high-risk substance.

> *"Recreational kava use? … I don't think we're ever gonna have a society where nobody wants to use drugs. So, it's sort of like, 'Well, where are we gonna have harms coming from?' At the broad level, kava is not a particularly high-risk substance, at all. The concerns are when you're using it too much or you've got a community of people using it too much. And, when that happens, their overall health drops … you stop taking care of your kids, you stop buying healthy food, you stop going to work, you start spending all your time looking for, accessing, consuming…"* [INT 40 NGO].

Increased trade opportunities

The fourth expected outcome of the kava importation pilot program according to the research evaluation outline is to: "increase trade opportunities." Similar to the preceding responses, access to data was a factor in the responses for this expected outcome with some key participants having access to trade data, while others did not. The positive outcomes for Pasifika producers, exporters and diaspora in Australia was also seen as likely to lead to stronger diplomatic ties between Pacific Island nations and Australia.

> *"I would assume that it has increased trade opportunities between Australia and Pacific Island countries. I mean that was the original intent, to increase the trade. And given that, we're seeing the increase in kava being imported both commercially and through [increasing personal importation from] two to four kilograms...I would assume that it's done its job in that respect, and that it has*

increased trade because we've got the data saying that it is coming in" [INT 01 GOV CMW].

State and Territory participants largely relied on the Office of Drug Control data on the number of permits allocated to make assumptions about increasing trade opportunities:

"Certainly, from the data provided to us from the Office of Drug Control, there certainly was an increase in permits. So if that's a success indicator, then the data exists to say that yes, once commercial kava trade was opened up and the Commonwealth strongly promoted it, then people took up the options of increasing permits. Now in terms of the volumes that were actually imported, based on the permit volumes that were projected, that questions best referred to the Office of Drug Control" [INT 19 GOV S/T].

One participant highlighted initial interest from Pacific Island nations to expand the allowable form of kava into Australia, which is currently limited to the root powder of the *Piper methysticum* plant. It was reported that the FSANZ food standards and safety review examined closely other forms of kava, such as various forms allowable in New Zealand but remain prohibited in Australia. It is likely that there may be strong interest from importers in expanding product offerings in Australia as noted by some participants.

"I think there will still be a push to think about more innovative, novel kava products as a trade opportunity, as this moves forward, rather than just that traditional-use product. Because there was certainly a lot of interest in that, in all of the stakeholder engagement meetings at the beginning of the discussion with the Pacific Islander countries that I attended at least" [INT 06 GOV CMW].

One participant noted that opening Australia to imported kava could lead to other trade opportunities.

"I think it's a good opportunity now that we import kava and I guess, as importers have the contacts to potentially facilitate export of Australian goods over the South Pacific, export of our own fruits and produce that's grown here, that they might be wanting there, or even some of our own indigenous fruits, and say teas. We've got our own relaxation tea that's taken off, so there's opportunities there for us too now that we've got that relationship of importing theirs" [INT 11 GOV S/T].

Other participants raised the possibility of kava being grown in Australia, noting that Queensland has the right climate to grow kava.

> *"Over time, if there's local organisations that choose to start growing and supplying kava, the economic benefit and trade benefit between the two Pacific islands and Australia may be reduced" [INT 15 GOV S/T].*

Some participants were cautious about making assumptions regarding the increasing trade opportunities, noting that the safeguards to limit the type of kava that can be imported in Australia are likely to blunt significant trade.

> *"I think it's partially being met. There are trade opportunities now where they weren't before, but the controls we tried to put in place should still be limiting that as trying to mitigate the public harm aspect of it too" [INT 20 GOV S/T].*

Respect for State and Territory regulatory role

The fifth and final intended outcome of the program is to "respect State and Territory governments' regulatory role." The Prime Minister's announcement to resume kava importation was reportedly undertaken without consultation with state and territory governments despite their jurisdictional enforcement responsibilities.

> *"It wasn't an initiative brought about by the State governments: it was the Commonwealth basically saying, 'this is happening'" [INT 13 GOV S/T].*

It was acknowledged that the Commonwealth was responsible for the kava pilot program, but States and Territories bore the responsibility to regulate it. While there was consensus among Commonwealth participants that States and Territories retained jurisdictional control over how to regulate kava within their borders, it was noted that there was a short timeframe to respond to the kava pilot program and change in the limits.

> *"We haven't told anyone what to do necessarily, but we recognise that some of [the States and Territories] might not be as happy with the timeframes…Essentially, the pilot has allowed kava to come into the country and come into the States and Territories…[I]t's a challenging one because it's up to [the States and Territories] on how they regulate it. But, also, it's a Commonwealth policy as well" [INT 02 GOV CMW].*

> *"I think that the Commonwealth did leave it to the States and Territories in terms of respecting the regulatory roles. However, there wasn't sufficient time. Perhaps that should have been more considered by the Commonwealth prior to commencing the pilot. [Many of us are] trying to play catch up and trying to get further information [from the Commonwealth] to support them in monitoring the impacts" [INT 15 GOV S/T].*

Some were satisfied with the change and retention of State and Territory regulatory roles and noted that the Food Standards code process, which is a consensus process between the Commonwealth and State and Territories, was a key mechanism to ensure input.

There appeared to be an effort by State and Territory bureaucrats to formulate cross-jurisdictional regulatory coordination in response to the Commonwealth policy change, but some were reportedly stymied by a lack of information from the Commonwealth.

> *"The conversations that I have been part of with other jurisdictions is that they were in a similar boat where they were trying to find out what was happening from the Commonwealth and trying to coordinate within their jurisdictions with the different areas like regulation, food safety, poisons, and so on" [INT 14 GOV S/T].*

> *"I think to truly respect the role of the States and Territories, you do need to provide the States and Territories with as much information for them to make their [regulatory] decisions…And I think where they've fallen down is on sharing information about the imports, and the harms. Respecting jurisdictional boundaries but also falling down a little bit on supporting the States and Territories to fulfil their roles" [INT 16 GOV S/T].*

While these participants expressed frustration that critical information was lacking from the Federal government, there was an expressed desire from State and Territory governments to try to ensure a uniform response to the policy across jurisdictions despite some obvious key differences. Most key participants noted that jurisdictions still largely operated independently in how they responded to kava rather than cohesively. Commonwealth participants also foreshadowed that as new evidence emerges, there will be some 'trial and error' in how different States/Territories respond.

> *"I guess nominally each State and Territory could make their own rules about to what extent kava should be available for purchase and use in that jurisdiction…But I can also see that having a patchwork of different rules in place across States and Territories would be far from ideal" [INT 17 GOV S/T].*

The Northern Territory is a unique situation in that it has maintained the *Kava Management Act* (1998) which prohibits kava in the Territory except for personal possession of less than 2kg and this was seen as an important marker of respecting state and territory autonomy in making local regulations.

> *"I think the fact that the Northern Territory didn't participate, that we have the outlier legislation compared to other jurisdictions with our Kava Management*

Act, I guess that's indicative that it is respected; that the Northern Territory does have a different relationship with kava and that that's been communicated, and that's been heard" [INT 24 GOV S/T].

Making further regulatory changes at a State and Territory level, for example to restrict sale to those over 18 years, was however noted by some as requiring a lot of effort and time to undertake and meant they had little power to restrict access given the policy change at the Commonwealth level.

"We have the ability to put restrictions on the access [to kava] within our jurisdiction … it is quite difficult to do that once the rules change" [INT 18 GOV S/T].

Other participants were more scathing of the federal government's respect for state and territory regulatory authority:

"Well, bluntly again, the pilot didn't seem to have any regard for the jurisdictional roles when it was conceived..." [INT 19 GOV S/T].

One participant noted that it was not necessarily about respect for jurisdictional authority, rather it was the process and timing of the changes that caused irritation.

"I think it's probably more about the sequencing and the process for decision-making than the current regulatory [authority of] States or Territories not being respected" [INT 17 GOV S/T].

Evaluation Question 3: Perspectives on Aboriginal and/or Torres Strait Islander experiences and issues related to the kava importation pilot program

This section presents the analysis of interviews with 12 key participants working in Aboriginal and/or Torres Strait Islander health or related services. There were seven participants from the government sector and five from non-government organisations (including five participants who identified as Aboriginal). Participants were operating in four state and territory jurisdictions as well as specific land regions including the Kimberley, Arnhem Land, Groote Eylandt, and Elcho Island. We note that participants were staff of organisations (whether government or NGO) and do not represent or reflect community sentiment of views. It should be noted that no interviews with those representing the views and interests of Torres Strait Islander people were conducted. Therefore, in many parts of this analysis, we refer only to Aboriginal people, though where it is essential to have a broader interpretation, we include Torres Strait Islanders.

This section of the report outlines key themes, agreements and tensions reported by the 12 participants described above in confronting actual and potential future access to kava in Aboriginal communities, while simultaneously supporting the Pacific and/or Australian South Sea Islander communities to participate in their cultural practice more easily.

Support for the cultural value and importance of kava to Pasifika communities in Australia

There was broad acknowledgement and support across our Aboriginal participants, echoing those of several government sector key participants, for the Pacific Islander community to access kava in Australia given its cultural significance tied to ceremony and ritual. For example:

> *"We do have a lot of Pacific Islander people who live in Australia, that I'm a strong believer of people being able to practice their own culture….So, I think it is quite beneficial and I do like the fact that Pacific Islander people are able to practice their own culture without having to do it illegally or being made to feel shame if they do practice their culture" [INT 28 Gov S/T].*

> *"I think we do have to look at if something has been used by Indigenous cultures for therapeutic purposes throughout history, looking at Indigenous evidence as well, because there's a reason that stuff has carried on and been held from a cultural perspective. So, I think just, like I don't think banning something, especially when it's been a cultural practice … Like actually what is the kind of cultural evidence as well as the, you know, kind of health evidence?" [INT 36 NGO]*

However, despite such support, given Aboriginal and/or Torres Strait Islander people's lack of cultural connection to kava, there were real concerns about the potential negative impact on some Aboriginal and/or Torres Strait Islander communities that have had a history of harms due to accessing kava, as well as potential new harms, particularly related to young people. Participants joined in the overwhelming levels of support with government participants that Pacific Islander populations in Australia have a right to participate in their cultural practices, including access to kava. However, there was consensus that support for Pacific Islander's cultural rights should not come at the expense of Aboriginal and/or Torres Strait Islander health and well-being. There were also questions asked about the benefit for introducing or reintroducing kava for Aboriginal and/or Torres Strait Islander communities:

> *"I don't see a real need for kava to be used in Australia and particularly in Aboriginal communities, given there's no cultural significance to it, whereas*

Pacific Island people do have a cultural significance to it and it's grown there, and that's part of their way of life. I think there's obviously benefits for people from the Pacific Islands who live in Australia, having access to small amounts for those purposes. But, as another substance to be introduced into Aboriginal communities where there are already issues with substance use, I don't really see a benefit in that" [INT 37 NGO].

Frustration at the lack of consulation with Aboriginal and Torres Strait Islander people on the possible impact to community and individuals - against principles of self-determination

The research did not generate consensus or a community-based "Aboriginal and/or Torres Strait Islander" view on the expected outcomes of the pilot program and its short- and long-term impact on Aboriginal and/or Torres Strait Islander communities. A consensus is also not likely given the local contexts within which kava use can and could occur. For example, the potential impact on Aboriginal populations in Tasmania did not have the same heightened health and welfare concerns as those expressed by participants from the Northern Territory where harms from the historical use of kava are noted and remembered. There was not a uniform view about the way kava should be regulated or the implementation of the new importation rules. This reflects the fact that there is not one Aboriginal and/or Torres Strait Islander community or uniform experience with kava on which to base decisions. Participants expressed frustration at the lack of consultation in the design and implementation of the kava pilot program which is contrary to the principles of self-determination (see Panel A at Section 2.9 for explanation of self-determination).

Most participants were not able to comment on the expected outcomes of the kava importation pilot given the nascency of the program and reported general lack of information sharing from the Commonwealth. Some of the key participants raised concerns about the lack of a robust consultation process, particularly with peak bodies and communities, prior to – and after – the roll-out of the pilot program. This feedback, discussed in more detail below, contradicted comments from Commonwealth government key participants who indicated that there were extensive consultation processes prior to the implementation of the pilot program. While these consultation processes were not investigated in detail by the research team, it was inferred that the consultation mostly occurred between government jurisdictions, as opposed to a broader reach to include Aboriginal and/or Torres Strait Islanders health peak community-controlled organisations, drug and alcohol peak bodies, and health and welfare providers (both government and NGO), or communities that would likely be most impacted by increased accessibility to or restriction on kava.

Key participants were disappointed that a more robust and inclusive consultation process with peak Aboriginal and/or Torres Strait Islander organisations to field questions and hear concerns from community prior to the pilot program commencing did not occur. It is not known if there was consultation with those that had since moved from their roles to other departments or agencies. It was expressed that a robust consultative process would have supported self-determination and the rights of individual communities to decide whether kava should or should not be more widely available:

> *"Our board's position is that it should be communities determining whether they want the commercial importation and sale of kava in their areas or in their communities. And, so from our perspective, more consultation is always better than less. And more decision-making sitting with the community leadership and the community members to be able to make decisions around kava is an important part of that process" [INT 39 NGO].*

> *"There was mixed feelings among the communities [for the reintroduction of kava]. Some would like it back and some communities, remembering how it was abused and used previously, weren't keen to have it back. But we never got to that point because… there was no formal consultation" [INT 21 Gov S/T].*

Some peak bodies either took the initiative to write to government representatives – or responded to a call for comment – expressing their concern about increased access to kava within Aboriginal and/or Torres Strait Islander communities. Concerns raised included the effects of kava on physical health, including its association with skin and liver conditions, impairments to the cardiovascular and nervous systems, and impact on social and family cohesion. Many Aboriginal and/or Torres Strait Islander State and Territory government key participants, as well as their non-Indigenous counterparts, voiced shared concern about the lack evidence-based decision-making about kava law reform, citing that so much is unknown [i.e., there is a lack of evidence] and it is therefore near impossible to make informed decisions about whether and when kava use is or is not harmful, how, and in what quantities:

> *"As Aboriginal community-controlled health services, we take a holistic view of the health and wellbeing of Aboriginal communities, and the sector is concerned by the evidence from the Northern Territory that details a deterioration in social cohesion, cultural participation, and engagement in employment (for example), in kava-using communities" [INT 37 NGO].*

Participants' views were largely supported by non-Indigenous State and Territory government key participants, who agreed that the consultation process was not sufficient. However, importantly, those who indicated that government provided

sufficient pre-pilot consultation lamented that ongoing communication has failed to provide information about the potential reach of kava in Australia following the pilot's implementation. Drawing parallels to current debates about the links between alcohol and violence in Alice Springs and the failure of both the Northern Territory and the Commonwealth governments to provide services to address the problem, one key participant noted a lack of foresight and action could be replicated with kava:

> *"What from a Commonwealth perspective, in relation to the kava pilot program, have been put in place to either increase services for Aboriginal people in the Northern Territory that they can access that might actually mitigate some of the unintended consequences? ... I doubt that really anything was done. I couldn't find anything anywhere about what may have been put in place by DFAT and the Commonwealth from an Aboriginal perspective…there doesn't really appear to be anything" [INT 28 Gov].*

One of the outcomes of this evaluation may be to catalyse further data collection, analysis and information-sharing about kava use and impacts across jurisdictions. Certainly, a prominent message from key participants was that more information to inform jurisdictional responses to kava must be provided by the Commonwealth.

Kava is a concern for Aboriginal and/or Torres Strait Islander people, families and communities, but not an immediate priority

The overwhelming majority of the participants for this section of the report – and echoed by most government key participants – was that communities they worked with were neither familiar with kava, its legality, nor the changes in the importation rules. Typical phrases included "*we don't see it here" or "we've actually really not heard much about [kava] here*…" and "*we've seen no evidence whatsoever of any kava use happening."*

The lack of familiarity or exposure to kava also extended to health professionals:

> *"I don't have much experience or understanding of kava. I'm a GP and a public-health physician but it's not been something that I've come across as an issue in [my jurisdiction] before…" [INT 37 NGO].*

Most of our participants clearly noted that no one is talking about kava in the community or amongst service provider organisations. Some stressed that the more urgent priorities regarding substance use for Aboriginal and/or Torres Strait Islander communities are alcohol, tobacco, ice (crystal methamphetamine) and the related health and social challenges. However, given the general lack of population-wide

awareness around kava, some called for more awareness-raising around the product and potential harms.

Although kava use was not seen as an immediate priority there were real concerns about the potential negative health and well-being impacts on Aboriginal and/or Torres Strait Islander people as individuals, their families and their communities. Health and well-being are concepts that incorporates individual, family and community functioning as part of a holistic view that also centres Aboriginal and/or Torres Strait Islander culture[232].

Individual level and at-risk groups

At the individual level, there were concerns about kava being a substance that carries a dependence risk, if not in physiological terms, then at the least psychologically. Other key participants raised concerns that over-use of kava could exacerbate chronic health conditions including type II diabetes, kidney disease, and heart problems that already challenging many Aboriginal and/or Torres Strait Islander people or impact social or family cohesion. Evidence for these issues needs attention in future research to inform future regulatory modifications. Concern about the cost of kava and potential diversion of income to purchase kava were raised.

One of the key issues participants noted was a concern for kava use among young Aboriginal and/or Torres Strait Islander people. Women and pregnant women were also highlighted as groups who may be at heightened risk. Central to this concern was that there are neither age nor other restrictions on the purchase or consumption of kava nor evidence of harms and benefits among these sub-groups:

> *"Whether, once it becomes more prominent in our community, whether it's going to be an issue for young people? Certainly, I would like to make sure that there's no harm for young people and children" [INT 36 NGO].*

Participants did note that low to moderate kava use may potentially have some benefits such as reducing anxiety and helping with insomnia, or potentially be a 'safer' alternative to alcohol consumption. These comments were balanced with concern about heavy kava use and the potential detrimental health and social impacts such use may have. The issues of poly-drug use – combining use of kava with other substances – and the unknown effect of such practices were also noted:

> *"The concerns are when you're using it too much or you've got a community of people using it too much" [INT 40 NGO].*

"If people use whatever … is available to them, if they have substance issues … I think just adding another one to the mix is just fuelling the fire" [INT 38 NGO].

"If [the government] allow it in, they'd have to keep some sort of restrictions on it. It should be a monitored drug, really, just for the people [who use it excessively]. But for people like my old uncle that loves his bowl of kava, well, why shouldn't he have his bowl of kava instead of getting drunk or something? I see no real problem in that" [INT 32 Gov S/T].

Family and community impacts

The indirect impact of excessive kava use by adults on children, families and the wider community was highlighted by a number of the key participants:

"Teachers have mentioned that kava has effects on kids in the fact that they're coming to school and not being looked after at home, nutritionally. I think the comment that I heard was in regards to they're kind of being a bit more neglected because kava's in the house." [INT 29 Gov S/T].

"They didn't think that young people necessarily were engaging in kava usage but that older people who are now the primary caregivers…which is sadly true in this region that a lot of grandparents are the primary caregivers, are the cohort who do use kava. And intoxication, over-sleeping, can lead to secondary impacts through kids missing school or not getting a meal in the morning." [INT 23 Gov S/T].

Other impacts of heavy kava drinking were noted. Concerns raised included lack of motivation and not doing things that were needed in the home or community and using limited resources to buy kava instead of spending limited funds on food, clothing, shelter, and other necessary amenities:

"At the broad level, kava is not a particularly high-risk substance... The concerns are when you're using it too much or you've got a community of people using it too much. And, when that happens, their overall health drops … you stop taking care of your kids, you stop buying healthy food, you stop going to work, you start spending all your time looking for accessing, consuming…" [INT 40 NGO].

There were several participants who spoke about the negative impacts excessive kava use could have on community cohesion and community connectivity, and the potential impact on mental health, family and community structures and supports. A distinction between safety as a health concept, and safety as a cultural concept was raised by a

few key participants and warrants further discussion with communities. Aboriginal and/or Torres Strait Islander health and well-being includes community well-being and culture and impacts at these levels are as important as those at the individual level [232]. It was also viewed by some as another substance for people to deal with that are on low disposable incomes adding a further financial burden for families and communities. Some participants reflected on their understanding of the negative impacts of kava in Pacific communities and that these impacts may be seen in Aboriginal and/or Torres Strait Islander communities if kava use were to become more widespread:

> *"Even across the Pacific, there is growing concern about the social use of kava and when kava use is really heavy. And this is the same within, maybe not so much the Fijian community but, certainly, speaking to some Tongan women, there was concerns about the amount of kava being used" [INT 40 NGO].*

Health service impacts

Concerns were also raised about the potential additional burden health services would bear if excessive kava use led to negative impacts on individuals, families or community health and social well-being. The potential impacts on health services are also supported by the a review[45]. This was of particular concern to those who supported remote area health service delivery where primary health care provision is already strained:

> *"I think if they did introduce commercial importation of kava, I can't see the benefit for our state and for our Aboriginal communities. I think that it will put an increased burden on our health services…to provide that preventative and health promotion advice…And the Commonwealth is already under-funding the primary healthcare system, and I think this will just add a further burden to services that are already struggling to meet demand" [INT 37 NGO].*

Further, several participants talked about the need for caution in legalising new substances that we currently do not have in the community and where there is a lack of community understanding and awareness of the harms and benefits, safe level of use, or impact mitigation measures that may need to be taken. In general, participants recognised that there was a lack of evidence about how kava may affect health, well-being, family and social cohesion, or experience in Australia on which to base policy decisions.

Comparing kava to other substances

There were several participants who discussed the view that kava was an alternative to alcohol consumption:

> *"And I mean the other thing about kava, it does tend to make you a bit more lethargic. So, it's certainly not something that (would) encourage violence whereas alcohol's one of those things that gets your emotive state going, and that's a real problem" [INT 32 Gov S/T].*

> *"You're not allowed to gamble. You're not allowed to drink. You're not allowed to have kava. You're not allowed to do anything. And, out of the two evils, kava's probably less of an evil than, than alcohol. You know, when it's misused" [INT 21 Gov S/T]*

Others pointed out that it is a complicated policy decision as kava may be better than alcohol, but how society will use kava if it is more readily available through the currently legislative change is unknown. For example, kava may be used instead of, or as well as alcohol or other drugs and previous experiences suggest it is not a solution for alcohol-related issues:

> *"The evidence - or what has been recorded from the experience in Arnhem Land - supports that…it wasn't a silver bullet that fixed alcohol problems" [INT 37 NGO].*

One key participant cautioned against introducing another substance into communities where there are already ongoing substance use issues:

> *"But, at the end of the day, we don't want something that's not as bad as alcohol: we want to see peoples be adequately supported in their social and emotional lives, and have employment opportunities, and things like that, and address root, root causes of substance use… And an adequate management of mental-health issues rather than substituting different substance, unregulated substance use" [INT 37 NGO].*

Monitoring for emergent harms and benefits as an urgent and ongoing priority, along with education and awareness-raising

The need for prospective monitoring of kava use and associated harms and benefits to build an evidence base on which to make decisions was a major theme in the interviews conducted. This monitoring, which would need to be sensitively designed, was seen as critical to occur at the individual, family and community levels. Alongside the need for monitoring, many spoke of the need to engage and educate community leaders and health and social service providers about what to look out for, and when and how to intervene if problematic heavy use was identified including impacts at the family and community level. It was also noted that local level monitoring in addition to statewide monitoring of importation and distribution of kava and health and social

impacts was needed to identify trends and proactively response to potential emergent harms:

> *"So far as I know, there's been no training made available to whether they're church leaders, GPs, community centres, whatever around 'this is what heavy kava use looks like and this is where we might need to be worried'. I don't think that's happened … I genuinely think we don't know how heavily kava is being used and whether that's changed since prior to the pilot. And I think it's a slow burn. I think we're unlikely to see anything major for another few years. I mean it's, overall, a relatively low-risk product but it's not no risk…" [INT 40 NGO].*

Participants talked about the "unknown factor" meaning that – at this stage and given the low use of kava in Australia – key agencies do not really understand how kava will be used, by whom and what impact it may or may not have. Participants stressed the need to build 'local' understanding through prospective monitoring focusing on "*communities who are at risk of harm" [INT 40 NGO].* When asked about how they saw kava impacting society, one interviewee insightfully commented, *"I think all of this is gonna be a slow burn"*, meaning that the extent and nature of impacts may take years to become evident.

The need for ongoing monitoring was also seen as important given the short time frame of the pilot which also occurred during COVID lockdowns and border controls likely reducing the importation and distribution of kava in communities, in particular in remote communities:

> *"But I just, I think the pilot is too short. I think we need five years to see what actually happens. And, yeah, like you look at New Zealand and you look at the US, which has access to kava, and nothing really bad has happened. But that's not to say there aren't people within those communities that experience harm related from kava." [INT 40 NGO].*

Awareness raising and education in the community

In addition to education of health and social service providers and ensuring they are able to monitor for harms, a number of participants talked about the need for awareness-raising about what may constitute harmful use and the risks of kava being used to *"self-medicate trauma, anxiety, and stress…" [INT 36 NGO]* rather than people seeking help to address their underlying mental health issues.

In contrast, some participants raised the concern that awareness raising may promote interest, use and potential harm among people and in communities who would otherwise not seek to purchase or use kava.

> *"It certainly hasn't been widely advertised that, "Hey, now everyone, you can go and take kava, and you can buy it, and yay!" So, that's probably a good thing" [INT 40 NGO].*

Food labelling was noted as an important mechanism to inform the community of the effects of kava and potential harms of heavy use. A couple of participants however took aim at the effectiveness of food labelling as a stand-alone risk communication strategy:

> *"I don't think that food labelling or warnings [are] sufficient. I think the government has a greater responsibility in regulating use of substances like this. You know we have warnings on alcohol that's sold legally and despite that, we still have problems" [INT 37 NGO].*

Economic benefits must be inclusive of Aboriginal and/or Torres Strait Islander communities if they are going to use kava

There was much discussion of the economic beneficiaries of the kava trade with concern that while importers and distributers would benefit financially, communities may not. A few participants spoke about the need for Aboriginal and/or Torres Strait Islander-owned businesses or agencies to be involved in the sale of kava, in particular if it is seen as a more traditional food or medicine with Indigenous control supporting cultural governance. Some raised that kava offered a potential economic opportunity for Aboriginal and/or Torres Strait Islander communities and a way to stimulate community development:

> *"Kava presents an economic benefit to the region. So, at the moment, there is quite a substantial, illegal market for kava and that means that a lot of the income that's generated from it leaves the region because it's been brought in illegally. And, generally, the supply is outside of community that benefit from the sale of that. And, so I think there's a real economic benefit opportunity to kava if communities decide that they want it in their communities. That, you know, it could, the, the funds generated through it could be used to drive health initiatives, alcohol and other drug initiatives, a variety of, you know, small-grant funding available for health options in community" [INT 39 NGO].*

> *"If we had some sort of licence and arrangements, then you can use the percentage of that money which is collected for the licence or you can call it a tax, if you want, to actually help the health outcome for those people who are affected" [INT 32 GOV S/T].*

In the Northern Territory regulations still prohibit the supply of kava[5] and the changes at a national level were also seen as potentially increasing illicit trade of kava:

> *"But certainly the changes in border restrictions, the levels of kava being transported — illicit kava — certainly has increased, and that is a priority concern for Northern Territory Police because of what it does to the communities that it's destined for" [INT 24 Gov S/T].*

It was also noted that there are significant historical issues and risks associated with kava in the Northern Territory, which are widely known and documented [45, 233]. In response it was noted that the Northern Territory Government is taking extreme care and a conservative approach to kava to avoid the harm previously realised:

> *"It's a banned substance here. [Yeah] However, having said that, there's still a fair amount around the community and that may, that may be due to the fact that a number of island people use it for themselves, and, but it does, a bit gets in but nothing like it used to at all" [INT 32 GOV S/T].*

Evaluation Question 4: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

This section aims to provide feedback on the extent to which the pilot program has increased commercial supply and distribution of kava in Australia. It should be noted that the interviews reported here did not include any commercial importers or experts at the Office of Drug Control who would have the relevant data on kava importation and more informed insights to answer this question.

Limited data available to State and Territory representatives to make an informed assessment on commercial supply and distribution

As noted in previous sections in this report, there was a reported limited data from the Commonwealth to the State and Territory governments. While participants noted that semi-regular information on the number of permits issued was passed down from the Office of Drug Control to State and Territory jurisdictions, the critical data about the actual amount of kava being imported to Australia at various ports was not widely shared. Without having access to the actual importation supply data, it was difficult for

[5] Under the Kava Management Act 1998, you can possess kava in the Northern Territory (NT) if the amount is less than 2 kilograms. It is also illegal to import, sell, supply, cultivate, manufacture and produce kava in the NT. The NT Government is reportedly looking to develop a comprehensive and culturally-sensitive approach to gauge local attitudes to kava. This includes whether communities support introducing kava to their area. These discussions are in their infancy.

the key participants to make an informed assessment about commercial supply and distribution. Despite the lack of data, most assumed an increase in supply. Some participants did note the likely limited market reach to date of such a supply.

> *"I guess my expectation would be that it would increase the supply. But I feel like there's a limited market. I think our expectation would be that it would remain largely limited to Pacific communities. I wouldn't expect [demand] to be overwhelming in my expectation" [INT 07 GOV CMW].*

Further challenging their assessment on distribution of kava was the lack of data to monitor pathways from the port of entry to further cross-jurisdictional distribution. Despite the Office of Drug Control having data on the quantity of kava entering known ports and airports, once kava arrives in the country, there is currently no monitoring or tracking system to know whether it has been distributed across a State or Territory border.

> *"The reporting stops at the importation point… [T]here's no regulatory mapping as to where, for example, the tonnage [of kava] has then been dispersed and by which weighting…. Once [kava] comes in by the Eastern seaboard for existing shipping and transportation routes, from there you would not have capacity to monitor, track and, subsequently, evaluate what those implications are of that particular product or substance" [INT 22 GOV S/T].*

It would seem that all jurisdictions would benefit from having more information about the amount of kava that is circulating within their jurisdiction. In particular, the Northern Territory may find such data useful in order to better understand how effective the *Kava Management Act* (1998) has been, or how threatened it could be, with a possible influx of kava despite fencing it out, or a slow drip of kava entering the Territory.

> *"I think we've anticipated that there would be a lag going into more remote communities" [INT 02 GOV CMW].*

Furthermore, this information may provide additional insights into how the commercial importation of kava could impact black markets in the Northern Territory and other States/Territory.

Greater accessibility of kava expected given legislative changes allowing for its commercial importation.

Many key participants noted that the removal of the classification of kava as a restricted and prohibited substance from the Commonwealth's drug legislation, allowed for the commercial importation of kava through an import permit system, and

in line biosecurity requirements and the Food Standards Code. Allowing the commercial importation of kava was central to making the product more accessible, raising a number of concerns which are addressed in sections below.

New kava distribution sites and marketing could increase use among young people.

Participants highlighted two main new distribution sites of kava in their discussion around increasing supply in Australia: online and through nation-wide grocery store chains. Further given kava is not a licensed food or beverage, there are no age restrictions on who can buy kava.

> *"My observation is it's certainly sold on-line through websites by businesses. There seem to be sales by individuals through eBay and Facebook Marketplace, and those types of forums. And then there are sales through specialty shops. We also know that kava powder was also going be sold by [large-scale grocery stores], So it's sort of moving into supermarkets that are mainstream. So certainly, it's kind of easily accessible now" [INT 13 GOV S/T].*

Kava bars, which are common in Pacific Islands nations, were also raised across a number of interviews. It was highlighted that with possibility of kava bars being set up and businesses not needing a license to sell, it is likely that kava will be marketed to young people. While the emergence of kava bars is likely to be currently on a small scale, they may require monitoring in terms of location and patronage, especially as one participant noted there is no stopping a kava bar from opening next to a school.

Beyond distribution sites, the packaging and marketing of kava adds further concerns, especially for those wanting to appeal to young people. Regulators are fielding enquiries from distributors who want to appeal to the youth market in the soft drink space. They are interested in added flavourings to pre-mixed kava and water drinks and are also interested in marketing opportunities at sporting venues. While there are specific rules around how kava can be packaged and marketed, there are concerns that the public – especially young people are not aware of the impact of consuming too much kava or mixing it with other substances.

A clear message from participants was that more information on the distribution of kava, and the marketing of kava is needed.

Evaluation Question 6: How well (effective) has the regulatory framework protected public health?

This section focuses on key participants views about the adequacy and effectiveness of the public health regulatory framework. In particular, key participants were asked

about two key mechanisms for limiting harms on communities through the kava importation pilot program: a) limiting personal importation to 4kg and specific allowable forms of kava (powder and beverage); and b) requiring warning statements, meeting food standards and compliance with State and Territory regulations. Specifically, they were asked their views on the adequacy of these measures in reducing potential kava-related harm. To encourage discussion that challenges the harm narrative, key participants were also asked about the possible benefits to public health through the increased access to kava in Australia.

Monitoring of harms is critical to ensure regulatory adjustments if harms were identified.

Most participants largely agreed that the current provisions provide some protections for public health, but that there is not yet sufficient evidence to claim that public health has been protected. The need for monitoring of use and harms, particularly among at risk groups, such as young people and those with chronic conditions, were seen as critical to inform future regulatory adjustments. Multiple stakeholders from primary care physicians to local councils were identified as important to include in a holistic monitoring program. The importance of a harm-minimisation framework, whether it's a regulated substance or not, was raised by a number of participants. A set timeframe to re-visit the regulatory frameworks and harm minimisation and education efforts was supported. The participant perspectives on potential harms are detailed further below.

Future regulatory changes may be needed

Restrictions on sale to those over 18 years was the most commonly raised additional regulatory mechanism to consider. However, significant costs to businesses and enforcement were noted as being involved in restricting sales to those over 18 years. Given kava is not licensable like alcohol, there are no restrictions on the sale to minors or where it can be sold, so all levels of government need to be considering marketing and access given FSANZ's risk assessment was reported to have made some fairly clear statements that kava should not be consumed by minors, pregnant or lactating women. Labelling of the product with advisory statements and restrictions on additives were also noted by a few participants as important areas for attention and ongoing monitoring. The way kava is supplied, so for example if 'kava bars', common in other countries, become a feature in the Austalian context this may require some further regulation in the future. Additionally the issue of driving under the infleunce of kava was raised as a regulatory area that will likely require attention. Kava is known to have a sedative effect yet there is no restriction on its use while operating a vehicle or machinery, though generally laws prohibiting impaired driving no matter the substance may be sufficient.

Communication to health and social services to support the monitoring of harms and education

Understanding of the policy changes and regulations was a concern raised and the need for the changes to be communicated to health and social services to support the monitoring of any harms and education efforts to potentially at-risk groups was highlighted. The limitations of warning labels in regards to effectiveness as an education tool were noted by some participants. In addition, General Practitioners (GPs), in particular, were singled out for greater communication and awareness-raising about kava given they are likely to know their community well and can better monitor for both acute and chronic harms.

> *"I just wanted to echo the primary care focus. I think public health networks have the data and the channels to engage with GPs in areas where there are higher Pasifika populations. I think it's really important that happen because we wouldn't necessarily assume that every kind of increase in harm would touch the hospital, the hospital emergency department kind of setting where we do have some decent monitoring in place now. If we're talking more about chronic exposure, there isn't an intersection with hard conditions and that kind of thing. I think that one is really important… if doctors are across what's going on in their community, then they're in a better position to respond as well" [INT 17 GOV S/T].*

> "As far as I know, there's been no training made available to - whether they're church leaders, GPs, community centres, whatever around *- 'this is what heavy kava use looks like and this is where we might need to be worried'. I don't think that's happened. So, I don't think the safeguards have happened"* [INT 40 NGO Aboriginal].

Sharing of experiences and harmonisation across juristictions

Finally, the need to enhance harmonisation across jurisdictions to ensure a more uniform approach to regulation across the country was widely supported as a longer term goal and that this would require a mechanism for sharing of experiences and approaches across States and Territories. By the very nature of the federated system of government, this is not an easy request. It was reported that jurisdictions collect different information in different ways and various surveillance reporting mechanisms are not always aligned nationally. However, it appears that the Project Reference Group provided an important forum to discuss kava and related emergent issues cross jurisdictions, and continuing a similar cross-jurisdiction and cross-agency working group into the future is recommended to meet semi-regularly to support ongoing communication and information-sharing on kava. Furthermore, looking at the

approaches and evidence in countries, such as New Zealand was also seen as important in informing any future regulatory modifications.

> *"The Commonwealth maintains some responsibility in the oversight of the regulatory changes and including the provision of uniform or harmonious regulation of kava, so that we can broadly, as a country, understand the impact of kava in communities, and whether the regulatory settings are effectively matched to the health risk presented by kava" [INT 16 GOV S/T].*

> *"I would want the Commonwealth to be undertaking some check-ins on [adapting the regulatory approach] over the next 10 years or so. I could imagine that it might take for there to be a change in the market dynamics around kava…I would suggest routine reporting and information sharing with the States and Territories on primary indicators, an evaluation framework, and evaluation points over about 10 years. I think that sounds reasonable" [INT 16 GOV S/T].*

Evaluation Question 7: What are the cost implications of the pilot for Commonwealth and State and Territory governments?

This section aims to highlight issues raised during discussions with key participants about the cost implications associated with the implementation of the kava pilot program. Key participants were primarily concerned about the human resource investments that were needed to implement the pilot program, and whether there were any expenditures, savings, or revenues associated with the pilot program. While, in general, participants had little insight into the true costs incurred, the following four findings emerged from the discussions.

Significant in-kind human resources required for policy changes

There was agreement across the interviews that the time and human resources required to respond to the kava policy change were significant. At the Commonwealth level, there were departmental costs across Department of Health and Aged Care, DFAT and foreign posts in the Pacific (e.g., supporting labelling compliance and holding workshops), DAFF, biosecurity and home affairs. At the State and Territory level it was reported that significant time was dedicated to adapting to the policy change.

Jurisdictions' capacity to absorb the additional costs and burden associated with response to the kava pilot varied. Some, predominantly smaller States/Territories, reported being overwhelmed by the additional unfunded impost citing that the work required was a drain on both their budgets and staff time that resulted in opportunity costs for the implementation of other priority projects and programs. While recognising

the added burden, key participants from larger states reported having the capacity to absorb the change within existing resources.

> *"I can only say from my perspective quite significant time [was spent]….developing documentation and the like…But, of course, then there's my time, my director's time, and the time of the project officer, secretariat, and others to pull things together. And there's a huge effort in that. And that's just for my office" [INT 23 GOV S/T].*

> *"No, I don't think there'd be any additional costs. We wouldn't be putting on additional staff just to deal with kava management. That would go probably to my liquor staff who go to those communities anyway…you wouldn't anticipate at the end of this any major implications from a cost or a resourcing side of things." [INT 21 GOV S/T].*

The rushed nature of the policy change was noted as a factor that created extra burden, particularly for those responsible for implementing changes required at the federal and jurisdictional levels. Participants reported that the speed at which they had to implement the changes was akin to "policy on the run" and not good practice, and that it required them to pivot away from well considered and important policy development areas to respond rapidly. Responses required included having a clear policy position, and regulations and processes related to kava's new classification. This was nicely articulated by public servants responsible for food regulations who commented.

> *"From a department point of view, there is a lot of work that went into getting [kava] risk-classified, and it's something that happened fairly quickly…from my understanding that happened overnight. [It was announced that] kava is going to be imported into Australia and we have to seek risk advice from FSANZ because, if we want to risk-classify food, it's not something that we just decide by ourselves" [INT 03 GOV CMW].*

Cost burden was not limited to the jurisdictions that participated in the kava pilot with Northern Territory participants (where the pilot was not implemented) also reporting experiencing significant additional workforce-related costs which, due to their limited workforce capacity, was problematic.

> *"It goes back to being a small jurisdiction. In our own example, we cover mental health and the full range of alcohol and other drugs. [Responding to kava] has required a project officer, my time and a portion of [name of person's] time all requiring salaries. That's the direct cost but the indirect cost is the diversion from other programs and other initiatives that probably have a greater impact*

in the [name of jurisdiction] because they are more widespread and our core business. Those losses are difficult to quantify." [INT 23 GOV S/T].

Participants also commonly noted the significant unfunded in-kind contribution made by civil society organisations and communities including those made by Pasifika communities, Aboriginal and/or Torres Strait Islander communities, alcohol and drug and other peak bodies to support the implementation of the pilot project. While difficult to quantify, participants stressed the need to capture these groups' contribution in order to paint a full picture of the cost implications of this pilot program.

There was also discussion by the participants about the Commonwealth resourcing of the evaluation project for kava compared to other big priority drug policy reforms.

"Honestly, it's been a very intensive evaluation project. The Commonwealth and NDARC have, obviously, put a lot of resources into it but there's other projects, for example, the roll out of take-home Naloxone, where there is a real need for Commonwealth-led coordination and support but there's not even vaguely, remotely anything like this kind of resource support provided" [INT 14 GOV S/T].

There were some participants who noted some potential small positive cost impact of the pilot program.

"It would be hard to quantify but I would assume there has been a reduction for our pharmaceutical services section and for us as policy people because we're not having to respond to letters and complaints and go and investigate issues that were previously [illegal]" [INT 12 GOV S/T].

Ongoing monitoring and evaluation and awareness raising are critical, but could be quite expensive – how much of a priority is it?

Several participants raised the need for longer term monitoring and evaluation of the pilot program, should it evolve into a more permanent fixture in Australian policy and legal landscape. They raised concerns about the costs of developing and conducting a robust monitoring plan, especially if geared to identify harms at individual, family and community levels early. While consideration about what monitoring and evaluation processes are needed for kava in Australia are discussed in detail in the monitoring section below, the reality is that robust and insightful monitoring and evaluation systems will require additional resources – both financial and human resources – and these costs need to be budgeted for.

"There wasn't much consideration in regards to putting into place things that could help to monitor if there were any harms, or benefits. When the pilot was sort of implemented or put to us, there was really no support given to States

> *and Territories, no systems were put in place, no resources, or anything to support the [jurisdictional monitoring], or to respond to any issues. There was nothing really considered. The implementation was to amend the legislation, to allow for importation, and that was sort of the Commonwealth's only action…Whereas I guess anything below that is a State and Territory responsibility, which was made very clear, but then there was no support on that part for us" [INT 26 GOV S/T].*

Furthermore, there was a clearly identified gap in understanding the need to raise awareness and provide training for relevant agency staff about the potential harms and benefits, and appropriate management of kava-related issues. These will take financial and human resources to develop and deliver.

Increased direct and indirect cost burden on the health and social systems

There were also the cost implications for preventative healthcare, health promotion, community health, and harm reduction programs with future attention likely required to reach populations in their jurisdictions that are deemed to be at potential risk of experiencing kava-related harm or to address this harm if it eventuates. Participants noted that while through established health promotion functions, they have experienced and are able to deliver such programs they are operating in an evidence-poor context (with regard to the extent of use of kava and its likely impacts) and as such will need to be pragmatic when making resource decisions.

As noted in the section reporting Aboriginal and/or Torres Strait Islander experiences and issues, kava is a complicated topic. Many do not view kava as a priority amongst a string of other more critical priorities. However, there is potential for misuse to occur and health services, among other services, need to be agile enough to respond. Such anticipation, preparation and response require funding.

There are cost implications for the Northern Territory

Despite the Northern Territory's *Kava Management Act (1998)* banning the importing, selling, supplying, cultivating, manufacturing or producing of kava in the NT and thereby their exclusion from being involved in the kava pilot program, the Northern Territory may still incur costs related to the policy change. The Northern Territory participants noted that despite their laws increase levels of supply in the country will mean policing (and enforcing) the Act will be resource intensive and more costly. If Australia's kava importation and use laws are to be changed permanently, the Northern Territory government will need to consider whether a blanket ban on kava is practical, or whether a more harm/risk management-based policy response is more appropriate. There are associated costs with the review of their regulatory framework and the establishment of a harm/risk management-based policy response.

Evaluation Question 8: Are there any unintended outcomes/consequences associated with the pilot?

This section captures key participants' views on potential unintended outcomes or consequences associated with the kava pilot program. While some of these topics have been touched upon in earlier sections of this report the key findings presented below largely present unique challenges with kava going forward.

Loopholes in the legislation/regulation and creative marketing of kava

Participants highlighted that importers and other commercial entities are already actively looking for loopholes to circumvent the tight restrictions on importing kava in Australia in order to find new markets and l opportunities. For example, a participant cited an example of one manufacturer who was looking to use kava as a soft drink pre-mix and another as sachet flavouring. These adaptations have the potential for broader appeal, especially to young people. In one State and Territory jurisdiction, a business submitted a proposal for kava to be sold at sporting events, such as rugby matches, where there was likely to be a high turn-out of Pasifika people. The key participant commented that they anticipated more boundary-testing in the years to come and that they are underprepared to respond, given the lack of evidence or advanced policy consideration.

Similar concerns were also raised in another jurisdiction. They, too, were fielding inquiries about the sale of kava-related drinks from sporting clubs, where kava could be consumed post-game. It would be likely that both adults and children would be present. Other inquiries were from large manufacturers in the boutique soft drink space who were interested in appealing to the youth market. When asked if these inquiries were specifically related to sporting events where Pasifika communities were more likely to be present, the response was:

> *"No, it's much broader. The opportunity for innovation in that space is a much broader remit than Pacific Island nations or Aboriginal communities. Just general population mixture of all of us and bringing it as an innovation" [INT 20 GOV S/T].*

Poly-substance use could rise with the mixing of alcohol and kava

Many participants highlighted poly-substance use, particularly the mixing of alcohol and kava, as a potentially critical unintended consequence of having greater access to kava in Australia. While it is acknowledged that there is no evidence to inform understanding about the interaction of kava and other substances (as the research simply hasn't been conducted) there is concern that poly-substance use may lead to

behaviours that result in greater harms, such as judgement impairment leading to intoxicated driving, or other risk-taking behaviours.

> *"As more of the broader matters of concern around the introduction of intoxicating substance is just awareness to the broader community of the impacts and the effects. And then really hoping that people are ensuring that, when they're under the influence, that they're not undertaking high-risk activities… there's enough people that are injured on the roads through impaired driving due to alcohol. Wouldn't want to see any additions to that from a community-safety perspective, but also from a police perspective." [INT 19 GOV S/T].*

Greater potential for kava to enter the Northern Territory

As noted in earlier sections, despite the Northern Territory's *Kava Management Act* (1998), essentially prohibiting kava in the Northern Territory there are growing concerns that the introduction of the commercial importation of kava in Australia will result in kava importation and use in the Northern Territory, including in communities in which kava-related problems have previously been identified. While there does not appear to be immediate implications for the region, the question of how inter-jurisdictional differences in kava-related regulations will be managed have not been addressed.

It also raises questions about whether the Northern Territory 's position on kava importation may lead (or exacerbate and existing) to black market for kava in the Northern Territory.

> *"I don't know what changed in [the Kimberley and East Arnhem] communities since the pilot's come in. And, obviously, I really wonder about the black market and stuff like that" [INT 40 NGO].*

Understanding the black market for kava was beyond the scope of this evaluation, but participants were interested in this topic.

> *"It would be interesting to find out from the evaluation whether the legal sale might actually help the situation in the Northern Territory because the black market for kava was very expensive. That's why they were spending the money on the kava and not other things, because it was expensive. So, if the price comes down through legal sales, maybe that will help some of the social issues, community issues, and economic issues" [INT 13 GOV S/T].*

3.2.2 Focus groups

Key findings

Key findings from the focus groups with the Commonwealth and States and Territories stakeholders:

1. The potential health impacts associated with the increase in importable kava into Australia was identified as one of the three key themes raised by each of the four focus group discussions.
2. The economic and bilateral impacts associated with the recent kava importation legislation was perceived as most important by one stakeholder groups, but less so among the remaining three groups.
3. The cultural and social impacts of kava were variably perceived by most participant groups, relative to the other themes raised.
4. Three of the four stakeholder groups highlighted concerns regarding both the regulation and evaluation frameworks of kava, as well as the quality control and marketing/labelling of kava-containing products between Australian States and Territories.

Results

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

The health impacts of kava were deemed most important and/or influential to the decision-making of one Commonwealth (b) and one jurisdictional stakeholder (a) group; and of second and third most importance to the remaining jurisdictional (b) and Commonwealth (a) groups, respectively (See Table 3). Health impacts included possible benefits regarding the sedative and relaxation properties of kava, but mainly focused on detrimental harms related to excessive consumption.

These health concerns mainly comprised liver damage, skin dermopathy and polysubstance use (i.e., ingesting kava together with other substances, such as alcohol).

The regulation/policy and evaluation impacts of kava were of most importance to jurisdictional stakeholder (b) group, and of moderate importance to Commonwealth stakeholder (a) and jurisdictional stakeholder (a) group. Participants mainly stressed the importance for greater resource and information sharing between states; awareness and communication of package product information; and transparency of where kava is distributed upon purchase.

Table 3: Commonwealth and States/Territories stakeholder themes and scoring

Theme	Commonwealth stakeholders (a) (n=5)	Commonwealth stakeholders (b) (n=3)	Jurisdictional stakeholders (n=4)	Jurisdictional stakeholders (n-5)
Economic impacts	1	5	6	5
Bilateral and diplomatic relations	2	5		7
Health impacts	3	1	1	2
Regulation/policy and evaluation impacts	4		3	1, 4
Social impacts	5	7		3
Cultural impacts	6	3	3	6
Safety, quality control and marketing/labelling between states		2	2,3	4
Australian community support		3		

Economic impacts were of top importance to Commonwealth stakeholder (a) but of moderate to low importance to the remaining three groups. Similarly, bilateral relations were of second most importance to Commonwealth stakeholder (a), but of low to moderate importance for the remaining three groups (it was not mentioned in the jurisdictional stakeholder (a) group). These issues related to the trade-offs between economic costs and benefits to Australia against the economic benefits of Pacific Island nations with whom this trade agreement has been formally established, and the broader bilateral cooperation between Australia and participating countries, respectively. Economic impacts were indicative of benefits received by industries engaging in the kava trade in Australia and abroad, but also by Pacific Islander countries who are economically dependent on the exportation of kava. By extension, bilateral impacts were perceived as closely related to revenue and economic growth, thereby strengthening the relationship between Australia and its Pacific neighbours.

Cultural impacts were of moderate importance to Commonwealth stakeholder (b) and jurisdictional stakeholder (a) groups, but of low to moderate importance to the other two groups. On one hand, cultural impacts related to the potential dilution of the

symbolic value of kava due to its increased commercialisation. On the other hand, the increased supply of kava was also deemed as key in fostering connection to Pasifika traditions and heritage, while also reinforcing a sense of national identity.

Social impacts were perceived as moderately important by jurisdictional stakeholders (b), but of relatively low importance by the two Commonwealth stakeholder groups. Social impacts were also mixed. The legislation has strengthened family and community connections in which kava is consumed; however, excessive consumption may take away from family household responsibilities, and in extreme cases, result in driving-related injuries or accidents. Whereas community support among both professional Australian organisations (e.g., the Australian Medical Association and the National Aboriginal Community Controlled Health Organisation) and the wider Australian public was deemed important, so too was the need to preserve the cultural and ceremonial traditions and heritage associated with kava among Pacific Island communities.

The safety, quality control and marketing/labelling of kava between states was of second most importance for Commonwealth stakeholders (b) and jurisdictional stakeholders (a) group, but of moderate importance by the jurisdictional stakeholders (b) group. Australian community support was only identified as a theme affecting the decision-making of participants by the Commonwealth stakeholders (b) group. Safety and control regulation concerns were raised from a number of perspectives including: the need to standardise food safety processes, such as clarifying whether warning labels are required on kava products for breastfeeding women (at present, there are no labels on kava products relaying these concerns); enacting safety precautions and monitoring kava misuse among individuals who mix kava with other dangerous products; exploring how kava may potentially be infused in a number of food products in Australia in accordance with the nation's rules and regulations; and ensuring governmental agencies and policymakers are able to proactively respond to any changes that may arise in the kava-using or production landscape both within Australia, and between Australia and other Pacific Island countries.

3.3 Pacific Islander government representatives in Pacific Islands

3.3.1 Interviews

Key findings

Key findings from the interviews with the Pacific Islander government representatives in Pacific Islands:

1. The kava pilot program has increased the number of kava farmers, traders and processors across the Pacific.
2. All Pacific representatives and stakeholders discussed how the increased trade has forced them to re-examine standards to ensure that they are in compliance with the 'food standard' set by Australia.
3. All Pacific representatives and stakeholders agree that the pilot has definitely increased the accessibility of kava in Australia and have made prices more affordable for the diaspora.
4. There has been an improved livelihood of populations groups associated with the kava trade in the Pacific – there is a direct impact of the increased trade even though restrictive, famers, harvesters and exporters have all managed to profit from the trade.
5. Due to improvement in economic livelihood, anecdotal evidence shows that in Tonga, people have started consuming unhealthy foods including energy dense nutritionally poor products that are increasing non-communicable diseases and having a major impact on public health across the population groups associated with the trade.
6. The increased accessibility of kava in Australia has also meant that families are able to actively participate in cultural activities, celebrate with family cultural events using kava, mentor the younger generation on cultural practices and done with kava.
7. Classification of kava remains unclear and impacts on a number of things including the serving of kava in Australia. The restriction on mixing kava with water only limits the market to a small population group in Australia.
8. All Pacific representatives and stakeholders expressed concerns over the safety of the kava being sent to Australia. Sites in which the kava are being processed are not all accredited and monitored therefore there is little reassurance that the content in a package is 100% kava.
9. The global demand for kava has increasingly changed the way in which farmers plant and harvest their kava.

Results

Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

Increased kava farmers in the Pacific

All Pacific representatives and stakeholders agreed that the pilot program was viewed positively across the Pacific. The pilot has definitely increased the number of kava farmers, traders and processors across the Pacific, who all want to be part of the trade as it is seen as a lucrative business. Samoa highlighted that they have come into the trade a bit late and since the pilot there has almost been a dramatic increase in the number of farmers who are now planting kava. Samoa representatives noted the changes seen in the farming practices over the last few years. Farmers usually would rotate crops or have a variety of crops however since the pilot many farmers now plant kava only. Similarly, an exporter in Samoa stated that even though they welcome the pilot, it does not provide the confidence needed to remain in the Australian market. He further stated that this is due to the fact that kava and its extract are still classified as poison under Australia's policy. Similarly, farmers in Tonga as expressed by the participants stated that on the Island of Vava'u, kava is grown predominantly on the western side of the Island and the eastern side of Island grows root crops and supplies food for the Island.

> *"My answer as a kava grower and processer, so the fact that this is a pilot scheme does not give me confidence to develop a business partnership with an Australian kava importer. Particularly as the Customs Act, Section 4 drugs and imports lists for Kava remains to be amended. Also, kava both as a plant and a beverage including extract or extracted Kavalactones is listed as a schedule for poison in the current poison standards" [PIGR, 7].*

Fiji has seen a steady increase in farmers and exporters who have really led the market in the commercialisation of kava. These changes are a direct result of the lucrative business kava has become due to the global demand for kava. Kava stakeholder in Fiji stated that there was excess supply in Fiji although it has opened up the market for traders and farmers.

> *"Yeah, for us. For the farmers here in Fiji, it has been good for them. Maybe with regard to the opening up of new market" [PIGR, 2].*

> *"I think it is a wonderful pathway that was created. At the moment, we had an oversupply of kava. Oversupply of quality kava, markets not growing- So the introduction of the Australian marketplace opened pathways that allowed our*

growers to sell our product into the Australian market. There are lots of farmers who are supplying, so it's not only the exporter, but there's lots of growers who grow the kava in the farms. They sell it to the agents within - These agents then supply to the exporters" [PIGR, 8].

Tonga on the other hand mainly sell kava to their relatives therefore the kava business in Tonga is not as commercialised as it is in Fiji .

"I think it is good. People have better access to it now. We have a kava bar here in Canberra run by a fellow Tongan…. But we want to start to think in that direction because at this point there is the kava for community use and there is kava for commercial use- we need to start to divert ourselves into that- Fiji is doing a brilliant job with a lot of investment" [PIGR, 9].

What is significant in Tonga and also shared by other countries is that the pilot has made them examine the processing of kava much closer,especially the sites in which the processing is taking place and setting standards where needed at every step of the kava production line.

"Yeah, for us. For the farmers here in Fiji, it has been good for them. Maybe with regard to the opening up of new market" [PIGR, 2].

"Some of the successes, I think it's the way we have worked together here because we started off, with called farmers, the exporters, the processes [and] us together and we are trying to sort out some of the issues, the hygiene, so sort it out. And make sure that each step of the very chain [the kava harvest, production to market process] is being complied as indicated. And we have to monitor [plus there needs to be monitoring]. I think about 1/4 of the processes are not compliant [processers] so looking at how to close them down is as a supplier [explaining how there also needs to be a process of closing production companies if they are not compliant]" [PIGR, 3].

Regional partnerships to set kava standards

Another significant milestone that has occurred as a result of this pilot program is that Pacific countries are working regionally to set standards for kava in the region and has led to countries working together regionally to ensure that standards are in place for the Pacific.

"So I think for us we don't have any, you know any issues with the process that Australia is currently imposing on the commercialization of our kava. As long as it's for public health reasons and all that. But in relation to facilitating the trade and all…then I think that if the regional standards will be approved, then

it is to be used …Because I think, those are procedures of the trade and to[will] make it easier for Pacific countries to trade with Australia" [PIGR, 4].

For Tonga, they stated that they are working with the Ministry of Health to ensure that 'Food safety' standards are in place, this also includes ensuring that the processing sites are hygienic and follow standards. For Fiji, the processing is left up to the exporter and the trader and there is no one really monitoring this process. The Fiji government representatives stated that Australia is the only market that considers kava to be a food product, this means that the testing is not as rigorous as the lab tests required for the US and European market who regard kava as a pharmaceutical product. Due to all these variations from the global market, Pacific regional stakeholders are collaborating on setting standards for kava and increasing awareness on kava varieties and farming practices.

Increased accessibility to Pacific diaspora

All Pacific representative and stakeholders agree that the pilot has definitely increased the accessibility of kava in Australia and have made prices more affordable for the diaspora. For the Pacific though, the commercial aspect of kava has increased the number of farmers in all 3 countries, as it seen as a lucrative business. With Samoa and Tonga, most farmers are now just focusing on kava rather than the root crops they previously grew for sustenance.

Improved livelihood associated with kava trade

All 3 countries have expressed that the pilot has been a success in that they have been able to work collaboratively with other government entities, processors and harvesters to build this trade. In terms of helping boost with each country's GDP, they have all agreed that it has had a huge impact on trade and growing businesses in all countries. Increased livelihood for those involved in the trade is evident in all 3 countries. Stories of families building their homes, sending their children to university, and improving the livelihood of their families and villages have been evident throughout the Pacific from kava.

"Yes and I just came back from the north, I saw in rural areas People are able to afford concrete to build concrete houses in isolated areas - And these are all possible due to kava export. Without additional cash crops, we won't be able to invest in those kinds of things, especially in this time, where things are really expensive. So, I just met a farmer in Labasa, He went to the ministry of agriculture to look for some money to build his farm. He went once, twice, three times. There was no response from the ministry. So what he did was he went to his farm, he sold 100 kava plants. Got the money paid, the contractor who did his roading so dependence on the government system could be reduced,

dependency on others could be reduced and it is only the kava sector that is able to do this" [PIGR, 8].

"Because of the change, you've seen a lot of more changes socially for people in Tonga. Well, a lot more building. Bigger house, more expensive building and buying vehicles. It's educating your children, that's. The kind of indicators showing this kind of wealth coming" [PIGR, 3].

Tonga according to participants was the largest exporter, participant noted that most of the students attending university in Fiji and abroad from Tonga are children of kava farmers who can afford to be private students; wealth attained from the sale of kava;

"Most of these sellers, these farmers have some for emergency. They are the ones who have either children in the university in the South [Pacific], they have a certain need….And they can't take a loan, et cetera. Only option is to sell a plot to get money [PIGR, 3].

They will often have emergency supplies to cater for their family needs. Throughout all the Pacific Islands interviewed the increased trade has certainly contributed to the livelihood of families and also economically contributed to the GDP. Tonga recognises most of their export is for the community groups in Australia such as the Fofoanga kava clubs and for cultural events.

"I think because all of the kava is individual, it is not a business or organisations all of them are grown individually. While we were in Tonga earlier this month we saw the success of kava - we met a guy who has one of the biggest farms in the area and he had a huge 2 story house I'm sure worth more than half a million. He built that from his kava money. He doesn't share his secrets, but we know it is from the kava. That's why it is important to have a market. At this point when we do not have an organisation that dominates the kava market it is all individual basis" [PIGR, 9].

Improved accessibility and social and cultural outcomes

The increased accessibility of kava in Australia has also meant that families are able to actively participate in cultural activities, celebrate with family cultural events using kava, mentor the younger generation on cultural practices and done with kava.

Socially, in Australia apart from kava bars, Pacific diaspora groups are able to come together readily as kava is more accessible and affordable. It is slowly gaining popularity amongst the westerners and therefore kava bars are also becoming a regular socialising space in Australia with kava bars in Queensland and Canberra.

> *"Well they know that Fiji contributed to awareness of kava because they are more advanced with their market produce and using kava in the ceremonial way. I think we started to see young people are more stressed and dealing with anxiety, and they know the goodness of kava it helps them. To them they think if I drink kava it will help and it does help them. So most of them were coming and asking for it as it will help their mind, anxiety and depression. In that we see the success and importance of kava from a health perspective- This is not only beneficial to our Pasifika people but now to Australians. So in the cross-cultural issue that helps us to advance and promote our culture and awareness and with the kava bar here they sit down on the floor and they mix and pass the kava around them. I think for Australians the mental health benefits kava brings them is good" [PIGR, 9].*

With the influx of Pacific Labour Mobility (PALM) scheme workers, the use of kava as a means of cultural protocols by government officials have been welcomed as a respectful response in acknowledging spaces. Some PALM scheme worker managers have agreed their workers drink kava instead of alcohol which has an opposite hyper effect.

> *"Most of the farm owners were the ones begging me to provide kava. They said if you have 50K worth of kava [then]we have 50K to buy the kava. Their workers were over drinking alcohol - the farmers shared that if they drink kava they will have their kava , go to sleep then back to work next day but with alcohol they were destroying company property and started to do bad things and drink driving so have heard many accidents from alcohol but not from kava- So the owners were asking for kava to reduce the damage alcohol was doing. They preferred their workers drinking kava so they wanted to buy plenty from us to provide to their workers so they can avoid alcohol being involved" [PIGR, 9].*

There have been debates about these also specifically from individual interviews with Pacific community members.

Evaluation Question 4: To what extent has the pilot increased the commercial supply and distribution of Kava in Australia?

Classification of kava remains unclear and impacts trade

There have been discussions in country about the restrictive classification of kava. This impacts on several things including the serving of kava in Australia. As stated, participants stated that this has led to challenges at the border in terms of monitoring

the product and the costly exercise of reapplying for a permit each time a shipment is made. The restriction on mixing kava with water only means that kava may only be consumed by Pacific peoples who drink traditional kava and not so much Western drinkers who may prefer it mixed with juice. This therefore limits the market to a small population group in Australia.

All 3 countries agreed that the pilot has definitely met the desired outcome but there are challenges with components of the implementations process that needs to be reconsidered. The same challenge was highlighted in the individual interview with those who were eager to become entrepreneurs. One of the main concerns around control and monitoring of the exportation of kava into Australia is the issuing of permits. An exporter from Samoa stated that the Australian market unlike the USA and NZ market is less likely to be sustainable based on the various ways in which Australia categorises kava. On one hand, kava is considered a food product, considered a drug and kava extracts referred to as poison.

> *"My answer as a kava grower and processer, so the fact that this is a pilot scheme does not give me confidence to develop a business partnership with an Australian kava importer. Particularly as the Customs Act, Section 4 drugs and imports lists for kava remains to be amended. Also, kava both as a plant and a beverage including extract or extracted kavalactones is listed as a schedule for poison in the current poison standards" [PIGR, 7].*

There is, therefore, a lot of confusion in how it is classified which affects the way it is being marketed for the Australian market. On the other hand, one participant noted that they are happy that this is now a 'food product' otherwise it will be an open market to trade kava in many forms. Majority of participants state that classifying it as a food product limits trade.

> *"We are grateful it has been moved from drugs and alcohol and is a food product…It's not drugs or alcohol - we need to consider the scientific studies this way we can make better judgement of what kava is. When you bring peoples expertise and knowledge, we can make better judgement of the kava importations and benefits in Australia" [PIGR, 9].*

In addition, the permit has to be applied for each time there is a shipment. This is a costly exercise and for some participants they agree that the limitation could be due to the fact that kava extracts is still classified as poison therefore causing issues at the border.

> *"Oh yes, every single shipment. You must request a permit. An import permit for kava as a food. But of course, it makes sense because. The Customs*

legislation, customs regulations as kava listed in Section 4 drugs prohibited imports. If you go to poisons, there it is listed again as a poison, so you can't blame border control for a times being a little bit. You're confused because. If I was a border control, should I? In the better good of the common people, in other words, ban it because there's a question mark about it. Or should I allow it? In as a food.. One says it's a drug. One says it's a poison and the other says. It's a food…." [PIGR, 7].

"For us here, it's[permits requirements] part of the of the problems being sorted out in from the other side as well. So it does help us. So we have no choice in which Company is going to get a permit. And of course, some of our farmers are complaining why they couldn't connect or send directly is in other countries. Yeah, well, they do complain. But said, well, this is a new system, and you have to comply. The number one country that we export our kava is always New Zealand. But now Australia is closing in behind New Zealand… With Australians, so although they have a different system. It can be done, it's just some of the farmers who own access are saying they're being restrictive… Yeah. So it's more restrictive the Australian one is more restrictive rather than the New Zealand one" [PIGR, 3].

Once in Australia, stakeholders have also mentioned that there is confusion on where kava can be consumed in public. Kava bars have been slowly popping up in Australia but kava cannot be served in bars where alcohol is served, as well as in public sporting events as there is a lot of confusion on the legality of this. Specific policy measures are still unclear in terms of serving kava in public places in Australia due to how kava has been classified.

Food safety standards are not in place

Each government entity discussed the issues with considering kava as a food product. The issue is that in all the countries there are varying degrees of how kava as a 'food product' is handled. In Tonga, there are checks in place to ensure that grinding or processing takes place in a hygienic space. In order to do this, the Ministry of Health has to check the site but there is no system to ensure that this is in place. There have been efforts to bring various Ministries together to address this issue.

"I think the important thing is to keep the programme and go a level up and also to keep us informed of the pilot programme and still have some sense of control rather than just openly. I hope this will continue for us to explore other agriculture opportunities for kava because there are still lots of restrictions with other agriculture and marine products but when we put together our effort and collective approach we have noticed and witnessed success of our Talanoa

sessions with Australian authorities, politicians in the Pacific and we will be able to have a good and successful journey" [PIGR, 9].

The situation is similar in Fiji, where there over 200 processors but only 4 are certified so there is no real evidence that what is being shipped to Australia is safe as only a label is required but contents of the kava packages are not tested to ensure it is 100% kava.

"There may be challenges we face..for the quality of kava that comes in into the lab for testing, and if we find that it is non-compliant. According to our Food Safety Act and regulation, we advise them to improve on the quality of the kava, especially on the moisture level… the ash content and we also provide the test for the electron levels and we do provide the reports with recommendations. And those reports have to go through the Ministry of Health Office…we have been given a three weeks' time frame" [PIGR, 1].

Samoa joined the game late but are quickly catching up to the trade and similarly are anticipating catching up to the other Pacific markets in the next 5 years.

Evaluation Question 8: Are there any unintended outcomes/consequences associated with the pilot?

Impact of kava wealth

Even though all countries agree that overall the pilot has been beneficial, i has also brought about some real areas of concern. In Tonga, the wealth gained from the lucrative trade has also led to some major public health concerns. In a recent forum as discussed by a Tongan participant, the various government Ministries are getting quite concerned with the increasing rate of Non-Communibale diseases (NCD) in these wealthy villages as villagers are opting to buy food in local shops rather than fish and plant as they used to.

"So like I said, there's it doesn't show up in, in in material. Maybe in buying things like vehicles, building a house, but also the educating the children... So this is the kind of wealth, right? The money from kava…Well, what we have observed is the amount of imported food transported has almost going up 100 times. They can afford it. So we were attending a Pacific regional meeting on agriculture, forestry, but last month and this is one of the Minister was giving a statement. He was saying, We farm, we fish, we win, we make kava and then

we buy imported foods…Yeah, I guess with the wealth they think that buying the processed food is much better because you it's a baloney thing" [PIGR, 3].

Changing the farming practices to meet global demand

Another unexpected outcome is the changing farming practices of kava across the Pacific. Kava has been traditionally grown by people across the Pacific for centuries. The global demand for kava has increasingly changed the way in which farmers plant and harvest their kava. In Tonga and Fiji, it has become a common phenomenon to plant the kava and then sell the plots, harvesters will then come and uproot the kava and either process it or sell it to a processor/exporter.This phenomonenon has increasingly become part of the trade over the last 5 years. Farmers are increasingly keen to learn the various varieties of kava. Intiatives are being undertaken by government agencies and Institutions to meet this demand.

"Yeah the industry has changed or is changing so we now have a market for the green of kava. So a person living in the rural area who does not have access to a dry facility could sell green kava, just like Lami Kava would buy eight tons of green kava from Koro Island - Koro island due to shortages of drying facility the grower will just harvest or from his farm sends it over the track then Lami kava goes chiller tracks, they chill the kava process is shorter - It's been processed within a week , so the farmer does not have to wait and rely on the weather conditions to have his kava dried- does not have to invest into the drying facilities" [PIGR, 8].

"Business arrangement [are made], I can pull 2 acres of kava, so on the second year I can sell it. To either an exporter or grower… Yes, that's very new to us, actually sell a plot of crops. Yeah, and you don't do any other crop. So they plant the kava and Instead of harvesting and marketing, you can sell it or just before harvest another person just comes in, harvests it and does the rest…That's true. And when you calculate it, I think the buyer are also earning a lot more…. Most of these sellers, these farmers have some emergency plots in case anything arises" [PIGR, 3].

Increase in the middleman for trade

The increase in traders or middlemen for most of the Pacific communities has been problematic. In bigger trading countries such as Fiji, they are finding that the rural farmers are loosing out on this.

Most of the participants stated that increase in the global demand has meant that farmers have not only become more knowledgeable on kava breeds and harvesting timelines but they have also created traders who only focus on harvesting and

processing. Harvesters scout kava plantations and negotiate prices with farmers, which has been debatable, as rural farmers are often at a disadvantage. The Fiji government is currently working on setting up initiatives to help farmers with this.

> *"I think it should be the growers [famers that benefit the most]. Because a lot of work is done by the growers you can see. If you grow kava, it takes 4 years to grow before harvest. … also the processes, in my opinion" [PIGR, 6].*

> *"I think the exporters and the farmer will benefit. In terms of cost...if you manage that expenses on the revenues they get. …the they may get some percentage of the profit .. but I think mostly the exporters [will benefit] because they are the ones who you know get all the profit" [PIGR, 4].*

3.4 Pacific Islander community participants data

3.4.1 Community surveyError! Reference source not found.

Key findings

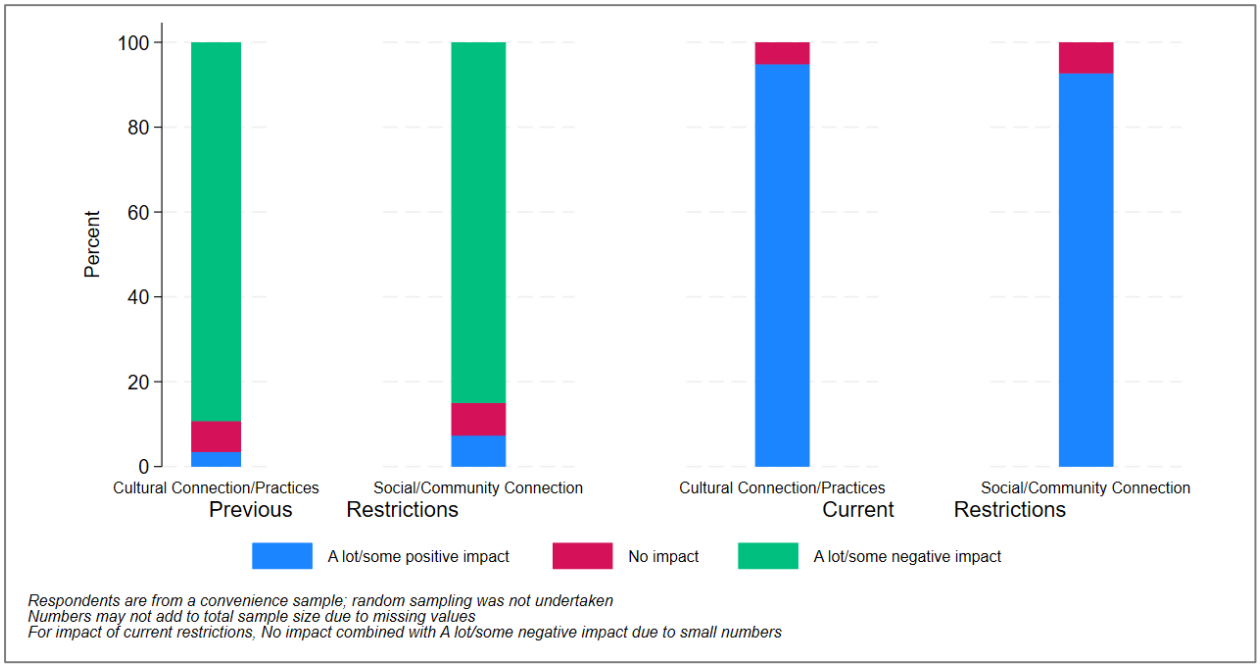
Key findings from survey with Pacific Islander community participants:

1. , At least 90% thought that the relaxed restrictions had a positive impact on their cultural connection or practice and on their social or community connection.
2. 29% of community survey participants reported that they had imported kava in their personal luggage in the 12 months before COVID 19 travel restrictions.
3. 94% of community survey participants agreed with the increased personal importation limit.
4. 91% of community survey participants believed that kava was easier to obtain under the new regulations.
5. 90% of community survey participants agree commercial kava importation in powder and beverage form should be allowed.
6. 87% of community survey participants would like further increases in the kava limits allowed in personal luggage.
7. 85% of community survey participants had ever used kava and 74% had used kava within the last 12 months.
8. 97% of community survey participants obtained kava from someone that they knew,
9. All recent kava users (i.e., within the last 12 months) had consumed kava as a drink made from ground kava root/powder and mixed with water or other liquid.
10. 98% of community survey participants used kava in the last 12 months for social gatherings / recreation and 93% for cultural / ceremonial purposes.
11. 14% of community survey participants reported a health-related reason for kava use with 7% reporting any health problems following kava use in the last 12 months, with the main problem being a skin issue (5%).
12. Most community survey participants used kava in their own home (91%) or a friend's or partner's house (88%)
13. 20% of community survey participants reported drinking alcohol and kava on the same occasion.

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

As shown in Figure 1 and Appendix 21, the majority of participants (at least 85% out of 236 participants) perceived that the previous kava restrictions on personal importation had a negative impact on cultural connection or practices and social or community connection. Most participants (90%) perceived that increased importation allowance had a positive impact on these aspects. Note that the categories of "No impact" and "A lot/some negative impact" have been confined in the bar representing perceptions of current kava restrictions due to small cell sizes.

Figure 1: Perceived impact of kava restrictions on community



Less than a third of participants (29%) reported bringing kava into Australia from overseas in their personal luggage in the 12 months before the COVID-19 travel restrictions, mainly (90%) once a year or less, and most (85%) brought in 1-2kg (see Table 4). Most participants (80%) reported that someone in their family or community had imported kava in their luggage during the same period. Almost two thirds (59%) of those who imported kava in the last 12 months did so to provide or sell to others, and a similar proportion (58%) reported earning $1000 or more from selling kava. Two thirds (68%) of those importing kava said that it was very or fairly easy to get kava, with most participants (91%) reporting that it had been a bit or much easier to get kava since December 2021. Only two thirds (62%) of participants were aware that kava can now be commercially imported.

Table 4: Importation of kava in personal luggage

Variable	Response	n	%
*Was kava imported in personal luggage**	Yes	68	29.2
Number of times kava imported in personal luggage^*	Once a year or less	61	89.7
	A few times a year	7	10.3
Amount of kava imported in personal luggage^*	None/Less than 1kg	10	14.7
	1-2kg	58	85.3
Whether kava imported by family/community^*	No	11	19.3
	Yes, but not in the last 12 months	8	14.0
	Yes, in the last 12 months	38	66.7
Was kava purchased/obtained to provide to others?^*	No	27	41.5
	Yes, for friends/family	38	58.5
Amount earned from selling kava^*	<= $999	27	41.5
	>= $1000	38	58.5
How easy was it to get kava?^*	Very/fairly easy	25	67.6
	Very/fairly difficult	12	32.4
Will eased restrictions change reasons for importation?^*	Yes	16	23.5
Were you aware that kava can now be commercially imported?	Yes	145	62.2
*Has it been easier or more difficult to get kava?^^*	A bit/much easier	180	90.5
	No change	8	4.0
	A bit/much more difficult	11	5.5
*Have you purchased anything different to usual kava?^^*	Yes	31	13.3

Participants are from a convenience sample; *random sampling was not undertaken*

Numbers may not add to total sample size due to missing values

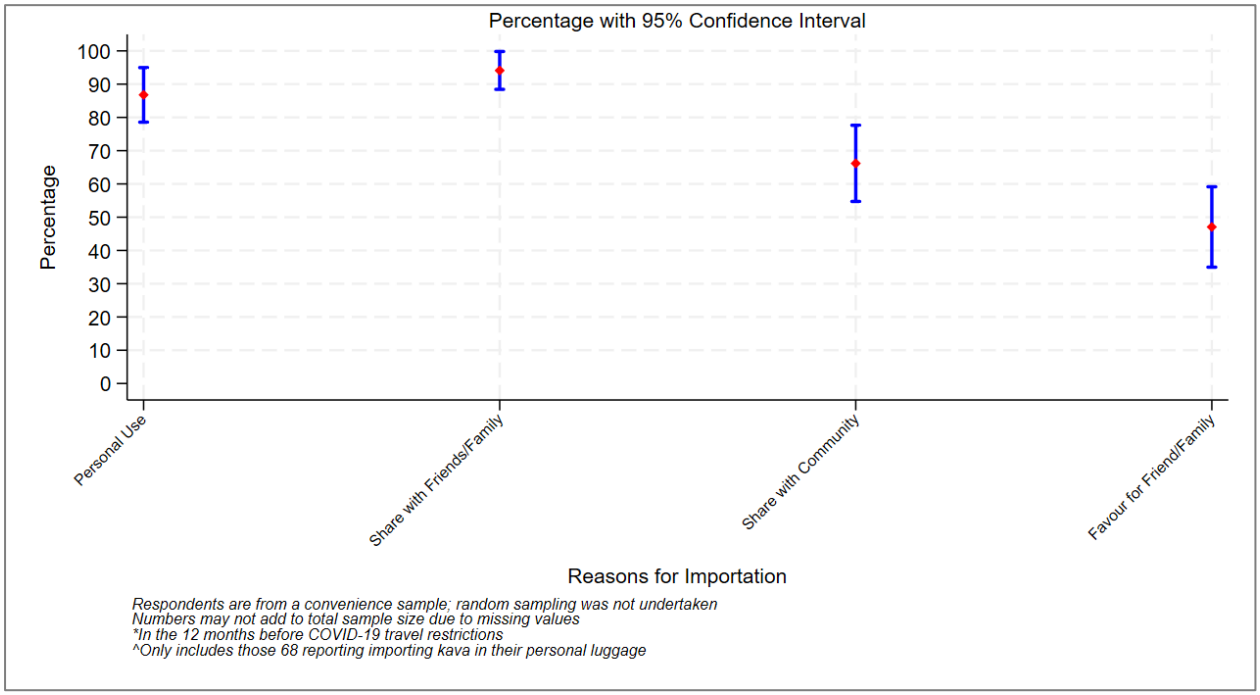
**In the 12 months before COVID-19 travel restrictions*

^Only includes those 68 reporting importing kava in their personal luggage

^^Since December 2021 (when the commercial importation laws changed)

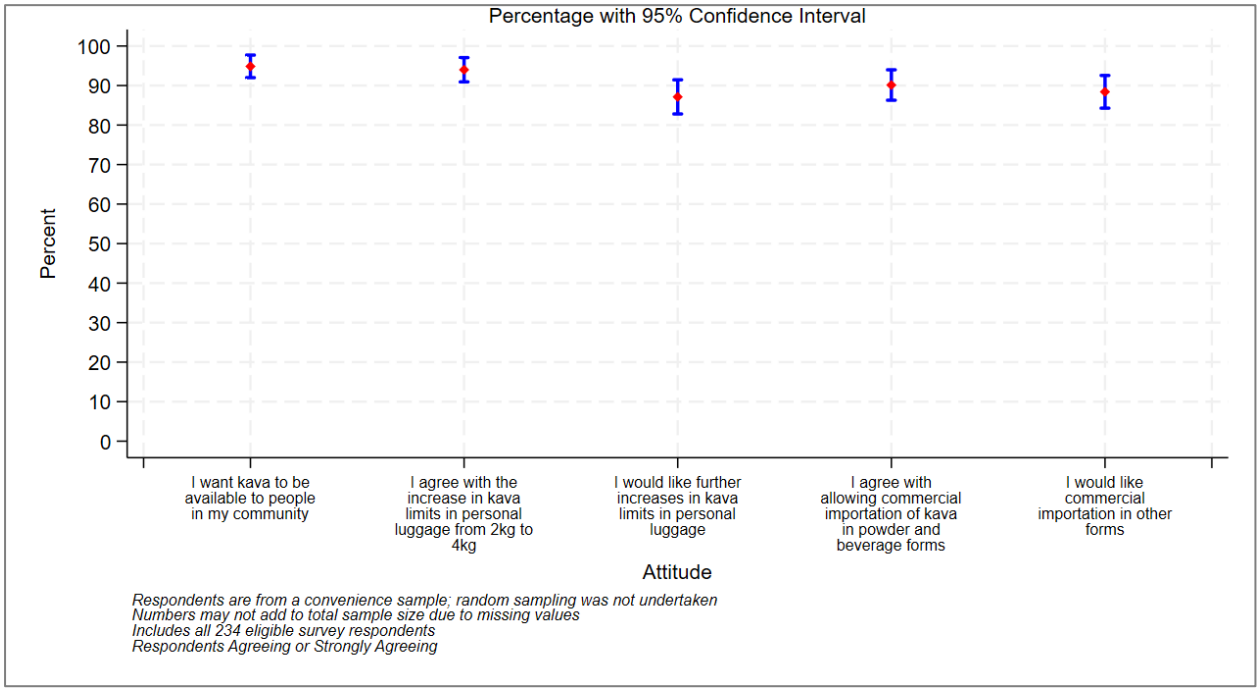
As shown in Figure 2 and Appendix 22, the main reasons reported for importing kava in personal luggage were to share with family or friends (94%), for personal use (87%), to share with the community (66%) or as a favour for friends or family (47%).

Figure 2: Main reasons for importation of kava in personal luggage



Most participants viewed the kava pilot program positively, (see Figure 3 and Appendix 23): 95% wanted kava to be available to their community, 94% agreed with the increase in kava limits in personal luggage from 2kg to 4kg, 87% would like further increases in the kava limits in personal luggage, 90% agreed with allowing commercial importation of kava in powder and beverage form, and 88% would like commercial importation in other forms.

Figure 3: Attitudes towards the kava pilot program



Evaluation Question 3: What have been the health, cultural, social, and economic outcomes on Pacific and Australian South Sea Islander communities, Aboriginal and Torres Strait Islander communities and the broader Australian population.

85% participants reported ever using kava, 74% in the last 12 months. Multiple types of kava use were rare; of those reporting kava use in the last 12 months, almost all (99%) reported using none or only one of the different types of kava provided in the survey. Most recent kava users (97%) had obtained kava from someone they knew (e.g., friend or family) and 96% had obtained it from their own State and Territory. COVID 19 travel restrictions had an impact on access to kava, with approximately two thirds (66%) of those reporting that they used kava in the last 12 months indicating that they could not get, or used less, kava. Nineteen percent of women who have ever used kava reported use when pregnant or when pregnant and breastfeeding (none reported using only when breastfeeding), although one third (33%) indicated that they preferred not to answer this question. (Table 5)

Table 5: Kava use in Australia

Variable	Response	n	%
Have you ever used kava in any form in Australia?	No	35	15.0
	Yes, in the last 12 months	172	73.5
	Yes, but not in the last 12 months	27	11.5
**Number of kava substances reported using*	None/one	170	98.8
**Where did you mostly obtain kava?*	Someone I know (family/friends)	166	97.1
	Someone I don't know/other/don't know	5	2.9
**What state did the kava you obtained mostly come from?*	My own State and Territory	145	96.0
	Other State and Territory	6	4.0
**Amount spent on kava purchase in the past 12 months*	<$100	16	9.4
	$100 - $500	123	71.9
	$501 - $999	20	11.7
	>=$1000	12	7.0
Proportion of family/friends using kava in the last 12/12	All/most	121	56.3
	About half	26	12.1
	A few	57	26.5
	None	11	5.1
Has anyone in your household ever used Kava in any form in Australia?	No	75	32.1
	Yes, in the last 12 months	139	59.4
	Yes, but not in the last 12 months	20	8.5
*Did you use kava while you were pregnant or breastfeeding?^*	No	25	48.1
	Yes, when pregnant and/or breastfeeding	10	19.2
	Prefer not to say	17	32.7
**Did Covid travel restrictions change your kava use?*	Yes, I could not get any kava	39	19.7
	Yes, I used less kava	92	46.5
	Yes, I used more kava	6	3.0
	No, there was no difference in how much kava I used	61	30.8

Participants are from a convenience sample; random *sampling was not undertaken*
Numbers may not add to total sample size due to missing values
**Only includes those 172 reporting using kava in the last 12 months*\
^Only includes females reporting ever using kava

Kava ground root / powder mixed with liquid was the only form of kava use reported by 5 or more individuals who had used kava in the last 12 months; fewer than 5 individuals reported using bottled kava drink therefore no summary results are provided for this form. 73% of those using kava ground root/powder-based liquid reported using this at least weekly (i.e. 1-7 times a week), with a median of 20 bowls/cups per session (generally involves multiple people) at a median cost of $140 AUD per kilo of kava root/powder (Table 6).

Table 6: Types and frequency of kava use in the last 12 months

		Frequency		Usual Amount[#]				Usual Cost[&]			
Form of Kava	**Amount Consumed[@]**	**n**	**%**	**N**	**Median**	**Q1**	**Q3**	**N**	**Median**	**Q1**	**Q3**
Ground root/powder with liquid	Every day/Weekly	124	73	171	20	12	30	143	140	120	150
	Monthly or less	46	27								

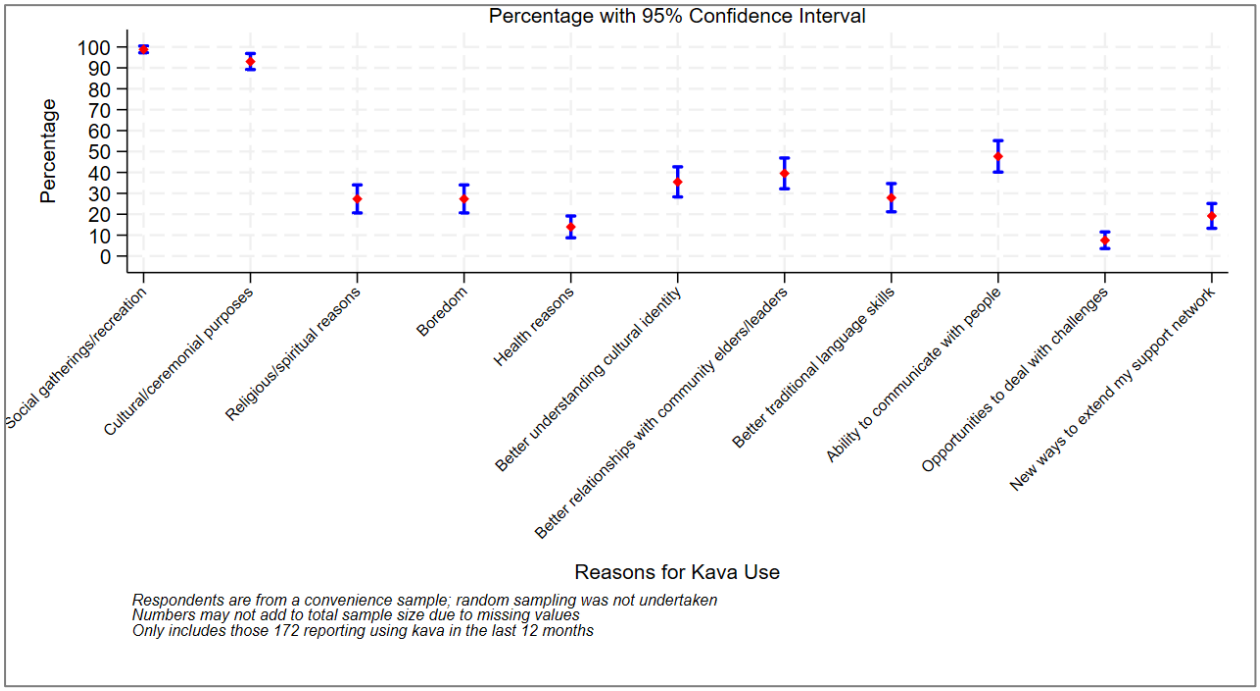
[#]bowls/cups of liquid mixed with ground root/powder

[&]price in per kilo for ground root/powder

[@]Daily/Weekly = 1-7 days a week; Monthly or less = 2-3 times a month or less

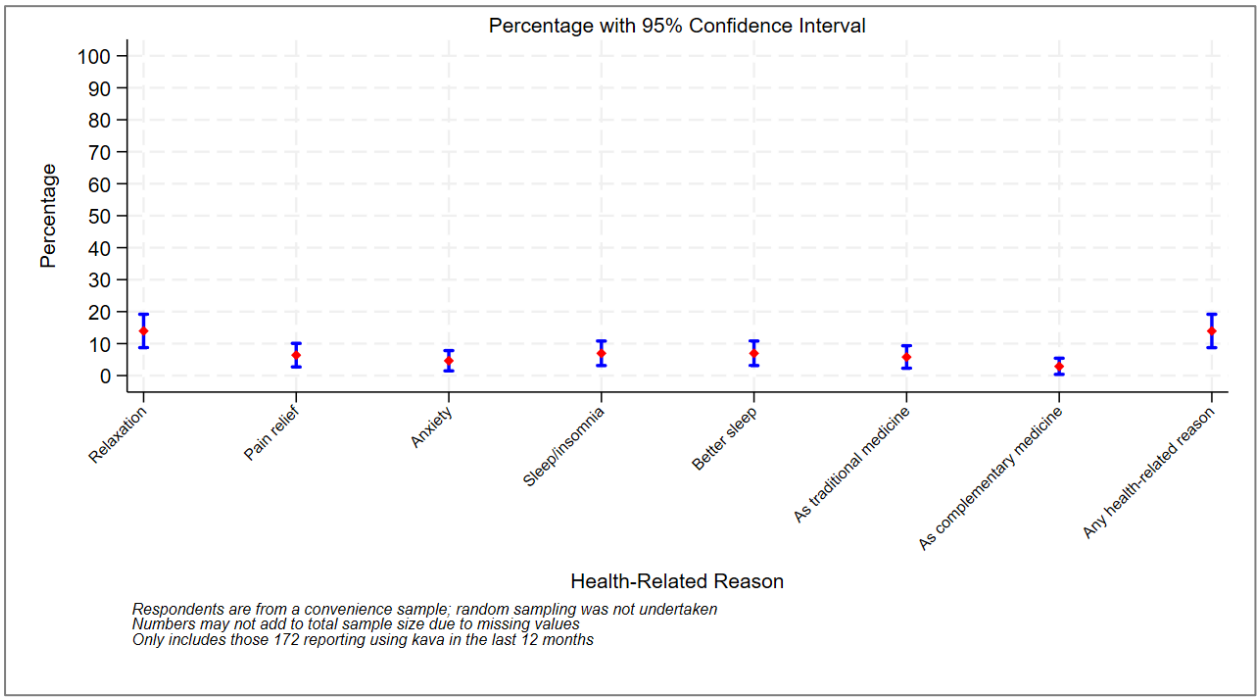
Most participants indicated that the main reasons for using kava in the last 12 months indicated were social gatherings / recreation (99%) and for cultural / ceremonial purposes (93%), as shown in Figure 4and Appendix 24. The ability to better communicate with people was specified as a reason for kava use by almost half (48%) of those with recent kava use, while 40% reported better relationships with community leaders / elders and 36% reported better understanding cultural identity as reasons for kava use.

Figure 4: Main reasons for using kava in the last 12 months



Only 14% of participants using kava in the last 12 months specified that they did so for a health-related reason (Figure 5 and Appendix 25) with the main reason being relaxation, 14%). Of those reporting a health-related reason for using kava, 6 (25%) reported that they had reduced the number of annual GP/Specialist or allied health visits in the last 12 months with a median reduction of 3.5 visits (Q1-Q3: 7,2). Less than five individuals reported either reduced spending on medicine and health products or increased weekly income as outcomes following health related reasons for kava use.

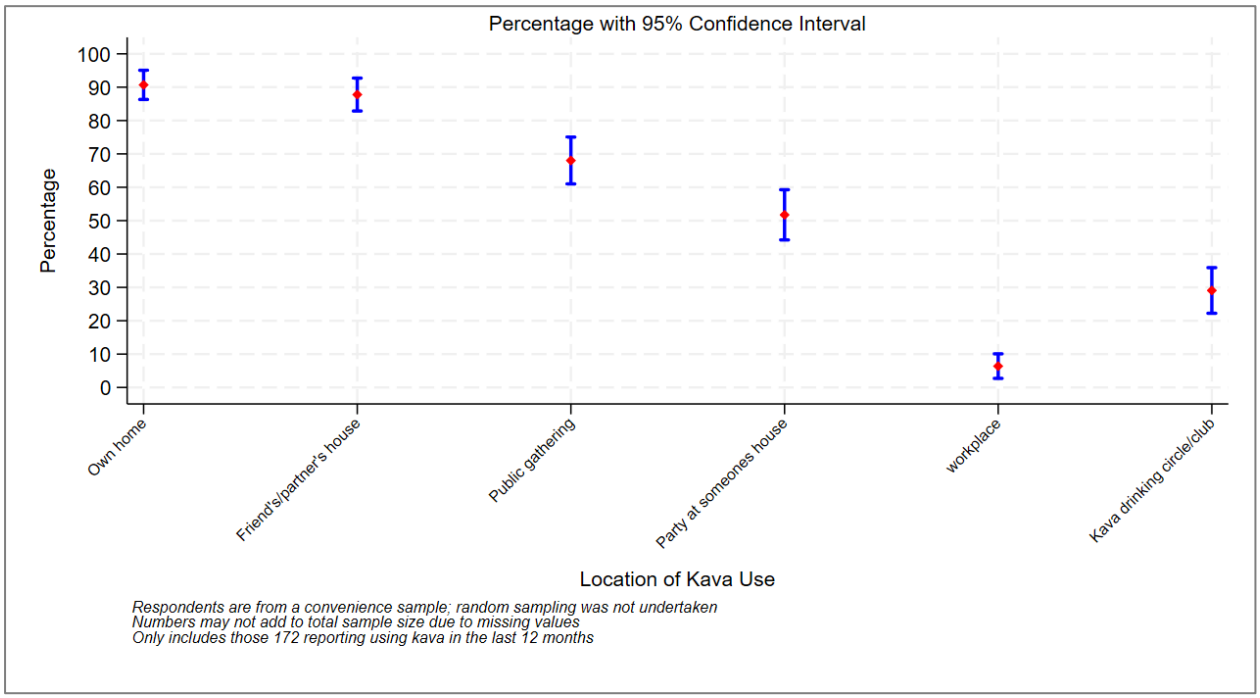
Figure 5: Main health-related reasons for using kava in the last 12 months



Most people who reported using kava in the last 12 months did so in their own home (91%) or at a friend or partner's house (88%) (Figure 6, Appendix 26). Other common places reported for kava use were public gatherings (68%) and a party at someone else's house (52%). Twelve participants (7%) reported that they had encountered any health problems after using kava in the last 12 months, with the main problem a skin issue (n=9, 5%) (data not shown). Other health problems were reported by fewer than 5 participants and data are not presented.

Very few participants who had used kava in the last 12 months reported any other problems encountered following kava use (< 2%). Due to small cell sizes (n<5) these data are not shown. Similarly, less than 5 participants reported that they considered kava use had had any impact in their community; data not shown.

Figure 6: Location kava usually used the last 12 months



Less than 5% of participants reporting kava use in the last 12 months mixed alcohol and kava as one drink, although just over one fifth (20%) had drunk alcohol and kava together on the same occasion (see Table 7). One fifth (20%) reported using alcohol or any other substance with kava.

Table 7: Co-consumption of kava with alcohol or other drugs

Variable	n	%
Alcohol and kava mixed as one drink	5	2.5
Alcohol and kava drunk on the same occasion	40	20.1
Alcohol or any other substance used with kava	40	20.3

Participants are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Only includes those 199 reporting ever using kava

3.4.2 Interviews with Pacific Islander community participants data

Key findings

Key findings from the interviews with Pacific Islander community participants:

1. The pilot project has made the kava more accessible and in general has helped Pacific communities continue their cultural protocols.
2. The use of kava differs for Pacific communities. Samoans use it only for cultural protocols whereas Fijians and Tongans use kava more casually and informally.
3. The commercial aspect has encouraged a lot of entrepreneurship ventures across the Pacific diaspora and in the Pacific. However, there has been a lot of difficulties such as not having a standard kava control, shipping and handling of kava in country and incoming to Australia.
4. The influx of Pacific Labour mobility workers has also added to the dynamics of the accessibility of kava as well as the use of kava. With the influx of Pacific Australia Labour Mobility (PALM) workers, managers have decided to monitor their workers to ensure kava is consumed only on special occasions.
5. Health, social and cultural benefits of kava outweigh the negative impacts such as excess consumption affecting work productivity.
6. Kava-ban policies are perceived as an injustice to the Pacific communities specifically in Northern Territory as they detract from their sense of identity.
7. The dissemination of information regarding the regulatory framework in the Pacific Island country could have been interpreted differently leading to the confusion in the labelling of food products.
8. There are no standard requirements in Australia to test and maintain the quality of kava hence poor quality may sold which may have health impacts on consumers.
9. Regional organisations conducted training in Pacific Island countries to meet Australian standards for the pilot program.

Results

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

Kava as a food product has been limiting

Participants discussed that the classification of kava as a 'food product' in Australia is limiting. While the kava pilot was welcomed, it opened a 'floodgate' for export from the Pacific Islands, however these exports were not meeting the Australian food standards. Moreover, amendments to the kava standards 2.6.3 prohibited the value-added kava, which participants agreed was unfair and limited the use of kava to Pacific families.

> *"Well, the thing is this, before the lifting of the ban, we were drinking fairly poor-quality kava over here. The only kava that I could drink, which was good, was that which I brought myself and ones that were given to me… now I can say with confidence if you came home, I'll do a mix for you straight away" [Community Interview, 1].*

> *"It was communicated at that time to restrict kava to a subset of the population, that is the Pacific Islanders for traditional use. So, the western market or the average Australian would not like the taste of kava like we are accustomed to drinking. They would prefer to experience it like they are in the US with pineapple or watermelon juice and get therapeutic benefits from kava for relaxation, calmness, and sleep but also to be palatable to western customers" [Community Interview, 3].*

> *"I think the pilot program has been great for the Pacific Islander community in terms of access where more quantity of kava is coming into Australia. Now people have choices, and they choose which Pacific country to buy from together with choice of low prices and quality" [Community Interview, 3].*

Currently, there is no way also of testing the quality of kava. Furthermore, the monitoring of kava to ascertain its quality is not standardised therefore the content in some packaged kava is unknown as there are no testing mechanisms to test the quality of these packaged products.

Accessibility increases practices linked to cultural identity

Participants all agreed that the kava pilot was welcomed in their respective communities. This helped to strengthen the cultural practices within Pacific communities as it is more widely accessible.

> *I think kava is part of our culture, its us. In Tonga, the story of kava is a very significant story. Its about sacrifice…One thing about kava especially to Pacific Islander men it's something that defines them like possessing a treasured cultural drink and the proper bowels and cups as it makes men valued and recognised for their position or status in the community. It's like tapa and mats for the women, it's a must that women have these cultural items. Similarly, it's like that for men and when you don't have it as a man it's shameful because people come to your house to congregate" [Community Interview, 11].*

> *I think that's just one thing we Islanders and the government should look at that as kava is part of our traditions and culture …should they cut it out or ban it because of their views that we are abusing it? But to us its not, its our sense of belonging but that might be my own personal view" [Community Interview, 9].*

> *"All Pacific islanders do not consume kava. Only a few do, such as Tonga, Fiji, Vanuatu, Kiribati. Samoa predominantly uses it for ceremonial purposes" [Community Interview, 8].*

Kava use in the Samoan community was limited to occasional use for cultural functions. Other Pacific communities use kava for cultural events, as well as kava clubs, which contribute to projects within the diaspora and in the islands. Kava clubs are also a continuation of the cultural courting of young Tongan women. The accessibility and availability of kava helps with this process and helps maintain community connections as well as practice cultural protocols and mentor their children. General view of kava use in communities for Tongan population groups have strengthened their kava clubs.

> *"Cultural benefits includes the maintenance and sustainability of culture and traditions in Pacific Island communities here, mentoring the younger generation regarding their culture and the use of kava" [Community Interview, 2].*

In addition, the influx of Pacific Australia Labour Mobility (PALM) market has also increased the demand for kava in regional Australia. Participants also indicated that using kava to welcome other guests from the Pacific has always been well received and specifically with the PALM workers as the use of kava has brought the diaspora and those from the islands together to celebrate their sense of belonging.

> *"It's our cultural use of kava that connects us and identifies us" [Community Interview, 8].*

Participants reported that the kava gathering has helped with welcoming and easing tensions between incoming PALM workers and the Pacific diaspora.

Commercial pilot has challenges

Participants stated that the commercial pilot program had both positive and negative outcomes. In terms of positive outcomes, the pilot made the Australian market more accessible for Pacific businesses and entrepreneurs. Negative outcomes stem from the implementation of the policies and regulations which were not clearly explained or not fully understood by entrepreneurs in terms of importer requirements, labelling and overall standards required for the Australian market.

> *"Certainly, with the work Pacific Island Forum Secretariat is doing right now. They are spearheading the work on a regional approach to kava standard with the recent Cordex alimentarium meeting that was held in Fiji last month. It seems like the kava standard where kava is mixed with water will be adopted fully by the UN. Once that is endorsed and fully accepted, the western markets who had restricted kava will be forced to reconsider the legislation and the restrictions that they have in place. So its good news for the Pacific" [Community Interview, 8].*

> *I did not know I had to pay the logistics company that was to release the kava from quarantine to put in that label. So they were familiar with what to put in terms of the wordings on the label- now that it is there, if I import the next lot, I'm just gonna stick exactly the same label because it meets the regulatory requirements. But prior to that, I had no idea. To be honest, I had no idea. You buy kava back home, there's no label, it says nothing. You go to the market, and you just buy some waka and take it home and pound it" [Community Interview, 1].*

Quality assurance was perceived as problematic by participants on two levels. Firstly, facilities in the Pacific were not equipped to handle the changes that were being implemented and a mechanism to test for the quality of kava being exported. In Fiji for example as stated by a participant, there were more than 200 exporters entering the Australian market in the last 12 months but only 4 companies were compliant with food standards. Secondly, once kava is exported into Australia, there were no testing mechanisms to check the quality.

> *Consider for example in Fiji where we have had more than 200 exporters enter the Australian market in the last 12 months. To my knowledge, only 4 companies comply with food safety standards from a production point of view. So, there is 199 companies who are not complying with food safety standards. Certainly, the places you take your kava to get pounded are definitely a long way away from food safe compliant" [Community Interview, 3].*

Furthermore, exporters have to apply for a permit for each shipment rather than a standard permit that lasts for 6 to 12 months.

> *"So every time you import you apply for a permit and it takes about six weeks to get the permit. So, you have a license you set it up, you get that done first and when you want to import, say you want to import in March then you need to work backwards 6 weeks and give yourself enough time to apply for permit before the Kava arrives in March. You can only bring the amount that you apply for…so if you apply 30 kilos you can only bring 30 kilos…you can bring below the amount applied for but not above the amount" [Community Interview, 9]*

> *"that's some of the constraints with this trial because even everything is still coming through the government agents as they are still looking at the process, but I think for the importers, I think there is a lot of patience for them to trial this …importers in the eastern states, its good as flights get to Sydney 7 days per week but if you are in Tasmania and Western Australia or Northern Territory you will need to get it through the Eastern States and from there to you" [Community Interview, 9].*

This further complicates the industry. Shipping and handling of kava in-country, finding an exporter, delays in shipping and customs makes the trade unsustainable for small businesses and entrepreneurs based on the related costs.

Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

Positive impact of kava outweighs the negative

The positive impacts of kava on communities have strengthened cohesion of communities and maintenance of culture. The use of kava circles is seen as 'safe spaces' that benefits mental health because it is viewed as an opportunity to relax and discuss issues in a calm manner with trusted community members. The downside to some of these spaces is that it can also have negative impacts such as prolonged drinking sessions.

> *"Relaxing and calming effects, addresses anxieties as well so it helps people with mental health… It's a muscle relaxant after sports for many" [Community Interview, 2].*

Participants agreed that there is no real scientific study to prove that kava is harmful. They did mention that drinking kava makes one more relaxed as opposed to drinking

alcohol and therefore this was and is the preferred drink for young adults in the Pacific communities.

> *We still get together but most of us do not drink alcohol now because we've had too much of it already so we know that the more we start to drink it's going to affect our health…I think alcohol would do more damage compared to kava…but if they are talking about personal health and kava's impact on personal health, I reckon to me alcohol does more damage to our health than kava" [Community Interview, 10].*

Participants stated that when taken excessively it causes drowsiness which impacts work productivity. This was the case for PALM workers therefore, the employers requested the workers to only drink kava on special occasions. This is an ongoing phenomenon that will need to be monitored closely as it has a lot of impact on workers and employers.

Increased trade maybe short termed

The supply and demand cycle for kava is currently limited to Pacific Island communities in Australia. This is because kava is mixed with water only which is mostly for the palette of Pacific people. For westerners, mixing of kava with other juices as in the US market is more palatable and can increase demand for kava. Therefore, the trade can be short termed as current demand and accessibility has decreased the price which is good for customers but not so much for traders.

> *"It has been met in the short term. The influx of kava is not sustainable based on current demand. So, it comes back to the basics of supply and demand. We don't have the demand if we are trying to restrict kava to Pacific Islanders only. But if we allow Kava to be missed with other juices like watermelon, pineapple, coconut water etc., then we can attract the western markets. Why re-introduce it and then restrict it? Does not make sense" [Community Interview, 2].*

> *"Also, it has helped the Pacific Island countries economically in terms of more money going into those countries due to kava exports. Like Tonga, there are no other exports apart from workers who come here, so kava is the only exported crop. Also in Australia, since its accessibility, it's easily available for people to buy at a cheaper price" [Community Interview, 11].*

Evaluation Question 3: What are the health, cultural, social and economic issues in Pacific Islander communities;

Participants agreed that there is definitely health, cultural, social and economic benefits for all their various Pacific communities. Others expressed health benefits of kava including improved sleep, reduction in stress levels and improvement in overall wellbeing.

> *"Relaxing and calming effects, addresses anxieties as well so it helps people with mental health… It's a muscle relaxant after sports for many" [Community Interview, 2].*

Culturally, participants agreed that they can follow through with cultural protocols as kava is readily available. Many agreed that their children are now leaning more towards drinking kava rather than alcohol.

> *"I think that's just one thing we Islanders and the government should look at that as kava is part of our traditions and culture …should they cut it out or ban it because of their views that we are abusing it? But to us its not, its our sense of belonging but that might be my own personal view" [Community Interview, 9].*

Need for more clinical studies to prove the impact of kava

Negative health impact from certain studies were perceived as questionable and there was a consensus that more clinical studies needed to be done.

> *"… until they find a clinically proven negative impact of kava… I can't see any negatives towards it … I have problem sleeping sometimes, dreams and all kinds of stuff and sleep apnea…Kava puts me into a deep sleep" [Community Interview, 8].*

In Australia, kava can be purchased from pharmacies which appears to also be confusing for some participants because kava is being marketed as a 'food product'.

> *"Yeah, the USA classifies kava as any product format as a dietary supplement, whereas Australia you can sell kava in capsule and tablet format as a complimentary medicine but the same ingredient is classified as a food" [Community Interview, 3].*

Evaluation Question 5: To what extent has the pilot impacted the supply and use of Kava to high-risk communities, including East Arnhem Land?

Kava ban perceived as discriminatory

Participants from Arnhem Land discussed how kava ban in the NT have impacted them both socially and culturally. The laws and policies in place in Arnhem Land meant that they could not readily access kava as other Pacific communities in Australia. In addition, they also discussed the various policies in place to ban kava in Arnhem Land.

> *"I would like to know the findings of the direct impact of alcohol on Indigenous people. It's very interesting as I have not seen it as there was no comparison of impact done for alcohol and as you know when you drink kava you start off talkative but become passive and quieter over the course of drinking whereas if you drink alcohol, you start off quite but become talkative, rowdy and aggressive" [Community Interview, 11].*

> *So, its like trying to ban kava but not knowing the significant meaning to Pacific Islanders so imposing a complete ban on kava but failing to recognise its importance to Pacific Islanders. I think what they could have done is manage that part of the community because that is only part of East Arnhem anyway. Just a little part of Northern Territory like Yirkala and then to go and ban kava right across NT. What about the Indigenous and Pacific Islanders in Katherine, Tennant Creek or Alice Springs? The issue with Alice Springs could have been solved with kava for the elders to get the young people in a hall and sit in a circle and to teach them to drink kava and manage it properly. I am sure they would love it as most Fijian Policemen are out there to manage it [Community Interview, 11].*

Participants mentioned that historically, kava was introduced to First Nations in Arnhem Land by Pacific missionaries as a means bringing them together to discuss issues. As a result, a number of social enterprises were established in the Arnhem Land with the help of the Pacific missionaries. It was however stopped because of how kava was being consumed leading to its ban.

> *"So, when the methodists were here, East Arnhem included Yirkala, Gove, Nhulunbuy and the most successful business started there to cultivate bananas in the banana plantation. So the Indigenous became farmers where they learnt how to plant crops, how to market and they supplied bananas for the whole region of Northern Australia….. they have successfully set up some successful companies here that have continued in a different format from those days. One example is a company called Alpa, it's a very significant company and they are*

doing retailing, community services and they started by the Methodist mission" [Community Interview, 11].

Participants discussed some of the policies relating to the blanket ban over the Territory as discriminatory. Issues arising is also indicative of the lack of enforcement of policies within the borders.

"Very good initiative, and I personally probably understand how the government comes in because in the past they were not good right across to Indigenous people and like the stolen generation and what they were doing at that time and of course we need to address that. In my view the big mistake is just to stop completely, remove the mission and expect the government to come in to fill the gap" [Community Interview, 11].

Social Justice approach to kava ban in the Northern Territory

At the time of the interviews a number of bans were lifted in the NT concerning alcohol, but the kava ban remained in place. For Pacific communities in the NT, it is significantly difficult for them to celebrate their culture and to socialise around the kava bowl due to the ban. Participants stated that they felt restricted and takes away from their sense of identity which in turn impacts their mental wellbeing.

"Overall for the pilot program, I think if you are talking to multicultural or cross-cultural Australia, kava is part of the Pacific Islander culture and is very significant as it's our identity. Also, I am the voice for Indigenous when it comes to kava here in Northern Territory. For Pacific Islander young people, they might want to reconnect to their roots and the culture of their parents, so they want to learn the culture" [Community Interview, 11].

Evaluation Question 6: How well (effective) has the regulatory framework protected public health?

Most participants agreed the regulatory framework has helped to improve the quality of kava that was imported. Participants however mentioned that there were various things that may need to be reviewed to improve the importation process. The labelling requirements was an issue either through the dissemination of information from Australia or the interpretation by exporters in Pacific Islands. Several agencies in Pacific Islands are working together to resolve these issues. A participant discussed that the regulatory framework is:

"…Putting the pilot in jeopardy because when you sell kava at retail, you also need to have insurance to ensure that if someone has an adverse reaction to kava, the product can be recalled, trace the kava that is produced in that

particular packet to a batch production or lot production date, recall the products and investigate where the issue is and take the necessary step to ensure that the re-introduction of kava after the recall is addressed. At the moment, none of that is being done, even after importing 180 tons of kava into Australia in the last 12 months from across the Pacific" [Community Interview, 11].

This statement is quite concerning as the pilot is marketing kava as a food product, yet the framework has not fully addressed some of these issues because there is no monitoring system in place that can monitor adverse health effects. Government departments and regional organisations across the Pacific however are working together to improve these and set some standards that can be agreed to regionally.

Dissemination of information for regulations to be improved

The dissemination of information regarding the regulatory framework in the Pacific Island country could have been interpreted differently leading to the confusion in the labelling of food products.

Associated delays in logistics associated with the whole process leading to export has to be closely monitored and addressed regionally for consistency. The inclusion of kava as a 'food product' means that it has be treated similar to a food product. One of the major points in these findings is the fact that if kava is to remain as a food product then more strict regulations need to be in place.

Evaluation Question 8: Are there any unintended outcomes/consequences associated with the pilot?

Participants indicated that the pilot has improved the way kava is perceived. They also mentioned that the commercial pilot has attracted a lot of small family businesses. Overall, though most participants agree that the packaging has improved the looks of the products, it has not necessarily improved the quality as there is no monitoring process or quality checks.

Lack of kava standards for quality assurance

Since kava is now sold commercially, there appears to be no standard requirements yet in Australia to test and maintain the quality of kava. This can be incorporated into the regulatory framework to improve kava that is imported.

Regional countries to advocate for standards

There needs to be a more concerted effort from regional bodies to set the standards for kava export into Australia. It was clear to see that regional bodies were

collaborating, but a more proactive role is required in ensuring that training in the Pacific is consistent and meets the standards required in Australia.

Support for Pacific entrepreneurs in the kava trade

It is important that small businesses and entrepreneurs are supported and proper facilitation and knowledge hubs need to be set up for dissemination of information and training purposes.

3.4.3 Focus groups with Pacific Islander community participants data

Key findings

Key findings from the focus groups with Pacific Islander community participants:

1. Kava is widely used in Pacific communities across Australia mostly for cultural reasons and social connectedness. Cultural identity and heritage and economic empowerment were paramount among all the other themes.
2. Pacific communities are able to conduct their cultural activities using kava due to increased accessibility.
3. It was highlighted that the commercial importation of kava is profitable for bigger companies but not smaller family businesses due to cost implications.
4. Since the implementation, there is still no quality mechanisms in place for the Australian market unlike the US and European market.
5. Participants agreed that the accessibility of kava had increased health benefits such as a 'safe space' where they could discuss issues in their personal lives.

Results

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

Kava is widely used in Pacific communities across Australia for cultural ceremonies and social connectedness.

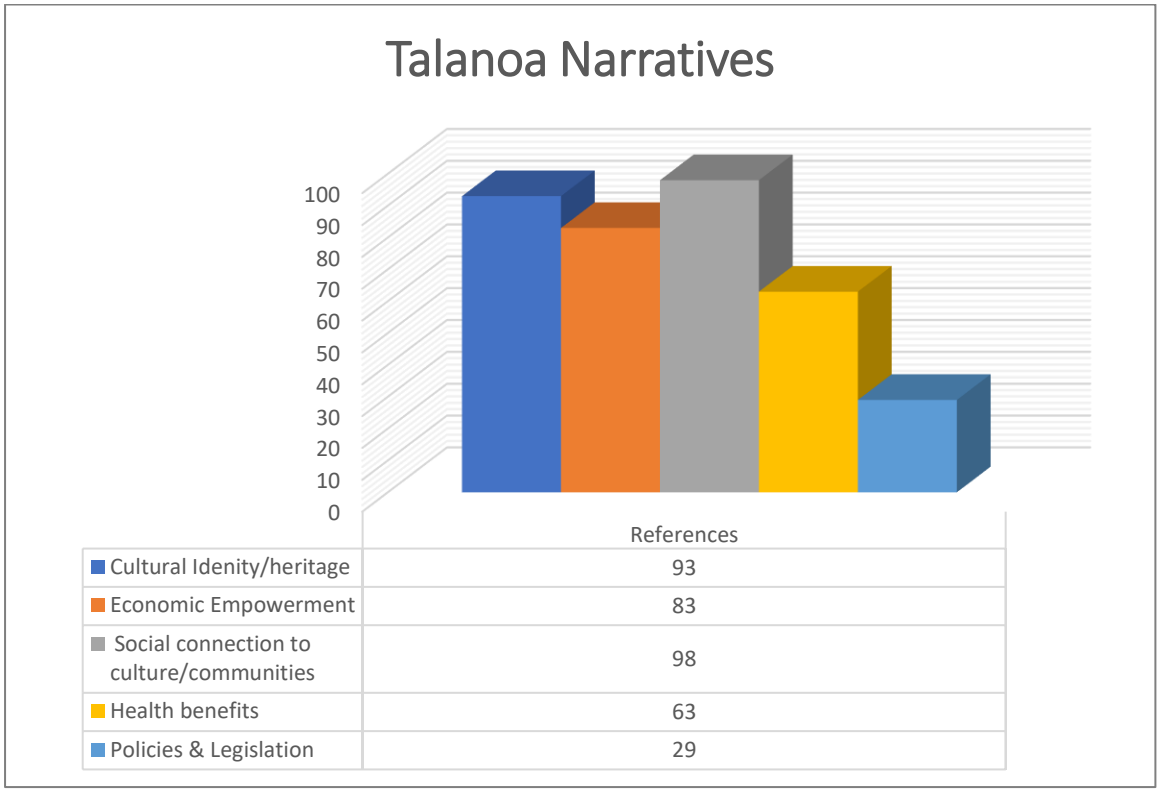
> *"I will give you an example, when I drink kava I invite my children to sit with me and I talk to them about our values and where we are from and identity, or church obligations… where education is done and pass down to the younger generation" [Community focus group, 1].*

> *On that point about our heritage, we still participate somehow in our culture back home and for all of us we travel home quite regularly and if our children aren't aware of the culture then they are disconnected when they go back home…so they need to know protocols, they need to understand what it is …you know we if don't have that opportunity here…its not that we can teach them everything but if they know the basics, they can understand it then its not a shock factor to them like where we all come from there is a lot of remote communities, so its good for them to be aware of these and if they want to be part of it or be disconnected from it is their choice. I find a lot of families who*

have kids that have grown up here, they are looking for that…they want to be a part of that because they see that its different and its something they hold dear to them … this is why we drink kava, this is what it represents from a traditional perspective and social point of view" [Community focus group, 7]

The narratives by participants showed that cultural identity and heritage were paramount, followed by economic empowerment which included benefits for families in the Pacific and in the diaspora. Social connectedness to culture and communities were also a significant part of the discussion. Health benefits and policies and legislation were aspects that were also considered but ranked the least in the Talanoa narratives (refer to Figure 7).

Figure 7. Talanoa narratives on the pilot program



Most participants were aware of the importation limitations for kava but were not necessarily aware it was a pilot program. In general, participants understood that there was a general increase in the accessibility of kava which made it more affordable. All focus groups discussed that increased accessibility meant that they were able to increase their cultural activities and social activities as accessibility was not so much an issue. Participants also discussed that during COVID-19 accessibility was limited driving the prices up for 1kg for up to $700 AUD. The accessibility of kava now means that prices are as low as $70 to $100 AUD per kilogram.

The cultural and social aspects of kava rated high for all participants (refer to Figure 8). When considering health harms, most participants acknowledged that there is no scientific evidence that kava is harmful. The only issue is that excess consumption may lead to loss of productivity at work and family conflicts arising from partners staying out too late drinking kava.

Health benefits and impacts were also discussed at lengths for all participants. Majority acknowledged that it has helped them de-stress and deal with anxiety

> *"It makes you have a good night sleep, relaxing…kava pills make you sleep well too" . [Community focus group, 2]*

Participants also stated that due to the calming effect of kava they agreed that they were able to better manage stress, sleep insomnia and therefore it helps with their overall mental wellbeing. Participants also highlighted that social gatherings and the sense of connectedness created a 'safe space' where they could discuss family and personal matters within their circle of friends.

Figure 8. Responses to whether participants support the kava pilot program.

Participants reported general frustration about the inconsistencies of the implementation of the pilot program. It was widely understood that checking of kava in personal luggage by immigration was inconsistent therefore, it was easy to take chances in bringing more kava into Australia in the luggage.

> *"I recently returned from home and had 3kg of kava. I was asked do you have any kava, I said 'yes'. They let me through without even checking my bag" [Community focus group, 2].'*

"I think any kava you bring to Australia should have some type of stamp of approval and biosecurity out of Fiji than that's fine, because what is the point of us doing our due diligence to have a really good product and then people bringing in inferior products and people saying this is kava and is all getting a bad reputation because of the things we can't control so I think it has to be controlled for sure" [Community focus group, 8].

Furthermore, it was agreed by most participants that although the pilot program has created business opportunities, there are cost implications. For example, most of the processes and associated costs were not as clear and the dynamics created between the middleman and the kava growers were driven by the bigger exporters and leaving smaller businesses at a loss. It was also clear that there were only a handful of exporters in Australia and the exportation costs for each consignment was costly to small businesses.

On a positive note, participants highlighted how the packaging of kava has changed considerably since the pilot started, however, there is no quality mechanism in place to ensure that products being sent are 100% pure kava. The US and European market stipulate that quality tests are conducted by accredited labs and paperwork checked before any shipment. These stark differences with associated fees to export kava and the lack of quality testing made it more difficult for smaller family businesses.

Overall, responses indicated that the pilot was welcomed since it increased cultural wellbeing and provided an opportunity for businesses in the Pacific. For businesses that can compete in the market there are concerns about the quality of the kava being imported because it is being imported as a food product yet quality assurance across the Pacific are not consistent and still evolving.

3.5 Analysis of routinely collected data

Key findings

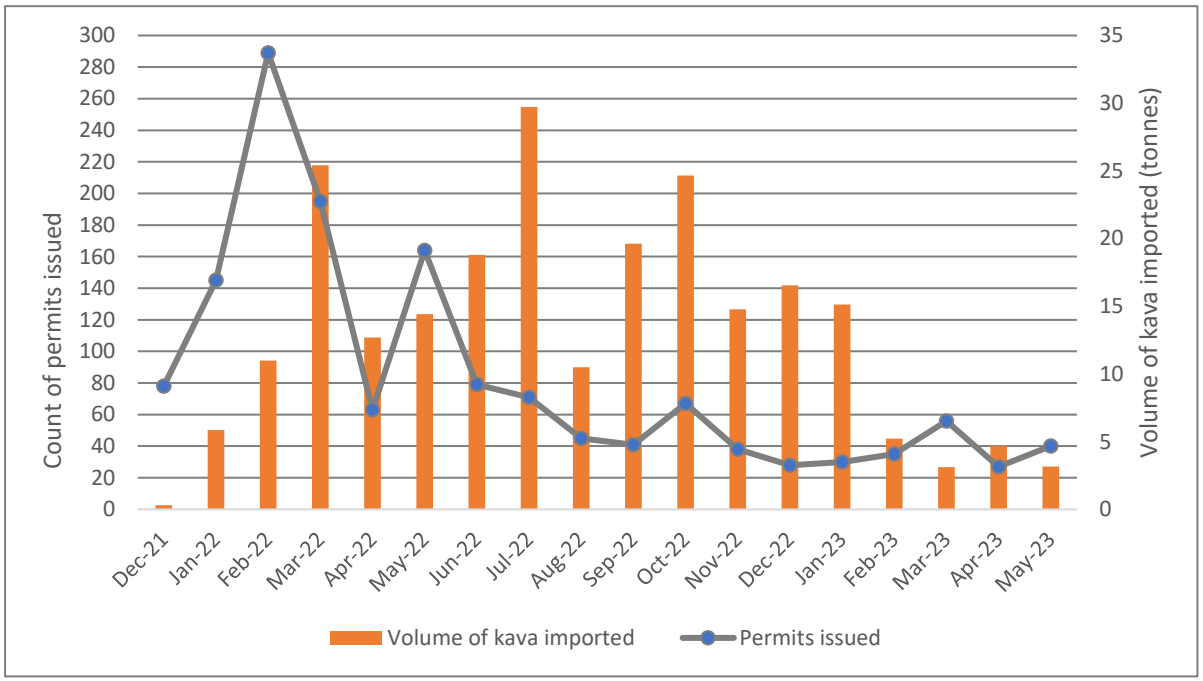
1. The number of permits issued for commercial importation of kava peaked at 289 permits in February 2022 and has since reduced remaining stable between 27 – 79 permits each month over the period June 2022 and May 2023.
2. The volume of kava imported varied each month with the highest quantity recorded at 29.7 tonnes in July 2022. In more recently recorded months of February 2023 – May 2023, the volume imported has been relatively stable between 3.1 – 5.2 tonnes.
3. Few people who identify as regularly using illicit drugs report recent kava use since the implementation of the pilot program.
4. The number of alcohol and drug treatment episodes where kava is cited as a drug of concern remains low, although most recent data available is from 2020-21.
5. The number of deaths involving kava remains very low, although noting that more recent estimates will be subject to revision as coronial cases are closed.

Results

Evaluation Question 4: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

There was an initial peak in February 2022 in the number of kava import permits issued and a lesser peak in May 2022 (see Figure 9). Since June 2022 the number has remained relatively stable. The volume imported each month has varied over the period between December 2021 to May 2023 with the highest registered volume of approximately 29 tonnes in July 2022. The lowest volumes of imported kava since January 2022 were in the most recently recorded months of February 2023 and May 2023 ranging between 3.1 – 5.2 tonnes.

Figure 9: Kava import permits issued, import volume permitted, and actual volume imported from 1 December 2021 to 31 May 2023.



Evaluation Question 3: What have been the health, cultural, social, and economic outcomes on various populations?

Illicit Drug Reporting System and Ecstasy and Related Drugs Reporting System. Analyses of data from the Illicit Drug Reporting System (IDRS) and Ecstasy and Related Drugs Reporting System (EDRS) show that less than one-in-five reported past six-month use of kava in 2020-2022 (Table 8).

Questions were asked on means of accessing kava and forms obtained, however numbers reporting are less than 10 and thus are not included here.

Table 8: Past six-month use of kava by people who regularly inject drugs (IDRS) and people who regularly use ecstasy and/or other illicit stimulants (EDRS)

Sample of people who inject drugs (IDRS) % (n)			
Used kava in past 6 months:	**2020 (N=884)**	**2021 (N=887)**	**2022 (N=879)**
No	99% (878)	99% (880)	99% (869)
Yes	1% (6)	1% (7)	1% (10)
Sample of people who use ecstasy/other illicit stimulants (EDRS) % (n)			
Used kava in past 6 months:	**2020 (N=804)**	**2021 (N=773)**	**2022 (N=700)**
No	98% (785)	98% (754)	96% (671)
Yes	2% (19)	2% (19)	4% (29)

Alcohol and Other Drug Treatment Services National Minimum Data Set. Analysis of the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS) identified 13 drug treatment episodes (of a total 3,106,280 episodes) where kava was identified as the person's principal drug of concern nationally between 2002-03 to 2020-21. None of these episodes occurred subsequent to 2019, although noting that data was only available until 2020-21 at the time of preparing this report.

There were 98 treatment episodes where kava was identified as any drug of concern over that same period. There were less than five episodes each year subsequent to 2019.

National Coronial Information System. Fewer than 10 deaths were identified involving kava in Australia since 2001. No deaths were identified subsequent to 2019, although it should be noted that only more recent coronial cases are less likely to be closed (i.e., as of January 2023, 91% of all cases in 2019 were closed, 81% of 2020 cases, 42% of 2021 cases, and 19% of 2022 cases).

***NSW Ministry of Health data sources*.** As noted in Section 0, data collated across sources by New South Wales Ministry of Health was shared with the evaluation team for informational purposes. This data cannot be published publicly because of issues of confidentiality but have been provided as a separate addended report to the Commonwealth Government with permission from NSW Ministry of Health.

3.6 Commercial importers data

Key findings

Key findings from the interviews with commercial importers:

1. Commercial importers agreed the second phase of the pilot program has been achieved in increasing the amount of kava allowed in Australia.
2. Greater access to kava in Australia has strengthened cultural and social ties among Pacific Islander communities in Australia. It has also promoted bilateral trade between the Australia and the Pacific Islands.
3. Pacific Islanders are the main groups purchasing kava from the commercial importers.
4. NSW, VIC and QLD are the three main States where kava is distributed and sold.
5. Facebook is the main way consumers purchase kava from commercial importers.
6. There was a general consensus about the need for a stricter regulation regarding issuance of permits, a revision of one permit per shipment process, consistent labelling requirements and a more streamlined application process.
7. Concerns regarding the limited regulations, governance and inspection of the quality of kava imported.
8. A potential increase in black market sale of kava due to increase in personal importation limits.
9. There is a lack of awareness and public health education on kava.

Results

Evaluation Question 1: To what extent was the importation pilot implemented as expected?

This section aims to understand the importers' general views of how the kava pilot program has been implemented in Australia, including both the personal importation and commercial importation changes. Importers were asked their views on the successes versus the challenges with the implementation of the personal and commercial importation components of the pilot program.

All importers agreed that the purpose of the second phase of the pilot had been achieved. Some importers reported that since this phase commenced, they have imported significant amounts of kava into Australia. This has provided access for many Pacific communities in Australia. The commercial importation pilot was commended by participants as a good source of revenue for both Australia and Pacific

Islands. However, almost all importers were disappointed about the increase in the personal importation limits as they viewed it as having a negative impact on their business and the commerial importation. They agreed that prior to the introduction of commercial importation, the personal importation limits increased the supply of kava because of the shortage during the covid pandemic. Their expectation was that once the commercial component was introduced, the personal importation limits were either going to be removed or reverted to 2kg per incoming passengers 18 years and over. They argue that the increased access from 2kgs to 4kgs means people might not purchase kava as much from importers.

> *"Overall, it's positive. You know, it's basically an opportunity to expand and provide a service in a market that was previously banned in Australia. So, overall, implication on my, my company, as an importer, it's, it's a positive outcome…What they should do is revisit the personal limits again. Why I say that, you know, the government invested a lot of effort into putting this pilot program together yet not looking at what was open in the past. And how do we fine-tune that piece? Because we're getting commercial and personal importation. There's no control, and I think that needs to be revisited because that's impacting businesses; established businesses who are doing the right thing, who are trying to build a market in Australia. firstly, with the personal use, they need, the legislation needs to be reviewed and maybe, you know, from four kilos to maybe one or two kilos, only because product is available, you know" [Importer 8].*

Others reported the consultation process could have been more extensive to get views on the implementation of the comemrcial pilot.

> *"We need to maybe have a consultative process where there's a bit more thought put into the program. I think the program itself is, is a good way but there's, there's, there's some controls that need to be put in. Who can get a licence? Why they can get a licence" [Importer 3].*

Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

This section aims to capture the importers views on two of the expected outcomes of the kava importation pilot program.

Greater access to Australia

> *"Overall, it's positive. You know, it's basically an opportunity to expand and provide a service in a market that was previously banned in Australia. So, overall, implication on my, my company, as an importer, it's, it's a positive outcome" [Importer 8].*

Although the introduction of the commercial importation pilot has indeed increased access to kava in Australia, there are some unintended negative consequences due to this increase. Some of the negative impacts identified include the oversupply of kava in Australia due to the personal importation increased limits because people can now travel and bring kava with them.

The oversupply has been driving down the price of kava because anecdotal evidence according to the importers shows that passengers who have brought in kava in their personal luggage have been selling their kava at cheaper prices instead of using for their personal use.

Increase stronger cultural and social ties in Australia

The importers acknowledged that because of the increased access to kava, this has strengthened the cultural and social ties in Pacific communities..

> *"It would be opportunity for people who have Pacific Island heritage to have access to their, their cultural, cultural-related products, mainly, mainly, because of ceremonial needs" [Importer 7].*

> *"Because we use it for cultural. It, it's a cultural drink for funerals, for weddings, for even asking a hand for, for a lady in, in, for courtship. We use the kava as a traditional thing" [Importer 17].*

The covid pandemic significantly affected social functions everywhere and within the Pacific communities, they could not organise these social functions and have access to kava for such occasions "*And I think, when the border got opened, they bring in every, every aspect of it. And they, when they actually have their social gatherings or traditional gatherings in Australia, they utilise kava. So, it's a gain. I really appreciate that Australia has lifted the ban for kava" [Importer 18].*

Hence the commercial importation has provided opportunities to have kava at such functions which makes them feel connected to their roots and country.

Kava is known to be a social drink that helps ease conversations and helps with relaxation in social settings. Others have reported drinking kava helps to promote communication and friendship.

> *"you know, for socialising with their friends, their family. And it's also with the traditional cultural things like weddings and things like that. Like, you know, they like to, to do like, to have like the kava ceremony and all that; drinking kava." [Importer 1].*

Yet still, an importer believed some people spend excessive amounts of time consuming kava in a social setting which could lead to neglecting duties. To regulate the amount of time spent in a kava session, it was suggested that there should be time limits to help attend to other responsibilities

> *"And I know most of the Pacific Islanders, their socials and get-togethers are all based around the church. And, after their church function, they always sit around and consume a bit of kava. And it's just the amount of time that a gathering consumes is, for me, it's excessive, right? It just ends up being a, you know, like for a church service you would think would be two hours, and going and coming another hour, so three hours. But it turns out in the end to be like, you know, six hours at the minimum, which, which is almost like a day. So, those things for me are not practical. it stops people from doing other things and devoting time to what they should be taking care of. And, yeah, those are the downsides…But I would like to just see the leaders take the lead in this; just limit the amount of time that's spent on these activities" [Importer 15].*

Increase in bilateral trade relations between Australia and Pacific island countries

The ban on the commercial import of kava arguably affected Australia's bilateral relationship with Pacific Island countries. The importers agreed that the re-introduction of the commercial pilot will strengthen the relationships and promote trade between the countries. It appears it was a contention between Australia and Pacific Island countries and the pilot helps to resolve this contention:

> *"I think, I mean I think, politically Australia, obviously, wanted to draw closer ties with its Pacific neighbours and this is definitely one way that they could sort of bridge that gap" [Importer 20].*

> *"there's definitely a lot of trade going on between Pacific Island countries and Australian now with kava" [Importer 12].*

There are mutual benefits for the two countries in strengthening the trade relationship and reducing barriers to kava trade in the Pacific region.

Benefits to Pacific Island countries

The pilot presents an opportunity to strengthen the economic development of Pacific countries. The increase in revenue can be seen both from the government, community and individual perspectives.

For governments, the pilot program will increase export and tax returns which would help to build the economy *"Last year alone, Fiji make 47.9 million dollars on kava alone. The largest ever export product out of the island", [Importer 16].* Another economic benefit is towards generation of revenue for export businesses, jobs for Pacific Islanders, especially for farmers who grow kava to increase their farmlands and employ more people. The pilot has reportedly led to the empowerment of communities in the region through the supply chain, income generation, and improving livelihoods of families.

> *"I think Tonga, Vanuatu, and Fiji are perhaps benefitting the most right now, and maybe that's because of their, their responsive nature to, to build capacity and get their products exported into the Australian and meet Australian standards" [Importer 20].*

> *"what does this mean for the Pacific communities and the exporters or suppliers out there is actually it creates jobs, a stream revenue, income, and, also, puts some of these smaller nations, you know, a good spotlight if the product is good" [Importer 8].*

An importer juxtaposes the pilot program with aid that Pacific Island countries receive. The former is reported to be more beneficial which has a significant generational impact. It also shows self-determination in Pacific Island countries where they are able to use their resources to meet their economic needs:

> *"From the Pacific Islanders, it's positive because … it's really positive because it's an economic opportunity for really grass-roots people to access a market that they never had before. In other words, it was better than aid. It's better than programs because it's their cultural heritage and their expertise that you're now opening to our market and that's an opportunity they can work at. With their endeavour, they can get reward for and it beats working at minimum wage, which they mostly do in those countries, for overseas employers, and they can't break that cycle of poverty. And this gives them a real opportunity for multi-*

generational wealth. I mean it's a small opportunity but it's some opportunity and I really support that part of it" [Importer 4].

Benefits to Australia

From the importers' view, another main benefit of the pilot program is generating revenue for Australia. This was highlighted by almost all importers. Economic opportunities mostly identified were income tax and employment opportunities for importers, customs, and retailers.

"We pay a lot of GST, Customs duty, and all that sort of thing, so that's an income for Australia" [Importer 14].

"I think the Australian government will probably make more money out of pharmaceutical companies. I think, from that perspective, there's a better return, from my perspective. But, from the retailers, they're gonna make some money but not, it's not gonna be super-duper" [Importer].

"There's a massive amount of tax. GST alone could be, GST alone could be 15 to 20 grand a month" [Importer 7].

"I think with, with the effects of COVID–19 taking its toll around the world and Australia, Australia's starting to build its economy again, and I fully believe that the kava pilot program for Australia will be one of many economy-building components for, for the government" [Importer 10].

"And it also creates some non-tangible business for other people like transport companies, Customs clearance agents and all that" [Importer 11].

There were some importers who had different opinions on how beneficial the pilot would be for Australia. They did not agree that it would generate revenue for Australia

"I don't think it will increase revenue for the Australian government per se, unless they start taxing it; until they start putting some taxations and, and all of those things. I don't think there's a, there's a huge benefit to Australia." [Importer 3].

Other benefits

There were other benefits of the pilot which was reported by the importers. This ranged from health benefits, replacing alcohol with kava, relaxation, reduced anxiety and depression.

It was reported by the majority of importers that some people are reducing their intake of alcohol and replacing this with kava because it is not addictive and makes people calmer.

> *"…because the, the side effect of kava is much lesser than the side effect of alcohol, you know. So, so, that's why a lot of people are turning to kava now" [Importer 1]).*

> *"…I think there's a lot of people that we know, they don't like drinking alcohol but they, they, they like to drink kava. So, they have that, you know, option available for them" [Importer 19].*

> *"…people started drinking kava because they find it relaxing as well. So, in Australia itself, I think people, people are starting to enjoy the benefits of it as well and there's a good relaxation to it" [Importer 3].*

> *"A few of them have been alcoholics and they have taken it upon themselves to switch to kava. And they've got nothing but good things to say about it. But not just them: their wives and their families. it has changed the family dynamics where it was from an alcoholic, abusive family to now a totally different dynamic now where the husband is spending less and has become, he's relaxed a bit more" [Importer 20].*

It was also reported that kava is being used as alternative therapy for anxiety, depression and sleep problems. Anecdotal evidence shows that kava is likely to have both sleep-inducing and sleep-quality improving effects.

> *"There is the practical aspect of the medicinal purposes that this might be helpful for other Australians out there as well. So, giving them access to alternative medicine that … that we would otherwise consider something normal back in the islands, you know" [Importer 20].*

> *"it will help a lot of people with a lot of anxiety, depression, everything" [Importer 9].*

> *"And, personally, I have a lot of customers who, who are suffering from anxiety, sleep, and I mean they've heard about our kava based on, you know, the trends in the US, and they used to depend on alcohol, as an example. So, I've had a few clients switching over to kava, to drink kava, to help them sleep, and their experience has been very positive. So, I think there's a lot of positives around that, you know, for, for the users, for the government" [Importer 8].*

Regardless of the reported benefits of kava including its recreational and cultural use, the evidence of health problems that have been reported elsewhere should not be underestimated. Excess of any substance is harmful to the health of any individual which was also acknowleged by the importers. More research is therefore needed to understand the health benefits of kava and the long-term effects of excess consumption.

Evaluation Question 4: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

The commercial importation has increased the supply of kava in Australia with many businesses importing kava. The supply has increased demand which the importers attested to.

> *"There is an increase in demand for kava. My 20 kg just comes and boom!" [Importer 17].*

> *"There is, I mean there is excess of supply but, in terms of demand, I would say it's sort of … it's probably increased, I guess, because it's, it's cheaper now to actually, you know, buy kava" [Importer 19].*

> *"Absolutely, absolutely. I have seen a lot, a lot. A lot of people are very interested in coming in. A lot of, a lot of businesses, business owner, especially here in Australia with the people with money that they want to tap in, tap into the, the imported kava because probably they already know what the benefits of the kava is gonna produce, you know" [Importer 9].*

> *"I've definitely got heaps of demand for kava. Like, sorry, I've got people in different states constantly calling me. Like every, every now and then, like people are so desperate for it they'll call me like a Friday night and say, "Can you drive up to Shepparton?" It's like two and a half, three hours away to drop off like 10 kilos of kava. Most of the time, I do end up driving there on a Friday night but yeah a lot of people, there's definitely a lot of demand for it" [Importer 12].*

The commercial supply has led to an oversaturation of kava on the market which has also led to lower prices of kava which was very high during covid due to limited access to kava.

> *"So, so a lot of people are coming into the kava market there but they don't really know that is a very saturated market in Australia at the moment" [Importer 18].*

"Absolutely. I think, from … from what we have experienced, I think there could be an oversupply at the moment because of the way the, the market has … You know, we talked to other, a couple of other suppliers here, the importers, and the trade has slowed down quite a bit" [Importer 14].

"And now that the market has sort of, kind of been flooded with kava, now the prices have come down. And, and people have access now. They can get the cheaper-quality kava, if they want, or if they want something reasonable, they can look for that as well" [Importer 15].

"especially when you look at kava and obviously post-COVID, there was really, I mean if you were to look at the, the amount of kava or what, what we had in this country was really at a minimum, which, which really created a massive demand. And there was a, a, a really massive, I mean a huge influx on the per-kilo price of kava. So, I think, when you look at phase II of the project, what it did was obviously, it actually brought in more access of kava and really reduced the, the price point as well" [Importer 1].

Groups accessing kava

The importers discussed the groups accessing kava currently. While mostly noting Pacific Islander people as the primary group accessing, importers did make reference to broader members of the Australian population accessing the product, including young people. Although there is no specific regulation against selling to young people under 18 years, all commercial importers reported they do not sell to under 18 year olds.

"…although it is not an, it's not an alcohol but we try and refrain selling it to people below 18" [Importer 18].

"So, I can sell whatever but the only thing they didn't allow, the restriction, you're not, you're not allowed to sell the kava to under 18 years old. So, only 18 above you can sell the kava" [Importer 14].

Although there are other demographics interested and being introduced to kava, the biggest consumers remain Pacific Islanders:

"So, so mainly the market demographic is predominantly Pacific Islanders who understand the product, who know about the product. I've had a few newer customers from mainstream market that aren't Pacific Islanders, who, who, who religiously buy my product because they have they swear by it" [Importer 20].

"My personal feeling is that we're not growing the market for kava in the general market: it's mostly being sold into the islander communities, people who know about it" [Importer 11].

"The Pacific Island communities are the biggest consumers of it, or the Fijian communities as well who are the biggest. there is a growing interest — small though — of, of Europeans or, or non-Pacific Island community interested in kava; interested in exploring it" [Importer 13].

"But the non-Pacific Islanders numbers are growing. I wouldn't say daily but it's growing weekly" [Importer 6].

Another group accessing kava from the importers include the seasonal workers who come to Australia.

"Yeah, but, also, increasing the demand because, you know, the seasonal worker come from Tonga and Fiji, and Samoa. They come to Perth, Tasmania, you know, Melbourne" [Importer 5].

Distribution of kava

It is important to discuss the distribution of kava in Australia and where it is sold to help with potential monitoring. The main jurisdictions where kava is distributed is to customers NSW, QLD and VIC.

"So, at the moment, we only just, so our, our customers are just in New South Wales or mostly just in Sydney… in like Queensland, like Victoria" [Importer 19].

The majority advertise their products online and also rely on word-of-mouth to sell their products.

"so it's more like word of mouth because, if someone bought kava from us and they, and they drink it, and they say, "Oh, it's a really good product. It's very strong. It's very clean," and all that, so, I think it's more like word of mouth they will like tell their friends and they, you know, they will, you know, their friends contact us and want to buy" [Importer 19].

"The bulk of my sales actually come from word of mouth" [Importer 12].

"Yeah. I mean in the Pacific Islands word of mouth is always key. Always, to this day, as the best way; as the best form of marketing. And, of course, communities, social media, everyone's on Facebook and stuff. So, for

> *Facebook it's, yeah, a wonderful way to, to market stuff because all the, all the people, that's the only thing they know; especially the Pacific. It's Facebook. Yeah. So, yeah, Facebook, local communities and … word of mouth" [Importer 16].*

The majority reported online businesses mostly on Facebook Marketplace as the main sale point for their products which was followed by retail shops and selling in the markets.

> *"I have a Facebook page, and they just message me from there. Or just a phone call. And I send it over through post to them" [Importer 10].*

> *"I've got like a website set up on Shopify. I've got a Facebook page" [Importer 12].*

> *"But kava is, it's rampant on Facebook" [Importer 11].*

> *"Look, I, I started off with Gumtree. The good thing about Facebook is that you can actually see the profile of who is selling. The profile of people with Gumtree is slightly, you know, usually, the, the older generation, whereas with Facebook you, what you may find is that it's the, it's the young kids. And, look, you know, if, if I was to sell something, I would wanna make sure that I would put my product in a place where it has the greatest audience. So, that's why I kind of lean towards Facebook" [Importer 1].*

Although kava is banned in the Northern Territory, an importer reported that people from the Territory purchase kava from the Facebook page and it is mailed to their address.

> "*People have bought from Facebook. They can order from Northern Territory via Facebook Marketplace, and they have no issues" [Importer 18].*

> *"I know it's being sold in supermarkets and things like that, the IGAs and some of the supermarkets are pre-packing; they are able to sell it off the shelf, if I'm not wrong, in the supermarket. I haven't seen one but I know that there are some places that sell off the shelf, that's licensed" [Importer 3].*

The challenge with selling on Facebook is anyone can sell and it could either be an importer or an individual who has brought kava in their luggage and selling to people. It is therefore difficult to control the online market and could pose a health risk if the type of kava sold is low quality.

"…a lot of kava is being sold on Facebook Marketplace. o, what that means is there's probably no control. No-one knows where it's coming from. There's no control. There's no control in there. A lot of tourists are still bringing kava for personal use but, actually, selling it on-line. So, I think that process needs to be revisited where maybe some form of disclaimer sign that 'this is personal use and we will not be reselling this product', only because the commercial pilot program's now in place. Travellers are not just selling on Facebook: they are also selling to retail shops, which is a concern. The travellers are bringing in kava. They go straight to the retailers in Sydney and say, "Hey, I've got, you know, between my family, there's five of us went to Fiji. Here, we've got 20 kilos. We only want $50 a kilo," and the retailer's, "Okay. I'll take it." So, I find that the retailers are also, I mean most retailers are not doing the right thing" [Importer 8].

Sale and supply of kava as a food

The majority of importers import kava as food, specifically kava powder and must meet certain conditions. There were interests to diversify into other products if the pilot continues.

"Yeah. It's a powder. We don't, we don't bring it in for medicinal purposes. We just sell it as a food product but we also import it as an extract as well" [Importer 12].

"Yes, yes, yes, a powder, It comes here as a powder, yes. I just import straight away as a powder" [Importer 5].

"as in a powder form; yes, as a food" [Importer 14].

"Yeah. It comes as a food item" [Importer 15].

Imports of kava regulated by permit

Importers must have a permit issued by the Office of Drug Control (ODC) to import kava. To apply for permit, the importer must have an Australian Business Number (ABN) and registered to pay GST, kava formulation needs to be approved by the Department of Agriculture, Fisheries and Forestry, mimimum importation is 20kg and above, imported as air or sea cargo.

"But the way the permit is now allowed, the permit is basically anyone with an ABN number appears to have been able to import kava" [Importer 14].

As part of applying for the permit, importers must meet certain reporting requirements. The Office of Drug Control collects this data to help monitor kava imported and who it is sold to.

> *"All permitholders need a, will have to supply a report every month to the ODC. And I think that's the best way to track the, the kava that's coming in, commercially, and distribution. And the failure to do that, it's gonna cause the termination of a permit or the rejection of future permit applications. They, they actually provide us with a, with a Excel format on how to do the recording and the report. And it's both for retail and wholesale" [Importer 10].*

> *"We do monthly reporting, as required by the permit" [Importer 14].*

Evaluation Question 8: Are there any unintended outcomes/consequences associated with the pilot?

Implementation of the pilot

The concerns raised around the implementation of the pilot bordered on the regulations around the pilot, permit application and issuance of permits. The importers perceived the pilot could have been better planned and implemented because there were a lot of changes at the beginning with limited guidance.

> *"Like most government things, it seemed like a decision came from up high but the, the people that were to put in the policies probably didn't even know it was gonna happen, and, so they were making policy on the run. And what concerned me most is that there was no real guidance for something coming off the Prohibited Drug Scheme to be imported into Australia, and then people were, kind of had to make it up as they went along, which they're being supervised by Customs and Border Force, and Food Standards, but, considering it was coming off the Prohibited Drugs List and then coming in, I thought there would have been more tighter regulations to say, "This is how you'll have to do it and this is the limit you'll have to bring in." That's what I thought. But it hasn't really affected me, but, and that's just what I thought about the program. I thought it was pretty vacuous" [Importer 4].*

Although the pilot provides opportunities for people to set up import businesses, it appears that there are no strict regulations regarding who can apply for permits. Importers reported that anyone can apply for a permit as long as they have an ABN regardless of whether they are in the food import business or not. The permit application also does not request the amount of kava that is going to be imported. This

was identified as a huge problem which has many implications. The importers would like the permit process to be stricter and regulated thoroughly.

> *"I don't know how people who are not in food business, like, like, for example, I know of panel beaters and accountants. They are able to import kava whilst, whilst this is a food product. So, that's, that's probably one of the things that I think can be looked at, you know; the way, the way the permits, permits are granted" [Importer 14].*

> *"So, maybe perhaps limiting the licences that are being handed out. Making a bit, making it a bit more I guess strict around who gets the licensing. What type of … A lot of people are, are jumping on board by just forming businesses or in the last, I don't know, two or three months, and getting these licences; just take advantage of the opportunity" [Importer 20].*

> *"The way it was told to us, how the permits will be given, we thought it would be much harder because one of the criteria was that our permits would be only given to the companies of people who are in food and beverage business. That was one of the criteria and that didn't happen. They should cross-check. Like I have applied for so many permits. I never even had a phone call just cross-checking who I was, what I was doing, what business what I was at. And the only criteria is that they check your ABN, and ABN is so easy to get. issuing of the permit needs to be a little bit more strict. It's far too relaxed, I think, and the permit was supposed to be given to people or companies who were an import and distribution business. But it appears that everyone has got a permit now. It includes … We know, we know retired people having permits who are not in any business whatsoever. Housewives. Motor mechanics have got permits. So, that's causing the oversupply of kava in the market and how ethically they are selling is another question" [Importer 11].*

The process of applying for the permit was onerous in that for each shipment, you have to apply for a new permit:

> *"Then they said, 'cause you can only use … The only issue I would find is just having one permit per shipment because, if I apply for a permit and they said … I apply and say, "Oh, I wanna bring in a thousand kilo," I can only use the permit once. [Yep] I think that was, that was the, that's the only issue that we found. But, that you can only use the permit once and once, and however … it has to be under the, the maximum that you, that you ask for. So, if you bring in like a hundred kilos, too bad: you use up your permit; you have to apply for a new one. That was, that was the issue" [Importer 19].*

> *"At the moment, it's one shipment, one permit per shipment, at the moment. So, if you want a second or third shipment, you're gonna apply for the permit again…Going forward, it, if it can be like in one application or one permit for two or three shipments, that'll be, that'll be great" [importer 10].*

Per the regulations, importers had to include warning labels on their products although some felt there needed to be more emphasis on the warning labels.

> *"Yes. I have to go through with a solicitor to make sure it's labelled correctly and accordingly to what the pilot program, in accordance with the pilot program's rules and regulations were" [Importer 6].*

> *"There has to be, there has to be kind of, we need to introduce more, more warnings that, you know, if you are drinking kava and, you know, you could get busted for drinking and driving; something like that, yeah" [Importer 1].*

Others also reported that there was limited guidance on age restrictions sales

> *"So, my suggestion I would say would be, you know, having some sort of age limit as to who can buy or, you know, because at the moment I don't think there's an age limit of, you know, say if it was under 16 or under 18 can't purchase kava. Something like that may need to put on the label as a, as an importer. So, that, that would probably … There's always a possibility that it's getting misused, you know" [Importer 14].*

Import and customs

The importers appeared to have had mixed experiences with customs in clearing their shipments. While some reported the customs process as smooth, others found it confusing, with long wait times, lack of information on labelling requirements and generally a difficult process. The process was also deemed costly especially because of more custom duty costs you have to pay.

> *"I attended a lot of the webinars and wot-not as part of the discussions, and I must say that you know, it was very well-organised by the teams" [Importer 8].*

> *"The documentation was very clear and it was quick. But the timing, the timing to, to process the applications, I thinkit was 30 days, it was long. It was too long. We've gotta, have to minimise that" [Importer 9].*

> *"It was quite hard to navigate. I found it very difficult, especially the, when it comes to the Customs" [Importer 17].*

"It is complex and it is expensive" [Importer 4].

"when it comes in for Quarantine, for inspection and all that…we have to wait at least I think four weeks for Quarantine to come and do the inspection. 'Cause I think, yeah, but that inspection like , seriously, it took like five minutes." [Importer 19].

"when shipment arrives in Australia, I've found that's been the worst, the worst challenge, process-wise. You know, it's at quarantine, in Customs for six to eight weeks. Now, there's no update. Even logistics team are following it up. There's no real updates. I don't think their process is streamline and, in my opinion, it can be done a lot better. It can be done a lot better" [Importer 8].

Others also reported that there were frequent changes in the importation requirements and documents which affected the importers. One importer reported how he had printed the warning labels that were required and once the shipment got to Australia, was advised the requirements had changed within the period the shipment was enroute so had to print new labels which increased their operational cost.

"I think that, procedurally, the process was quite haphazardly done. I'll give you an example. In terms of the application process in itself, I think the application for an import licence permit had changed perhaps three, three times over the course of a month or two. There was all, a lot of mixed information being communicated from the high levels to what was happening on the ground. There was a lot of, yeah, miscommunication in that" [Importer 20].

Another issue that was highlighted is the cost of the shipments. It was reported that there was not much clarity on this. Despite these experiences, it was reported that a thorough compliance check is done and once the shipment is inspected and they notice an error, the importer is given the opportunity to rectify it or the shipment is returned.

"So, you have, like you have to include it in your labels where, where the kava was bought from and who processed it, 'cause in Tonga there's only specific facilities that they are licensed or have permit to process kava, to be exported to Australia" [Importer 19].

Quality control

Another important issue raised by the importers was the issue around the quality of kava. This was mostly attributed to both the personal and commercial importation of pilot. They opined that because there are no stringent criteria for applying for a permit, people are importing all grades of kava into Australia. A huge concern has been the

quality of kava imported from Pacific countries. It has been reported that people have taken advantage of this pilot to grow kava. Although this is a good business opportunity, it has been noted that some farmers do not wait for the right harvest period to harvest their kava. Which reduces the quality of the kava that is imported. Also, once the shipment arrives at customs in Australia, there are no tests done to assess the quality of the kava.

> *"There are people who are actually selling a little, little downgraded kava. If you're not careful, you might not get the best quality kava" [Importer 18].*

> *"How do you regulate something like that? How do you regulate quality and how do you regulate what should be consumed in terms of what are you putting into your body? Are there additives being put in that'll cause adverse effects to consumers? Even getting a licence from my perspective, getting one of these sort of to say, "Yes, I can import," was simply getting on-line, filling out the form, and three days later I received a certificate, saying, "You can import it for x amount of time," and that was it. And I'm going, "Okay," you know. "Is that it?"" [Importer 3].*

> *"And there needs to be more control with respect to the quality rather than the quantity of kava that's coming in. Because there's so much access to kava and because there, and the varieties are kind of, there's different varieties of these different levels of kava that's coming into the country, there's really no controlling it with respect to the quality" [Importer 1].*

> *"Now, not only that, you know … And that also opens up a can of worms. If travellers, tourists are bringing it in and selling it, what if there's contamination? What if someone gets sick? And who is responsible? Unfortunately, it's the importers who are doing the right thing and following the process will get impacted because, potentially, this could go to a ban again. You know what I mean? So, I think where the government needs to look into it" [Importer 8].*

Other importers reported that their government conducts routine inspections and quality checks of the kava powder produced.

> *"…they come and take a sample out of every sort of batch that we do, and they also come and inspect our factory, and like any insects, bugs, dirt, dust, it has to be perfectly clean. It's a very high standard that's kept up to, which is a very good thing that, 'cause it is a tropical, tropical country where there's lots of humidity and bacteria, and things that grow very easily there" [Importer 12].*

Another challenge reported was that regardless of the quality of kava that is sold, the price could potentially be the same. In some instances, people who have low grade of kava can sell it cheaper which affects other business who have high quality kava and are selling at a premuim price.

> *"I could actually bring a, really low quality of kava and still market, and sell it at, you know, let's say $140 a kilo, whereas someone else could be bringing the really top-grade kava and be selling it at the same price point as well. So, I think we, we need to kind of put control or some measures around it, around that" [Importer 1].*

This is a real problem because it is possible that the low grade might lead to health problems which could impact commercial importation.

Potential Increase in black market

The sale of kava on the black market has been identified as an ongoing problem posing health risk to the public. The black market has increased due to the increase in the personal importation limit from 2kg to 4kg and the lack of regulation. In addition, anecdotal evidence shows people import kava through other channels evading taxes and customs. Importers expressed concerns on how black marketing of kava will have an impact on genuine businesses who are following the procedures to bring kava into Australia.

> *"But there's also some illegal way of bringing kava into the country as well, you know. We've heard of people bringing kava into containers, in frozen, frozen goods. And it's … That kind of thing then defeats the purpose of having, having the, the program, the pilot program" [Importer 14].*

> *"For example, we pay income tax for the money that we collected or imported through this licensing. However, there's Joe Blog down the road who bring the kava in on his own without a licence, and got in here, and he's selling the same stuff as we do, but he doesn't get charged: we do" [Importer 16].*

> *"Look, I would say it was pretty good, when the border was actually closed. When there were limited people who were importing kava. But, when the border got opened for Fiji and all the South Pacific countries where the, the benchmark from 2 kg to 4 kg was lifted, that's when everything went wrong…So, a family of four go on a holiday. They buy 4 kg each, it comes to 16 kg. Now, 16 kg comes up without any taxation, nothing. Say they buy it for $60 or $80 in Fiji, they bring it over to Australia to sell at cheaper rate. So, we, where we are*

paying all the legal taxations, GST, so it's very difficult for us to compete with them" [Importer 1].

Black marketing of kava also affects the prices since individuals can afford to sell at lower prices which affects retailers and businesses. Also during covid, people profited from kava sales by selling at exorbitant prices.

"We, we know in the market. And these people mostly sell directly to the consumers and whereas we are selling it to the retailers. a lot of people are travelling and they're bringing four kilos, and they just sell it straight to the consumers. So, people who are in the proper business are being affected. So, we are disadvantaged in pricing as well" [Importer 11].

"…when the aircraft workers, the crew members of the aircraft, when they make a trip here, they bring in supply to some of their families as well. So, every trip they make, they bring about four, five kgs in supply to the family. So, it's like illegal supply. It's, again, in the black market. It comes up to the black market and, you know, the aircraft comes in daily. The family gets the daily supply." [Importer 18].

"Well, there's more kava available in the markets, so prices have come down considerably rather than when it was happening in black-market situation. And the only thing we've seen is the price come down because, for example, last year, when it was not allowed to be brought in, around this time it was selling for about $400 a kilo, whereas now the market is struggling to sell at $120 a kilo" [Importer 11].

Furthermore, the black market also increases the health harms of people because of impure kava that may be sold which could affect the pilot program.

"They, if the permits are issued properly, then that'll control, people are paying proper taxes and dues, and insurance as well. And the last thing you want is someone gets food poisoning or something like that with kava, and the whole kava market will be destroyed" [Importer 11].

"How about all the kava that is being, being brought by all the tourists? So, we don't have any control over that. And what actually happens, the impact of that is actually coming back onto the permit holders. According to the government, the permit holders are the ones who are supplying kava in whole of Australia but they're actually total in denial what is the major, the major quantities coming through the tourism. Then what happens to that? So, we will eventually get the blame for something we are doing right" [Importer 18].

The main concern from importers perspective is when people sell kava for personal use, and people should not be selling because it affects businesses. There are fears that because of the increase in the personal limits, kava is now saturated in the market and selling at a cheaper price affecting business.

> *"They can bring four kilos but they're not supposed to be selling it. So, that's what I'm saying. They bring four kgs every day and they supply. That's about five fours, 20, 20 kgs per week. That's legal brought in but the family shouldn't be selling it" [Importer 20]*

> *"That's, that's my only concern is the, you know, if, if, within the pilot program, if there's sort of like limit to the tourism bringing in, the tourist bringing in kava to, with them in Australia, then it would be quite helpful to us permit holders. Otherwise, slowly, you'll see all the small permit holders will shut down their business and there'll be a few bigger ones. And, eventually, they will not be able to afford it. And then all the permit holders will become a mockery. And then the illegal supply, and there'll be abuse. And then the government realises it. They'll put a ban on kava again. And again it's gonna be South Pacific countries people who are doing everything right, will be suffering again." [Importer 18].*

Lack of education and awareness among the general public

There is a lack of awareness of what kava is and how it should be prepared as a food among the general population. Part of the education is learning about kava, its preparation, safe drinking practices. Most people associate kava with the ban in the past due to historical problematic use. It appears there was not much education about kava before the pilot was introduced.

> *"Obviously, there needs to be some educational awareness and cultural awareness around the, the use of kava rather than the abuse of kava, particularly with cultures or populations within Australia who might abuse it for other purposes than it's intended for. But then you get, you get abuse in every, with every product, like alcohol or, you know. And I, I guess kava's just another one of those that we've just gotta be aware of. There is potential for abuse but, in terms of, you know, wider negative implications, I don't, I don't foresee any." [Importer 20].*

> *"Not only that we can introduce them but we can teach them how to use the kava properly, how to mix the kava properly" [Importer 9].*

"So, I sort of explain to them what kava is and so on, and so forth, and how to drink it, how to mix it, and how to prepare it properly. Some of the labels of saying how to prepare I've changed now but some of the labels that people have been buying from different companies and then doing the mix, and then feeling sick the next day, then coming back to me and saying, "Oh, I tried this one. It's not …" I said, "How did you do it?" And then shows me how to do it. And I says, "No, no. That's not how you do it." So, then I show them how to properly clean it and sift it properly" [Importer 6].

"It needs to be out there, advertisements and, or people not to be, people are like afraid, you know. Like imagine I work for the Catholic Church and I brought kava into the monastery, and all these Aussies were like, "Oo! No, no! It's poison," you know, 'cause they'd have no idea. So, that's where it's coming from. Does it need to be tracked? That's only because people don't really know the … the side effects of kava. There is a side effect, like everything. But I think it's the, the trust that it's coming from the Pacific and, you know, it's like maybe it's voodoo…" [Importer 17].

"And, of course, we provided all the, you know, the licensing and all this stuff but it's, they don't even know either. So, there's a lack of awareness. A lack of awareness from the department itself. They should, they should give education to all the brokers, all the quarantine and everything else." [Importer 16].

With the introduction of the pilot, there is a need to intensify education on kava and its impact on health specially if used excessively.

Health impacts

Concerns about the health impacts of excessive kava use have been an issue in Australia historically. The potential health impacts of kava was not lost on the importers. They agreed that if people abuse kava, it would have a negative effect as with other substances.

"I'm not sure but they might have to just monitor. It does, it affects the liver because that is one of the side effect of kava, is liver disease. But right now there's, there's still people getting liver disease in Australia, even though they don't drink kava" [Importer 17].

"So, I've introduced it to my young sons and their friends, and, you know, there may be health implications with anything you drink too much of or you abuse but, if you don't abuse this product, it's only good comes from it" [Importer 4].

> *"it's also important to protect the people in Australia. 'Cause, you know, if you misuse the kava, you're gonna have a problem with it. [Yeah] It's the same as compared to the alcohol. If you misuse the alcohol, you'll have a problem with yourself" [Importer 5].*

There are fears that if there is excessive use of kava causing health problems, the pilot would not continue. Also because there is a lack of awareness or education on kava and its potential benefits, the market is mostly limited to Pacific communities. If the pilot does not continue, it would have a huge impact in Pacific countries due to investment in kava farms and the expectation of farmers to profit from the export of kava.

> *"Eventually, I would say that it's gonna have a long impact, a very bitter sort of relationship with the Pacific Island nations because what they are doing, the expectation within the famers is very high and the consumption here in Australia is not as much as … Very soon, the government will know that the kava is being abused here. And, once they see that the kava is being abused, they'll put up new legislation that will directly impact the farmers back in the Pacific nations" [Importer 18].*

3.7 Economic evaluation

Key findings

1. The total societal cost was estimated between 14.52 – 15.38 million Australian dollars with approximately 96% being costs to consumers and their families.
2. The total benefits were estimated at 53.32 – 55.83 million Australian dollars.
3. The estimated net societal benefit was 37.94 – 41.31 million Australian dollars.
4. The positive net benefit means that there is value for money in the importation of kava to Australia.

Results

Evaluation Question 7: What are the cost implications of the pilot for Commonwealth and State and Territory governments?

Cost of the kava pilot program

All Commonwealth government departments that were involved in the kava pilot program and contacted for costing data collection responded. However, apart from Northern Territory which is not participating in the kava pilot program, only 3 out of 7 states and territories responded to the cost questionnaires, with one stating they had not incurred any costs. Costs for the jurisdictions that did not participate have been estimated at the average cost of the 3 responding jurisdictions. Similarly, a response was not received to the questionnaires sent to state police departments that were contacted. Table 9 below shows the results of the cost analysis of the kava pilot program.

The total costs of the kava pilot program are between 44.18 million – 45.04 million Australian dollars, with the largest percentage being cost to consumers and families (96%), followed by costs to states and Territories (3%), and then cost to the Commonwealth government (1%).

The States and territories were not majorly involved in policy formulation. However, some states later developed guidelines related to kava use and surveillance plans within their respective states. The total cost of legislation formulation, a one-off start-up cost, was $366,335, 65% of which was staff costs. The annual cost of on-going policy review at all levels of government is approximately $256,176, 93% of which is staff costs and 7% due to ‘other’ costs. The category ‘other’ includes marketing and communication of the policy and the hire of consultant advisors on food standards for kava.

The incremental cost of implementation of the personal importation policy was zero. The completed questionnaires indicated that no additional or change in resource use had been made as a result of the increase in quantity of kava from 2kgs to 4kgs allowed for each adult incoming passenger.

The States and territories had a zero cost for the implementation of the commercial policy stating that they had very little to do in terms of its implementation. The costs of implementation of the commercial importation policy to the Commonwealth government were $11,331. The total number of permit applications was not made available therefore the staff cost for permit approval was estimated based on the total number of approved permits in the year 2022. There was a zero cost on cargo treated, destroyed, or re-exported implying that all the cargo imported met the quality and labelling standards.

The proportion of adults with a Pacific Islander heritage that reported using kava over a 12-month period in the community survey was 73.5% and the average annual expenditure on kava per consumer was $377. The costs to consumers constituted the largest percentage of the total cost and was estimated at $42,995,733. Productivity loss due to absenteeism from work accounted for 1.5% of this cost and expenditure on kava accounted for 98.5%. The expenditure on kava by consumers can be seen as a trade benefit to both Australia (70%) and Pacific Island countries (30%).

Traders, commercial importers and retailers, have business related costs. To avoid double counting of costs at a societal level these are assumed part of consumer expenditure costs because consumers bare the final burden of these costs. However, these costs were considered in the estimation of profits in the benefit estimation section.

The total health system costs due to kava harms was $445,976. The incremental proportion of kava consumers in the community survey that reported health system use for a kava related problem was: 0.58% general practitioner (GP) visits with an average of 1 visit a year, 0.58% emergency care visits with an average of 2 visits a year, and 0.58% out-patient hospital visits with an average of 2 visits a year. The were no reported visits made to ambulatory care, allied health professionals, and specialists. Similarly, there were no out of pocket health care costs reported.

The cost for social harms was $140,000. 100% of these were an intangible cost to kava consuming families attributed to ‘neglect of home duties’. There were zero incidences of contact with the criminal justice system or exclusion from social and cultural events making the costs of crime zero.

Table 9: Annual cost of the kava pilot program (2022 Australian dollars)

Cost Item		Cost (Australian dollars)	Resource Use		
			Staff time (Meetings)	Staff time other	Other
Legislation formulation	Commonwealth departments	234,964.50	5.59%	93.71%	0.70%
	States and Territories	131,370.00	0.00%	6.11%	93.89%
		366,334.50	**3.58%**	**62.30%**	**34.12%**
Ongoing policy review	Commonwealth departments	223,857.40	5.80%	94.20%	0.00%
	States and Territories	32,319.00	44.31%	0.00%	55.69%
		256,176.40	**10.66%**	**82.31%**	**7.03%**
Implementation of the personal importation policy	Border protection e.g., baggage inspection	0.00	0.00%	0.00%	0.00%
		0.00	**0.00%**	**0.00%**	**0.00%**
Implementation of the commercial importation policy	Commonwealth government				
	Permit approval process	11,331.25	100.00%		
	Kava cargo inspection	21,600.00	100.00%		
	Less cargo inspection charges	-21,600.00			
	Kava cargo treatment	0.00	-		
	Kava cargo re-export	0.00	-		
	Kava cargo disposal	0.00	-		
	States and Territories	0.00	-		

Cost Item		Cost (Australian dollars)	Resource Use Staff time (Meetings)	Staff time other	Other
		11,331.25	**100.00%**		
Consumer economic costs	Expenditure on kava*	42,340,947.29			
	Productivity loss	614,786.06			
		42,955,733.35			
Health System Costs	States and Territories				
	General Practitioner visits	50,278.41			
	Emergency visits	134,511.06			
	Ambulatory care	0.00			
	Allied Health Professional visits	0.00			
	Outpatient hospital visits	261,186.52			
	Specialist visits	0.00			
	Consumer expenditure				
	Out of pocket costs	0.00			
		445,975.99			
Social and Cultural harms	States and Territories				
	Criminal Justice System Costs	0.00			
	Consumers and their families				
	Neglect of home duties	140,731.56			

Cost Item		Cost (Australian dollars)	Resource Use Staff time (Meetings)	Staff time other	Other
	Missed recreation and social/cultural events exclusion	0.00			
		140,731.56			
Total Cost			**Including estimates from other States & Territories**	**Less Start-up costs**	**Less start-up costs - Including annual cost of policy evaluation**
Total cost to the Commonwealth government		**470,153.15**	**470,153.15**	**235,188.65**	**652,363.65**
Total Costs to States and Territories		**609,664.99**	**1,422,551.64**	**1,291,181.64**	**1,291,181.64**
Total Costs to consumers and families		**43,096,464.91**	**43,096,464.91**	**43,096,464.91**	**43,096,464.91**
Total Societal Cost		**44,176,283.05**	**44,989,169.70**	**44,622,835.20**	**45,040,010.20**

*Part of consumer expenditure is a benefit to traders. This is reflected in the CBA analysis (table 10)

Benefits of the kava pilot program

Results from the focus group discussions

Table 10 provides a summary of the attributes which were identified during the FGD with the government stakeholders. A few quotes have been selected and included against each attribute to give voice to participant views. A total of 19 attributes considered important in the decision to support or make changes to the kava importation policy were generated by participants. The attributes that were prioritised in two or more focus groups for all government stakeholders, whose definitions are provided in Table 10, included: 'health impact', 'economic benefit to Pacific Islander countries', 'cultural impact', 'diplomatic relations between Australia and PI countries', 'display of health warnings on packages', 'restrictions on kava access to vulnerable populations', 'continuous kava surveillance' and 'consistency in kava related policy and legislations across states'. It should be noted that the latter four attributes were especially prioritised in FGDs with state government representatives. The attribute 'economic benefits to Australia' was prioritised in only one focus group. All other attributes were not highly prioritised, however, all participants agreed that these too were very important to consider in the policy decision.

Table 11 provides a summary of the attributes which were identified during the FGD with representatives from the Australian Pacific Islander communities. Likewise, a few quotes have been selected and included against each attribute to give voice to participant views. A total of 17 attributes considered important in the decision to support or make changes to the kava importation policy were generated by participants. The attributes that were prioritised in two or more focus groups, whose definitions are provided in table 5, included: 'cultural impact', 'social impact', 'price of kava on the Australian market', 'economic benefit to PI countries', 'and availability and access to kava'. The attributes that were prioritised in only one focus group were: 'household kava expenditure', 'quality of kava on the market', and 'productivity loss due to absenteeism from work'.

Table 12 provides a summary of the final attributes and their levels that were included in the DCE with government stakeholders. In making a decision about which attributes should further be evaluated in the quantitative DCE, it was important to consider the attributes that were critical to be included in the CBA. While the attribute 'cost of the legislation' was not prioritised, for purposes of calculating willingness to pay, it had to be included. While the attribute 'social impact' was not a priority to this group, it was included given its importance to community members with whom a DCE could not be conducted.

Table 10: Attributes and levels generated from qualitative work: Government stakeholders

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Health impact	Includes both benefits and harms, such as improved health outcomes due to kava use, addiction problems, poly-drug use, kava as a substitute for alcohol.	50%		100%	1	80%	2	100 %	1	"We would consider the potential health impacts of kava in the community. Following the national drug and alcohol policy framework, our objective is to minimize the potential harms associated with alcohol and drugs. However, there is a concern among us that introducing kava as a substance may increase harm and risks."
Economic benefit to PI countries	PI development, Poverty reduction, Benefit to farmers	75%		80%		100 %	1	67%	4	"The Kava pilot policy aligns with the government's priority of enhancing the quality of life in the Pacific region. Advancing Pacific development and promoting increased trade are key priorities for the government."
Cultural impact	Significance to PI communities, cultural education to non-PI, heritage	100%	1	60%		80%	3	100 %	3	"For Pacific Island (PI) communities, the significance of kava lies in its connection to their traditions, heritage, and cultural importance."

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Diplomatic relationships between Australia and PI countries	Strengthened diplomatic relationship	50%		100%	1	80%	4	33%		"The trade between Australia and Pacific Island (PI) countries brings about mutual benefits, fostering a positive relationship between the two. Additionally, there are diplomatic advantages associated with trade interactions between the Australian government and PI countries."
Cost of the policy	Cost associated with the formulation as well as ongoing review of the kava related legislations, guidelines, and enforcements.	N/A		N/A		20%		33%		"Conducting a cost analysis (economic evaluation) is crucial to comprehend the financial implications of the kava policy for the Australian government."
Social impact	Includes both positive and negative social outcomes such as social cohesion, and family dysfunction.	100%		60%		60%		67%	5	"It is important to examine the potential effects of kava on family relationships and its broader impact on the community, both positive and negative. "

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Economic benefit to Australia	Through taxes and sale of Kava in Australia	50%		100%	1	60%		33%		"The policy brings economic benefits to both Australia and Pacific Island (PI) countries."
Display of health warnings and information on the packaging	Such as risks to children, pregnant women	100%	1	N/A		80%	5	100 %	2	"It is worth considering incorporating product information on kava packaging, similar to alcohol, which includes dosage indications and potential risks. Such information would assist consumers in making informed choices."
Restrictions on kava access to vulnerable populations	Restrictions on sale to some populations	100%	1	100%	1	40%		33%		"We are making efforts to discourage people from purchasing alcohol, yet they have the option to simply go to the next store and buy kava. This situation particularly affects the Aboriginal community, younger population, and individuals already dealing with issues related to alcohol and drugs." "I personally have concerns regarding the accessibility of kava to youngsters, as there is no age restriction for purchasing it from Coles. The

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
										easy access raises worry about its availability to a wide range of individuals."
Continuous kava surveillance, reporting and data sharing	Allocation of resources for surveillance, reporting, data sharing within and between states as well as between the federal and state governments	100%	1	100%	1	N/A		N/A		"Currently, kava is classified as a food product, which limits our ability to monitor its distribution within Australia and between states. We only have information on the quantity imported into Australia, but beyond that, we lack the means to track, monitor, or collect data on its distribution. The existing requirement for import certification is in place, but there is a need for a consistent and uniform system that encompasses the entire distribution process."

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Consistency of kava-related policy and legislations across all states	Various legislations related to the availability and sale of kava in Australia. For example, food standard and safety.	100%	1	100%	1	N/A		N/A		"If kava is being sold in retail stores, implementing uniform regulatory systems across all states would facilitate consistency and enable the provision of standardised information to consumers and the public directly from these retail outlets."
Expenditure on kava related harms	Criminal justice and health system level cost (to provide health services to treat kava related harms).	N/A		N/A		40%		N/A		"There is a concern that individuals may allocate a significant portion of their expenditure towards purchasing kava rather than essential food items."
Availability and access to kava in Australian market	Quantity of kava available in the Australian market, Increased access to Kava. Also includes the variety and forms of kava available in the market for sale.	75%		N/A		N/A		N/A		The new policy has made it easier to access kava on the market, reducing the need for a kava black market.'

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Crimes associated with kava use	Such as road accidents, violence	33%		40%		N/A		33%		"Driving after consuming kava poses a risk to others on the road. Presently, there are no regulations in place to prevent individuals from driving after consuming kava."
Kava as a substitute to alcohol		N/A		80%		N/A		N/A		"If there is increased accessibility to kava, it is possible that people may choose to consume kava instead of alcohol, potentially resulting in fewer associated harms in comparison."
Opportunities for research on kava to increase its use as a therapeutic good		N/A		N/A		N/A		33%		“The policy may create an opportunity for research on kava to explore its other uses and create a scientifically proven evidence base.”
Quality of kava on the Australian market		N/A		20%		N/A		N/A		"With the increasing supply of kava, there is currently no established mechanism to assess the quality of imported kava."

Attributes	Description	Voting and ranking of attributes								Quotes from the participants
		FGD 1 (n=4) [State]		FGD 2 (n=5) [State]		FGD 3 (n=5) [CW]		FGD 4 (n=3) [CW]		
		Vote	Rank	Vote	Rank	Vote	Rank	Vote	Rank	
Level of government support for the kava legislation		N/A		N/A		N/A		33%		It is important to consider the level of support for this policy from influential government offices and leaders who are willing to invest in its continued impact.'
level of community stakeholder support for the kava legislation		N/A		N/A		N/A		33%		"Currently, the kava policy receives support from the PI communities. However, it is important to understand if this support would continue if kava is used differently or if there are reports of abuse that lead to feelings of cultural disrespect within the Pacific Islander communities."

Note: N/A refers to an attribute that did not receive any votes in the prioritising exercise.

Table 11: Attributes and levels from qualitative work: Community members

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Cultural impact	Cultural significance to PI communities, pride in heritage, increased cultural identity, passing on cultural values and education through kava ceremonies, increased religious impact through kava religious ceremonies, cultural tourism to Australians.	100%	1	100%	1	100%	2	"Kava has been an integral part of our existence, deeply intertwined with our religious institutions, prayers, weddings, and other traditional ceremonies. Its value and significance have not diminished, even after relocating to Australia. Growing up with kava has reinforced its importance in our lives."
Social impacts	Includes both positive and negative social outcomes such as social cohesion, and family dysfunction (time away from family).	100%	2	100%	3	100%	1	"Celebrations where kava is consumed offer a valuable opportunity to socially connect with our community. For me, it is about fostering unity and bringing people together." "The consumption of kava with peers can sometimes detract from family time, leading to increased time spent outside the home."

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Price of kava in Australia	Market price of kava in Australia	83%		100%	5	100%	4	"Even if the price is high, I am willing to purchase kava to uphold our communal heritage and customary practices. However, with increased supply, the price of kava has decreased. Previously, when only 2 kilograms of kava were allowed for personal use, the price sky-rocketed, making it difficult for us to afford it. At one point, kava was priced at 300 per kilogram, but due to the new policy, the price has become more affordable, ranging from 100 to 150 per kilogram, making it accessible to a larger portion of our community."
Economic benefit to PI countries	Benefit to farmers in PI countries and the general PI economy	83%		100%	2	100%	3	"The kava importation policy will benefit many of our communities in PI countries by facilitating the exportation of kava, particularly for the farmers in those regions. Many households will be lifted from poverty and be given a chance to afford education and basic household needs."

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Health impacts	Includes both benefits and harms, such as improved health outcomes due to kava use (such as improved sleep, reduced anxiety), addiction problems, poly-drug use, kava as a substitute for alcohol, and health problems such as liver and skin problems.	100%	6	67%		33%		"I used to see a doctor with a Pacific Islander background, and during my blood test, he noticed the excess liquid in my system, indicating that I had been consuming a significant amount of kava. Sometimes we engage in hours of drinking kava without realizing the quantity we have consumed." (Quote 1) "Kava has a positive effect on sleep, which is why it is marketed as a sleep aid in capsule form. There are notable health benefits associated with kava, including its ability to aid in sleep, reduce stress, alleviate anxiety, and even help with depression. These benefits are valued within our community." (Quote 2)

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Availability and access to kava in Australia	Quantity of kava available in the Australian market, Increased access to Kava. Also includes the variety and forms of kava available in the market for sale.	100%	4	33%		100%	5	"Before the kava policy, obtaining kava was incredibly challenging. When we learned of someone's passing and wanted to offer our respects at the funeral, we faced difficulties and felt ashamed because we could only bring a limited amount of kava, typically 200-300 grams." (Quote 1) "I think there is more competition now with so many suppliers selling kava. We have a lot more options in the market. I can just go down the road or check out the Facebook marketplace to easily find and purchase kava." (Quote 2)
Expenditure related to kava	Spending on the purchase of kava (individual level cost)	100%	3	67%		N/A		"Due to the increased access to kava, there is a likelihood of more frequent kava drinking sessions within the communities that sometimes go on late into the night, say until 3 am. As a result, some individuals with a tendency to drink a lot may experience an increase in their expenditure creating financial problems for their families."

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Access restrictions	Restriction to some population groups	50%		N/A		N/A		"When we expand the importation of kava into Australia, one perspective to consider is that we are providing a supply for those who are addicted to kava. Therefore, it may be necessary to implement certain restrictions or regulations to address this issue." (Quote 1) “In our PI culture, some women are advised that drinking a bit of kava when pregnant will help them have an easier pregnancy and birth. If these are myths, there need to be some restrictions.” (Quote 2)
Quality of kava	High quality standards on kava imports to maintain high levels of kava quality on the Australian market	0%		100%	4	67%		"When I personally bring kava, I have control over the source and can ensure the quality is good. However, with the commercial importation of kava into Australia, it raises concerns about how we can guarantee the quality of the kava available in the market. I have been hearing complaints from people regarding the quality of kava lately."

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Productivity loss	Time away from work as a result of kava consumption misuse leading to loss of income	100%	5	N/A		N/A		"If I consume excessive amounts of kava, it significantly affects my ability to be productive the following day. I end up spending the entire day lying down and unable to accomplish much.".
Economic benefit to Australia	Profit from trade in Australia	0%		N/A		N/A		"With the commercial importation of kava, there is the potential for economic benefits for Australia, particularly for importers and distributors. It opens up opportunities for businesses involved in the kava trade to contribute to the economy."
Job creation	Financial support to PI community working in the kava industry in Australia	N/A		N/A		33%		"The new policy has resulted in the creation of new job opportunities for farmers in the PI countries. We are witnessing an increasing number of farmers getting involved in the cultivation of kava as a result. Even here in Australia, there are new kava bars that have been opened."
Legislation restrictions	The limits on quantity and type of kava accepted within the legislation.	50%		N/A		67%		“I wish there was a higher quantity allowed for me to personally carry back to Australia when I travel from home. The 4 kg limit is still too small.”

Attributes	Description	Voting and ranking of attributes						Quotes from the participants
		FGD 1 (n=6)		FGD 2 (n=3)		FGD 3 (n=3)		
		Vote	Rank	Vote	Rank	Vote	Rank	
Substitute for Alcohol	Reduced consumption of alcohol as a result of increased kava consumption.	83%		33%		N/A		"When people choose to consume kava, it often leads to reduced alcohol consumption. It serves as a substitute for alcohol, promoting a shift in drinking preferences within our community. While there may be associated harms, the effect of these harms are far less than those of alcohol. In addition, we get to spend less on kava than we do on alcohol."

Table 12: Attributes and levels used in the final DCE with government stakeholders

	Attribute	Attribute Definition	Levels	Sources of data for levels
1	Bi-lateral cooperation	Importance of the new kava importation policy in strengthening bilateral cooperation/diplomatic relationship between Australia and Pacific Island countries.	• Not important • Important • Very important	Focus group discussions
2	Health impacts	The annual proportion of kava users in Australia that report any negative health effects as a result of kava use since the new policy was introduced. Examples include skin, eye conditions, sleeping and eating disorders, effects of poly-drug use and in minimal cases liver conditions.	• Less than 10% • 10% - 20% • Over 20%	Preliminary community survey results, and published literature

	Attribute	Attribute Definition	Levels	Sources of data for levels
3	Economic benefit to Australia	The profit from trade to the Australian economy through commercial importation and sale of kava. This includes profit to Australian importers, wholesalers, and retailers, fees, and taxes for, e.g., GST, storage, and logistics.	• $5 • $10 million a year • $15 million a year • $20 million a year	Preliminary costing results
4	Economic benefit to Pacific Island Countries	Trade profits to the Pacific Islands through commercial exportation of kava to Australia. This includes profits to farmers, profits to traders in Pacific Island countries, and any export duties.	• $5 • $10 million a year • $15 million a year • $20 million a year	Preliminary costing results
5	Social impact	The negative or positive social impacts in kava-consuming communities as a result of increased kava use in Australia. Negative impacts could include community-social disruptions, and crime related to kava misuse. Positive impacts could include community-social cohesion.	• Negative impact • No Impact • Positive Impact	Focus group discussions
6	Cultural impact	Increased cultural connection and significance for Pacific Islanders in Australia as a result of Kava use in religious and cultural ceremonies.	• No change in impact • Some Impact • A lot of Impact	Focus group discussions
7	Cost of the legislation to Australia	The annual cost of implementing the policy. This includes ongoing review of policy and guidelines, import permit processing, cargo, labelling and quality standard inspections, and cost of Kava-related harms.	• $2 million a year • $4 million a year • $6 million a year • $8 million a year	Preliminary costing results

While the attributes 'display of health warnings on packages', 'restrictions on kava access to vulnerable populations', 'continuous kava surveillance' and 'consistency in kava related policy and legislations across states' were ranked very important in especially the FGDs with States, these were not included in the final DCE set of attributes whose preferences were to be estimated. These attributes were considered to be key principles for the kava program and were included in the information provided to DCE participants as an assumption that they were kava regulations relating to quality and food standards, are adhered to and there are ongoing satisfactory monitoring and evaluation procedures in place to guide regulation.

Results from the discrete choice experiment

In total 28 participants completed the questionnaire with a 100% response rate to all 8 choice sets thus generating 224 observations. Demographic characteristics of the sample participants are summarised in Table 13.

While the sample size was small it allowed a statistically significant estimate of some parameters but not all. The model itself was statistically significant (p-value of 0.000) providing confidence in model results. Table 14 provides the results of the multinomial logistic regression.

The attributes that were significant at 95% level of confidence in order of preference included: 'health impact', 'negative social impact', 'cultural impact', 'cost of the legislation' and 'economic benefit to PI countries. Keeping all other variables constant, participants expressed a disutility for the kava importation program with increase in negative health impact, in changing from no impact to negative social impact resulting from kava misuse, and in increasing legislation costs. A positive utility was expressed for increasing cultural impact due to kava consumption and increasing economic benefits to Pacific Island countries as a result of kava trade.

While the other attributes were not significant, and these could change with increase in sample size, it is worth noting that there is a suggestion for a positive utility and therefore preference for increased bi-lateral cooperation and positive social impact. During the analysis of qualitative comments provided by participants, there was evidence that the attribute 'economic benefit to Australia' was ignored. This attribute was therefore not included in the final analysis.

Analysis of the interaction terms shows that State and Territory participants had a higher concern for health impacts than their Commonwealth government counterparts. Commonwealth government participants had a higher concern for cultural impact than State and Territory participants.

The willingness to pay results (interpreted as additional legislation cost that policy makers are willing to pay for a unit increase in the continuous variable and for a change in a categorical value relative to its base. Or in other words the monetary value attached to the attribute) revealed that the value attached to the attributes needed to be costed in the CBA were:

- $7,531,938 for a change from 'no impact' to 'some impact' and $15,063,877 for a change from 'no impact' to 'a lot of cultural impact' as a result of the kava pilot program.
- $531,938 for every $1,000,000 economic benefit to PI countries as a result of the kava pilot program.
- $2,098,017 for a change from 'no impact' to 'positive social impact' as a result of the kava pilot program. This estimate may not be accurate because the attribute was not statistically significant in the DCE analysis.
- $204,846 and $409,692 for an important and very important role respectively that the policy has had in strengthening bilateral cooperation. This estimate may not be accurate because the attribute was not statistically significant in the DCE analysis.

Table 13: Socio-demographic statistics of the government stakeholders who participated in the discrete choice experiment survey (n=28)

Variables	Frequency	Percentage
Age (years)		
25-34	5	17.86
35-44	11	39.29
45-54	10	35.71
55-64	1	3.57
≥65	1	3.57
Gender		
Female	16	57.14
Male	12	42.86
Nationality		
Australian	28	100
Affiliated level of Government		
Commonwealth	11	39.29
States and Territories	17	60.71

Table 14: Results from the multinomial logistic regression model of the Discrete Choice Experiment

Attribute		Coefficient (Standard error)
Constant		0.1051 (0.1831)
Bilateral Cooperation		0.0186 (0.1760)
Health impact		-0.9546 (0.2024) ***
Economic benefit to Pacific Islander countries		0.0483 (0.0231) **
Social impact (Base = No impact)		
	Negative	-0.9620 (0.1917) ***
	Positive	0.1905 (0.3232)
Cultural impact		0.6839 (0.2149**
Cost of the legislation to Australia		-0.0908 (0.0645) **
Interaction terms		
Health impact × Affiliation		0.0836 (0.0491) *
Cultural impact × Affiliation		-0.0970 (0.0536) *
Goodness of fit		
Log-likelihood function of attributes only model		-113.5260
Log likelihood of model with interaction terms		-110.1860
AIC		240.4
P-value of the model		0.000
Number of observations		224

*** 99% confidence level, ** 95% confidence level, * 90% confidence level.

AIC, Akaike Information Criterion.

Affiliation, Commonwealth or State & Territory govt

Estimation of societal benefits

Table 15 provides a summary of the analysis of the benefits of the kava pilot program. The estimated total benefit is $55,828,817 or $53,321,107 excluding the estimates for the value social benefits and bi-lateral cooperation which were not significant in the DCE analysis.

The biggest proportion of total benefit was economic benefit estimated at a total of $30,471,208, of which 44% was benefit to import traders, 40% was an estimated benefit to retail trade (calculated as the difference between total consumer expenditure and benefits of import trade), 7% was benefit to logistic companies (assuming that these are Australian owned), and 4% was the benefit to States and Territories from GST. These economic benefits from trade arise from consumer expenditure on kava. In addition 6% of total benefits was attributed to consumers due to a self-reported increased productivity as a result of their improved health from their belief in the therapeutic nature of kava.

Total health benefits were estimated at $1,402,766. 76% of this which benefit States and Territories arising from reduced health system costs, and 24% a benefit to consumers from reduced out of pocket costs.

The value that policy makers place on the cultural impact of the program among Pacific Islander communities was estimated at $15,063,877. The value for 'a lot of impact' has been used and not that of 'some impact' because approximately 82% or participants in the community survey reported having experienced a lot of impact.

Estimates from the analysis of benefits indicates that the economic benefit to Pacific Islander countries as a result of kava trade was approximately $12,680,955. While this estimate was included in costs calculations, with consumers as the main cost bearers, participants in the FGDs expressed a utility or satisfaction gained from contributing to the economies of Pacific Islander countries. This was valued in DCE at $531,938 for every $1,000,000 economic benefit to Pacific Islander countries. The total value that participants in the DCE placed on a $12,680,995 was therefore $6,383,256.

Table 15: Annual benefit of the kava pilot program (2022 Australian dollars)

Benefit Item		Value (Australian dollars)
Health benefits	States and Territories	
	Reduced health system visits	1,059,366.01
	Consumers	
	Reduced out of pocket costs	343,399.68
	Total health benefits	**1,402,765.69**
Economic benefits	Kava Traders	
	Profit from import trade	13,325,067.00
	Profit from retail trade	12,148,197.29
	Logistics	
	Freight, transport, and handling	2,012,850.00
	States and Territories	
	GST tax	1,268,095.50
	Consumers	
	Increased productivity	1,716,998.41
	Total Economic benefits	**30,471,208.20**
Cultural benefits	Willingness to pay	15,063,877.00
Social benefits*	Willingness to pay	2,098,018.00
Bi-lateral Cooperation*	Willingness to pay	409,692.00

Value of boosting the PI economy	Willingness to pay	6,383,256.00
TOTAL BENEFIT to Australia		55,828,816.89
TOTAL BENEFIT excluding social and bilateral benefits		53,321,106.89

*Attributes not significant in the discrete choice analysis

Estimation of net-benefit

Table 16 provides a comparative analysis of costs and benefits to estimate the net-benefit of the kava pilot program. It should be noted that approximately 70% of the costs to consumers were estimated in as economic benefits to the Australian economy in the benefit analysis. These benefits arising from consumer expenditure include GST, benefits to logistic companies, and profit from import and retail trade. Excluding these payments would bring the total societal cost to approximately 14.5 million – 15.4 million Australian dollars.

The total benefit is approximately 55.83 million Australian dollars. These benefits include consumer health benefits from kava consumption, economic benefits of trade to Australia, the value of a positive cultural and social impact to Pacific communities in Australia arising, the value of the kava program's contribution to a strengthened bilateral cooperation between Australian and Pacific Island kava exporting countries, and the value or satisfaction derived from Australia's boost to economies of Pacific Island countries.

The net benefit is between 37.94 and 41.31 million Australian dollars depending on the inclusion or exclusion of one-off start-up costs, cost estimates for States where no data was received, and inclusion of the cost of the program evaluation provided to NDARC and Ninti One for the evaluation of the program. The total cost of kava purchase, estimated at 13.30 million Australian dollars, is the approximate benefit to Pacific countries from Australia's kava importation. The positive net-benefit illustrates that there is value for money in the kava pilot program.

Table 16: Cost-Benefit Analysis of the kava pilot program: Net-benefit estimation (2022 Australian dollars)

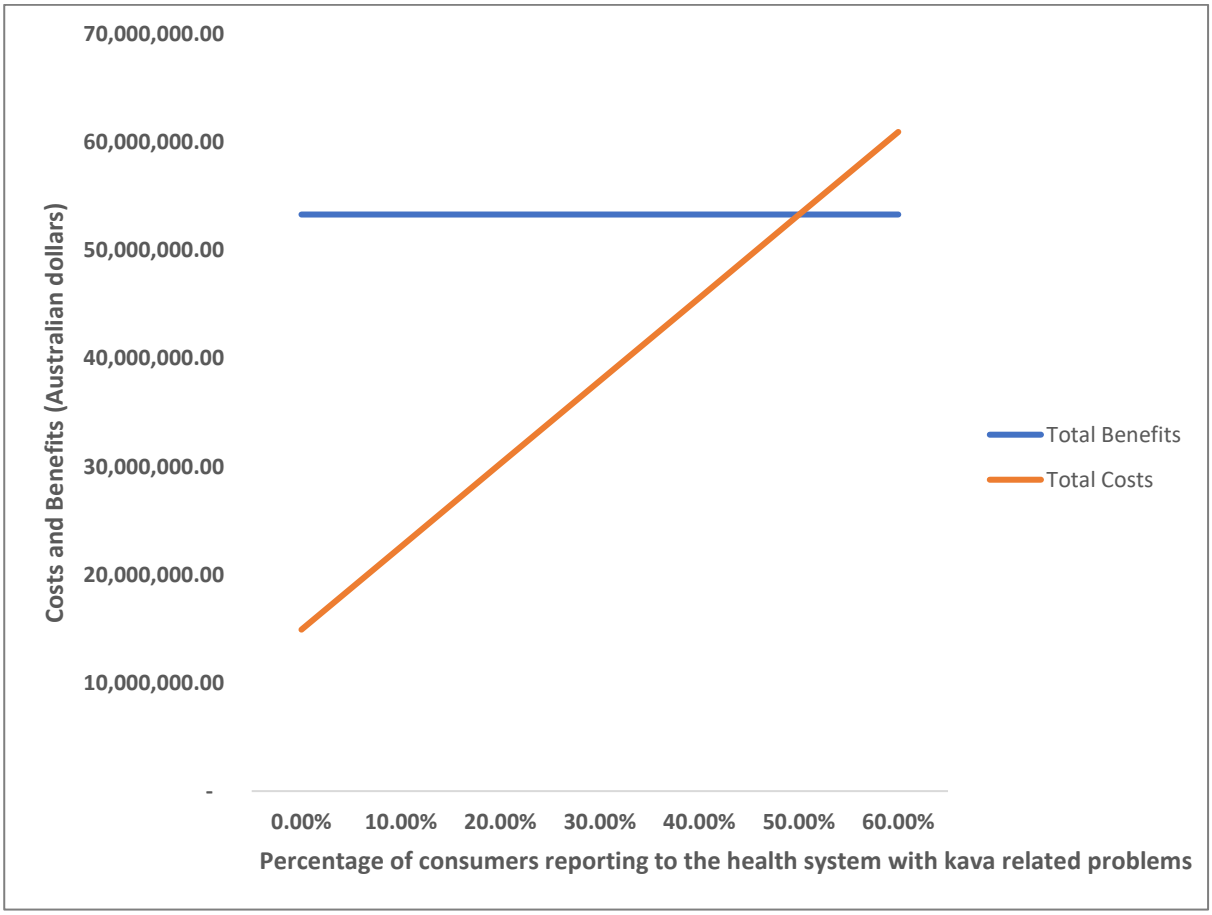
	Cost Item	Value (Australian dollars)
COST	Legislation formulation (start-up costs)	366,334.50
	Ongoing policy review	256,176.40
	Implementation of the personal importation policy	0.00
	Implementation of the commercial importation policy	11,331.25

	Costs to Pacific countries for kava purchase (estimated from consumer economic costs*)	13,295,741.06
	Health System Costs	445,975.99
	Social and Cultural harms	140,731.56
	Total Cost[a]	**14,516,290.76**
	Total cost including estimates from states with no data[b]	**15,329,177.41**
	Total cost (b) less Start-up costs[c]	**14,962,842.91**
	Total cost (b) less start-up costs - Including annual cost of program evaluation[d]	**15,380,017.91**
BENEFIT	Health benefit	1,402,765.69
	Economic benefit to Australia	30,471,208.20
	Cultural impact	15,063,877.00
	Positive social impact	2,098,018.00
	Value of strengthened Bi-lateral cooperation	409,692.00
	Value of boosting the PI economy	6,383,256.00
	Total Benefit[e]	**55,828,816.89**
NET BENEFIT (e-a)		**41,312,526.13**
NET BENEFIT (e-b)		**40,499,639.48**
NET BENEFIT (e-c)		**40,865,973.98**
NET BENEFIT (e-d)[f]		**40,448,798.98**
NET BENEFIT (if excluding bi-lateral cooperation and social benefit)		**37,941,088.98**

*Excludes costs counted as economic benefits of trade to Australia

A scenario analysis was conducted using the cost and benefits data where the percentage of kava consumers reporting health service use (GP, emergency, and hospital out-patient visits) was increased from 0.58% to 10% and thereafter in intervals of 10% (Figure 10). All other costs and the net benefit were assumed constant. The analysis saw the increase in total health system costs from $445,976 to $7,224,811 and thereafter by an incremental $7,670,787 with every 10% increase in kava-related health system use clients. This resulted in an increase in total costs and at approximately 50% the net-benefits were zero. This means that if the percentage of kava consumers reporting health system use exceeded 50%, there will not be value for money in the program.

Figure 10: Net-benefit scenario analysis with increasing percentage of health system use due to kava related problems



Chapter 4

Monitoring framework for kava related impacts

4 Monitoring framework for kava related impacts

A common theme emerging across data collection for the evaluation has been the need for ongoing monitoring as to the impact of potential greater access and harms to kava in Australia. Several reasons are given to justify this call.

- First, the personal importation component of the kava pilot program commenced in December 2019. This coincided with the COVID-19 travel bans (both internationally and nationally), limiting potential for personal importation and meaning that potential impacts of the change may take a longer time to be apparent.
- Second, the commercial importation component of the kava pilot program only came into effect in late 2021 which means commercial supply chains are unlikely to be sufficiently established in a time frame to facilitate a detectable increase in kava use or harms in Australia (see Section 2.6 on routinely collected data).
- Third, there is also recognition that there are particular groups who may be at greater risk of harms related to kava over time. Specifically, there are concerns among some Aboriginal and/or Torres Strait Islander communities regarding the uptake of kava use in communities where there is currently no kava, and the likelihood of increased use/harms of kava in communities with some previous use of kava (see Section 0).
- Fourth, there is an argument that some of the harms from kava may relate to chronic use, and thus may take some time to emerge (see Section 0).

To address these concerns, intensive effort has been put into deveoping a robust kava use and harms monitoring system that can be sustained over time. This could provide a foundation to guide monitoring of kava use and harms over time.

The first section of the document summarises the key themes heard through the consultations with stakeholders across States/Territories governments as to current monitoring activities and considerations for the future.

4.1 Findings from consultation with States/Territories governments

Consultations showed that few jurisdictions were engaging in routine, systematic interrogation across data sources as to potential changes in outcomes related to kava. The exception was the Centre for Alcohol and Other Drugs, NSW Ministry of Health, who had proactively synthesised findings on kava use and harms across available data sources as part of surveillance activities following the commencement of the pilot program.

A number of key themes emerged in the course of consultation with representatives across States and Territories as to the future monitoring of kava.

1. **Capacity for monitoring.** Capacity to monitor kava was discussed in many consultations. Stakeholders flagged that often data on kava was not easily collected nor collated (i.e., not captured or not identified systematically) and would require significant resources in time, staffing and other costs to do so (e.g., to extract references to kava from free-text fields). Stakeholders from some jurisdictions also noted that there was no established mechanism or body charged with systematically collating and synthesing findings across data sources even if data were available. Finally, there was some concern around the lack of support from the Commonwealth in equipping States/Territories to monitor harms in their communities. Some stakeholders noted significant costs at the jurisdictional level from monitoring the impact of the kava pilot program to date.
2. **Prioritisation of monitoring**. Related to the above point, stakeholders also often flagged an issue of prioritisation in the monitoring of kava. That is, they noted that they had not received reports of significant harms occurring from kava since the pilot implementation, and thus resourcing and capacity for monitoring was dedicated to other substances (e.g., alcohol, methamphetamine, heroin) for which there are currently greater health, social and economic impacts. When probed on this, all noted that monitoring would be escalated in terms of prioritisation if reports of harm from kava increased in their or in other States/Territories.
3. **Domains of interest for future monitoring.** Experience of harm was the most strongly endorsed domain of interest for future monitoring. Other domains included kava availability (e.g., kava permits, distribution, importation) and use (including polysubstance use), as well as social, cultural and economic impact, supplier identification, and quality control.
4. **Populations of interest for future monitoring.** Aboriginal and/or Torres Strait Islander communities were the most commonly identified population of interest for ongoing monitoring, followed by Pacific and Australian South Sea Islander communities. Reasons for their prioritisation were potential use of kava for cultural purpose among these communities, and potential for health, social and economic harms. Other priority groups

of concern in terms of being at risk of elevated harms in future included young people and pregnant women. Use among the general population was also flagged as of interest to capture potential experience of harms.

5. **Data sources typically used in monitoring.** Stakeholders discussed four types of data sources. These comprised sources which:

   A. Systematically capture kava and from which data can be easily accessed (e.g., Alcohol and Other Drug Treatment Services National Minimum Data Collection where 'kava' is a response option);

   B. Capture kava in an ad hoc fashion (e.g., under 'other' or as free text) which would require systematic interrogation to extract with appropriate resourcing (e.g., ambulance data);

   C. Do not systematically capture kava currently but may have scope to collect and collate data on kava with appropriate resourcing and approvals (e.g., wastewater monitoring);

   D. Data sources for which there is no obvious means to collect information on kava.

Stakeholders flagged that future monitoring built on data sources falling under A (see Section 4.2.4 below) would be the most feasible, although this was caveated by the fact that very few data sources systematically capture kava in a way that makes it easy to collate and report on data. Stakeholders also flagged that new data collections may be necessary to capture data on experiences of key populations of interest (see below).

6. Culturally-appropriate data collection. Stakeholders noted that curent data collections which capture kava may not have the coverage of priority populations, sensitivity in sampling from them, or nuance in data collected to identify them. New primary data collection from these populations was discussed. Culturally-appropriate methods were deemed critical, with stakeholders noting the importance of engaging with local communities to plan and execute how such monitoring could occur. Appropriate resourcing was also noted.

7. Training/understanding of kava. Some stakeholders flagged that mechanisms for capturing kava may be built into some data collection tools but those collecting that data may not know about kava and the importance of collecting information on the substance. Training around the substance, why it is important to monitor, how the data will be used and how to systematically record it within data collection was suggested. Similarly suggestions were made in terms of educating health professionals (e.g., GPs, emergency and inpatient hospital services) about kava, why it may lead to harm, and mechanisms for reporting if they do hear reports of significant harm from the substance.

8. Collaboration and information sharing. Stakeholders noted that data custodians and those interested in monitoring kava may come from a range of agencies and sectors,

including but not limited to health, food standards/safety, police, multicultural affairs, academia and other research organisations. The importance of collaboration and communication across the agencies and sectors was noted. Similarly, stakeholders flagged an interest in understanding trends related to kava in other States and Territories. Indicators of rising harms in another jurisdiction could trigger greater monitoring within their own State and Territory and/or determine public health education or communication.

4.2 Proposed monitoring framework

Drawing on findings from stakeholder consultations and expertise within the research project team, this framework outlines potential future monitoring activity for the kava pilot program over the next five years. The framework and its implementation could be a shared responsibility between the Commonwealth and State and Territories. As the pilot program may change over time, this should be considered a 'living document'. It is recommended that it be reviewed periodically or in response to significant events, and in consultation with key stakeholders, noting importance of resourcing to support such work.

4.2.1 Purpose of the framework

The purpose of this framework is to:

- Provide a framework for synthesizing information across data sources to prospectively track kava use and its impacts in Australia and identify potential harms early so authorities can implement public health approaches to reduce harm.

4.2.2 Principles of the framework

Principles that guided the development of the framework and should be considered in any endeavour to implement the framework are as follows:

- Given the cross-sector and inter-jurisdictional nature of kava policy, a monitoring plan should be co-designed with ample opportunity for input from Commonwealth, State and Territory, and other key groups before deployment.
- Monitoring will be, where possible, indicator based. Where possible, indicators will be specific, measurable, comparable, time-bound, and measurable at repeated points over time.
- Wherever possible, monitoring activities will draw on routinely collected data. Further, data fields will be selected to minimise the burden on data custodians.
- The collection of new data should be minimised. If required, new data collection methods should be designed to reduce impost on communities and jurisdictions. Primary data collection from key populations (i.e., people identifying as Aboriginal

and/or Torres Strait Islander or from Pacific Islands) should be culturally appropriate and developed and undertaken in consultation with these communities.

- The data collected will, where possible, be designed to allow temporal and spatial comparison and to supplement existing or planned State and Territory -based activities.
- Where possible, resources available from the current evaluation (e.g., surveys, interview schedules) can be used as a starting point to minimise burden of establishing future monitoring efforts.

4.2.3 Objectives of the framework

The following are proposed as potential objectives of a monitoring framework that tracks outcomes over time. Objective 1 is prioritised given stakeholder feedback that harms are a priority area for future monitoring.

- Detection of kava-related acute and clinical harms and timely production of policy-relevant information to inform policy and program decisions [Objective 1];
- Monitor the supply, demand, quality and use of kava in Australia [Objective 2];
- Monitor positive and negative/direct and indirect health, social and economic impacts associated with the use of kava in Australia [Objective 3]; and
- Monitor the evolution of policy and program responses to kava [Objective 4].

Where relevant and possible, outcomes should be assessed for key populations of interest (i.e., people identifying as Aboriginal and/or Torres Strait Islander or from Pacific Islands, young people, pregnant and breast-feeding women) and the general population.

4.2.4 Data sources within the framework

Table 17 outlines the potential sources that could be included in a monitoring framework. These sources are coded as to the ease of commencing monitoring, as follows:

A. Systematically capture kava from data that can be easily accessed pending approvals and resourcing to access data;

B. Capture kava in an ad hoc fashion (e.g., under ‘other’ or as free text) which would require systematic interrogation to extract with appropriate resourcing;

C. Do not systematically capture kava currently but may have scope to collect and collate data on kava with appropriate resourcing and approvals; and

D. New primary data collections that would need to be established.

Table 17 overviews 'formal' data sources; that is, data collected through standardised structures by organisations such as health agencies. While not included here, the importance of 'informal' data sources (e.g., anecdotal reports from consumers or health professionals, or online sources such as discussion forums) can be considered as providing potential early 'signals' of emerging harms. Mechanisms for capturing these reports could be considered.

While use of existing routinely collected data sources has been emphased as critical in terms of minimising resourcing implications and burden, the importance of capturing data reflective of the impacts and needs of key populations – Aboriginal and/or Torres Strait Islander and Pacific Island communities – cannot be underestimated. As noted in Table 17, this may require establishment of new data collection, which would necessitate partnering with local communities to co-design how such monitoring could occur in a culturally-sensitive and appropriate fashion.

We note this is a living document, and encourage submissions or suggestions as to other outcomes or data sources not listed which may be able to contribute to monitoring efforts. Please also see below for important considerations as to proposed use of these sources.

4.2.5 Considerations in implementing monitoring

There are a number of considerations to note in the potential use of data sources within this framework. **It was not within scope for this project to consult with all data custodians federally and at State and Territory level, nor to detail all considerations as to access (e.g., approvals, costs) for each source.** Such consultations with data custodians and other State and Territory key stakeholders would be critical before implementation.

Important factors to consider when reviewing the framework and engaging in future consultations include:

- Differences between jurisdictions in existing surveillance capacity, meaning some data sources may be more feasible for use in some States/Territories as compared to others (noting NSW Ministry of Health have particular capacity in this respect given their established framework for monitoring kava);
- Whether there is evidence that kava is being systematically recorded within these data sources (e.g., resourcing or other barriers may mean that kava is not systematically tested/identified even where there might be facility to do so) and how this could be enhanced;
- Resourcing implications for the collection, collation, analysis and reporting on these data sources, even where kava is already systematically captured and coded;

- Data custodian, ethical and other approvals for the use and sharing of data;
- Time lags between collection and the collation/analysis/reporting on data;
- Issues of confidentiality and identifiability where reporting on small number of cases;
- Coverage over geography and level of geographic specificity in data;
- Whether key populations of interest are represented in sampling and data to identify these populations are collected; and
- Means and structures for information sharing based on the results and between key stakeholders (including communication at the cross-sector and inter-jurisdictional levels). Models such as the Prompt Response Network could be considered here.

4.2.6 Key stakeholders to involve in monitoring

Monitoring systems are only successful where key stakeholders are engaged in the process of establishing, interpreting and disseminating findings. Stakeholders for this work are broad, and may include representatives from health, food standards/safety, police, multicultural affairs, academia and other research organisations.

A strong message through consultation for this evaluation report has been the importance of stronger engagement with representatives from key populations in monitoring, and particularly representatives of Aboriginal and/or Torres Strait Islander communities. Key stakeholders representing these populations that could be included in considering this framework through to conduct of monitoring and reporting on outcomes could include:

- Pacific and Australian South Sea Islander community key workers (e.g., police, health service providers)
- Aboriginal and/or Torres Strait Islander community key workers (e.g., police, health service providers)
- Aboriginal and/or Torres Strait Islander government and non-government stakeholders
- Jurisdictional government representatives
- Local councils in Aboriginal and/or Torres Strait Islander communities.
- Peak bodies, public health organisations and primary health networks.

Table 17: Potential data sources for consideration in future monitoring

Indicators	Source of data	Routinely collected	Capture of kava	Source status[a]
Objective 1: Kava-related acute and clinical harms				
Kava-related emergency department presentations	State and Territory emergency department data collections	Y	Identification requires study of presentation codes (available in SNOMED-CT coding system; see below regarding ICD-10-AM) and/or triage text mining. The latter is only undertaken systematically by some jurisdictions (e.g., NSW Rapid Emergency Department Data for Surveillance; REDDS) and for prioritised substances	B
Kava-related emergency department presentations identified through toxicology testing of patients with unusual substance-related toxicity	Standardised toxicosurveillance program such as the Emerging Drugs Network of Australia[234]	Y	Testing for kava may vary by State and Territory	A/C
Kava-related hospitalisations	State and Territory admitted patient data collections or the National Hospital Morbidity Database	Y	Identification conditional on kava being included as a diagnosis code in the ICD-10-AM/ACHI/ACS coding system used for classifying admitted patient care, noting NSW Ministry of Health have made a public submission for such a code to be included in the 13th edition	C

Indicators	Source of data	Routinely collected	Capture of kava	Source status[a]
Kava-related ambulance attendances	State and Territory ambulance data collections or National Ambulance Surveillance System	Y	Identification likely requires text mining of triage notes	B
Kava-related calls to poison information centres	NSW, WA, VIC or QLD poisons information call centre data collections or national collection	Y	Available to be coded as a drug and/or text mining of notes fields	B
Kava-related alcohol and other drug treatment episodes	State and Territory alcohol and other drug treatment services data collection or Alcohol and Other Drug Treatment Services National Minimum Data Collection	Y	Available to be coded as a substance of concern (Australian Standard Classification of Drugs of Concern, 2011)	A
Kava-related calls to alcohol and drug information services	State and Territory alcohol and drug information service phone services data collections or other like services (e.g., Drug and Alcohol Specialist Advisory Service)	Y	Availability to be coded as a substance of concern likely varies by service, and may require call documentation text mining or extraction from broader categories (e.g., plants and herbs)	C
Kava-related deaths	State and Territory forensic services data collections or National Coronial Information System	Y	Available to be coded as a substance (Pharmaceutical substance for human use codeset)	A
Kava-related impaired driving	State and Territory drug impaired driving data collections	Y	Routine testing for kava may vary by State and Territory	A/C
Experience of harms in key populations	Community sentinel surveys and/or interviews/focus groups with key community members/leaders	N	Scope for data collection on impacts of kava on key populations, targeted at - and undertaken in partnership with - specific communities of interest.	D

Indicators	Source of data	Routinely collected	Capture of kava	Source status[a]
Objective 2: Kava supply, demand, quality and use				
Volume imported into Australia	Australian trade records	Y	Available specific to kava	A
Number of commercial importation permits granted	Australian trade records	Y	Available specific to kava	A
Volume sold by registered/sentinel businesses	Australian Bureau of Statistics Retail Business Survey	Y	Not currently targeted to kava retailers	C
Level of kavapyrones (kavalactones) in kava sold in Australia	Laboratory analysis	Y	May be undertaken as part of food standard quality analysis	A
Use in the general population	National Drug Strategy Household Survey	Survey every 3 years	Items added for purpose of this evaluation; ongoing inclusion to be determined	A
Use in the general population	National Wastewater Drug Monitoring Program	Y	Feasible to identify but not included in routine testing	C
Use in samples of people who regularly use illegal drugs	Illicit Drugs Reporting System and Ecstasy and Related Drugs Reporting System	Survey annually	Items added for purpose of this evaluation; ongoing inclusion to be determined	A
Use in school students	State and Territory school surveys where available or Australian Secondary School Students' Alcohol and Drug Survey	Survey every 3 years	Item on use of ethno-botanicals (including kava as a specific option)	A
Use among Aboriginal and Torres Strait Islander communities	National Aboriginal and Torres Strait Islanders Health Survey	Variable	Item on use of kava was included in most recent survey from 2018-19 (data collection underway for current survey)	A

Indicators	Source of data	Routinely collected	Capture of kava	Source status[a]
Use in key populations	Community sentinel surveys and/or interviews/focus groups with key community members/leaders	N	Scope for data collection on impacts of kava on key populations, targeted at - and undertaken in partnership with - specific communities of interest.	D
Objective 3: Impacts of kava use in Australia				
Health (see Objective 1 above)[b]				
Economic				
Tax revenue (GST) from kava importation/sales	Australian trade records (from import data)	Y	Available specific to kava	A
Profits from trade	Modelled based on market price and import data	N	Import data available specific to kava but requires collection of market price through surveys of consumers or retailers (bricks and mortar or online stores)	D
Economic benefit to Pacific Islands	Australian trade records (import data)	Y	Available specific to kava	A
Cultural				
Impacts of kava on key populations	Community sentinel surveys and/or interviews/focus groups with key community members/leaders	N	Scope for data collection on impacts of kava on key populations, targeted at - and undertaken in partnership with - specific communities of interest.	D
Objective 4: Policy and program responses to kava				
Number and nature of new policy, guidance, guidelines and/or programs related to kava	Desktop research audit	N	New data collection targeted specifically to kava	D

Note. [a] In this column, A-D are used to denote the following data source type: A) systematically capture kava from which data can be easily accessed pending approvals and resourcing to access data; B) capture kava in an ad hoc fashion (e.g., under 'other' or as free text) which would require systematic interrogation to extract with appropriate resourcing; C) do not systematically capture kava currently but may have scope to collect and collate data on kava with appropriate resourcing and approvals; and D) new data collections that would require establishing. [b] Stakeholders typically noted that law enforcement collections did not collect or did not systematically collect information on kava. We do note that in the course of the economic evaluation, costs associated with changes in crime were flagged as of concern, and this may a domain for further exploration in monitoring efforts.

Chapter 5

Summary of overall key findings and interpretation

5 Summary of overall key findings and interpretation

This report draws on a range of different data sources to answer the eight evaluation questions. The below synthesises findings across data sources for each evaulation question.

5.1 Evaluation Question 1: To what extent was the importation pilot implemented as expected?

Overall, findings indicated that the pilot was welcomed since it increased cultural wellbeing and provided an opportunity for businesses in the Pacific to be guided through the importation process and associated changes for product packaging for the Australian market. Pacific Islander community members highlighted how the packaging of kava has changed considerably since the pilot started. There were however some concerns around the implementation of the pilot. Pacific Islander community members and commercial importers raised concerns about quality checks of imported kava, including whether quality checks in place are being conducted as stipulated for the Australian market to ensure that products being sent are 100% pure kava. The fact that kava is being imported as a food product yet quality assurance across the Pacific is unclear and still evolving requires attention.

Findings from the evaluation generally showed that some stakeholders had concerns as to the way the kava importation pilot program was implemented, related mostly to the speed at which changes were implemented and preparedness for these changes. Specifically, some stakeholders noted that the timing of events did not allow for broader consultation, largely being limited to discussion amongst Commonwealth and State and Territory government departments. Notably absent from consultations more generally were peak bodies representing Aboriginal and/or Torres Strait Islander communities and the alcohol and drug sector on the possible impact the change to kava laws may have on Aboriginal and/or Torres Strait Islander communities and individuals. The process was described as being contrary to principles of self-determination. Some jurisdictions have said consultation will require a comprehensive and culturally sensitive approach to gauge local attitudes to kava. Where there was effort to approach these peak bodies for comment, time constraints meant it was difficult to gain a full understanding of key stakeholder perspectives in their jurisdictions.

Some community members in the focus groups were aware of the importation limitations but were not necessarily aware that it was a pilot program. In general, it was understood that the increase in the accessiblity of kava made it more affordable. During COVID-19 accessibility was limited, with anecdotal reports of prices up to $700AUD for 1kg. Subsequently, there are reports of prices as low as $70 to $100 per kilogram. In the Northern

Territory where kava is banned there was general frustration by some on the inconsistencies of the implementation of the ban at the border. Many in the community focus group and the commercial importers welcomed the change in the policy and the increase in the amout of kava to be brought into Australia. However, most agreed that the import processes and associated customs costs were not as clear.

There was agreement across the government stakeholders that the time and human resources required to respond to the kava policy change were large across several Commonwealth departments and across States and Territories. Jurisdictions' capacity to absorb the additional costs and burden associated with response to the kava pilot varied. Smaller States/Territories reported being overwhelmed by the additional unfunded impost citing that the work required was a drain on both their budgets and staff time resulting in opportunity costs for the implementation of other priority projects and programs. While recognising the added burden, stakeholders from larger states reported having the capacity to absorb the change within existing resources. Responses required included having a clear policy position, and developing or changing regulations and processes related to kava's new classification.

It was also commonly noted that there was a significant unfunded in-kind contribution made by civil society organisations and communities, including those made by Pasifika communities, Aboriginal and/or Torres Strait Islander communities, alcohol and drug and other peak bodies to support the implementation of the pilot project. Some government and non-government stakeholders suggested that the trade impetus for the kava importation pilot program came at the expense of a robust discussion and review of the potential impacts to public health and safety prior to commencement.

5.2 Evaluation Question 2: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?

Evidence relating to Aim 1a: Provide greater access to kava in Australia: Findings from the community survey of people from Pacific Island communities showed overwhelming support for the increased kava importation allowance from 2kg to 4kg. The relaxed restrictions had a positive impact on their cultural connection or practice and on their social or community connection, and many were support of continuation of the changes. Conversely, the majority surveyed thought that the kava import ban had a negative impact on these aspects. Many survey participants were in favour of even greater relaxation of kava importation restrictions, indicating that they would like further increases in the kava limits allowed in personal luggage.

Many government and non-government stakeholders did not have strong opinions about the increase in the personal importation limit, noting it is a fairly uncontroversial aspect of the pilot program. By contrast, the commercial importers expressed strong opinions against the

increase in the personal importation limit on two levels: i) impact of the increased personal importation limit on their business profits because people can bring up to 4kg in their accompained baggage and may reduce the market share of importers; and ii) black marketing of kava due to an influx of kava on the market which would impact prices and quality of kava sold. Government stakeholders questioned how the change to 4kg was decided, as they perceived that there was no rationale shared nor evidence to support this change. A reported challenge for government and non-government stakeholders was the lack of access to appropriate or sufficient data to determine whether the expectations of the pilot had been met. Many government stakeholders assumed there was 'greater access to kava in Australia', but not all had import volume data readily available to support their assumptions.

Evidence relating to Aim 1b: No net increase in harms (public health and safety is not compromised): Some government stakeholders were positive in their assessment of the commercial component of the kava pilot program, generally, and the potential positive impact regulatory frameworks could have on improving the safety of the product. However, some government and non-government stakeholders noted the impossiblity of achieveing such an outcome when the government was reintroducing a substance to be freely distributed across Australia (noting the NT as an exception due to the Kava Management Act of 1998) that has been associated with some known harms. As such, there was a universal call from all stakeholders that ongoing monitoring of kava use and potential harms, especially with young people, pregnant women, those with chonic illness and in Aboriginal and/or Torres Strait Islander communities, was critical with the use of kava for recreational purposes likely to increase.

Evidence relating to Aim 2: Understand the social, cultural, economic and health effects of increased availability of kava across Australia: In regards to the third outcome, most government and non-government stakeholders raised concerns about how well the social, cultural, economic and health effects are known and can be known without better monitoring for these impacts. Through the economic evaluation, there were no reported kava-related crime incidences in the community, a few cases of neglect of home duties by kava consumers, a high value for increased cultural impact in Pacific Islander communities, and a large economic benefit from trade to both Australia and Pacific Island countries.

Evidence relating to Aim 3: Increased trade opportunities: Most stakeholders agreed that this outcome has been achieved, and market access for Pacific businesses likely, but tight restrictions on the type and form of kava allowed will limit imports. The resulting increased market access was a positive outcome for surveyed Pasifika communities and diaspora in Australia, as well as for improved trade relations between Pacific Island nations and Australia as reported by commercial importers. It was reported by commercial importers

and the community focus group that there was trouble with labelling compliance, though a collective cross-government effort provided education to help suppliers and growers comply with the labelling requirements. The commercial importers reported challenges at the beginning of the commercial pilot due to changing requirements and regulations hence resulted in compliance issues. Further into the pilot, commerical importers reported that communication was much more streamlined and consistent.

Evidence relating to Aim 4: Respect for State and Territory regulatory role: There were diverse views on this outcome. Most government and non-government stakeholders acknowledged that the Commonwealth was responsible for the kava importation policy, but States/Territories bore the responsibility to regulate the product. While there was consensus that States/Territories retained jurisdictional control over how to regulate kava within their borders, they did face challenges in regulating the kava changes, particularly given the short timeframe to respond to the kava importation policy change and the lack of data and information flowing from the Commonwealth. The commercial importers acknowleged they do not distribute kava in the Northern Territory due to the restrictions.

5.3 Evaluation Question 3: What have been the health, cultural, social, and economic outcomes on Australian Pacific Islander communities, Aboriginal and Torres Strait Islander communities and the broader Australian population?

Health. Although the systematic review showed evidence in the global literature of health harms such as liver/hepatic toxicity and damage, fatigue, and other cognitive and physiological impacts, there was little evidence on health harms in the community based on other evaluation data. Very few Pacific Islander community members surveyed reported any health problems following kava use in the last 12 months, with the main problem being a skin issue. Routinely-collected data showed few reports of harms related to kava, although the limited range of sources studied should be noted.

Very few community members surveyed reported a health-related reason as a motivation for kava use; those who did noted ‘relaxation’ as being the primary benefit. This aligns with findings from the systematic review, which points to the anxiolytic and sedative properties of kava as having potential positive impacts on anxiety, depression, insomnia, and related conditions.

In the focus groups with the Commonwealth and State and Territory government stakeholders, health impacts associated with kava were predominantly articulated from a harms’ perspective. They noted the potential physical (e.g., intoxication, liver and skin harms) and polysubstance (e.g., mixing kava with other substances, namely alcohol) harms associated with excessive kava consumption, but acknowledged there is insufficient evidence to substantiate any of these concerns resulting from the overconsumption of kava. While there is particular concern as to the risks associated with polysubstance use, very few

community members reported using kava mixed with alcohol within the survey. Most government stakeholders acknowledged that these harms were of particular concern to youths and priority community groups such as Aboriginal and/or Torres Strait Islander communities. Other health impacts of concern included mental health and impaired cognition (including on driving performance), although it was acknowledged that the risk of these potential consequences, as well as those pertaining to long-term harms, are presently unclear.

Cultural. Cultural impacts focused on the importance of preserving the traditions of kava that are central to various Pacific Islander communities. While kava remains inherent to Pacific Islander culture and is traditionally consumed during ceremonies and special occasions, such as funerals and weddings, some fear the recent legislation may damage its cultural profundity and significance although thethey welcome the changes to the legislation. By making kava a widespread commodity that is readily consumed in several non-ceremonial, recreational settings by non-Pacific Islander individuals and communities, some are cautious this may dilute the cultural traditions and symbolic importance of kava overall.

Social. Social impacts of kava were indicative of social cohesion among kava users in Australia, as well as between Australia and its Pacific neighbours, and the retention and celebration of ceremonial traditions by Pacific Islander groups. The social/cultural uses of kava highlight the recreational and deep-seated traditional and ceremonial contexts in which kava is consumed by Pacific Island communities. Community members also highlighted that without kava, it was often difficult to bring people together and that using a substitute for kava such as alcohol or tea did not have the same sense of cultural connectedness. The community survey also demonstrated the importance of kava in Pacific Islander society and culture. In addition to the negative impact of previous kava importation restrictions and the positive impact of relaxed restrictions on cultural and community connections discussed above, most of those who had used kava in the last 12 months did so for social gatherings/recreation and for cultural/ceremonial purposes.

On the contrary, potential social harms raised comprised issues relating to family disruptions, dangerous driving, and in extreme cases, community harms and crime. Some community members acknowledged, for example, that the increased availability and supply of kava has resulted in some Pacific Islander males neglecting their household duties because of excessive kava drinking with friends. However, this idea was not as strongly expressed as the idea of kava being moderately consumed in recreational contexts within friends and family, which seemed to be the general consensus among stakeholders overall. In the community survey, the majority of the community members reported consuming kava in their own home or at a friend or partner's house.

Economic. Economic and bilateral impacts were voiced from the perspective of trade-offs between economic costs and benefits to Australia against the economic benefits of Pacific Island nations with whom this trade agreement has been formally established. The impacts of these relations were perceived as inextricably connected to the broader bilateral cooperation between Australia and participating countries, respectively. All stakeholders believed the legislation has increased the revenue and overall economies of Pacific Islander countries who are especially reliant on kava as an import-export commodity. In a similar vein, the legislation may also incentivise a potential Australian-based kava growing industry that should subsequently provide economic benefits to Australia, as well as its Pacific Island neighbours with whom kava trade agreements have been entered.

5.4 Evaluation Question 4: To what extent has the pilot increased the commercial supply and distribution of Kava in Australia?

Between December 2021 and May 2023, there was a total of 235.64 tonnes of kava commercially imported into Australia. The volume of kava imported varied each month with the highest quantity recorded at 29.7 tonnes in July 2022. In more recently recorded months of February 2023 – May 2023, the volume imported has been relatively stable between 3.1 – 5.2 tonnes.

As previously noted, opportunities for better data sharing on trade and commercial importation to various States/Territories governments was noted. While government stakeholders noted that semi-regular information on the number of permits issued was shared with State and Territory governments, data about the volume of kava being imported to Australia at various ports was less commonly accessible. Without having access to the importation data, stakeholders felt it was difficult to make an informed assessment about commercial supply and distribution. Despite the lack of data, most government stakeholders assumed an increase in supply. They did note the likely limited market reach to date of such a supply. Further challenging their assessment on distribution of kava was the lack of data to monitor pathways from the port of entry to further cross-jurisdictional distribution.

From the commercial importers' perspective, there has been an increase in the volume of kava imported into Australia comparing import volumes now to when the commercial pilot was first announced. The re-introduction of the commercial importation pilot has however brought about unique challenges such as the demand and oversaturation of kava on the market affecting profits of importers.

Government stakeholder and commercial importers highlighted two main new distribution sites of kava in their discussion around increasing supply in Australia: online and through nation-wide grocery store chains. The majority of commercial importers reported selling kava on social media in addition to having a website where orders can be placed. A concern noted among commercial importers is the sale of kava by individuals who have travelled to

Australia with kava in their accompanied baggage also selling on social media. Others reported distributing kava to retailers in the communities or selling directly to consumers.

A further concern noted was that, given kava is not a licensed food or beverage, there are no age restrictions on who can buy kava. Packaging and marketing of kava was raised in this context, particularly in terms of marketing targeted at appealing to young people. Venues selling kava in nightlife entertainment districts should also be a consideration. While there were few validated reports of such venues operating currently, some commercial importers expressed interest in setting up such venues, as well as diversifying into other products such as kava ice cream flavours.

5.5 Evaluation Question 5: To what extent has the pilot impacted the supply and use of Kava to high-risk communities, including East Arnhem Land?

There was consensus amongst those from whom data were collected that the changes supported Pasifika communities to enjoy and pay respect to their own culture, but it was clear that no-one supported increased access at the expense of the health and wellbeing of Aboriginal and Torres Strait Islander people and other groups who might be at risk of harm, such as young people and those with chronic illness.

While there are widespread concerns held about the potential impact of kava on Aboriginal and/or Torres Strait Islander people's health and wellbeing at the individual, family and commuity level, it was viewed by some as a priority. Fortunately, to date, there does not appear to be a big uptake of kava within the general population or in Aboriginal and/or Torres Strait Islander communities (at least as indicated by the data sources used here). However, critically, more evidence is needed to make informed decisions, especially in relation to access and consumption of kava in Aboriginal and/or Torres Strait Islander remote communities.

There are potential harms at the individual, family and community level associated with excessive kava use and stakeholders strongly conveyed that the current disparate modes of monitoring and surveillance of kava use and possible harms are inadequate. Sensitively designed prospective monitoring of the use and impact of kava on Aboriginal and/or Torres Strait Islander communities is needed to ensure evidence-informed decision-making and identify emergent harms. This needs to include education of health and related social services to monitor locally and manage harms at the individual and community level. Economic benefits related to kava distribution and sales in Aboriginal and/or Torres Strait Islander communities must be led by or shared with communities.

5.6 Evaluation Question 6: How effectively has the Commonwealth and State and Territory regulatory framework protected public health?

Regulation/policy and evaluation impacts, as well as issues relating to safety, quality control and labelling/marketing were wide-ranging, but critical to understanding how stakeholders thought about retaining or modifying the existing kava legislation. For example, greater awareness and communication of package product information (e.g., specifically recommended daily dose indications of kava) on kava-containing products were strongly advised.

Most stakeholders largely agreed that the public health regulatory framework provisions in place for kava are providing some protections for public health, but that there is not yet sufficient evidence to claim that public health has been protected. The need for monitoring of use and harms, particularly among at risk groups, such as young people and those with chronic conditions, were seen as critical to inform future regulatory adjustments. Multiple stakeholders from primary care physicians to local councils were identified as important to include in a holistic monitoring program.

One of the resounding points of consensus across government stakeholders was a desire to have access to more data to better understand the impact of kava in their jurisdictions and to make informed decisions on how best to respond to potential harms if they arise in the future. Stakeholders noted a robust framework for monitoring kava in Australia was yet to be developed, leading to a thin patchwork of jurisdictional monitoring and surveillance mechanisms. Further, the data that is currently being collected and/or shared was generally considered insufficient in providing a clear picture of where, how and by whom kava is being used in Australia and, importantly, how to understand where potential harms are emerging.

The need to enhance harmonisation across jurisdictions to ensure a more uniform approach to regulation across the country was widely supported as a longer term goal and that this would require a mechanism for sharing of experiences and approaches across States and Territories. It appears that the Project Reference Group (established by the Commonwealth, with cross-jurisdictional representation of the State/Territories) provided an important forum to discuss kava and related emergent issues cross jurisdictions for the pilot, and utility of continuing a similar cross-jurisdiction and cross-agency working group was noted by some.

Routine information-sharing of kava imports, as well as the source and location of kava permits have been called for, as has the need to provide greater transparency regarding where kava is distributed upon purchase. Furthermore, studying the approaches and evidence in other other countries, such as New Zealand, was also seen as important in informing any future reglulatory modifications..

Monitoring, evaluation and oversight (in a similar manner to education, communications and marketing) stemmed from the need for greater transparency and visibility in the systems in place that have enacted since the 2019 kava importation laws have been introduced. Investing in a robust framework for monitoring kava in Australia may require an additional investment, but is important to ensure any harms are minimised alongside greater access to this traditional product among Pasifika communities and diaspora.

5.7 Evaluation Question 7: What are the cost implications of the pilot for Commonwealth and State and Territory governments?

The systematic review showed scarcity of studies reporting on the economic impacts of kava which may indicate the difficulty of obtaining information relating to a country's importation/exportation regulations; however, for the Pacific Island countries that have reported on this data, such as Fiji and Vanuatu, the kava trade is clearly central to the economy of both Pacific Islands and Australia.

The health economic evaluation used a Cost Benefit Analysis to estimate the total societal cost of the kava pilot program, the total societal benefit of the program, and the net-benefit of the program. The estimates, taking into consideration the limitations of the study e.g. the convient sample for the Australian Pacific community survey, can be used in guiding the decision making regarding the kava pilot program in Australia. The total cost was estimated between 44.18 – 45.04 million Australian dollars with approximately 96% being costs to consumers and their families, 3% being costs to states and territories, and 1% the cost to the commonwealth government. 70% of consumer expenditure on kava translates as an economic benefit to Australia mainly due to trade from importers and retailers, and 30% as a benefit to Pacific Islander countries. Eliminating double counting in the cost-benefit analysis brings the total estimated societal cost to 14.52 – 15.38 million Australian dollars.

The total societal benefits to Australia were estimated at 53.32 – 55.83 million Australian dollars comprising of 57% economic benefits, 3% health benefits from kava use, and the remaining 40% intangible benefits consisting of cultural and social benefits, bi-lateral cooperation, and the value of Australia's contribution to economies of Pacific Island countries.

The estimated net societal benefit was 37.94 – 41.31 million Australian dollars. The positive net benefit means that there is value for money in the importation of kava to Australia.

5.8 Evaluation Question 8: Are there any unintended outcomes/consequences associated with the pilot?

Findings from the evaluation revealed several unintended consequences of the pilot.

Labelling of kava. Community members reported since the introduction of the pilot, the packaging and labelling of kava has improved on the market.

Marketing and new consumers. There is a potential for loopholes to be found within the regulations to market kava more aggressively to new consumers. Government and non-government stakeholders noted several examples of suppliers trying to find in-roads around the tight restrictions to, for example, appeal to a youth market. This is an area that could be subject to further scrutiny and restrictions.

Polysubstance use. Poly-substance use was a concern raised by many government and non-government stakeholders, particularly the mixing of kava with alcohol but also prescription medication, over-the-counter medication, cannabis and other drugs. However, the results from the community survey of people from Pacific Island communities showed that very few (5%) participants reported using kava mixed with alcohol as one drink in the last 12 months, although one fifth used alcohol and kava on the same occasion. This is an area that would be important for future monitoring, with harm reduction efforts escalated if rising polysubstance use and related harms were observed.

Relaxed importation and oversupply. In opening up the market to grant greater access to kava, the requirements needed to import kava was reported as too relaxed according to some stakeholders. This criterion allows any individual to apply for the permit regardless of whether or not they are in the food business. Commercial importers in particular have expressed concerns about who can apply for a permit. The oversupply of kava on the market also has quality implications because anyone can import kava and with no inspection to test the quality of kava, importers fear they will be impacted if the pilot discontinues due to health-related impacts.

Premature harvesting of kava in Pacific Islands. There are reports of people in the Pacific Islands growing kava and not waiting for the usual harvest period between 5-7 years because they want to take advantage of the commercial import business. Premature harvesting was deemed as inferior and low quality.

Implications of personal importation limit for commercial importers. With the increase in the personal importation limits, there is scope for individuals who travel with kava in their luggage for personal consumption to sell kava and avoid taxation. This potentially could affect businesses.

Implications of the importation program for the NT. While the NT has continued to uphold its Kava Management Act (1998) to prohibit kava, it is likely the NT will be impacted by the increased availability of kava in Australia. How this impact will play out is not known, but there needs to be preparatory work to respond to a potential increase in kava use at

individual, family and community levels in communities in the NT. Sale via social media and other online platforms may increase the likelihood of use by people in the NT.

Proposed monitoring framework

With appropriate resourcing and approvals, there is scope to continue monitoring of kava at the Commonwealth and/or State and Territory level as required. A range of routinely collected data sources could be used to capture, most importantly, harms related to kava use, but also aspects of kava supply, demand, quality, use, and broader health, social and economic outcomes if changes to kava importation continue. Some of these data sources could be used with minimal additional work required to capture outcomes related to kava. In other instances, more intensive work would be required for inclusion of sources to be feasible, or new data collections may need to be established (particularly in working with Aboriginal and Torres Strait Islander or Pacific Islander communities to design culturally sensitive and appropriate data collection). Critical to any such monitoring will be i) sufficient resourcing, ii) partnership and consultation with key stakeholders, including representatives from key populations of interest, and iii) cross-sector and inter-jurisdiction communication and collaboration.

Strengths of the evaluation

There are a number of strengths to highlight in the conduct of the present evaluation.

Mixed-methods approach. A key strength of this evaluation is the mixed-methods evaluation approach that was used. Use of both quantitative and qualitative data can enable better exploration of research questions and more rich and nuanced insights from different perspectives. A range of data types were used, including surveys, interviews, focus groups, systematic reviews, economic modelling and analysis of existing routinely collected data. Synthesis of findings across the different data sources lends itself to a stronger, more comphrensive evaluation.

Partnership and consultation. The team for this evaluation was multidisciplinary, including people with backgrounds in public health, surveillance, statistics, health economics, and mixed methods research. Ninti One, an Indigenous company, was co-lead of the project, and researchers embedded within the Pacific Island community were collaborators (Prof Jioji Ravulo and Associate Professor Litea Meo-Sewabu). The data collection tools used had input from multiple stakeholders (Advisory Group and Project Reference Groups) which helped to further refine and shape the tools. A range of participant grants were engaged in the course of data collection, including Commonwealth and State and Territory government and non-government stakeholders (including Aboriginal and Torres Strait Islander

stakeholders), commercial importers, and members of Pacific and Australian South Sea Island communities. Indeed, people from nearly States/Territories participated in some form in the evaluation by being involved in either the interviews, surveys, focus groups or providing data for the economic evaluation.

Rigorous methods. Rigorous methods were used for all data sources in the evaluation. For example, the systematic review rigorously adhered to the protocols underpinned by PRISMA guidelines. Where possible for some interviews, randomisation of participants was applied. The interviews and focus groups helped to capture in-depth feelings, experiences and perspectives about the pilot program . The surveys helped to reach a wider community to participate in the evaluation. The economic evaluation used standardised cost-benefit analysis methods to estimate costs, benefits, and arrive at the net-benefit of the program. A Discrete Choice Experiment was included to ellicit policy makers' preferences for the policy and estimate intangible benefits.

Limitations of the evaluation

In discussing the findings of the evaluation, it is important to acknowledge some of the limitations of the project.

Generalisability of findings from community survey. For the community survey of people from Pacific Island communities, there was no sampling frame it was not possible to obtain a random sample of Pacific Island or Australian South Sea Islander populations. The community survey was administered to specific communities and church groups known to the investigators in paper format and complete individual or in a group setting. Unfortunately, no Australian South Sea Island communities were recruited. Thus, caution should be taken in generalising findings to all Pacific Islanders living in Australia. In addition, the sample size was about 50% of that initially anticipated, due to problems with the original recruitment strategy.

Representativeness of findings. Not all participants approached for this evaluation consented to participate, and some sectors and populations are better represented than others. As noted in Section 2.9 lack of data from Aboriginal and Torres Strait Islander communities is a critical consideration, although engagement with First Nations government, non-government, and social sector representatives and agencies was undertaken.

The self-report data collected was limited by the willingness of people to share their views, in particular those in high levels of government. However, there were very candid and detailed reflections in many instances, providing important insights to the pilot's implementation and areas for future attention. While findings cannot be considered representative of all groups sampled, they do yield a range of perspectives to inform next

steps in monitoring and regulatory change to ensure access to kava for Pasifika communities whilst minimising harms.

COVID-19 pandemic. The COVID-19 pandemic had an impact not only on the conduct of the evaluation and capacity for primary data collection, but also likely impacted kava importation and access. This has hampered the ability to make strong conclusions as to the impacts of the pilot program, and necessitated calls for further monitoring.

Inputs for estimation of costs and benefits. With the economic evaluation because the community survey was only conducted with Pacific Islander communities, the estimation of community costs and benefits in Australia was limited to this population. This excluded any costs and benefits borne by other communities in Australia. Secondly, the estimation of intangible benefits was only conducted with government stakeholders because it was not possible to conduct a DCE with Pacific Islander communities. It would have been valuable to value social and cultural benefits from the Pacific Islander community members' perspectives because they are the direct beneficiaries of these benefits.

In addition, the data from the community survey used to estimate some of the costs in this study was self-reported and from a convenience (non-random) sample and therefore may not be a valid representation or the population of interest and was a sample size that was smaller than anticipated. An example is the proportion of kava users reporting health system use due to kava problems. The study reported that the percentage of kava consumers (who are 73.5% of the total adult and Australian South Sea Islander population in Australia) who reported kava related health problems was 7%. Of these, the percentage that sought health care were: 0.58% to the GP (once a year on average), 0.58 to emergency departments (twice a year on average), 0.58% to out-patient hospitals (twice a year on average), and none to other health services. The percentage of kava related health harms is reported elsewhere in the systematic literature review (See Section 3.1.3). The lower percentages in this study could be because of the non-random sample, the self-reported nature of data, the lack of health care seeking for kava related problems, or because the evaluation period was too soon after the kava importation policy was enacted. The scenario analysis presented in the results shows the potential increase in health costs and therefore total costs should there be an increase in the kava-related health system burden.

Sample size for DCE for economic modelling. The sample size that responded to the DCE was smaller than expected. While an efficient experimental design that required a small sample size was used, a larger sample size would have seen more statistically significant attribute parameter estimates.

Chapter 6

Conclusion

Conclusions

This monitoring and evaluation of the kava pilot program has provided a valuable overview of impacts of the program since inception in 2019. The evaluation highlighted that previous restrictions on kava imporation had negative social, cultural and economic impacts on Pacific Island nations and the Pasifika diaspora in Australia. There was broad support for the new policy and its provision of a widely used substance that is critical to the economic and cultural life of Pacific and/or South Sea Islander people here and overseas. The pilot program opens significant trade opportunities between Pacific Island nations and Australia, with the economic benefits from trade, cultural and social impact, and bilateral cooperation, outweighing the implementation costs and minimal reported harms of the program to date. The implementation was deemed as lacking adequate consultation across jurisdictions and peak bodies representing Aboriginal and/or Torres Strait Islander communities. There remains concern over the quality control, black market, and permit system associated with commercial and personal importation which requires further regulation. However, these regulations need to be harmonised between jurisdictions with continued monitoring and improved data sharing critical to this process.

Furthermore, while there are varied reports and inconclusive evidence in this study around harms and benefits associated with kava use, stakeholders noted that ongoing monitoring especially among groups at risk, including Aboriginal and/or Torres Strait Islander communities, was critical. The monitoring framework proposed as part of this evaluation provides a strong foundation for such activities in future. As part of this, there needs to be consideration as to the resourcing that would be required to properly monitor kava use and partnerships necessary to see success in such an endeavour.

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7 Appendices

Appendix 1: Additional background information

Pilot Phase 2: Allowing commercial importation of kava

The second phase of the pilot commenced on 1 December 2021. The Customs (Prohibited Imports) Amendment (Commercial Importation of Kava as Food) Regulations 2021 (the Regulations) allows the commercial importation of kava as a food. The Regulations create a standalone permission scheme for the commercial importation of kava as a food. The importation of kava under the Regulations is consistent with the existing regulatory framework for the sale of kava as a food in Australia and New Zealand under the Australia New Zealand Food Standards Code (Food Standards Code) made under the Food Standards Australia New Zealand Act 1991.

This new importation regime applies to the same forms of kava in section 2.6.3-3 of Standard 2.6.3 – Kava in the Food Standards Code that are exceptions to the prohibition on the sale of kava as food under that Code. This kava is described as 'kava food product' and is defined as 'a beverage obtained by the aqueous suspension of kava root using cold water only, and not using any organic solvent; or dried or raw kava root'. The forms of kava that are permitted are dried or raw kava root of the Noble variety in the form of kava root chips, kava root powder, or whole kava root and kava beverages. The importation of kava, for food use, is subject to Regulation 5F of the Customs (Prohibited Imports) Regulations 1956 - external site (PI Regulations) and is prohibited unless the importer holds a permit issued by the Office of Drug Control (ODC). An import permit is required for each consignment that is imported and is only valid for a 6-month period from the day it is issued [4].

Only persons intending to sell kava food products as part of the entity's business can be granted permission to import kava food products. This permission must be granted before importation and importation cannot occur through the post. The permission is only available to importers that have an Australian Business Number and are registered for goods and services tax (GST). All kava imported as food must be packed in clean and new packaging, and free from biosecurity risk material.

Table 18: Key national legislation governing the regulation of kava in Australia

Act or regulation	Primary consequence
Regulation 5 of the Customs (Prohibited Imports) Regulations 1956 (kava being defined in regulation 2 and listed	Kava is classified as a prohibited import substance. Kava may only be imported ff the importer has a permit from the Secretary of the Department of Health or an authorised person. In order to be granted a permit the importer must first be granted a license by the Secretary of the Department of Health or an authorised

as a Schedule 4 Drug – item 112B)	person must apply for and be granted a license and permit. In practice, import permission is only granted for medical and scientific purposes.
Customs (Prohibited Imports) (Kava) Approval 2019	This instrument is made under regulation 5 of the Customs (Prohibited Imports) Regulations 1956). The approval means that kava is approved if it is imported by a person 18 or over in their accompanied personal effects. The approval applies to kava root, dried kava and a beverage made from the aqueous suspension of kava root in cold water. The approval only applies up to 4kg of kava. Goods that have an import permit must meet all the other customs importing requirements. Goods also need to meet biosecurity requirements. Goods that may fall under the kava approval may not meet biosecurity requirements and therefore cannot be imported.
Regulation 5F of the Customs (Prohibited Imports 1956)	Regulation 5F prohibits the import of kava as a food product unless the importer has a permit from the Secretary of the Department of Health or an authorised person. Unlike regulation 5 a license is not required. Under regulation 5F a permit may only be granted if the importer is importing the kava as a food product to sell as part of their business and the importer is registered for GST and has an ABN. Kava as a food product is defined as a food mentioned in section 2.6.3-3 of the Australia New Zealand Food Standards Code. The definition in the Food Standards Code is narrower than that applying to regulation 5. Goods that have an import permit must meet all the other customs importing requirements. This means that goods that may be able to obtain import permission may not meet biosecurity requirements and therefore cannot be imported. Regulation 5F prohibits the import of kava as food through the mail. The conditions of a kava permit prohibit the commercial importation of kava as a food by a traveller.
Biosecurity Act 2015, and subordinate legislation (Biosecurity (Prohibited and Conditionally Non-prohibited Goods) Determination 2016)	Only allows importation of kava powder. "Plants, parts of plants and seeds" including kava are prohibited. Conditions include inspection upon arrival to ensure free of contamination and/or infestation by extraneous materials and consignments must be packaged in clean, new packaging and free of biosecurity risk material such as live insects. Division 1 of the Biosecurity (Conditionally Non-prohibited Goods) Determination 2021 (the Goods Determination) specifies that live plants (including roots and tubers) and plant products (including goods containing or made of plants) are conditionally non-prohibited goods. For the purposes of the Goods Determination, kava powder and kava beverages are considered to be processed plant products. There are alternative conditions listed in the Goods Determination for processed plant products. This means that kava powder and kava beverages may be brought or imported into Australia without an import permit provided that the alternative conditions have been complied with. The alternative conditions require the kava to be processed so that

	it is not viable and there is no risk of contamination or infection from a disease or plant pathogen.
Australia and New Zealand Food Standard Code (the Food Standard) Standard 1.1.1 to Standard 2.6.3 of the Code.	Standard 1.1.1—10 • Prohibits kava or any substance derived from kava unless permitted by Standard 2.6.3, i.e., kava beverage made from peeled kava root and cold water, or peeled kava root. Food for sale must not have as an ingredient or a component kava or any substance derived from kava. Standard 1.1.2—3 • Requires that kava food products must only be obtained from the Noble varieties of the species of Piper methysticum that are named in the Codex Regional Standard for Kava Standard 1.2.7—4 • Prohibits the making of nutrition content or health claims on permitted forms of kava. Standard 2.6.3 • Ensures that kava may only be sold as: i) a beverage obtained by the aqueous suspension of kava root using cold water only, and not using any organic solvent; or ii) in its root or dried form. • Explicitly prohibits the addition and use of food additives and processing aids in the manufacture or processing of dried or raw kava root and kava beverages. • Stipulates that warning labels must accompany kava products, including that it should be used 'in moderation' and that it 'may cause drowsiness'.
Imported Food Control Act 1992	Enables verification at the Australian border that kava imported as food imports comply with the Food Standards code.
Poisons Standard February 2020	PIPER METHYSTICUM (kava) in preparations for human use except when included on the Register in preparations: a) for oral use when present in tablet, capsule or teabag form that is labelled with a recommended maximum daily dose of 250 mg or less of kavalactones and: i. the tablet or capsule form contains 125 mg or less of kavalactones per tablet or capsule; or ii. the amount of dried whole or peeled rhizome and/or root in the teabag does not exceed 3 g; and, where containing more than 25 mg of kavalactones per dose, compliant with the requirements of the required advisory statements for medicine labels; b) in topical preparations for use on the rectum, vagina or throat containing dried whole or peeled rhizome and/or root or containing aqueous dispersions or aqueous extracts of whole or peeled rhizome and/or root; or c) in dermal preparations

State and Territory regulation

In addition to national legislation, kava is subject to regulation imposed by States/Territories governments, as outlined in Table 19.

Table 19: State and Territory requirements

State	Kava legislation
ACT	Kava is permitted to be sold as a food in all Australian States and Territories if it complies with the Australia New Zealand Food Standards Code, with the exception of the Northern Territory, which has additional requirements related to kava. The preparation of kava beverages and packing of unpackaged kava for sale needs to comply with food safety requirements of Chapter 3 of the Food Standards Code and depending on the jurisdiction may be subject to additional requirements such as a food business licensing. All jurisdictions have medicine and poisons legislation that adopts the requirements of the Poisons Standard and hence regulate the sale of kava for therapeutic use. ACT in 2020 repealed the Medicines, Poisons and Therapeutic Goods (Public Event for Kava Exemption) Declaration 2013 (No 2) which allowed a Ministerial exemption to be made for the cultural use of kava at specified public events. The sale, handling and consumption of kava as a food is now allowed that complies with the Food Standards Code. The Food Act 2001 (ACT) may also apply for ACT businesses which handle food. Other forms of Kava such as complimentary medicines are regulated by Medicines, Poisons and Therapeutic Goods Act 2008. That is, ACT requirements are now the same as other states and territories (with the exception of NT which has the Kava Management Act).
NT	Kava is regulated by the Kava Management Act 1998. The purpose of the Act is to prohibit and regulate the cultivation, manufacture, production, possession, and supply of kava, to encourage responsible practices and procedures in relation to the possession, supply and consumption of kava. It is illegal to possess more than two kilograms of kava and to supply it to a person under 18 years of age. It can only be manufactured, produced, or supplied (including sell) in accordance with a license. A person of age 18 can enter Australia as an incoming passenger, with up to 2kgs in his/her personal baggage.
WA **NSW** **QLD** **TAS** **VIC** **SA**	Kava is regulated by the federal Poisons Standard February 2020 and Poisons and Therapeutic Goods Regulation 2008.

7.1.1.1.1

Appendix 2: Project team and advisory group members

UNSW

1. Professor Michael Farrell
2. Dr Winifred Asare-Doku (Co-Chair)
3. A/Professor Amy Peacock
4. Dr Stella Settumba Stolk
5. Dr. Anh Dam Tran
6. Ms Alexandra Aiken
7. Ms Elissa Harwood
8. Mr. George Economidis
9. Ms Professor Catherine D'Este
10. A/Professor Sally Nathan
11. Ms Emily Waller
12. Dr Poshan Thapa
13. Ms Tricia Mhey-Rivas

University of Queensland

14. Professor Anthony Shakeshaft (Co-Chair)
15. Dr. Adam Craig

Ninti One

16. Mr. Rod Reeve (Co-Chair)
17. Ms. Tammy Abbott
18. Ms Atalanta Turner
19. Ms Kate Wilson
20. Dr Dan Tyson
21. Mr Trevor Satour

The University of Sydney

22. Professor Jioji Ravulo
23. Dr Loraini Tulele

Western Sydney University

24. A/Professor Litea Meo-Sewabu

Central Queensland University

25. Professor Chris Doran

Appendix 3: Detailed methodology

Detailed Methods

Summary of the methodology

A mixed methods research design was used for this evaluation. Mixed methods research utilizes both quantitative and qualitative data by drawing on the strengths of each to understand a situation better and answer the evaluation questions. It provides strengthened evidence and triangulation of data to enhance validity. The different methods that were used for this evaluation included a systematic review, interviews, focus groups, community survey, analysis of routinely collected data and economic methods. Note that the systematic review was conducted to provide a background on existing evidence and was not mapped to specific evaluation questions. Details of each of these methods are presented below. See Table 4 for a summary of the methods.

Table 4: Summary of methods

Key evaluation questions	Data collection method					
	Quantitative data			Qualitative data		
	Health economic evaluation	Routinely collected data	Community surveys	Interviews commercial importers	Interviews and focus groups with govt/non-govt stakeholders	Interviews and focus groups with community members
To what extent was the importation pilot implemented as expected?	✗	✓	✗	✓	✓	✗
To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?	✗	✗	✓	✓	✓	✓
What have been the health, cultural, social and economic outcomes?	✓	✓	✓	✗	✓	✓
To what extent has the pilot increased the commercial supply and distribution of Kava in Australia?	✗	✓	✗	✓	✓	✗
To what extent has the pilot impacted the supply and use of Kava to high-risk communities?	✗	✗	✗	✓	✓	✓
How effectively has the regulatory framework protected public health?	✗	✗	✗	✗	✓	✗

Key evaluation questions	Data collection method					
	Quantitative data			Qualitative data		
	Health economic evaluation	Routinely collected data	Community surveys	Interviews commercial importers	Interviews and focus groups with govt/non-govt stakeholders	Interviews and focus groups with community members
What are the cost implications of the pilot for the Common-wealth and State and Territory governments?	✓	✗	✗	✗	✓	✗
Are there any unintended outcomes/ consequences associated with the pilot?	✗	✗	✗	✓	✓	✓

Throughout this report, references to government stakeholders refers to people from the Commonwealth Department of Health and Aged Care (DoHAC), Department of Foreign Affairs and Trade (DFAT), Department of Agriculture, Forestry and Fisheries (DAFF), Office of Drug Control (ODC), as well as State and Territory stakeholders from the ministries of health, social services, police, and food standards and safety authorities. Representatives from nongovernmental organisations (NGOs) with a focus on Aboriginal and/or Torres Strait Islander people in the Northern Territory and Western Australia. Although effort was made to sample Australian South Sea Islander communities, only Pacific Islander communities were included in the community data collection. However, in some parts of report where it is essential to have a broader interpretation, we include Australian South Sea Islanders.

Overview of the systematic literature review

A systematic literature review was conducted to summarise existing literature on kava globally. The review is an update of NDARC's systematic literature review completed in 2020 on use, harms and economic implications of kava use to ensure current scientific knowledge was used to inform the evaluation. The previous literature review involved a systematic search of the kava-relevant academic (peer-reviewed) and non-academic (non-peer

reviewed) literature[6]. It was intentionally broad in scope to capture papers and reports relevant to a wide-range of kava-related issues. In building on the prior review, the current review examined the harms, benefits and pharmacological effects associated with kava use, and the social and cultural reasons for use. It also examined the economic, policy and governance frameworks adopted by both Australia and other countries to obtain a holistic perspective of kava in both the domestic and international contexts.

Systematic review approach

This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines[6] and was registered with PROSPERO (registration number: CRD42021139490). This narrative systematic review explored available literature on kava from both qualitative (e.g., survey, interviews, focus group design) and quantitative (e.g., cross-sectional, cohort, randomised controlled trials, quasi-experimental studies and pre-and-post study designs) studies.

Any study that reported on the prevalence, social and cultural use, pharmacological and economic impacts, harms, benefits, policy and/or governance of kava, published between the 1st of January 1980 to 8th of December 2022, was eligible. In this context, a 'study' comprises any peer-reviewed article published in an academic journal, as well as government and policy reports, legislation, dissertations and other non-empirical literature. There were no language or country restrictions. Articles in languages other than English were translated using Google Translate. Only studies involving human participants were included.

Searches were conducted in the following eight electronic databases:

- Cumulative Index of Nursing and Allied Health Literature (CINAHL) via EBSCO
- Aboriginal and/or Torres Strait Islander Health
- Australian Public Affairs Information Service – Aboriginal and Torres Strait Islander Subset (APAIS-ATSIS)
- Social Science ProQuest
- PsycINFO via Ovid
- Embase via Ovid
- PubMed
- Scopus

To capture the broad range of synonyms for which kava is classified in different cultures and countries, the following search terms were utilised across databases (in title and abstract):

[6] The review undertaken in 2020 was submitted to the Australian Government Department of Health and Aged Care; it has not been officially published.

exp kava extract/ or exp kava/ or exp *Piper methysticum*/ or kavalactones or kawa or waka or lewena or yaqona or grog or sakau or awa or ava or wati.

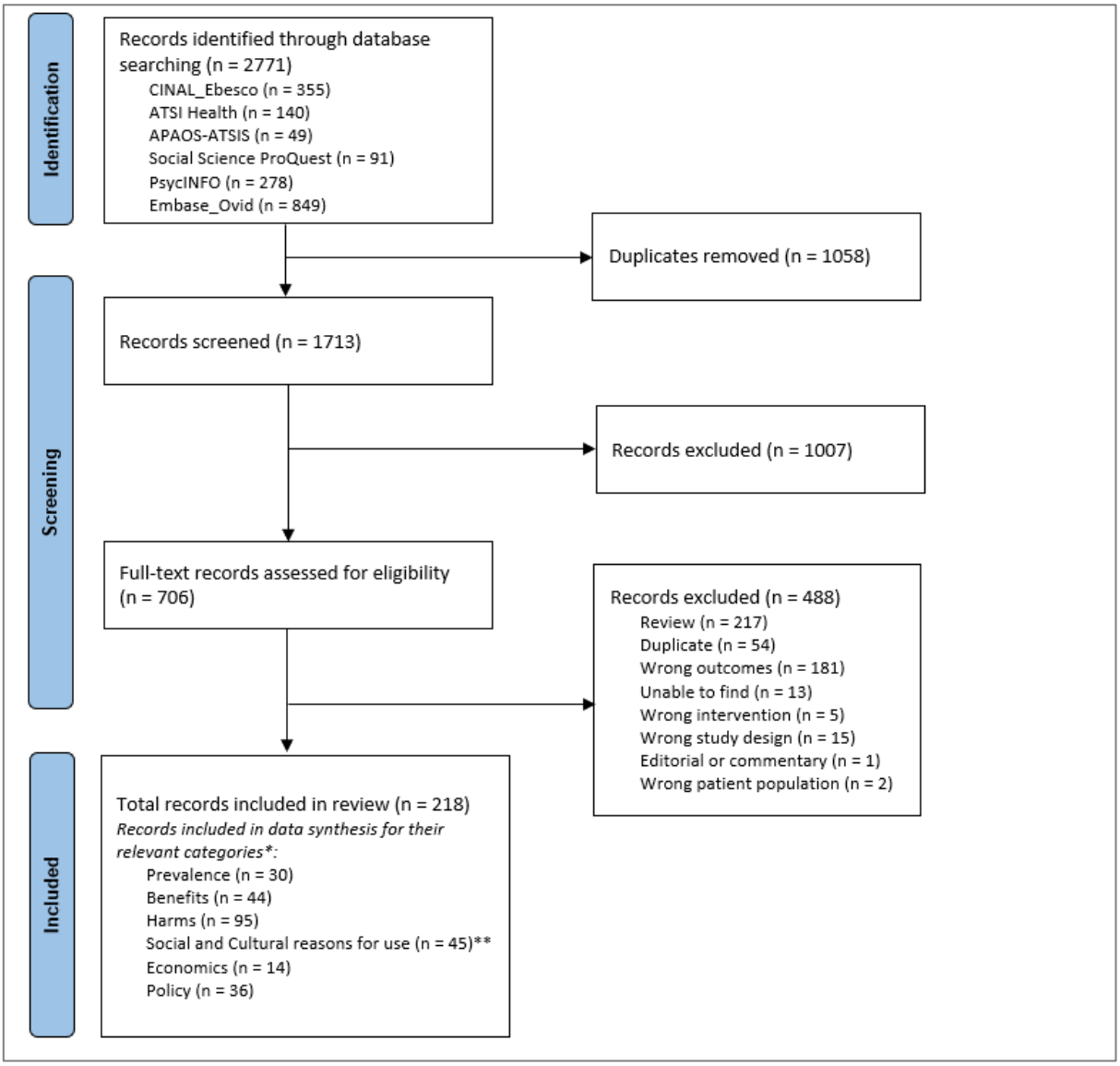
The final database search was conducted on the 8th of December 2022. The searches retrieved 2771 papers. All results were exported to Endnote (Version 20) for initial deduplication. The remaining references were then uploaded to Covidence for screening. Two screeners independently screened the titles and abstracts of 1713 records, and the subsequent full texts of 706 studies. Any discrepancies in screening at the title and abstract and full text stages were resolved via discussion with a third screener.

Information was systematically extracted using a pre-designed data template that was tailored to each of the seven outcomes of interest: 1) prevalence, 2) social and cultural use, 3) harms, 4) benefits/therapeutic use, 5) economic impacts, 6) policy and governance, and 7) pharmacological effects. While many of the extracted variables were consistent across outcomes (e.g., study, country/region, type of kava and population/sample), there were some that were unique to specific outcomes. For example, “reasons for social/cultural use” and “frequency, dose and duration” were extracted for social and cultural use and prevalence outcomes, respectively, as was “trade, manufacturing/production and sale” and “legislation/guideline/advisory body” for economic impacts, policy and governance outcomes, respectively.

The Joanna Briggs Institute (JBI) quality appraisal tools were used to assess the risk of bias in selected studies. Specifically, the JBI prevalence tool[7] was used to assess the risk of bias in any study reporting on prevalence outcomes, and the relevant randomized controlled trial (RCT)[8], quasi-experimental[9], cross-sectional[10], qualitative[11], case series[12] and case report[10] JBI tool was used to assess the risk of bias in any study reporting on harms or benefits. No risk of bias assessment was undertaken for studies solely reporting on economic impacts, social and cultural use, pharmacology and policy and governance, as it was determined these studies did not report on data that appropriately aligned with any of the JBI measures.

A total of 1713 search results were screened, with 218 records (approximately 10% of the articles were non-academic and/or non-peer reviewed) included in the review. Figure 11 displays the study selection process. Papers included in the review reported on seven outcomes: kava prevalence (n = 30), benefits (n = 44), harms (n = 95), social and cultural reasons for use (n = 45), economic (n = 14) and policy (n = 36) impacts. Of the 45 papers describing social and cultural reasons for use, 25 contained primary data available for extraction. The remaining 20 social and cultural papers were unable to be extracted as they did not contain primary data and/or reviewed social and cultural reasons for use or did not contain sufficient data for extraction.

Figure 11: PRISMA flowchart for included studies



Data analysis

We conducted a narrative synthesis of results and, where possible, grouped by country/region and/or study type, to present results for each outcome. Findings were presented separately for each of the seven outcomes. It was not possible to conduct a meta-analysis for reported outcomes across any of the seven domains because of the heterogeneity in both study designs and outcomes.

Overview of the qualitative methods

The qualitative methods utilised focus groups and semi-structured interviews with various stakeholders comprising: Aboriginal and/or Torres Strait Islander government and non-government organisations, Pacific Islander communities in Australia, Commonwealth and State and Territory government stakeholders and commercial importers. The focus groups used a combination of a Nominal Group Technique (NGT) delivered using Talanoa methodology, an approach that is relevant to Pacific and Australian South Sea Islander communities. Talanoa ("talk" or "discussion" in Fijian, Samoan and Tongan) is a Pacific Island form of conversation that enable people to share opposing views without any predetermined expectations for agreement [13]. Individual interviews, conducted as a form of Talanoa was the predominant method of getting information regarding this research. Talanoa was used as it is familiar to Pacific community [14, 15]. Talanoa has been used widely to openly discuss issues at hand. As Talanoa is a communal method of collecting stories and narratives it was important to first establish our connections to the geographical spaces, we were in.

NGT is a structured and phase-based consensus method of collecting information [16]. It is generally applied to a group setting of between 6-18 participants, and comprises four sequenced steps: idea generation, round-robin (nomination of ideas), group discussion and voting to establish consensus [17, 18]. NGT is a well-established mixed-method approach that is deemed appropriate for the current evaluation for several reasons:

1. It quickly achieves consensus, with the methodology and results completed on the same day and disseminated to participants for factual accuracy within 24-48 hours;
2. Facilitators do not necessarily have to be experts in the research field of interest;
3. Participants have an equal opportunity to provide their ideas (in sequence and without interruption) during the 'round-robin' phase, and anonymously and individually rank the generated themes on their perceived level of importance during the 'voting' phase [16, 19, 20].
4. Members of the evaluation team have also recently delivered NGT online, in the assessment of a large-scale health program in regional New South Wales. This is an important alternative given the possibility of travel restrictions related to the COVID-19 pandemic.

The fusion of these two methodologies (NGT and Talanoa) represents an innovative and exciting opportunity to develop a process that could be used in a range of other evaluations of government programs, particularly those involving Pacific and Australian South Sea Islander communities. The Talanoa component allows the participants to generate discussions and creates a culturally respectful environment and facilitates engagement and in-depth discussions. The NGT consensus method helps to focus the discussion by

generating themes answering the specific research questions underpinning this evaluation [16, 19, 20], without dismissing the value of the full narratives.

Questions for the focus groups and interviews were designed by the project team with feedback from the Advisory Group and Project Reference Group. All participants were required to provide written informed consent before participating in the focus groups and interviews. Participation was voluntary. All interviews and focus groups were audio recorded and transcribed. Where appropriate, participants were reimbursed using GiftPay vouchers. GiftPay is an online platform for delivering bulk eGifts with 100+ brands across Australia and online. Once the interview was completed, the eGifts were emailed to participants.

Specific qualitative methods for each participant group are provided below.

Interviews with government and non-government stakeholders

7.1.1.1.3 **Aim**

The interviews with the Commonwealth, State and Territory and Aboriginal government and non-government stakeholders addressed all eight evaluation questions.

- **Evaluation Question 1:** To what extent was the importation pilot implemented as expected?
- **Evaluation Question 2:** To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?
- **Evaluation Question 3:** What have been the health, cultural, social, and economic outcomes on:
    - Pacific and Australian South Sea Islander communities
    - Aboriginal and Torres Strait Islander communities
    - The broader Australian population?
- **Evaluation Question 4:** To what extent has the pilot increased the commercial supply and distribution of kava in Australia?
- **Evaluation Question 5:** To what extent has the pilot impacted the supply and use of kava to communities at higher-risk of kava-related harms including East Arnhem Land?
- **Evaluation Question 6:** How well (effective) has the regulatory framework protected public health?
- **Evaluation Question 7:** What are the cost implications of the pilot for Commonwealth and State and Territory governments?

- **Evaluation Question 8:** Are there any unintended outcomes/consequences associated with the pilot?

Participants and data collection

Study participants were purposefully identified as those with some understanding and experience related to kava and/or the genesis or implementation of the kava pilot program who worked in a government or non-government organisation[21, 22]. Some of these organisations also had some responsibility for kava regulation or monitoring of harms. In this report we define 'stakeholders'' as those who are likely to have knowledge, professional expertise and experience that can help understand the focus issue. The stakeholders were identified by the Advisory Group and the Project Reference Group.

The aim was to recruit approximately 40 key participants representing government at the Commonwealth and State and Territory levels, with approximately five participants from each of the eight government jurisdictions. Additional key participants were recruited from Aboriginal-focused nongovernmental organisations. All potential participants were contacted by email and asked to consent to be part of a semi-structured interview (Appendix 4 & 5 Interview guide _Commonwealth and State and Territory stakeholders; Appendix 6 Interview guide_ Aboriginal and/or Torres Strait Islander government and non-government stakeholders). A suitable time was arranged for the interview which were conducted by videoconference – Zoom or Teams. Interviews were conducted with those consenting on their own or in a small group from November 2022 to March 2023 for 40-90 minutes. The interview was audio recorded and transcribed verbatim by an experienced external transcriber who signed a confidentiality clause. Consent was sought to audio record interviews. Transcripts were then checked by the interviewer for accuracy and to de-identify before being imported to software for managing qualitative data.

In addition to being guided by the semi-structured interview schedule developed by the Advisory Group with input from the Project Reference Group, the interviewer used paraphrasing and additional questions or probes to seek clarification as is common in semi-structured interviews[22]. This ensured that the interviews covered most of the topics but remained flexible to be responsive to participants knowledge and experience. Questions were asked in an open-ended manner to allow room for in-depth data and expansion of key points. During the interviews, member checking was conducted to ensure that the issues raised, and experiences shared were understood by the interviewer[21].

The interviewer collected basic demographic information from the participants at the end of the interview. It is also important to note that participants were not being asked to formally represent their employer or the views of their organisation, but their own experiences and perspectives.

There were 24 interviews, 11 of which were group interviews with a total of 40 participants contributing to the findings presented in this report (See Table 20). The findings are presented in relation to the eight overarching questions detailed in the introduction. To ensure anonymity of participants they are numbered 1-40 with GOV to denote government stakeholder and NGO to denote a non-government stakeholder with S/T for State or Territory government and CMW for Commonwealth.

Table 20: Demographic characteristics of government and non-government stakeholders included in interviews

Demographic categories	N=40
Age	
25-29	1
30-34	3
35-39	6
40-44	7
45-49	9
50-54	5
55-59	4
65+	3
Gender	
Male	13
Female	25
Nationality*	
Australian	35
Aboriginal	4

Data analysis

The six-step thematic analysis qualitative framework first developed by Braun and Clarke was used to guide data analysis[23]. First, the main interviewer for the study reviewed the first few transcripts (familiarisation stage) for early themes and concepts, from which a preliminary coding scheme was constructed. The main interviewer then proceeded to code all transcripts, revising the scheme iteratively to reflect further themes from interview responses. QSR International's NVivo 12 qualitative data analysis software was used to code all transcripts, categorise the data and facilitate comparison of participant views. Meetings of the project team were held to discuss candidate themes at key points in the process and this ensured reflexivity and consideration of alternate interpretations.

For the interviews focused on participants with knowledge of Aboriginal experiences and issues, a meeting was held face to face with the two Ninti One interviewers and the three key project team over two days. Coding was undertaken as a group and key concepts and themes were identified.

Focus groups with Commonwealth and State and Territory government stakeholders

Aim

The focus groups with the Commonwealth and State and Territory government stakeholders addressed one evaluation question.

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?

Participants and data collection

Commonwealth and State and Territory stakeholders involved in the monitoring and implementation of kava pilot program in Australia at the federal and State and Territory level were invited to participate in a Nominal Group Technique (NGT) focus group discussion. All participants were engaged (either directly or indirectly) with the kava implementation program since changes to Commonwealth legislation were introduced in November 2019, although the duration with which participants were involved with the program from its inception to present was varied.

Stakeholders who agreed to participate were informed of the purpose of the NGT discussions (See Table 21). In December 2022, two separate focus group discussions using the NGT were conducted at the Department of Health and Aged Care. The remaining two discussions were with jurisdictional stakeholders were conducted online in February and March 2023 to accommodate for the various locations of participants across Australia. All four focus group discussions were administered using the same methodology.

To begin, participants were reminded of the actual changes to legislation underpinning the personal and commercial importation of kava into Australia, as well as the informed consent process. After this, the project team facilitated the four-stepped NGT process to elicit responses and subsequent themes to the research question: *"Which aspects/outcomes of kava use would you think about when considering supporting/not supporting the kava pilot, or further changes to the kava pilot program ?"*

Table 21: Demographic characteristics of Commonwealth and State and Territory stakeholders included in focus groups

Demographic categories	N=17
Age	
25-29	-
30-34	3
35-39	3
40-44	3
45-49	4
50-54	1
55-59	1
Gender	
Male	3
Female	12
Nationality*	
Australian	14
Other	1

*Two participants did not provide their demographic details

Data analysis

Participants were first given the opportunity to generate as many responses as possible to this question ([1] silent generation phase). Next, each participant presented their responses to this question one at a time until all responses had been voiced; each idea raised was individually marked on separate cards by a co-facilitator and presented to participants in real-time ([2] round robin phase). Once all ideas were raised, the co-facilitator and participants jointly grouped each of the ideas into themes ([3] categorising into themes). This involved both the co-facilitator and participants collaboratively moving cards around into categories to form distinct themes; the wording associated with the over-arching themes were also jointly decided between the facilitator and participants to ensure consensus was reached to the greatest extent possible. Those who participated online had active input in this process as well. Finally, participants individually ranked these over-arching themes from 1 (least important) to the maximum number of themes generated to convey their preferences regarding what they individually value when making decisions to support or change the existing kava importation laws and policies enacted in Australia ([4] voting/ranking of themes). The NGTs took approximately 75 minutes to complete and were audio-recorded. Consent was sought to audio record interviews.

Interviews with Pacific Island community participants

Aim

The interviews with the community members addressed the following evaluation questions.

- **Evaluation Question 1:** To what extent was the importation pilot implemented as expected?
- **Evaluation Question 2:** To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?
- **Evaluation Question 3:** What have been the health, cultural, social, and economic outcomes on:
    - Pacific Islander communities
    - Aboriginal and/or Torres Strait Islander communities
    - The broader Australian population?
- **Evaluation Question 6:** How well (effective) has the regulatory framework protected public health?
- **Evaluation Question 8:** Are there any unintended outcomes/consequences associated with the pilot?

Participants and data collection

Participants were Pacific community leaders, elders and community members. They were identified by the community leaders within their regions. Leaders were contacted via email with the information about the project. A suitable time was arranged for the interview which were conducted by videoconference – Zoom or Teams. There was a total of 12 participants with 2 females and 10 males (See Table 22). The project team attempted to get participants from all the States andTerritories across Australia but some of the States/Territories did not wish to participate in this study so it was not pursued.

In communities where there were Fijian participants, the facilitator began the interviews in the Fijian language and connected to participants through acknowledgement of each participant place in the Vanua. The data collection process began with introductions and acknowledgement of land and Pacific heritage ways of being. Similarly, acknowledgment of Vanua was conducted for all Pacific participants. The facilitator then discussed the purpose of the study and consent forms that needed to be signed. Most interviews occurred online

on Zoom/Teams platforms and consent was given in order for the interviews to be recorded (Appendix 7 Interview guide_ Community Members). Interviews approximately lasted between 1hr and 30mins to 2hrs. Once they agreed to be part of the study a consent form was signed. All participants received $50 GiftPay vouchers for their participation. To ensure anonymity of participants are labelled “community interview” and are numbered 1-12.

Table 22: Demographic characteristics of community members included in interviews

Demographic categories	N=12
Age	
40-44	4
45-49	-
50-54	2
55-59	4
60-64	1
Gender	
Male	10
Female	2
Pacific Islander Heritage	
Fiji	10
Tongan	1
Ni-Vanuatu	1
State and Territory	
NSW	1
NT	3
QLD	5
ACT	1
SA	1
VIC	1

Data analysis

Interviews were transcribed and coded for analysis using NVivo 12 qualitative data analysis software and to identify themes emerging from the study. A similar analysis process has been described above.

Focus group with Pacific Islander community participants

Aim

The interviews with the community members addressed one evaluation question.

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?

Participants and data collection

Participants were contacted via Pacific community organisation leaders. The organisation leaders then recruited participants and organised the focus group sessions at a time convenient to them. Focus group discussions occurred in a venue chosen by the community leader. Cultural protocols were also observed at some locations where it was deemed necessary with the Pacific communities. This was also determined by the community leader that arranged for the sessions. In each focus group there was a minimum of 4 participants and the maximum of 15 (See Table 23). Two focus groups were conducted online, and participants were contacted via their community leaders and also through project team Pacific networks. In, total 39 participants from 7 focus groups that were undertaken in NSW, Queensland, Northern Territory, and South Australia.

Talanoa was conducted by the facilitators and began with the cultural protocols required within each community group. The NGT process was explained to participants and was used in the focus group discussions to stimulate discussions and gather information. In communities where there were Fijian participants, the main facilitator began in the Fijian language and connected to participants through acknowledgement of each participant's place in the Vanua. The data collection process began with introductions and acknowledgement of land. In some instances, kava was served as the main facilitator had to adhere to cultural protocols. The focus group Talanoa took between 1hr and 30mins to 2hrs using a guide (Appendix 8 Focus group guide_Community Members). Participants signed a participant form, these were used at the beginning. The purpose of the study was then explained along with the consent forms that participants also had to sign. All participants received $50 GiftPay vouchers for their participation. To ensure anonymity of participants are labelled "community focus group" and are numbered 1-39.

Table 23: Demographic characteristics of Pacific Island community participants included in focus groups

Demographic categories	N=39
Age	
20-24	3
25-29	1
30-34	2
35-39	4
40-44	7
45-49	5
50-54	2
55-59	6
60-64	4
65+	5
Gender	
Male	30
Female	8
Pacific Islander Heritage	
Fiji	26
Tongan	13
State and Territory	
NSW	9
NT	9
QLD	19
SA	2

Data analysis

Interviews were transcribed and coded for analysis using NVivo and to identify themes emerging from the study. Similar process has been described above.

Interviews with Pacific Island government representatives in Pacific Islands

Aim

The interviews with the Pacific Island government representatives addressed three of the eight evaluation questions.

- **Evaluation Question 2**: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?
- **Evaluation Question 4**: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?
- **Evaluation Question 8**: Are there any unintended outcomes/consequences associated with the pilot?

Participants and data collection

Participants were identified through Pacific networks and major Pacific organisations some of which chose not to participate. The facilitators acknowledged themselves as part of the community in the process to reflect family values and association with the Vanua (space and place) [24-27]. It was important that at all times we were adhering to our cultural ways of being and therefore between the 3 of us we created our 'cultural discernment' group ensuring that the research process is ethical within the cultural context of the research setting[28].

Participants were Pacific government representatives and stakeholders from 3 Pacific nations. Participants were referred to the project team through contacts with the various Pacific High Commissions in Canberra. The project team then made direct contact with people via email and once they agreed, a Zoom link was sent to participants based on a date and time that worked best for all parties. There was a total of 9 participants from Samoa, Tonga and Fiji. The project team tried connecting with Vanuatu government representatives, but no dates were confirmed even after repeated contact. Participants were all sent the information sheets and consent forms which were completed online (Appendix 9 Interview guide_Pacific Island government representatives). If interviewee was Fijian, then the interviewer first spoke in Fijian and acknowledged their positionality within the Vanua. Similarly, acknowledgement of Vanua (space and place) was conducted for all Pacific stakeholders. Interviews took about 1 hour and 30 minutes and the maximum of 2 hours. To ensure anonymity of participants they are numbered 1-9 with PIGR to denote Pacific Island government representatives.

Table 24: Demographics of Pacific Island government representatives included in semi-structured interviews

Demographic categories	N=9
Age	
25-29	-
30-34	-
35-39	1
40-44	1
45-49	2
50-54	2
55-59	1
60-64	-
65+	2
Gender	
Male	9
Female	-
Pacific Islander Heritage	
Melanesian	3
Itaukei Fijian	2
Indo-Fijian	1
Polynesian	6
Samoan	5
Tongan	1

Data analysis

Interviews were transcribed and coded for analysis using NVivo 12 qualitative data analysis software and to identify themes emerging from the study. A similar analysis process has been described above.

Interviews with commercial importers

Aim

The focus of the commercial importers interviews broadly explored four of the eight evaluation questions. Specifically:

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?
- **Evaluation Question 2**: To what extent have the expected outcomes of the pilot been achieved? In what contexts has the pilot been more/less successful?
- **Evaluation Question 4**: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?
    - Provide greater access to kava in Australia
    - Increase trade opportunities for Australia and Pacific Island countries
- **Evaluation Question 8**: Are there any unintended outcomes/consequences associated with the pilot?

Participants and data collection

Study participants were identified from a list of commercial kava import applicants from the Office of Drug Control who had a permit issued since 1 December 2021. As of September 2022, 491 importers had been issued permits in NSW (n=251), QLD (n=119), VIC (n=88), WA (n=13), ACT (n=14), SA (n=6) and Norfolk Island (n=1). A random selection was made from each State and Territory. The proportion of importers who could participate in the interviews was calculated (NSW=51%, 10 participants; QLD=24%, 5 participants; VIC=18%, 4 participants; WA=3%, 1 participant; ACT= 3%, 1 participant; SA =1%, 1 participant; Norfolk =1%, 1 participant).

The aim was to recruit commercial importers from all States/Territories. Participants were contacted via email with an information statement and were asked to submit an expression of interest to participate in the commercial importers interview. Participants were given a week to submit an expression of interest to participate in the interviews. A reminder email was sent to participants two days before the submission of interest. All importers who were involved were contacted. Participants who submitted an expression of interest were emailed a time poll to select a time for the interview and to sign an informed consent from via Research Electronic Data Capture (REDCap). REDCap is an electronic data capture platform supported by UNSW and widely used in research. Twenty commercial importers were recruited (See Table 25)

Interviews were later scheduled and held online via Zoom. A semi-structured interview guide was used which was comprising questions derived from the eight evaluation aims for this project (Appendix 10 Interview guide_ Commercial Importers). A semi-structured interview is a data collection method that asks participants a set of open-ended questions and following them up with probe questions to explore further their response and the topic of interest. All interviews were audio recorded with permission from participants. Interviews were recorded and transcribed verbatim. Transcriptions of interviews were checked, de-identified and imported into NVivo software. NVivo is qualitative data analysis software. Following completion of the 30-45 min interview, participants were provided with a $50 GiftPay voucher for their time. To ensure anonymity of participants they are numbered 1-20 with commercial importers denoted as “importer”.

Table 25: Demographic characteristics of commercial importers included in interviews

Demographic Categories	N= 20
Age	
25-29	1
30-34	2
35-39	1
40-44	5
45-49	4
50-54	2
55-59	3
65+	2
Gender	
Male	18
Female	2
Nationality*	
Australian	12
New Zealander	3
Pacific Islander	9
State and Territory	
NSW	9
QLD	5
VIC	3
ACT	1
WA	2
Pacific Islander Heritage*	
Melanesian	6

Polynesian	5
Micronesian	1
Melanesian Heritage*	
Fijian	4
Ni-Vanuatu	2
Polynesian Heritage*	
Tongan	4
Tahitian	1
Micronesian Heritage*	
Nauruan	1
Years of work experience	
1-5 years	13
6-10 years	3
11-20 years	3
20-30 years	1
Work type	
Manager	4
Director	2
Logistic officer	1
Public servant	1
Head technician	1
Worker	1
Self-employed	7
Mechanic	1
Civil engineer designer	1
Registered nurse	1

*multiple nationalities and Pacific Islander heritage chosen by participants

Data analysis

As described above, thematic analysis was used to analyse the data using NVivo 12 qualitative data analysis software. The first step was to familiarise with the data by reading and re-reading the transcripts. After reading the transcripts, the project team generated initial codes from the data. This was done by organising the data in a systematic way. Themes were later derived from these codes. A theme is a pattern that captures something significant

or interesting about the data in relation to the evaluation aims. The derived themes were reviewed and modified further. The themes were discussed further and finalised.

Overview of quantitative methods

Survey of Pacific Islander community participants

Aims

The community survey component of the evaluation addressed two evaluation questions:

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?
- **Evaluation Question 3**: What have been the health, cultural, social, and economic outcomes for:
    - Pacific Islander communities

The specific aims for the survey addressed the community perceptions of the personal and commercial importation pilot; community attitudes towards the kava pilot program; health impacts of kava consumption; use of kava and other drugs and perceived impact of consumption in communities.

Participants and data collection

Survey participants were members of Pacific Islander communities. The survey questionnaire was designed by the project team with feedback from the Advisory Group and the Project Reference Group. The survey was piloted among Pacific Islander communities to ensure that it was culturally safe and acceptable, and that it captured the most important kava-related concerns in the various communities. In addition to an information and consent section the survey included six sections: sociodemographic characteristics, including Pacific Islander heritage and identity; kava use, supply and harms in the last 12 months; kava use in the community; access to kava via commercial or personal importation; attitudes regarding the kava pilot program; and alcohol and other drug use. A copy of the survey is provided in Appendix 11 Community survey_Community members.

As there is no sampling frame specific for Pacific Islander populations it was not possible to draw a random sample from the population. Convenience sampling was undertaken, using the evaluation team's knowledge of relevant communities, to target groups of interest. A sample of 500 participants was initially planned which would enable estimates of outcomes with 95% confidence intervals within ± 5%. Eighteen research assistants were recruited via the Pacific Islander community chat forum on Messenger/Facebook. These research assistants were Pacific Island community leaders across Australia. Of the eighteen selected,

only nine administered the paper surveys with individuals in QLD, NSW, VIC, SA, and ACT. Advertisements about the study was made on the community chat forum and interested people contacted the research assistants. The surveys were either distributed individually to participants to complete or were distributed and completed in a group setting. Individuals were eligible to be included in the study if they were aged 16 years or over. Surveys were printed and completed via pen and paper and then programmed into REDCap database. On completion of the paper survey, participants provided their email address to receive a $50 GiftPay voucher.

236 paper surveys were completed and then entered into the REDCap database by the project team. One individual did not have all study consent items checked and was thus excluded, providing 235 surveys. A further two surveys had missing data for at least one of the six survey sections, one of which had incomplete data for the entire kava related section. This survey was excluded from the analysis resulting in 234 eligible surveys for analysis.

Table 26 shows the sociodemographic characteristics of the survey participants. Approximately 60% of participants were under 40 years of age, almost three quarters (73%) were males, almost all (95%) were employed, mainly on a part-time or casual basis and almost a quarter (24%) earned less than $500 per week. All participants were of Pacific Islander heritage; none were Australian South Sea Islanders (See Table 27). Very few participants (<10%) reported a leadership or elder role in their community.

Table 26: Sociodemographic characteristics of the sample

Variable	Response	n	%
Age Group	18 – 24	29	12.4
	25 – 29	38	16.2
	30 – 34	39	16.7
	35 – 39	34	14.5
	40 – 44	29	12.4
	45 – 49	22	9.4
	50+	43	18.4
Gender	Man/male	169	72.8
	Woman/female	63	27.2
State and Territory of Residence	NSW/ACT	58	24.8

	QLD	42	17.9
	SA/WA	24	10.3
	VIC	79	33.8
	Other	31	13.2
Current Employment Status	Not employed	11	4.8
	Employed part-time/casual	149	64.8
	Employed full-time	70	30.4
Total Weekly Income	$1-$499	57	24.4
	$500-$999	111	47.4
	$1000-$1499	39	16.7
	$1500+	27	11.5

Participants are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Includes all 234 eligible survey participants

Table 27: Identity, heritage and community role

Variable	Response	n	%
Identity	Pacific Islander	234	100.0
Pacific Islander Heritage	Melanesian and Papuan	209	89.3
	Polynesian	25	10.7
Role in Community	Elder	9	3.8
	Leadership Role	12	5.1
	Member of representative Committee/Decision-making Group	160	68.4
	None of the above	59	25.2

Participants are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Includes all 234 eligible survey participants
Response options not mutually exclusive

Data analysis

Participants are only included in the analysis if they consented to all components of the study. Categories / outcomes with cell sizes less than 5 are generally either combined with other categories or not reported. Unless otherwise specified, observations with a "Don't know" or missing response option are excluded from tables. Free text fields are not included in this report. Survey results are presented as descriptive statistics. Data on importation of kava in personal luggage, kava use in Australia and co-consumption of kava with alcohol or other drugs are presented as frequencies and percentages in tables. Frequency of use of different types of kava are presented as frequencies and percentages, while the median and first and third quartiles (Q1, Q3) of usual consumption amount and cost are reported. Perceived impact of kava restrictions on the community, reasons for personal kava importation, attitudes towards the kava pilot, main reasons for kava use in the last 12 months, main health-related reasons for kava use in the last 12 months, and location of kava use in the last 12 months are presented graphically as percentages with 95% confidence intervals; these data are also presented in appendix tables. As data were not obtained from a random sample, the confidence intervals are not formally interpreted in the text. The number and percentage of percentage of participants reporting improved health outcomes and the impact of these improvements in terms of reduced annual GP/Specialist/allied health visits, reduced spending on medicine and health products and increased weekly income as a results of health-related kava use are presented.

Overview of routinely collected data

Aim

Analysis of routinely collected data was used to answer the following evaluation questions:

- **Evaluation Question 1**: To what extent was the importation pilot implemented as expected?
- **Evaluation Question 3**: What have been the health, cultural, social, and economic outcomes for specific communities and broader Australian population?
- **Evaluation Question 4**: To what extent has the pilot increased the commercial supply and distribution of kava in Australia?

Data sources

The Project Team undertook initial work to identify, and secure access to, a range of relevant national routinely collected datasets. Further consultations were held with local and jurisdictional authorities, and with other routine dataset custodians, to identify additional relevant datasets that may be able to be utilised for ongoing monitoring of kava use and harms. Five national datasets with existing data on kava have been included in this evaluation.

1. The *Illicit Drug Reporting System (IDRS)* is a national illicit drug monitoring system intended to identify emerging trends of local and national concern in illicit drug markets. The IDRS includes annual face-to-face interviews with a cross-sectional sample of people who regularly inject drugs recruited from all Australian capital cities via needle-syringe programs and word-of-mouth. Items on kava were included from 2020-2023 year. Data for 2020-2022 were available for this report, with 884, 887 and 879 participants answering these questions each year, respectively. For further information, please see Sutherland et al.[29]
2. The *Ecstasy and Related Drugs Reporting System (EDRS)* is a national monitoring system for ecstasy and related drugs that is intended to identify emerging trends of local and national interest in the markets for these drugs. The IDRS includes annual face-to-face interviews with a cross-sectional sample of people who regularly use ecstasy and/or other illicit stimulants recruited from all Australian capital cities via social media advertisements and word-of-mouth. Items on kava were included from 2020-2023 year. Data for 2020-2022 were available for this report, with 804, 773 and 700 participants answering these questions each year, respectively. For further information, Sutherland et al.[30]

   Kava indicators added to both the IDRS and EDRS are:

- Have you used kava in Australia in the last 6 months?
- Number of days used in the last 6 months in Australia?
- Where did you obtain kava from in Australia in the last 6 months?
- In the last 6 months, what form of kava do/did you obtain in Australia? (Mark all that apply)

3. The *Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS)* comprises data from publicly funded government and non-government agencies providing specialist alcohol and other drug treatment services. Data were obtained for treatment episodes from 2002/03 to 2020/21 where clients (aged 10 years or older) had 'kava lactones' (code 2902) identified as the client's own: i) principal drug of concern or ii) principal or other drug of concern. Clients might not be treated for kava where another drug was nominated as the principal drug of concern; other drug of concern may also be underreported as selection is optional. For further information please see Alcohol and Other Drug Treatment Services National Minimum Data Set[31]
4. The *National Coronial Information System (NCIS)* is a database of medicolegal death investigation records provided by the coroners' courts in each Australian and New Zealand jurisdiction. All closed Australian cases (i.e., the coronial investigation was completed) that occurred between 1 July 2000 and 31 December 2021 in which kava was coded in the NCIS Drug coding fields set as contributory to death were identified and inspected by the authors (final search 17th March 2023).
5. *National data on kava import permits and importation* were obtained from the Office of Drug Control, Australian Government. Data comprised monthly number of permits issued, and volume of kava imported since 1 December 2021 to 31 May 2023.

Items on kava use and access were included in the 2022 *National Drug Strategy Household Survey* following consultation with the data custodians, the Australian Institute of Health and Welfare. The fieldwork component of the NDSHS was delayed in 2022; data collection was thus extended until June 2023, with release of findings intended for 2024. Data on kava from this collection was thus not available for use at the time of preparing this report.

Issues related to capture kava-related outcomes in other routinely collected data sources are outlined in Section 4. It was not feasible to include data from State and Territory routinely collected data sources in the current evaluation because few data sources (other than those mentioned below) routinely captured kava, there are significant lags in data access, and because of issues of confidentiality. The exception was data collated across sources by the New South Wales Ministry of Health and shared with the evaluation team for informational purposes (See Appendix 9 NSW Kava Surveillance report). This data cannot be published

publicly because of issues of confidentiality but have been provided as a separate addended report to the Commonwealth Government with permission from the NSW Ministry of Health.

Data analysis

Data are presented as descriptives as percentages and/or frequencies. No formal statistical testing of trend over time was undertaken as some data sources had very few time points (e.g., IDRS and EDRS) and overall numbers reporting outcomes were small.

Overview of the health economic methods

The aim of the health economics component was to conduct an economic evaluation of the kava pilot program. Using a Cost-benefit analysis, the program costs were weighed against the benefits to establish if the net-benefit showed value for money in the program. A standardised, best practice data collection and analysis guide for economic evaluations was used. The three key components of the economic evaluation were:

4. A costing analysis. A societal perspective, was used to estimate the total costs, including direct, indirect, and intangible costs, of the kava pilot program. This included costs to the Commonwealth and State and Territory governments and the Pacific Islander Communities in Australia.
5. An estimation of the benefits. The estimation of societal benefits included benefits to consumers and the wider Australian society including traders. A Discrete-choice experiment (DCE) was used to elicit policy preferences and to estimate intangible benefits. This quantitative method was used to estimate the value that government stakeholders attribute to increased availability of kava in Australia.
6. Calculation of the net-benefit. The total costs of the kava pilot program with its benefits to enable the calculation of the net cost or benefit associated with the pilot.

Cost of the kava pilot program to Australia

Cost categorisation and estimation

The costing was conducted from a societal perspective, which included all costs of the program regardless of who the payer was. This included an evaluation of costs borne by the Commonwealth Government, costs by State and Territory governments where the program was implemented, and costs to Pacific Islander kava consumers in Australia and their families. Costs to traders were analyzed but these were generally included in the estimation of benefits as profits of trade. The study did not include costs to Aboriginal and/or Torres Strait Islander kava consumers. The study also excluded costs of kava use in the wider Australian general population as it was assumed that the consumption of kava in this population was very small. The costs related to kava consumption in the general population, which would have required a significant amount of resources to estimate e.g. by taking a representative sample from the general Australian population, would likely not make a significant change to total costs and were therefore excluded. However, the study did make estimates of any spill-over costs and benefits to the general Australian population e.g., negative social costs like crime because of kava misuse, and benefits such as economic benefits of trade. The total costs included direct (costs associated with the formulation and implementation of the kava pilot program), indirect (costs resulting from the economy's lost

potential productivity as a result of the kava pilot program), and intangible costs (identifiable costs that cannot be directly measured in monetary terms) of the kava pilot program.

Direct costs were estimated using a mixed methods costing approach. Bottom-up costing was used where resources used for each cost item were identified, measured, and valued e.g., staff and meeting costs, kava consumption expenditure, health harms, and costs to the criminal justice system. Top-down costing was used for direct departmental costs where a budget was allocated to cost items for the policy formulation or implementation e.g., marketing costs or policy evaluation costs.

Indirect costs included productivity loss due to missed work as a result of kava use. These were estimated using the human-capital cost method where an hour not worked was valued at the national median personal wage.

Intangible costs included neglect of home duties due to kava use, and this was valued at the estimated cost of domestic work. Apart from the one-off start-up costs of policy formulation some of which were incurred prior to 2022, the costing year for this evaluation was 2022.

The costs were classified into seven main cost items based on the various aspects of the kava pilot program. The seven main cost items, the resource use and data sources for the cost inputs are described in Table 28.

1. **Cost associated with formulating kava legislation and related guidelines**: Before the implementation of the kava pilot program, multiple Commonwealth Government departments participated in formulation and development of the policy and the creation of guidelines for the kava program. These costs are expected to be one-off start-up costs for the departments involved. The resource used for this category mainly included staff costs, valued at the ongoing government wage rates, and meeting expenses. Other costs included the cost of communication materials.
2. **Cost associated with ongoing review of legislation and guidelines**: Throughout the implementation of the kava pilot policy, there were continuous costs by both the Commonwealth and State and Territory Governments associated with reviewing, discussing, and updating legislation, guidelines, and procedures related to kava importation and use, and ongoing surveillance and reporting. This primarily includes internal and external meeting costs and staff expenses. Other costs included the cost of development of kava-related resources e.g., fact sheets.
3. **Cost associated with implementing the personal kava importation (phase 1)**: The initial phase of the kava pilot program, implemented in December 2019, allowed passengers aged 18 and above to carry 4 kilograms of kava in their accompanied baggage. It should be noted that between December 2019 – December 2021, the

Australian borders were closed to international travelers due to the COVID-19 pandemic. We therefore assumed that the increase in kava importation following this policy change happened in January 2022. The hypothesis was that the new policy likely resulted in changes in staff numbers or hours dedicated to baggage inspection and policy enforcement. Therefore, this category includes any costs related to the implementation of the first phase of the kava pilot program.

4. **Cost associated with implementing commercial kava importation (phase 2)**: The second phase of the kava pilot policy, implemented in December 2021, permitted importers to bring a minimum of 20kgs of kava for commercial sale in Australia, subject to obtaining a permit from the Office of Drug Control. Additionally, imported kava must comply with Australian food standards and biosecurity requirements. This category included costs associated with permit approval, cargo inspection and clearance, and costs involved in the treatment, destroying, or re-export of kava that did not meet the Australian importation standards. To estimate these costs, staff time for each task was estimated for a year and valued at the ongoing wage rates. The cost for cargo inspection and clearance was paid by commercial importers. It should be noted that that while commercial importers pay export duty to the Pacific Island countries from where kava is imported, Australia does not charge import duties on kava. However, Goods and Services Tax (GST), calculated at 10% of the value of kava, is paid. The final burden of this tax is borne by consumers and the benefit goes to States and Territories.
5. **Consumer economic costs resulting from kava use**: This included the direct consumer costs related to expenditure on kava consumption, and the indirect costs of productivity loss because of missed work due to kava misuse. To estimate total consumer expenditure on kava, the proportion of participants in the Pacific community survey that reported having consumed kava in the last 12 months was multiplied by the total adult Pasifika population in Australia and the average annual expenditure on kava per person. Total productivity loss was estimated as a product of the proportion of participants in the Pacific community survey who reported missed work due to kava use in the 12-month period, the average number of missed workdays in the year, the total adult kava-consuming Pasifika population in Australia, and the average daily wage.
6. **Cost associated with health harms resulting from kava use**: This category represents the health system costs incurred by consumers because of kava use, and included visits to general practitioners, specialists, allied health professionals, emergency department, hospitals, ambulatory care and patient out-of-pocket expenditures. Participants in the Pacific community survey were asked to state the increase in the number of kava-related health visits in the last 12 months compared to the previous year.

7. **Cost associated with social harms resulting from kava use**: This category includes costs associated with social aspects at either the individual or community level resulting from kava use. These included neglect of home duties due to kava use, missed recreation or exclusion from social/cultural events, and costs to the criminal justice system as a result of contact with the system and arrests and were self-reported by participants in the Pacific community survey.

Table 28: Description of resources costed for each item

Cost items	Resource use and cost inputs	Data sources
1. Legislation and guidelines formulation		
a. Staff cost	Number of staff involved, average engagement, length of involvement and average pay	Various government departments at the federal level state level
b. Meeting cost (departmental (internal) and external)	Number of meetings, hours, and attendees	
2. Ongoing review of legislation and guidelines		
c. Staff cost	Number of staff involved, average engagement, length of involvement and average pay	Various government departments at the federal level and state level
d. Meeting cost (departmental (internal) and external)	Number of meetings, hours, and attendees	
3. Implementation of personal kava importation		
e. Staff cost for inspection of baggage and enforcement of the policy	Number of staff, staff hours, average pay	Australian Border Force (Department of Home Affairs)
4. **Implementation of commercial kava importation**		
f. Permit approval cost	Number of permits approved in a fiscal year, average time required for each permit, and average pay per hour	Department of Health and Aged Care – Office of Drug Control, Department of Agriculture Fisheries and Forestry – Biosecurity and Trade
g. Cost associated with cargo inspection and approval or destroyed/re-exported cargo.	Number of staff, average time required, total inspections and approvals carried out in a fiscal year, estimated cost of each item	

Cost items		Resource use and cost inputs	Data sources
	h. GST	Tax per kg of kava imported	
5. **Consumer economic costs**			
	i. Reduced productivity	Proportion of Pacific Islander population missing work due to kava use, frequency, and average daily wages	Community survey and published literature
	j. Annual expenditure on kava	Estimated population consuming kava in Australia and average yearly expenditure on kava	
6. **Health harms**			
	k. GP visits l. Emergency visits m. Ambulatory care n. Allied health professional visits o. Outpatient hospital visits p. Specialist visits	Proportion of Pacific Islander population requiring various services as a result of kava use, frequency and average cost per services	Community survey and the Medicare Benefits Schedule
	q. Out-of-pocket (OOP) expenditure as a result of kava use	Estimated Pacific Islander population with out-of-pocket expenditure due to kava use, average OOP expenditure	
7. Social harms			
	r. Neglect of home duties	Total Pacific Islander population estimated to neglect home duties, frequency, average cost of domestic duties	Community survey and published literature
	s. Costs to the criminal justice system	Total estimated Pacific Islander population with kava-related police contacts/arrests, frequency and cost per arrest	
	t. Missed recreational/ exclusion from social activities	Total estimated Pacific Islander population reporting exclusion from cultural/social events, frequency and cost per missed cultural/social events	

*Eliminated capital costs, e.g., building, computers, etc, because we assumed the kava project did not necessarily increase the cost. Existing capital resources, that is used for other programs, were used. Estimating the capital costs attributed to the kava pilot program would have been a large task undertaken to estimate a very small proportion of cost.

Source of cost estimation data

Three primary sources were used for the costing data:

1. **Community survey**: A quantitative survey was conducted among Pacific Islander communities in various states of Australia. The survey was designed as part of a larger project and included sections specifically aimed at gathering cost-related information. Please refer to Section 0 of the report for a detailed description of the survey methodology. The survey provided estimations on the proportion of kava consumers, the proportion of people reporting the various harms within the costing year, and their kava use patterns.
2. **Questionnaires sent to government departments involved in the kava project**: A semi-structured questionnaire was tailored to different government departments at both the Commonwealth and State and Territory levels, as listed below. The questionnaire was used to collect information regarding costs associated with kava legislation formulation and ongoing review. Follow-up questionnaires were sent to a few departments based on their initial responses. The departments that were contacted include: Department of Health and Aged Care, Department of Agriculture, Fisheries and Forestry, Department of Trade and Foreign Affairs, Department of Home Affairs, State and Territory -level Health Ministries, State and Territory -level Police Services.
3. **Literature and publicly available data**: For certain costs that could not be estimated through the community survey or questionnaires information was sourced from literature or publicly available data. For example, the total population of adults in Australia with a Pacific Islander heritage was estimated from the 2021 census conducted by the Australian Bureau of Statistics (ABS)[32]. The staff wages for government stakeholders were obtained from the Australian Public Service Commission. The daily wage for individuals from the Pacific Islander community were determined using the median personal income provided by the ABS[33], considering hourly or weekly rates as applicable. The cost of informal care, specifically domestic duties, was estimated based on the 2020 Australia Carers' report [34]. Since kava is imported as a food item, the Good and Service Tax (GST) estimate used in the report relied on the standard 10% tax applied to most goods, services, and other items sold or consumed in Australia[35]. Costs used for general practitioner (GP) visits were obtained from Australian Medicare Benefits Schedule (MBS)[36]. Specifically, the cost for a long GP consultation was used. The costs for emergency care and out-patient

hospital care and emergency services were obtained from the Independent Hospital Pricing Authority.

Measuring and valuing the benefits

Benefit categorisation and estimation

The introduction of the kava pilot program by the Australian Government aimed to enhance cultural and social connection for the Pasifika communities in Australia and to boost the economies of Pacific Island countries. The kava pilot program had beneficial impacts at two levels: the Pacific and Australian South Sea Islander kava consuming community in Australia, and the wider Australian society. The benefits also included the economic benefits to the Pacific Islander countries because of kava trade and the wider effect that this benefit may have on farmers, their families, and the wider society in these countries. These economic benefit estimates to Pacific Island countries form part of the costs of the program mainly borne by consumers in Australia and are therefore not included in the analysis of the benefits to Australia. Both direct and intangible benefits were estimated.

1. **Benefits to the Pacific Islander kava consuming communities in Australia**: The direct benefits at the community level included reduced healthcare expenditure for kava consumers who believe in the therapeutic value of kava, and increased income as a result of perceived improved health and was self-reported by participants in the Pacific community survey. Intangible benefits included positive social impact due to increased connectedness during kava consumption, and the cultural/religious impact resulting from the ceremonious use of kava. Intangible benefits were valued using a discrete choice experiment.
2. **Benefits to the wider Australian societ**y: The direct benefits to the Australian society included economic benefit from kava trade gained through profits to importers and retailers, taxes, and fines due to non-compliance by importers. Intangible benefits included the value that Australians place on the importance of the kava pilot program in contributing to a strengthened diplomatic relationship between Australia and Pacific Island countries, and the value that Australians place on the contribution the kava pilot program has made to the economies of Pacific Island countries.

The two main categories, their estimation and sources of data are detailed in Table 29

Table 29: Description, estimation, and data sources of the estimated kava pilot program benefits.

Benefit items	Estimation of benefit inputs	Data sources
1. Benefits to the community		
a. Reduced healthcare expenditure for kava consumers who believe in the therapeutic value of kava	Estimated Pacific Islander population reporting a reduction in the use of health services as a result of kava use, average reduction in service use, average cost per service	Community survey and Medicare Benefits Schedule
b. Economic benefit to kava consumers in Australia	Total estimated Pacific Islander population in Australia reporting increased weekly income as a result of better health due to the use of kava, average increase in weekly income	Community survey
c. Social benefit to Pacific Islander communities in Australia	Total estimated Pacific Islander population reporting a lot of improvement in social connectedness as a result of the kava pilot program and willingness to pay for a lot of changes	Discrete choice experiment
d. Cultural benefit to Pacific Islander communities in Australia	Total estimated Pacific Islander population reporting a lot of improvement in cultural significance as a result of the kava pilot program and willingness to pay for a lot of changes	Discrete choice experiment
2. Benefits to the wider Australian society		
e. Economic benefit due to revenue and taxes	GST applied on kava imports	Department of Foreign Affairs and Trade, kava importers in Australia
f. Economic benefit to importers and traders in Australia	Total quantity of kava imports in Australia in one fiscal year, average selling price in Australia, costs to traders e.g.,	Office of Drug Control, PHAMA Plus, Kava importers in Australia

Benefit items	Estimation of benefit inputs	Data sources
	export duties, freight, and handling.	
g. Strengthened diplomatic relationship between Australia and Pacific Island countries	Willingness to pay for the importance of the kava program in contributing to a strengthened diplomatic relationship	Discrete choice experiment
h. Economic benefit to Pacific Island countries	Willingness to pay for a boost to the economies of Pacific Island countries	Discrete choice experiment

Source of benefit estimation data

The benefit data was collected from three main sources, which are explained in detail below:

i. **Community survey**: Similar to the cost data, some of the benefits information was obtained from the community survey conducted with Pacific Islander communities. Please refer to Chapter 0 of the report for a detailed description of the survey methodology. The survey provided estimates on the proportion of kava consumers that experienced the benefits related to kava consumption.

ii. **Questionnaires to relevant government departments and other stakeholders**: The questionnaires provided data on the annual quantity of kava imports, GST imposed on kava imports, and other relevant details. Questionnaires were sent to the Pacific Horticultural and Agricultural Market Access Program (PHAMA Plus), an organisation based in the Pacific Islands which provides practical and targeted assistance to help Pacific Island countries manage regulatory aspects associated with exporting primary and value-added products. This organisation provided estimates on the proportion of kava imported from different Pacific Island countries, the retail sale price of kava in those countries, and the export duties paid on kava exports. Data was also extracted from interviews conducted with kava commercial importers in Australia (please refer to Section 0 of the report for a detailed description of the methodology of interviewing commercial importers).

iii. **Discrete choice experiment**: The discrete choice experiment (DCE) was employed to value the intangible benefits of the kava pilot program. Section 2.6.3. provides details of the DCE methodology applied.

The Discrete Choice Experiment

Introduction

The DCE approach adopted in this study combines the microeconomic theory of consumer behaviour, the random utility theory and Lancaster's theory of choice in consumer demand [37, 38]. DCEs have been used in Australia to assess various policy options [39-41]. The DCE method provides hypothetical choices incorporating multiple characteristics to simulate realistic scenarios. A DCE requires participants to choose between given alternatives after considering each alternative's characteristics (referred to as attributes), thereby enabling researchers to gain more in-depth insight into the relative importance of each attribute, the trade-offs between these characteristics, and the value participants place on these attributes.

The data generated from the DCE contributed to the cost-benefit analysis (CBA) through valuation of some of the benefits of the kava pilot program in terms of willingness to pay, i.e., the incremental willingness to pay for more benefits. The value of benefits used was that of Australian policy makers who were defined as government stakeholders who were directly or indirectly involved in the kava pilot program formulation or implementation.

Initially, the DCE survey was intended to include both the Pacific Islander community and policy makers to make comparisons between preferences and value. Qualitative studies which are used to develop the DCE survey were conducted with both groups. However, due to logistical challenges, the DCE survey was only conducted with government stakeholders at the federal and state levels.

The aim of the DCE was to:

a. Assess the importance and quantify the strength of policy attributes.
b. Assess the trade-offs between policy attributes and value of intangible benefits.
c. Determine the participants factors influencing attribute preference.

The main stages of a DCE included developing attributes and levels, the experimental design, the DCE survey (data collection), and data analysis. These three stages are outlined below.

Developing attributes and levels for the DCE

We used qualitative methods to develop attributes. Firstly, we conducted a literature review to gain insights from existing evidence and identify initial attributes. Subsequently, focus group discussions (FGDs) were conducted separately with members of the Pacific and

community in Australia and with government stakeholders involved in the kava pilot program. Participants for the FGDs with government stakeholders were recruited from a list of people involved with the kava pilot program and was provided by the project Advisory Group and reference group. All participants on the list were invited to participate. Participants for the community FGD were recruited by project partners at the University of Sydney whose role was to provide Pacific Islander expertise on the project. Participants were recruited through Pacific Islander community leaders.

A total of three FGDs were conducted with 14 participants from the Pacific Islander community and four FGDs with 17 government stakeholders representing both federal and state levels. FGDs were conducted either online or in-person based on logistical convenience and participant preferences. Prior to the FGDs, the two semi-structured guides used for the two groups were pilot tested and revised accordingly.

The main question posed to participants to generate attributes was:

> *Which aspects/outcomes of kava use would you think about when considering supporting/not supporting the kava pilot or further changes to the kava importation policy?*

Each FGD lasted between 90 minutes – 110 minutes. Participants from the community were provided with a $50 GiftPay voucher for their time.

During the FGDs, all the identified attributes were written down either on a virtual blackboard or a flipchart, depending on the chosen approach to data collection. Once an exhaustive list of attributes was generated, participants were asked to vote on the attributes they deemed as priority as a group. Attributes that received votes were then ranked by the participants. Each participant indicated a “yes" vote if they considered a particular attribute to be relatively important compared to the other attributes. The percentage of “yes” votes for each attribute was calculated and the top-ranked attributes were subsequently included in the final DCE survey. During the FGDs with government stakeholders and community members, the top 5/6 attributes that received the highest number of votes was further ranked by participants. This prioritising exercise is particularly important to the DCE experimental design process when deciding priors for the parameters to be estimated. This is further explained in Section 0 The ranking exercise was not done for FGDs with State and Territory representatives due to the online nature of the discussion and the limited time available for each group discussion. However, for both State and Territory FGD groups, 5/6 attributes received a vote of 100% (all given a rank of 1) and were therefore considered for the DCE.

To determine the levels for the chosen final attributes, we referred to the literature, discussions from the FGDs, preliminary findings from a community survey involving 234

participants from the Pacific Island community (see Section 3.4.1), and the questionnaires distributed to various government departments.

Experimental design

Scenarios for the DCE survey are constructed using the final attributes and levels from the qualitative stage. A full factorial design takes on all possible combinations of attributes and their levels. Given that the number of attributes for the DCE survey with policy makers was 7, each with either 3 or 4 levels, it was not possible for participants to assess all possible choices. The experimental design is a statistical technique that takes into consideration the number of attributes and their levels whose preference is to be estimated, the number of choice tasks provided to each participant, and any prior information researchers may have on the attributes to provide a fractional factorial design, a subset of scenarios for participants to complete, that allows each attribute to be estimated. A Bayesian D-efficient experimental design using the *NGENE* software[42] was used to develop the DCE questionnaire. The experimental design was used to estimate the sample size required to estimate statistically significant parameters. Initially, the design was optimised to analyse a more complex mixed and latent class model that would be used to test for differences in preferences between sub-groups of the sample with each participant completing 6 choice sets. This model required a sample size of approximately 300 participants. After a list was compiled of all potential participants for the study, which only had approximately 180 participants, a decision was made to have an experimental design on a base multinomial logistic (MNL) model with interaction terms with each participant completing 8 choice sets. The sample size required to statistically estimate all attributes and interactions was 95 with some attributes requiring only a sample size of 20 to estimate. Two pilot tests were conducted to pre-test the questionnaires and the design. Parameter priors, which are informed guesses for each parameter attribute and used in the experimental design, were generated from the qualitative discussions for the first pilot and these results used as priors for the second pilot.

DCE survey

Choice sets obtained from the experimental design were used to design the questionnaire for the survey. The DCE survey results were collected using REDCap and two pilot tests were conducted prior to its finalisation. The pilot data collected during this testing phase was not included in the results. In collaboration with Department of Health and Aged Care, a definitive list of participants from various government departments at both the federal and State and Territory levels was compiled. A member of the evaluation team at NDARC emailed the survey link to all listed participants, with a request to share the survey link with colleagues who had any involvement in the kava pilot program. To encourage a higher participation rate, a follow-up email was sent a week before the final deadline. Special efforts were made to ensure a greater participation from all departments. Staff from the Department

of Health and Aged Care did not participate in the survey. In addition to responses to the choice sets, participant demographic characteristics including their age, gender, and government departments/agencies affiliated to. Participants were tasked to choose between policy 1, policy 2 and an opt-out choice option (Policy 3). Policy 3 was defined as the previous kava importation policy prior to the kava pilot project. Table 30 shows an example of a choice set. To assess participant engagement in the study, participants were asked to state the level of difficulty in providing a response to the choice task and qualitative follow-up questions asking participants to provide comments to the survey were included.

Participants were presented with the following question prior to the choice tasks:

> *The choice question: You are presented with two options for the importation of kava (referred to as policy 1 and policy 2) or an opt-out option (policy 3), which implies a no kava commercial importation policy with no outcomes. In these scenarios, it is assumed that all kava regulations relating to quality and food standards are adhered to and there are ongoing satisfactory monitoring and evaluation procedures in place. Each option has different policy outcomes. If you had to make a choice between policies 1, 2 and 3, which policy would you choose?*

Participants who chose Policy 3 were presented with a follow-up forced task asking them for their next best choice between Policy 1 and 2. Prior to the survey, participants were provided with information about the kava pilot program, a brief description of the DCE method, and a detailed description of the DCE survey attributes and levels. Participants provided consent prior to completing the survey.

Table 30: Example of the DCE choice set

Attributes	Policy 1	Policy 2	No changes (policy 3)
Importance of the new kava importation policy in strengthening bilateral cooperation	Important	Not important	-
Proportion of kava users reporting health impacts	Less than 10%	Over 20%	-
Economic benefit to Australia	10 million Australian dollars a year	15 million Australian dollars a year	-
Economic benefit to Pacific Island countries	15 million Australian dollars a year	15 million Australian dollars a year	-
Social impact	No impact	Negative impact	-
Cultural impact	A lot of impact	No change in impact	-

Cost of the legislation to Australia	8 million Australian dollars a year	2 million Australian dollars a year	-

Data analysis

Descriptive statistics were used to summarise the demographic characteristics of the participants.

DCEs analyses are rooted in two economic theories, McFadden's and Lancaster's framework based on the random utility theory. Estimations are based on the assumption that if participants chose a policy option it was because it gave them a higher utility as a result of the level of the attributes in that policy. As shown in equation 1, the utility (U) that an individual n derives from the policy alternative j in the choice set c is explained by an observed component V_{ncj} and an unobserved component ε_{ncj}.

$$U_{ncj} = V_{ncj} + \varepsilon_{ncj} \quad \text{(equation 1)}$$

The observed component of the utility associated with alternative j, V_{ncj}, is a function of a vector of K attributes that describe policy alternative p, X_{ncjk}, with associated preference weights, β, to be estimated. Such that:

$$V_{ncj} = \sum_{k=1}^{K} \beta_k X_{ncjk} \quad \text{(equation 2)}$$

Analyses were conducted using the *NLOGIT* software [43] and a multinomial logistic model estimated. Model improvement was tested using the log-likelihood function and the Akaike Information Criterion (AIC). Using the demographic comments provided by the participants, it was clear that the attribute 'economic impact to Australia' was mostly ignored in the choice scenario. This attribute was therefore constrained to having a zero parameter.

The MNL model parameters were then interacted with covariates (participant characteristics), age, gender, and affiliated level of government (i.e., Commonwealth or States/Territories) to test the change in preferences with change in covariates. The willingness to pay for a unit change in an attribute was calculated as the ratio of the attribute parameter and the negative of the cost parameter, which is the cost of program implementation.

Net-benefit of the kava pilot program

The net-benefit is the difference between the total estimated costs and benefits of the kava pilot program. A positive net-benefit signifies that there is value for money and a return on investment. The opposite is true for a negative net-benefit. Results from the costing and benefit estimation were combined to estimate the net-benefit. Care was taken to avoid double counting of items as both costs and benefits. An example is the estimation of

consumer expenditure in the cost analysis is a benefit to traders as profit in the benefit analysis.

Overview of the development of monitoring framework

On the request of the Commonwealth Government and in addition to the existing evaluation questions, a sub-committee made up of members of the Advisory Group was formed to develop a proposal for a potential monitoring framework for kava use and harms. The goal was to design a framework for consideration that could be sustained over time and is aligned with the monitoring activities of the States/Territories. The Sub-committee consulted with various State and Territory governments to explore what they would like monitored in relation to kava use and kava-related impacts.

Consultation with State and Territory Government stakeholders

In developing the monitoring framework, the sub-committee consulted with States/Territories to explore what they are currently monitoring in their jurisdictions and what they want monitored. Five main questions were specifically asked of representatives:

a) Does [insert State and Territory] currently monitor for kava? If yes, what aspects? If no, are there any existing data sources that could be expanded to monitor kava?

b) If [insert State and Territory does monitor kava], what are the limitations associated with it?

c) What data sources do you have that identify kava? [Probe: frequency, time lag, cost, what information captured within i.e., gender, sex, age, ethnicity, location, federal – State and Territory etc]

d) What data sources do you hold or are there other data sources on kava in the jurisdiction? [Probe: frequency of data or available data]

e) What does [insert State and Territory] care most about regarding monitoring for kava?

Stakeholders from SA, VIC, NT, ACT, WA, QLD, TAS, and NSW were consulted between November 2022 – May 2023. Meetings were held on Teams/Zoom and meetings were between 20-50 minutes duration.

Framework development

Outcomes from consultation with State and Territory Government representatives, as well as consultation with experts in alcohol and other drug monitoring in Australia, were used to inform the development of the framework.

Ethics

The original methodology included both Aboriginal and/or Torres Strait Islander communities and Pacific and Australian South Sea Islander communities in the Evaluation. One condition of full ethical approval from the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) was the need to detail the support from Aboriginal Medical Services Alliance Northern Territory (AMSANT) and Miwatj Health Aboriginal Corporation. AMSANT is the peak body for Aboriginal Community Controlled Health Services (ACCHSs) in the Northern Territory. Miwatj Health is an independent ACCHS that operates across Eastern Arnhem Land to service several of the communities in the evaluation. AMSANTs policy position on research within NT ACCHSs is that the individual ACCHSs determine their own research priorities. Initial letters of support (to participate in the evaluation) were provided by the Arnhem Land Progress Aboriginal Corporation (ALPA), East Arnhem Regional Council and Mala'la Health Aboriginal Corporation. However it was clear that kava is not a priority for all relevant ACCHS in AMSANTs member organisations in the NT, including the Laynhapuy Homelands Aboriginal Corporation and the Miwatj Health Aboriginal Corporation. Consequently, AMSANTs Research Sub-Committee is obliged to adhere to AMSANTs research policy, meaning AMSANT did not support the involvement of Aboriginal and Torres Strait Islander communities in the NT in this evaluation (see further details at Section 2.9)

The Project was structured into three stages for ethical review purposes.

Stage 1 activities involved:

- Scoping and identification of Pacific and Australian South Sea Islander communities in Australia.
- Scoping and identification of routinely collected data sources.
- Engagement and consultation with Elders or community members. Approaching Pacific and Australian South Sea Islander communities, to obtain their support for participation in Stage 2 of the Evaluation.
- Conducting focus groups and semi-structured interviews with key participants and stakeholders (excluding community-based stakeholders).

Stage 2 activities involved:

- Qualitative and quantitative with Pacific Islander communities and key participants.
- Data collection with commercial importers.

Stage 3 activities involved:

- Health economics data collection with State and Territory stakeholders.

- Analysis of routinely collected data sources.

After receiving ethical approval from the AIATSIS on 14th September 2021 which granted approval of Stage 1 activities described above (Reference Number: EO277-20210602), the Project Team prepared and submitted an ethics application to the Human Research Ethics Committee of the Northern Territory Department of Health and Menzies School of Health Research (HREC), for approval of Stage 2 activities. The application was assessed on 1st December 2021 and was granted conditional ethical approval. The issues raised by the ethics committee were addressed, and the application was resubmitted. Full ethical approval was granted on 28th February 2022 (Reference Number: 2021- 4204).

Subsequently, the Project Team submitted an ethics application for Stage 2 activities of the Project to AIATSIS on 22nd February 2022. The application was assessed on15th March 2022, and conditional ethical approval (Reference Number: EO312-20220222) was received from AIATSIS on 25th March 2022. Full ethical approval was granted on 8th August 2022 (EO312-20220222). UNSW HREC ratified the ethics approval from AIATSIS on 12th August 2022.

Ethics for health economics data collection with State and Territory stakeholders was submitted to UNSW HREC on 22nd February 2023. The application was assessed on 7th March 2023 and ethical approval granted on 30th March 2023.

Ethical approval for IDRS was granted by UNSW and South Eastern Sydney Local Health District HRECs, as well as jurisdictional HRECs. Ethical approval for EDRS was granted by UNSW HREC, as well as jurisdictional HRECs. Ethical approval for use of AODTS-NMDS data was granted by the Australian Institute of Health and Welfare HREC and UNSW HREC. Ethical approval for the use of NCIS data was received from the Justice HREC, Western Australia Coronial HREC and University of New South Wales HREC.

Aboriginal and/or Torres Strait Islander community participation in the evaluation

The kava Project Reference Group identified First Nations' communities in the Northern Territory as a high-risk group for potential harmful kava impacts. As mentioned, AMSANT did not provide approval for kava pilot consultations with members of First Nations' communities in the Northern Territory. This is due to AMSANTs policy position that individual ACCHSs determine their own research priorities and this support was not gained. As such, engagement with this community group was not able to take place. AMSANTs concerns related to kava not being identified as a priority in many communities, a lack of local governance in East Arnhem Land, a lack of renumeration for Aboriginal Community Controlled Health Organisations participating in the evaluation, methodology concerns, and potential cultural and social based risks. In the spirit of self-determination (See Panel C), the Project Reference Group agreed that the best approach was to respect AMSANTs position

and not to engage AMSANT or the communities of the AMSANT member ACCHSs in community participation in the evaluation in the Northern Territory. To capture data relating to First Nations' communities, the scope of the kava pilot was adjusted to include additional consultation with First Nations government, non-government, and social sector representatives and other agencies.

Appendix 4: Interview guide _Commonwealth and State and Territory stakeholders

Semi-Structured Interview: Commonwealth Government Representatives (Department of Foreign Affairs and Trade (DFAT)/Department of Home Affairs (DHA)/ Department of Health and Aged Care (Health/ Office of Drug Control (ODC)/Other Aust govt agencies)

1. What are your general views of how the kava pilot program has been implemented in Australia?
2. From a Commonwealth perspective, what do you think have been the successes versus the challenges with the implementation of the commercial importation component of the kava pilot?
3. From a Commonwealth perspective, what do you think have been the successes versus the challenges with the implementation of the personal importation component of the kava pilot?
4. Intended outcomes of the kava importation pilot program:
    a. The first of the intended outcomes of the kava pilot program is: *Provide greater access to kava in Australia*. To what extent do you think this outcome is being met?
    b. The second of the intended outcomes of the kava pilot program is: *No net increase in harms (public health and safety is not compromised)*. To what extent do you think this outcome is being met?
    c. The third of the intended outcomes of the kava pilot program is: *Understand the social, cultural, economic and health effects of increased availability of kava across Australia*. To what extent do you think this outcome is being met?
    d. The fourth of the intended outcomes of the kava pilot program is: *Increase trade opportunities for Australia and Pacific Island countries*. To what extent do you think this outcome is being met?
    e. The fifth of the intended outcomes of the kava pilot program is: *Respect State and Territory governments' regulatory role*. To what extent do you think this outcome is being met?
5. The key changes in the commercial component of the kava pilot program are: a) sale and supply of kava as a food; and b) imports of kava regulated by permit. To what extent do you think these changes will increase the commercial supply and distribution of kava in Australia?
6. Are you aware of whether the distribution, access and availability of kava across State and Territory jurisdictions has changed since the introduction of the pilot program? If so, in what way, and do you have any evidence or data to support this view?
7. The impacts - both positive and negative - that may result from changes to kava importation laws are not likely be experienced evenly across society. Which population groups are you concerned may be more adversely affected and why? What are the impacts you are concerned about?
8. Which population groups are more likely to benefit from the kava importation pilot program and why? What are the potential benefits you see this group experiencing?
9. Are you aware of what, if any, measures the States/Territories are doing to mitigate against kava-related harms for potentially at-risk communities?

10. Are you aware of how kava-related incidents are being recorded and monitored in various States/Territories?
11. To address potential negative impacts of the kava importation pilot on communities, the following two key mechanism for limiting harms in the kava importation pilot program were included: a) limiting personal importation to 4kg and specific allowable forms of kava (powder and beverage); and b) requiring warning statements, meeting food standards and compliance with State and Territory regulations. What is your view on the adequacy of these measures in reducing potential kava-related harm?
12. Are there benefits to public health through the increased access to kava in Australia? If so, what might those benefits be, and why?
13. In regards to how State and Territory jurisdictions, communities and others were engaged in planning for the kava pilot project, was there broader consultation with various stakeholders? If so, what was the process, and was adequate? If not, why not?
14. Can you tell me about any cost implications for the Australian Government associated with the implementation of the kava pilot program?
15. We have talked about the intended outcomes. Do you see any other unexpected benefits or unintended consequences that may be associated with the kava pilot program that we haven't yet discussed?

Appendix 5: Semi-Structured Interview: State and Territory Government Representatives

1. What are your general views of how the kava pilot program has been implemented in Australia?
2. From a [insert relevant State and Territory] perspective, what do you think have been the successes versus the challenges with the implementation of the commercial importation component of the kava pilot?
3. From a [insert relevant State and Territory] perspective, what do you think have been the successes versus the challenges with the implementation of the personal importation component of the kava pilot?
4. Intended outcomes of the kava importation pilot program:
    a. The first of the intended outcomes of the kava pilot program is: *Provide greater access to kava in Australia*. To what extent do you think this outcome is being met?
    b. The second of the intended outcomes of the kava pilot program is: *No net increase in harms (public health and safety is not compromised)*. To what extent do you think this outcome is being met?
    c. The third of the intended outcomes of the kava pilot program is: *Understand the social, cultural, economic and health effects of increased availability of kava across Australia*. To what extent do you think this outcome is being met?
    d. The fourth of the intended outcomes of the kava pilot program is: *Increase trade opportunities for Australia and Pacific Island countries*. To what extent do you think this outcome is being met?

e. The fifth of the intended outcomes of the kava pilot program is: *Respect State and Territory governments' regulatory role*. To what extent do you think this outcome is being met?

5. The key changes in the commercial component of the kava pilot program are: a) sale and supply of kava as a food; and b) imports of kava regulated by permit. To what extent do you think these changes will increase the commercial supply and distribution of kava in Australia?
6. Are you aware of whether the distribution, access and availability of kava across State and Territory jurisdictions has changed since the introduction of the pilot program? If so, in what way, and do you have any evidence or data to support this view?
7. The impacts - both positive and negative - that may result from changes to kava importation laws are not likely be experienced evenly across society. Which population groups are you concerned may be more adversely affected and why? What are the impacts you are concerned about?
8. Which population groups are more likely to benefit from the kava importation pilot program and why? What are the potential benefits you see this group experiencing?
9. What is [insert State and Territory] doing to mitigate against kava-related harms for potentially at-risk communities?
10. Are you aware of how kava-related incidents are being recorded and monitored in [insert State and Territory]?
11. To address potential negative impacts of the kava importation pilot on communities, the following two key mechanism for limiting harms in the kava importation pilot program were included: a) limiting personal importation to 4kg and specific allowable forms of kava (powder and beverage); and b) requiring warning statements, meeting food standards and compliance with State and Territory regulations. What is your view on the adequacy of these measures in reducing potential kava-related harm, especially in relation to your jurisdiction?
12. Are there benefits to public health through the increased access to kava in Australia? If so, what might those benefits be, and why?
13. Has [insert relevant State and Territory] implemented any local legislation or strategies to address health and safety in the context of the pilot?
14. In regards to how State and Territory jurisdictions, communities and others were engaged in planning for the kava pilot project, was there broader consultation with various stakeholders? If so, what was the process, and was adequate? If not, why not?
15. Can you tell me about any cost implications for your [insert State and Territory] associated with the implementation of the kava pilot program?
16. We have talked about the intended outcomes. Do you see any other unexpected benefits or unintended consequences that may be associated with the kava pilot program that we haven't yet discussed?

Appendix 6: Interview guide_ Aboriginal and Torres Strait Islander Government and Non-Government stakeholders

1. To begin, could you please share what you generally know about the kava importation pilot program?
2. To begin, could you please share what you generally know about the kava importation pilot program?
3. How kava is used in the Aboriginal and/or Torres Strait Islander communities?
4. What benefits may come from kava use in Aboriginal and/or Torres Strait Islander communities?
5. What harms may be attributed to kava use in Aboriginal and/or Torres Strait Islander communities?
6. To what extent do you think the pilot has increased access to kava in the community/ state/ territory/ country?

   [NT-specific: Given it is illegal to import or sell kava in the NT, are you aware of an increased access to kava in the community/ territory?]
7. Has there are been an increase in harm associated with an increased supply and associated use of kava in the community/ state/ territory/ country?

   [NT-specific: What harms have been identified with kava use in the NT? Do you think harms would be exacerbated by increased supply of kava in the NT?]
8. To what extent do you think the pilot has had any impact on social, culture, economic or health outcomes?
9. The changes to the kava importation laws may impact communities both positively and negatively. Which population groups are you concerned may be more adversely affected and why? What are the impacts you are concerned about?
10. Do you have any evidence of increased supply, access and use of kava in high-risk communities?
11. Are you aware of any efforts to mitigate potential kava-related harms for at-risk communities?
12. Are you aware of how kava-related incidents are being recorded and monitored in the communities with which you identify and/or work?
13. Which population groups are more likely to benefit from the kava importation pilot program and why? What are the potential benefits you see this group experiencing?
14. To address potential negative impacts of the kava importation pilot on communities, the following two key mechanism for limiting harms in the kava importation pilot program were included:
    a. Limiting personal importation to 4kg and specific allowable forms of kava (powder and beverage); and
    b. Requiring warning statements, meeting food standards and compliance with State and Territory regulations.
15. What is your view on the adequacy of these measures in reducing potential kava-related harm, especially in relation to the communities with which you identify and/or work?

16. Are there benefits to public health through the increased access to kava in Australia? If so, what might those benefits be, and why?
17. Are you aware of whether Aboriginal and/or Torres Strait Islander organisations, communities and others were consulted in the planning of the kava importation pilot program? If so, what was the process, and do you think it was adequate? If not, why not?
18. We have talked about the intended outcomes. Do you see any other unexpected benefits or unintended consequences that may be associated with the kava pilot program that we haven't yet discussed?

Appendix 7: Interview guide_Community Members

1. What are your general views of how the kava pilot program (personal & commercial) has been implemented in Australia?
2. What is your general view about how kava is used in Pacific communities?
3. What is your general view about the benefits of kava use in Pacific communities?
4. What is your general view about the harms of kava use in Pacific communities?
5. The first of the intended outcomes of the kava pilot program is: Provide greater access to kava in Australia. To what extent do you think this outcome is being met?
6. The second of the intended outcomes of the kava pilot program is: No net increase in harms (public health and safety is not compromised). To what extent do you think this outcome is being met?
7. The third of the intended outcomes of the kava pilot program is: Understand the social, cultural, economic and health effects of increased availability of kava across Australia. To what extent do you think this outcome is being met?
8. The third of the intended outcomes of the kava pilot program is: Increase trade opportunities for Australia and Pacific Islander countries. To what extent do you think this outcome is being met?
9. The impacts - both positive and negative - that may result from changes to kava importation laws are not likely be experienced evenly across society. Which population groups are you concerned may be more adversely affected and why? What are the impacts you are concerned about?
10. Which population groups are more likely to benefit from the kava importation pilot program and why? What are the potential benefits you see this group experiencing?
11. Are you aware of how kava-related incidents are being recorded and monitored in the communities you represent?
12. To address potential negative impacts of the kava importation pilot on communities, the following two key mechanism for limiting harms in the kava importation pilot program were included:
    a. Limiting personal importation to 4kg and specific allowable forms of kava (powder and beverage); and
    b. Requiring warning statements, meeting food standards and compliance with State and Territory regulations.
13. What is your view on the adequacy of these measures in reducing potential kava-related harm, especially in relation to the communities you represent?
14. Are there benefits to public health through the increased access to kava in Australia? If so, what might those benefits be, and why?
15. Is there anything else you would like to add that we haven't talked about?

Appendix 8: Focus group guide_Community Members

1. What do you think about kava use in your community?
2. If the Australian Government were to ask you about whether you support the new kava policy or further changes to the kava importation policy, which aspects/outcomes of kava use would you think about? For example, would you think about the health harms and benefits.
3. For the top ranked attributes that you have identified, how do you think about them in terms of how big a problem or a benefit they are? For example, for the theme of the cost of kava, what would be an acceptable amount that your household would be willing to spend on kava in a week?

Appendix 9: Interview guide_Pacific Island government representatives

1. What are your general views of how the kava pilot program (personal & commercial) has been implemented in Australia?
2. From a government perspective, what do you think have been the successes versus the challenges with the implementation of the commercial importation component of the kava pilot?
3. From a government perspective, what do you think have been the successes versus the challenges with the implementation of the personal importation component of the kava pilot?
4. The first of the intended outcomes of the kava pilot program is: Provide greater access to kava in Australia. To what extent do you think this outcome is being met?
5. The second of the intended outcomes of the kava pilot program is: Increase trade opportunities for Australia and Pacific Island countries. To what extent do you think this outcome is being met?
6. The third of the intended outcomes of the kava pilot program is: Understand the social, cultural, economic and health effects of increased availability of kava across Australia. To what extent do you think this outcome is being met?
7. Do you think the Australian kava importation pilot has, or will, increase kava-related revenue for your country? Why/why not?
8. Do you think any real, or likely, increase in kava-related revenue to your country from Australia's kava importation pilot would significantly impact your country's GDP? Why/why not?
9. Which particular groups (e.g., kava growers, processors, and commercial exporters) in your country do you think are most likely to gain from increased revenue due to kava? Why do you say that?
10. In what ways do you think Australia's kava importation pilot has or might positively impact on broader economic, social or cultural cooperation between Australia and Pacific Island Nations?
11. To what extent do you think these changes will increase the commercial supply and distribution of kava in Australia? Why do you say that?
12. We have talked about the intended outcomes. Do you see any other unexpected benefits or unintended consequences that may be associated with the kava pilot program that we haven't yet discussed?
13. Is there anything else you would like to add that we haven't talked about?

Appendix 10: Interview guide_ Commercial Importers

1. What is your general view of the implications of the personal and commercial components of the kava importation pilot program for your company?
2. What is your general view of the implications of the personal and commercial components of the kava importation pilot program for Australia?
3. What is your general view of the implications of the personal and commercial components of the kava importation pilot program for Pacific Island countries?
4. To what extent do you think the commercial component of the kava importation pilot program was implemented as planned?
5. Two of the expected outcomes of the kava pilot program are: Provide greater access to kava in Australia and increase trade opportunities for Australia and Pacific Island countries To what extent do you think these two outcomes will be or have been met? Why do you say that?
6. Do you think the commercial importation pilot has or will increase national or State and Territory revenue from kava, for example through national import taxes or State and Territory duties, or increased income tax from new employment? If yes, how?
7. Do you think the commercial importation pilot has or will increase Pacific Island countries' national revenue from kava? If yes, how?
8. Do you think the commercial importation pilot has or will increase your company's profits? If yes, how?
9. The key changes in the commercial component of the kava pilot program are: Sale and supply of kava as a food and imports of kava regulated by permit
10. To what extent do you think these changes have/will increase the commercial supply and distribution of kava in Australia? Why do you say that?
11. Have you seen an increase in demand for commercially supplied kava?
12. Has any increase in demand for commercially supplied kava varied across states/territories?
13. Does your company import kava as a food or therapeutic good, and what type of kava product do you import?
14. Is your company developing new kava related products, manufacturing processes or marketing strategies, or have plans to develop these, in response to changes in the commercial component of the kava pilot program? Are you able to provide general information about these?
15. Is there a way to track how kava is distributed once it's in Australia? If yes, how do we track this?
16. We have talked about the expected outcomes. Can you tell me of any unexpected benefits or unintended consequences associated with the kava pilot program?
17. Is there anything else you would like to add that we haven't talked about?

Appendix 11: Community survey_Community members

Section A: Demographics

1. Which community do you live in?
    - Blacktown
    - Campbelltown
    - Penrith
    - Bankstown
    - Fairfield
    - Canterbury
    - Liverpool
    - Cumberland
    - Brisbane
    - Logan
    - Ipswitch
    - South-East QLD
    - Cairns
    - Greater Canberra
    - Greater Adelaide
    - Perth
    - Rockingham
    - Wannerro
    - Swanna
    - Gosnells
    - Amardale
    - Western Melbourne
    - Wyndham
    - Brimbank
    - Eastern Melbourne
    - Casey
    - Hume
    - Other, please specify……

2. What is your current age? (in years)
    - Less than 18
    - 18 – 24
    - 25 – 29
    - 30- 34
    - 35-39
    - 40-44
    - 45-49
    - 50-54
    - 55-59
    - 60-64

- 65+

3. How do you describe your gender?
    - Man/male
    - Woman/female
    - Non-binary
    - I use a different term (please specify) ……
    - Prefer not to answer

4. Which, if any, of the following do you identify as? (Mark all that that apply)
    - Australian South Sea Islander
    - Pacific Islander
    - Not Pacific Islander or Australian South Sea Islander

5. What is your Pacific Islander heritage? (Mark all that apply)
    - Melanesian and Papuan
        - Fijian
        - New Caledonian
        - Ni-Vanuatu
        - Papua New Guinean
        - Solomon Islander
        - Melanesian and Papuan, other
    - Micronesian
        - I-Kiribati
        - Nauruan
        - Micronesian, other
    - Polynesian
        - Cook Islander
        - Samoan
        - Tongan
        - Hawaiian
        - Tahitian
        - Tokelauan
        - Tuvaluan
        - Pitcairn
        - Polynesian, other

6. Are you currently employed? (select your main type of employment)
    - No, not employed
    - Yes, part-time/casual
    - Yes, full-time
    - Prefer not to answer

7. On average, what is the total weekly income that you usually receive from all your sources of income?

No income

- $1 - $149
- $150 - $299
- $300 - $399
- $400 - $499
- $500 - $649
- $650 - $799
- $800 - $999
- $1000 - $1249
- $1250 - $1499
- $1500 - $1749
- $1750 - $1999
- $2000 - $2999
- $3000 - $3499
- $3500 or more

8. How would you describe your role, if any, in your community? (Mark all that apply)
    - Elder
    - Chief
    - In a leadership role
    - Traditional Owner
    - Custodian
    - Member of a committee/group or decision-making group that represents my community
    - Employed by the community
    - Other (specify_____)
    - None of the above

Section B: Kava use, supply, and harms in the last 12 months

Personal kava use

9. Have you ever used Kava in any form in Australia?
    - No <*Skip to Section C - Q23*>
    - Yes, in the last 12 months
    - Yes, but not in the last 12 months

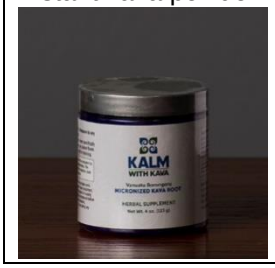
10. Have you ever used Kava in any form in Australia?
    - No
    - Yes, in the last 12 months
    - Yes, but not in the last 12 months

11. During the last 2 years, Covid-19 travel restrictions made bringing kava into Australia more difficult. Did your kava use during this time change?
    - Yes, I could not get any kava
    - Yes, I used less kava

- Yes, I used more kava
- No, there was no difference in how much kava I used

12. In the last 12 months, did you use any of these forms of Kava? (tick all that apply and fill out the columns for all those selected)

    NOTE: This question will be programmed in the online survey tool for the questions on frequency, quantity and price to only pop up for those forms that the participant has used in the past 12 months.

FORM	1. How often did you use this form of kava?	2. When you use this form of kava, how much do you typically use in one kava bowl session?	3. How much would you usually pay for this type of kava (in kilo if applicable)?	4. If known, what is the brand you used?
Kava: A drink made from ground kava root/powder and mixed with water or other liquid) 	Drop down menu: Every day 5 to 6 days a week 3 to 4 days a week 1 to 2 days a week 2 to 3 days a month About 1 day a month Less often No longer use	____Cups/shells in a session	$X Don't know	Free text
Bottled kava drink 	As above	__ bottles	$X Don't know	Free text
Instant kava powder 	As above	___ teaspoons	$X Don't know	Free text

Tea 	As above	____cups	$X Don't know	Free text
Capsules or tablets   	As above	____capsules/tablets	$X Don't know	Free text
Liquid, extract or drops 	As above	____Millilitres	$X Don't know	Free text
Any other form (please specify_____)	As above	____ number	$X Don't know	Free text

13. In the last 12 months what are the main reasons you used kava? (Mark all that apply)
    - Social gatherings/recreational reasons
    - Cultural/ceremonial purposes
    - For religious/spiritual reasons
    - Boredom
    - Health reasons
    - When I go hunting
    - Weight management
    - Better understanding of cultural identity
    - Better relationships with community elders and leaders
    - Better traditional language skills
    - Ability to communicate with people
    - Opportunities to deal with challenges
    - New ways to extend my support network
    - Other reason (specify)

14. What are the health-related reasons for which you used Kava in the last 12 months? (mark all that apply)
    - For relaxation
    - For pain relief
    - For anxiety
    - For sleep/insomnia
    - For hot flashes and/or night sweats
    - Better sleep
    - For mouth ulcers
    - Weight management
    - As traditional medicine
    - As complementary medicine
    - Other health-related reasons (specify).....

15. For all the health-related reasons you mention above for which you used kava (e.g. better sleep, less pain, improved anxiety etc) did you have any of the following outcomes in the last 12 months? (Mark all that apply)
    - Reduced annual GP/Specialist/allied health visits due to improved health outcomes. *(answer Q16 and 17, if you choose this answer)*
    - Reduced spending on medicine and health products due to improved health outcomes *(answer Q18 and 19, if you choose this answer)*
    - Increased weekly income as a result of improved health outcomes? *(answer Q20, if you choose this answer)*
    - No health outcomes

16. You mentioned a reduction in annual GP/Specialist/allied health visits in the last 12 months due to improved health outcomes. On average, how many GP/Specialist/allied health visits for the health reasons you used kava did you have in the last 12 months?
    …….

17. Prior to the last 12 months, on average, how many GP/Specialist/allied health visits did you have to make every year for the health reasons for which you now use kava?
    ……..

18. You mentioned a reduction in spending on medicine and health products due to improved health outcomes. On average, approximately how much did you spend on medicine and health products for the health reasons you used kava in the last 12?

    ……..

19. You mentioned a reduction in spending on medicine and health products due to improved health outcomes. Prior to the last 12 months, on average, how much did you spend annually on medicines and health products for the health reasons for which you now use kava?
    ……..

20. You mentioned an increase in weekly income as a result of improved health outcomes. How much did your weekly income increase on average?
    ……

21. In the last 12 months where did you usually use Kava? (Mark all that apply)
    - In my own home
    - At a friend's/ partner's house
    - At a public gathering (e.g. church, community group, elders group, ceremonial gathering etc)
    - At a party at someone's house
    - At licensed premises (e.g. pubs, clubs)
    - At school
    - At my workplace
    - In public places (e.g. parks, beaches)
    - In a car or other vehicle
    - Kava drinking circle/kava club
    - Somewhere else (specify_____
22. Please specify what other good or positive things happened as the main reason you usually use Kava?
    ……

23. Do you usually use alcohol or any other substance when you use Kava?
    - Yes
    - No
    - Rather not say

    < *only asked if response to Q3 is not man/male*> We are interested in understanding whether people use kava while pregnant or breastfeeding.

24. Have you ever used kava while pregnant or breastfeeding?
    - No
    - Yes, when pregnant
    - Yes, when breastfeeding
    - Yes, both
    - Not applicable
    - Prefer not to say

25. Do you usually use alcohol or any other substance when you use Kava?
    - Yes
    - No
    - Rather not say
    - Please specify other substance……..

26. Where did you **mostly** obtain kava from in Australia in the last 12 months?

- I obtained it from someone I know (family, friends etc)
- I obtained it from someone I don't know
- I bought it from an online source
- I bought it from a physical store (e.g. a pharmacy, health food shop)
- Other (specify_____)

  Don't know

27. Did the kava you obtained mostly come from your own State and Territory , or from interstate in the last 12 months?
    - Mostly from my own State and Territory
    - Mostly from another State and Territory (specify_____)
    - Don't know

28. About how much have you personally spent on buying kava in the past 12 months?
    - I have not purchased any Kava in the past 12 months
    - Under $100
    - $100 - $500
    - $501 - $999
    - $1000 - $1499
    - $1500 - $1999
    - ≥$2000

Personal Health impacts

29. After using kava, have you had any problems with your? (mark all that apply)
    - Liver
    - Skin
    - Eye
    - Sleep
    - Eating
    - Breathing
    - Mental health
    - I got a physical injury
    - Other problems (please describe what problems you had _____)
    - None – *skip to Q33*

30. For any of the problems that you identified, did you require any medical help? How many times in past 12 months? (mark all that apply)
    - No
    - Ambulance services (……. times)
    - Local doctor (…….. times)
    - Allied health professional (…….. times)
    - Emergency department (…… times)
    - Hospital (…… times)

- Specialist (…… times)
- Other (please describe _____) (…….. times)

31. In the last 12 months, about how much did you spend on any medications or health products (e.g., ointment, cream, tablets, etc) specifically to treat a kava related problem?
    - Nil
    - $1-$10
    - $11-$30
    - $31 -$50
    - More than $50

32. After using kava, have you had any other problems (about how many times in the last 12 months)?
    - No
    - I couldn't go to work (about how many times in the last 12 months?.....)
    - I neglected family duties (about how many times in the last 12 months?.....)
    - I had arguments with family and friends (about how many times in the last 12 months?.....)
    - I didn't have enough money for other things (about how many times in the last 12 months?.....)
    - I was arrested by the police (about how many times in the last 12 months?.....)
    - I got a warning from the police or taken to the police station
    - I was in a car accident (about how many times in the last 12 months?.....)
    - I was excluded from or did not attend cultural or social activities (about how many times in the last 12 months?.....)
    - Other (please describe _____)

Section C: Kava use in your community

33. Has anyone in your household ever used Kava in any form in Australia?
    - No
    - Yes, in the last 12 months
    - Yes, but not in the last 12 months

34. In the last 12 months, about what proportion of your family or friends used Kava?
    - All
    - Most
    - About half
    - A few
    - None
    - Don't know

35. Has kava use caused any of these problems for your community?
    - No
    - Social disruption

- More break and enters
- Creation of black market
- More traffic accidents
- Other (please describe) _____

36. Has kava use had any benefits for your community? (For example, social, health, economic, legal, cultural or other?)

……
……
……
……
……
……

Section D: Access to kava via commercial or personal importation and its impact on your community

The Australian government changed the personal importation policy to allow more kava into Australia in December 2019, increasing the amount people can bring into Australia in their personal luggage from 2kg to 4kg. This only applies to the root or dried powder form of kava (Ask following of all participants, including kava non-users).

37. How much do you think the previous restrictions on the availability of kava (ie the importation allowance of no more than 2kg) impacted on your **cultural connection or practices**?
    - A lot of positive impact to my cultural connection or practice
    - A lot of negative impact to my cultural connection or practice
    - Some positive impact to my cultural connection or practice
    - Some negative impact to my cultural connection or practice
    - No impact to my cultural connection or practice

38. How much do you think the previous restrictions on the availability of kava (ie the importation allowance of no more than 2kg) impacted on your **social or community connection**?
    - No impact to my social or community connection
    - A lot of negative impact to my social or community connection
    - A lot of positive impact to my social or community connection
    - Some positive impact to my social or community connection
    - Some negative impact to my social or community connection

39. How much do you think the eased restrictions on the availability of kava associated with the kava importation pilot program (ie increasing the importation allowance from 2kg to 4kg) will impact on your **cultural connection or practices**?
    - Some positive impact to my cultural connection or practice
    - Some negative impact to my cultural connection or practice
    - A lot of positive impact to my cultural connection or practice

- A lot of negative impact to my cultural connection or practice
- No impact to my cultural connection or practice

40. How much do you think the eased restrictions on the availability of kava associated with the kava importation pilot program (ie increasing the importation allowance from 2kg to 4kg) will impact on your **social or community connection**?
    - A lot of positive impact to my social or community connection
    - No impact to my social or community connection
    - A lot of negative impact to my social or community connection
    - Some positive impact to my social or community connection
    - Some negative impact to my social or community connection

41. Before the new policy, and prior to the COVID-19 restrictions, on average, how many times a year did you travel to a Pacific Island country?
    - Never
    - Less than every year
    - Once a year
    - Twice a year
    - Three times a year
    - Four or more times a year

42. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), did you bring kava into Australia from overseas in your personal luggage?
    - No <*If no, skip to Q48*>
    - Yes

43. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), how many times did you bring kava into Australia in your personal luggage?
    - Never
    - Once or twice only
    - About once per year
    - A few times per year
    - Monthly
    - Weekly

44. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), how much kava did you usually bring into Australia from overseas in your personal luggage?
    - None
    - Less than 1kg
    - 1-2kg

45. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), what were the main reasons you brought kava into Australia in your personal luggage? (Mark all that apply)

- For personal use
- To share with friends/family at no cost to them
- To sell to friends/family to recoup the purchase cost (but not to make profit)
- To sell to others to recoup the purchase cost (but not to make profit)
- To sell to friends/family/others to make a profit
- To share with my community
- To subsidise travel to Pacific Island countries
- As a favour for a friend or family member
- For a commercial supplier
- Other reasons (specify_____)

46. Do you think the increase in the personal importation limits (from 2 to 4kg) has changed, or will change the reasons that you bring kava into Australia in your personal luggage?
    - Yes (please specify how_____)
    - No

47. How do you think the increase in the personal importation limits (from 2 to 4kg) has changed the reasons that you bring kava into Australia in your personal luggage?
    ……

48. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), did someone else in your family/community bring kava into Australia from overseas in their personal luggage?
    - No
    - Yes, but not in the last 12 months
    - Yes, in the last 12 months
    - I don't know

49. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), did you purchase or obtain any kava (in Australia or overseas) that you provided to others?
    - No *<If no, skip to Q52>*
    - Yes, for friends/family *<skip to Q52>*
    - Yes, for selling for profit
    - Yes, selling to cover the cost of my own use or the cost of buying it
    - Don't know *<skip to Q52>*

50. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), about how much did you earn from selling kava?
    - I did not sell any Kava in that period
    - $1 - $ 500
    - $501 - $999
    - $1000 - $1499
    - $1500 - $1999
    - ≥$2000

51. In the 12 months before the COVID-19 travel restrictions (that is, during 2019), how easy was it to get kava if you wanted it?
    - Don't know
    - Very easy
    - Fairly easy
    - Fairly difficult
    - Very difficult
    - Probably impossible

From December 2021 the Australian government has changed the policy to allow the commercial importation of kava for use as a food or beverage. There is no limit on the quantity that can be imported, however the forms of kava that can be imported are limited to kava powder and kava beverages (using cold water only). Commercial importers must apply for a permit and must also comply with Australian biosecurity and importation policy, and with food standards and food labelling requirements. Importers must also follow state and territory specific laws or restrictions.

52. Were you aware that kava can now be commercially imported?
    - Yes (please specify how you found out?_____)
    - No

53. Since December 2021, has it been easier or more difficult for you to get kava than before?
    - Don't know
    - Much easier
    - A bit easier
    - No change
    - A bit more difficult
    - Much more difficult

54. Have you purchased anything different to your usual kava since the commercial importation laws changed? (For example, kava in a different form, a different quantity, or a new kava product)
    - Yes, please specify_____
    - No

Section E: Attitudes regarding the kava pilot program

As stated earlier, the Australian government changed the personal importation policy to allow more kava into Australia in December 2019, increasing the amount people can bring into Australia in their personal luggage from 2kg to 4kg. This only applies to the root or dried powder form of kava. The commercial importation policy allows the commercial importation of kava as a food which was implemented on 1st December 2021

55. I do want kava to be available to people in my community

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

56. I agree with the increase in limit for bringing kava into Australia in personal luggage from 2kg to 4kg.
    - Strongly agree
    - Agree
    - Neither agree nor disagree
    - Disagree
    - Strongly disagree

57. I would like further increases in the limits for bringing kava into Australia in personal luggage
    - Strongly disagree
    - Disagree
    - Neither agree nor disagree
    - Agree
    - Strongly agree

58. I agree with allowing commercial importation of kava into Australia in powder and beverage forms
    - Strongly agree
    - Agree
    - Neither agree nor disagree
    - Disagree
    - Strongly disagree

59. I would like commercial importation into Australia in other forms (e.g. fresh or dried roots or other)
    - Strongly disagree
    - Disagree
    - Neither agree nor disagree
    - Agree
    - Strongly agree

Section F: Alcohol and other drug use

60. Have you used any of the following in the past 12 months? *<If no to all, skip to end of survey>*
    (Select all that apply)
    - Alcohol *<answer Q61-65>*
    - Cannabis/Marijuana (including medicinal cannabis) (dope, weed, pot, grass, ganga) *<answer Q66-67>*
    - Methamphetamine or amphetamine (ice, meth, crystal) *<answer Q68-69>*

- Tranquilizers/sleeping pills for non-medical purposes (Benzodiazepines, Xanax, Valium, Temaze etc) <*answer Q70*>
- Tobacco/cigarettes <*answer Q71-72*>

61. <*If yes to alcohol at Q60*> <*Question asked only in Pacific and Australian South Sea Islander community survey*> How often do you have a drink containing alcohol?
    - Never
    - Monthly or less
    - 2-4 times a month
    - 2-3 times per week
    - 4 or more times a week

62. <*If yes to alcohol at Q60*> <*Question asked only in Pacific and Australian South Sea Islander community survey*> How many drinks containing alcohol do you have on a typical day when you are drinking?
    - 1 or 2
    - 3 or 4
    - 5 or 6
    - 7 to 9
    - 10 or more

63. <*If yes to alcohol at Q60*> <*Question asked only in Pacific and Australian South Sea Islander community survey*> How often do you have six or more drinks on one occasion?
    - Never
    - Monthly or less
    - 2-4 times a month
    - 2-3 times per week
    - 4 or more times a week

64. <*If yes to alcohol at Q60*> Do you ever mix alcohol and kava together as one drink?
    - Yes, sometimes when I drink kava
    - Yes, every time I drink kava
    - No

65. *If yes to alcohol at Q60*> Do you ever drink alcohol and kava on the same occasion?
    - Yes, sometimes
    - Yes, every time
    - No

66. <*If yes to cannabis at Q60*> In the last 12 months, how often do you use marijuana/cannabis (dope, weed, pot, grass, ganga)?
    - Every day
    - Once a week or more
    - About once a month
    - Every few months
    - Once or twice a year

67. <*If yes to cannabis at Q60*> On a day you use marijuana/cannabis (dope, weed, pot, grass, ganga), on average how many cones, bongs, or joints do you normally have?
    - Number of bongs/cones_____
    - Number of joints_____

68. <*If yes to meth/amphetamine at Q49*> In the last 12 months, how often do you use methamphetamine or amphetamine (ice, meth, crystal) for non-medical purposes?
    - Every day
    - Once a week or more
    - About once a month
    - Every few months
    - Once or twice a year

69. <*If yes to meth/amphetamine at Q60*> On a day you use methamphetamine or amphetamine ((ice, meth, crystal) for non-medical purposes, on average how many points, grams or tablets/pills/capsules do you normally have?
    - Number of points_____
    - Number of grams_____
    - Number of tablets/pills/capsules_____

70. <*If yes to Tranquillisers/Sleeping pills at Q60*> In the last 12 months, how often did you use Tranquillisers/Sleeping pills for non-medical purposes?
    - Every day
    - Once a week or more
    - About once a month
    - Every few months
    - Once or twice a year

71. <*If yes to tobacco at Q60*> On the days that you smoke, how soon after you wake up do you have your first cigarette?
    - Within 5 minutes
    - 6- 30 minutes
    - 31-60 minutes
    - After 60 minutes

72. <*If yes to tobacco at Q60*> How many cigarettes do you typically smoke per day?
    - 10 or fewer
    - 11-20
    - 21-30
    - 31 or more

Survey End

Appendix 12: NSW Kava Surveillance report

Attached separately

Appendix 13: Table 2.1: Prevalence of kava

Study	Location	Population/sample	Sampling Method	N	Dose (e.g. no. of cups, joints etc.)	Kava drinking prevalence
Aporosa, 2014[28]	Fiji	The study included 18 active and 18 control participants aged 25-29, excluding Indo-Fijian women.	Convenience sample	36	Indo-Fijians in rural areas reported the heaviest kava consumption (52 cups) while urban Indo-Fijians reported the least (28 cups). The estimated bilo's consumed/kavalactone ingestion varied by ethnicity and location. The average duration of kava consumption ranges from 4.6 hours to 8.6 hours, with rural Indo-Fijians reporting the heaviest consumption.	50% of participants were kava users.
Beck, 2008[29]	New Caledonia	50.4% girls, 49.6% boys. Middle school students n = 2467 (48.1% boys); mean age 13.8; high school students n = 1929 (50.1% boys) mean age = 16.1; CFA students n = 515 (50.6% boys) mean age = 19.	Convenience sample	4911	-	Middle school students showed the lowest rates of kava use: 11.4% experimented, 2.9% used in the last month, and 0.7% were regular users. High school students showed higher rates: 18.6% experimented, 3.3% used in the last month, and 0.5% were regular users. CFA students had the highest rates: 38.1% experimented, 13.5% used in the last month, and 3.6% were regular users.
Birkett, 2012[45]	United States	College students with a mean age of 20.2 years (SD = 4.7), 70.6% female, 75% white.	Convenience sample	235	-	Any kava use; past 12 months n = 15 (6.4%).
Burns, 1995[17]	Maningrida, Australia	Males aged 13-32 who were residents in a remote Aboriginal community in Arnhem Land. Consisted of 13 non-sniffers, 13 ex-sniffers and 22 current	Convenience sample	48	Consumption was reported to be light to moderate.	35% (n = 17) reported drinking kava. Consumption was reported to be light.

		sniffers. Mean age was 21 years.				
Butt, 2019[3]	Australia	2008 respondents to the National Aboriginal and Torres Strait Islander Social Survey (NATSISS)		13,300	-	1.2% of respondents reported kava use in the past 12 months. Males = 1.7% Females = 0.7%
Clough, 2002[18]	Northern Territory, Australia	Community members and Aboriginal Health Workers in two different communities	Convenience sample	101	>14 hrs (425g/week) self-report = 68% (34/50) health workers consensus = 68 (34/50) <14hrs (425g/week) self-report = 32% (16/50) health workers consensus = 32% (16/50)	Group 1: currently using kava from self-report = 61.2% (60/98) from health workers consensus = 60.2% (59/98)
Clough, 2003[19]	Arnhem Land, Australia	2001 sample, Eastern Arnhem Land. 16 – 34 years in one community, 70 males, 66 females.	Random sample	136	-	41.9% reported ever drinking kava 37.5% reported currently using kava Males: Ever used: 32 (45.7%) Currently using: 29 (41.4%) Females: Ever used: 25 (37.9%) Currently using: 22 (33.3%)
Clough, 2003[20] - Chapter 5	Arnhem Land, Australia	Aboriginal Australians older than 15.	Convenience sample	98	Averaged 118g/week, ranged from <40g/week to >195g/week; Median duration of use was 12 years (range, 1-18 years).	Among 62 kava users, 23 had discontinued kava one year prior. Continuing users had not used kava for 1 to 2 months (n = 10; m = 9, f= 1), 1 to 2 weeks previously (n = 15; m = 14, f = 1), or within the last 24 hours (n = 14; m = 12, f = 12). Total prevalence of kava users = 63.3% (62/98).
Clough, 2004[21]	Arnhem Land, Australia	Aboriginal Australians aged between 13-36. 336 people (169 males, 167 females) and n = 180.	Random sample; convenience sample	516	7/8 kava users who reported using >400 g/week of kava powder were classified by health workers as heavy users. 9 users reported <400 g/week.;	Sample prevalence is from n=180 sample: 12.2% of participants reported being current kava users. 5.2% reported usage with less than 400g/week kava powder. 4.6% reported usage with 400g/week or more kava powder.

					Years used kava - median (range): Never used cannabis: 14 yrs (0-20) Past cannabis user: 5 yrs Current cannabis user: 9 yrs (0-18)	
Clough, 2003 [20] Chapter 4	Miwatj Region, Australia	Sample 1: 353 males and 336 females from active community clinic files and patient lists in 1999. Sample 2: 65 males and 35 males. overlap of 65 people from sample 1 and sample 2.	Random sample; convenience sample	Sample 1: 689, Sample 2: 101.	-	46% (n = 162) of males were current users of kava 18% (n = 60) of females were current users of kava Sample 2: current kava users were 52% males and 11% females. In this community between 1999 and 2000, the proportion of current kava users among men declined (77%-52%).
Clough, 2003 [20] - Chapter 7	East Arnhem Land, Australia	Sample frame for cases and controls was 4127 Aboriginal Australians aged over 15. Cases had presented to hospital with ischaemic heart disease. Cases n = 83 Controls n = 302	Random sample; convenience sample	385	-	Around 39.7% of cases and 34% of controls drank kava during 1992-1997. Kava use was higher among male cases and in communities with a significant kava history. Both cases and controls sometimes drink kava for 24 hour sessions. The number of participants increased from n=34 in 1989-90 to n=83 in 1990-91.
Clough, 2020[22]	Arnhem Land, Australia	Community located in Arnhem land	Not specified	-	1989-90, weekly per capita consumption was 128-144 g of powder and 4 hours spent drinking. In 1990-91, weekly per capita consumption was 343-377 g of powder and 10 hours spent drinking. Liquid consumption was 2383-6917 ml per week.	Around 39.7% of cases and 34% of controls drank kava during 1992-1997. Kava use was higher among male cases and in communities with a significant kava history. Both cases and controls sometimes drink kava for 24 hour sessions. The number of participants increased from n=34 in 1989-90 to n=83 in 1990-91.
Finau, 1982[41]	Foa and Nuku'alofa, Tonga	181 men and 218 women from Nuku'alofa; 199 men and 193 women from Foa Island. Included adults 20-69 years.	Random sample	791	-	In Tonga, 23% of Nuku'alofa and 32.4% of Foa population reported kava consumption, with males being more frequent drinkers. In both locations, low to high frequency consumption was reported.
Fleming, 1991[23]	Northern Territory, Australia	Aboriginal people in the Northern Territory aged 15 and over. Excluded Aboriginal people residing in urban households.	Stratified sample	1764	Each group drank from 1-12 bowls (average 4-5 bowls) in one sitting. Individuals reported drinking from 1-16 cups (average 7 cups) per	Overall, 26% of the population consumed kava, with most drinkers consuming it weekly and 20% daily.

					bowl. The average kava drinker consumed 1.6 litres of kava per sitting based on the practice of mixing 112 grams of kava powder in 4 litres of water.	
Grace, 2003[30]	Vila Central Hospital, Vanuatu	50 medical and 50 surgical patients and 50 staff (80 women and 70 men) aged over 18.	Convenience sample	150	Men reported drinking 4.3 +/- 2 shells Women reported drinking 3.3 +/- 1.3 shells 1 in 10 used kava daily and 1 in 3 at least weekly. 85% of kava drinkers consumed kava at least weekly	35% drank kava (n = 53), 59% of men (n = 41) and 15% of women (n = 12). 1 in 10 used kava daily and 1 in 3 at least weekly. 85% of kava drinkers consumed kava at least weekly. 9% reported daily use.
Hughes, 2007[24]	Nhulunbuy, Australia	-	Not specified	-	Bags of 100g sachets of 100g per week: Laynhapuy Homelands Association Inc: 3.9 Warruwi Community Inc: 4.7 Yirrkala Dhanbui Community Association Inc: 11.4 Yuyung Nyannung Aboriginal Corporation: 22.5	Reported as "minimum number of safe drinkers at 400g per week": Laynhapuy Homelands Association Inc: 97 Warruwi Community Inc: 118 Yirrkala Dhanbui Community Association Inc: 286 Yuyung Nyannung Aboriginal Corporation: 563
Lohse, 2006[44]	Kansas and Wisconsin, United States	Kansas (n = 1479) and Wisconsin (n = 1083) women / caregivers aged 18 and over participating in the Special Supplemental Nutrition Program for Women, Infants and children. Children represented n = 1363, with an age range of 1 week to 17.5 years.	Random sample	2562	-	3 children (0.22%) were provided with kava.
Macleod, 2017[31]	Fiji	The study included 457 households from 23 villages, with 74% females, 63% ethnic iTaukei, and 34% ethnic Indo-Fijian. The median age was 43 years.	Random sample	695	-	5.5% (n = 38) reported drinking kava daily 19.7% (n = 137) reported drinking kava at least weekly 11.8% (n = 82) reported drinking kava more than monthly but less than weekly 5.6% (n = 39) reported drinking kava less than monthly

Malhotra, 2017[43]	Aotearoa/New Zealand	New Zealand drivers, aged 16 and over. Mean age of 34.54 years (age range = 17–74 years) with 63.59% females.	Convenience sample	434	-	4.1% (n=18) reporting use but no driving within 3 hrs. 1.6% (n=7) of respondents reported driving within 3h of using kava.
Maneze, 2008[25]	Macarthur, Australia	Tongan men aged between 18 and 70, living in Macarthur in Sydney South West between May and October 2006. Mean age was 42.6 years, mean years in Australia was 21.5 years, 91.8% were born in Tonga.	Convenience sample	73	44% (out of 66) of those who reported drinking kava regularly reported drinking 20 to 49 cups kava per session. 24% reported drinking more than 50 cups per session.	68.5% (n = 50) of men reported drinking kava on weekends, 16% (n = 12) reported drinking kava regularly after work while 16% (n = 12) drank kava on ceremonial occasions such as weddings or ceremonies. 90% (66/73) were regular kava drinkers. Those men who reported drinking kava regularly did so, on average two to four times a week.
Mathews, 1988[26]	Arnhem Land, Australia	Residents of a coastal Aboriginal community in Arnhem Land aged 16 and older. This community has banned the consumption of alcohol.	Not specified	73	27% (n= 20) of respondents were very heavy kava consumers (mean consumption = 440g/week); 21% (n = 15) of respondents were heavy kava consumers (mean consumption = 310g/week); 5% (n = 4) of respondents were occasional consumers of kava (100g/week).	53.4% (n=39) reported drinking kava.
Nakaseko, 2014[32]	Port Vila, Vanuatu	6th, 7th and 8th grade elementary school students. 194 students from one urban school and 221 students from three rural schools. 46% male, 53.5% females.	Not specified	415	-	5.8% (n = 24) of students had experience drinking kava
No author, 1988[27]	Northern Territory, Australia	Aboriginal people in a large range of communities in the northern part of the Northern Territory.	Not specified	>1000	-	11% of respondents drank kava. About 70% of the kava drinkers consumedthe substance at least once a week, with 21.5% consuming it everyday

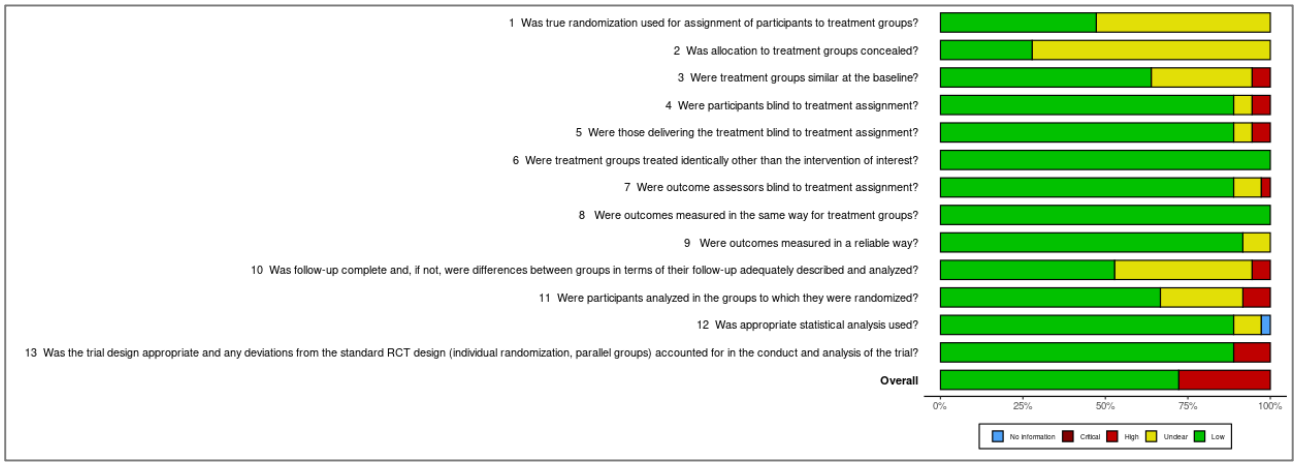
Olszowy, 2022[33]	Aneityum and Efate, Vanuatu	Ni-Vanuatu adults (148 males, 219 females). Final sample included in analysis n = 301.	Convenience sample	367		Results from 301 adults. Regular user - reported user and/or uses >/= 1 d/wk. Aneityum residents reporting regular use Males - 62.5%; females - 36.4% Efate residents reporting regular use Males - 63.5%; females - 36.2% Average of 4 days/week
Ruci, 2001[34]	Nadi, Lautoka, Ba and Sigatoka, Fiji	Kava drinkers	Convenience sample	300	-	Kava usage varies among regions. Occasional users consume 100g/week, heavy users 300g/week, and very heavy users 500g/week. In Nadi, the highest kava consumption was reported.
Sakai, 2022[35]	Micronesia	48 people from Mand and 41 people from Kolonia, 36% men. The means of the ages of the participants were 38.8 (SD = 14.4) and 39.1 (SD = 15.3) in Kolonia and Mand, respectively.	Random sample; convenience sampling	89	In Kolonia, 69% (n=20) of participants drank kava more than once a week, while in Mand 50% (n=14) drank it more than once a week. In Kolonia, 7% (n=2) drank kava every day, while in Mand, no one drank it every day.	71% of those in Kolonia and 58% of those in Mand) reported they drank sakau at some point in their lives.
Shaver, 2014[36]	Vanua Levu, Fiji	Men representing 20 households. The average age was 46.4 and ranged from 20 to 78. 17 of these men were married.	Convenience sample	28	The average duration of kava participation was 3.56 hours per event (Range: 19 min. to 5 hours)	92.9% men participated in kava ceremonies.
Smith, 2007[37]	Micronesia, Tonga and Vanuatu	School students aged 11-17 from Pohnpei State (n = 1495), Tonga (n = 2808) and Vanuatu (n = 4474).	Random sample	8777	-	Boys in Tonga (45%), Vanuatu (12%) and Pohnpei (30%) had higher rates of kava use compared to girls. Boys also reported higher rates of ever and weekly use overall.
Taylor, 2005[38]	University of South Pacific, Suva, Fiji	Respondents recruited from the University of the South Pacific. The sample consisted of more males (55%) than females (45%), most of whom were single (93%).	Convenience sample	450	The average number of times respondents had been high on kava was just over 1, with males higher (1.5) than females (0.8). Males had more kava drinking sessions (2.6) than females (1.3).	Fewer than 59% of the population said they had used kava. Males drink kava more frequently than females. The average number of kava sessions in the last 30 days was 2.

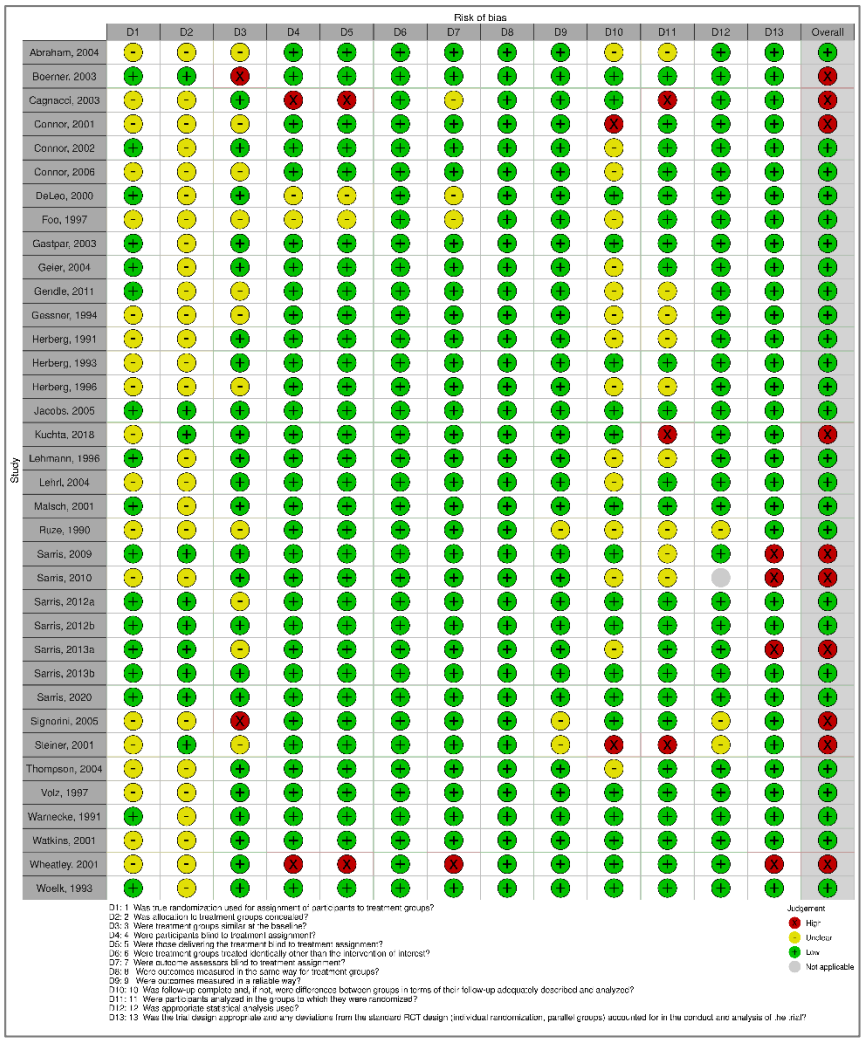
Vignier, 2011[39]	New Caledonia	People aged 16-25, 704 males, 696 females. 48% of this group identified as member of the Kanak community, 52% identified as European, Polynesian and Asian.	Stratified sample	1400	-	42% of respondents reported using kava; 12% reported using kava in the last 30 days. Compared with the non-Kanak group, a smaller proportion of Kanak youth reported using kava (30% vs 52% for lifetime use and 9% vs 15% for the last 30 days).
Wainiqolo, 2016[40]	Fiji	140 drivers in serious crashes and 752 control drivers who were representative of "driving time" in Viti Levu from July 1, 2005 to December 31, 2006. Almost all cases and controls were males.	Convenience sample; two-stage cluster sample	892	-	22.9% (n=32) of cases reported acute use of kava (previous 12 hours), compared to 7.2% (n=54) of controls. 31.4% (n = 44) of cases reported drinking kava several times a week to daily in the past 12 months, compared to 20.9% (n = 157) of drivers of control vehicles.
Werneke, 2004[42]	Royal Marsden Hospital, London	Cancer patients utilising complementary alternate medicines. 60.4% of participants were female.	Convenience sample	318	-	1.8% (n = 3) of patients reported using kava.

Appendix 14: Social & cultural reviews that informed the systematic review

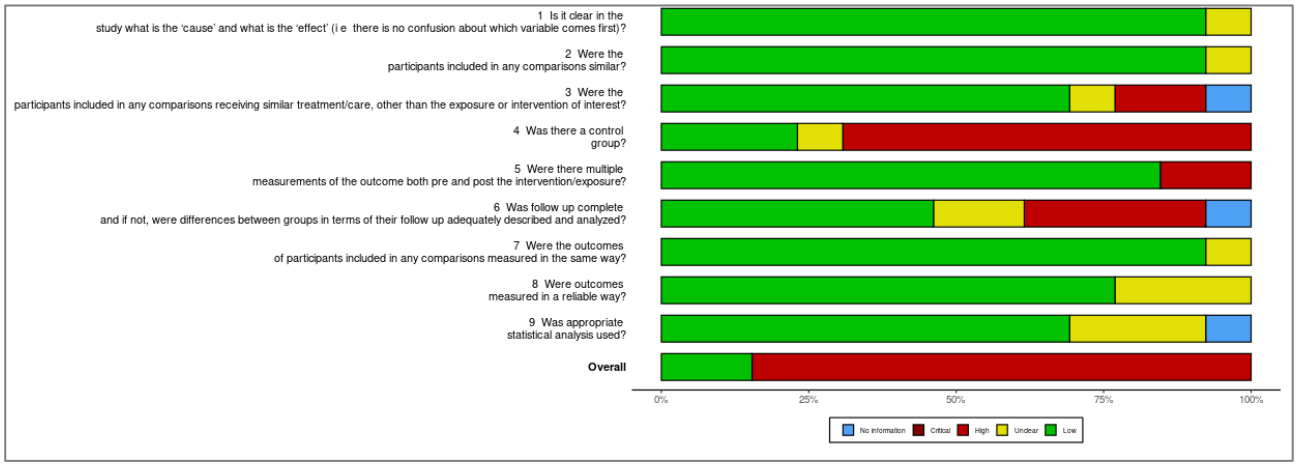
Author, year	Title
Alexander et al., 1988[205]	Kava in the north: a study of kava in Arnhem Land Aboriginal communities
Aporosa, 2015[206]	The new kava user: Diasporic identity formation in reverse
Brown, 1984[207]	Kava in Samoa and Vanuatu
Davis and Brown, 1999[208]	Kava (Piper methysticum) in the South Pacific: its importance, methods of cultivation, cultivars, diseases and pests
James, 1991[209]	The Female Presence in Heavenly Places: Myth and Sovereignty in Tonga
McDonald and Jowitt, 2000[210]	Kava in the Pacific Islands: a contemporary drug of abuse?
Merlin and Raynor, 2005[211]	Kava cultivation, native species conservation, and integrated watershed resource management on Pohnpei Island
Norton, 1994[212]	Kava dermopathy
Norton, 1998[213]	Herbal Medicines in Hawaii from Tradition to Convention
Prescott and McCall, 1988[214]	Kava: use and abuse in Australia and the South Pacific. Monograph No.5
Schmidt, 2007[215]	Quality criteria for kava
Singh, 1992[216]	Kava: an overview
Taylor, 2010[217]	Janus and the siren's call: kava and the articulation of gender and modernity in Vanuatu
Tomlinson, 2004[218]	Perpetual Lament: Kava-Drinking, Christianity and Sensations of Historical Decline in Fiji
Toren, 1988[219]	Children's perceptions of gender and hierarchy in Fiji
Turner, 2012[220]	Listening to the Ancestors: Kava and the Lapita Peoples
Vallance, 2002[221]	Kava Tonga
Keauluna and Whitney, 1990[222]	Ka Wai Kau Mai O Maleka Water from America: The Intoxication of the Hawai'ian People
Williams, 2020[223]	Kava: use and abuse
Winter, 2014[224]	Perspectives in theoretical and Hawaiian ethnobotany; Biocultural diversity in two cultivated plants, 'AWA (Piper methysticum G. Foster) and KALO (Colocasia esculenta (L.) Schott)

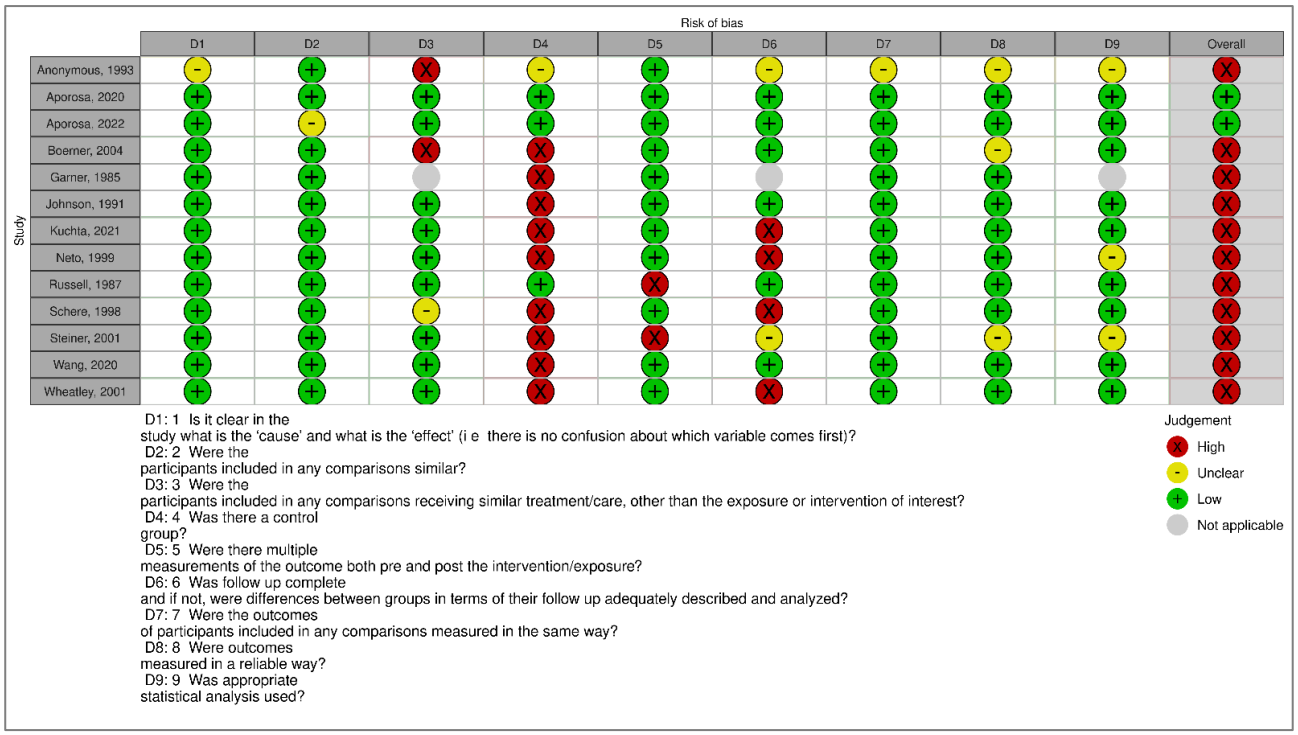
Appendix 15: Risk of Bias for Randomised Control Trials



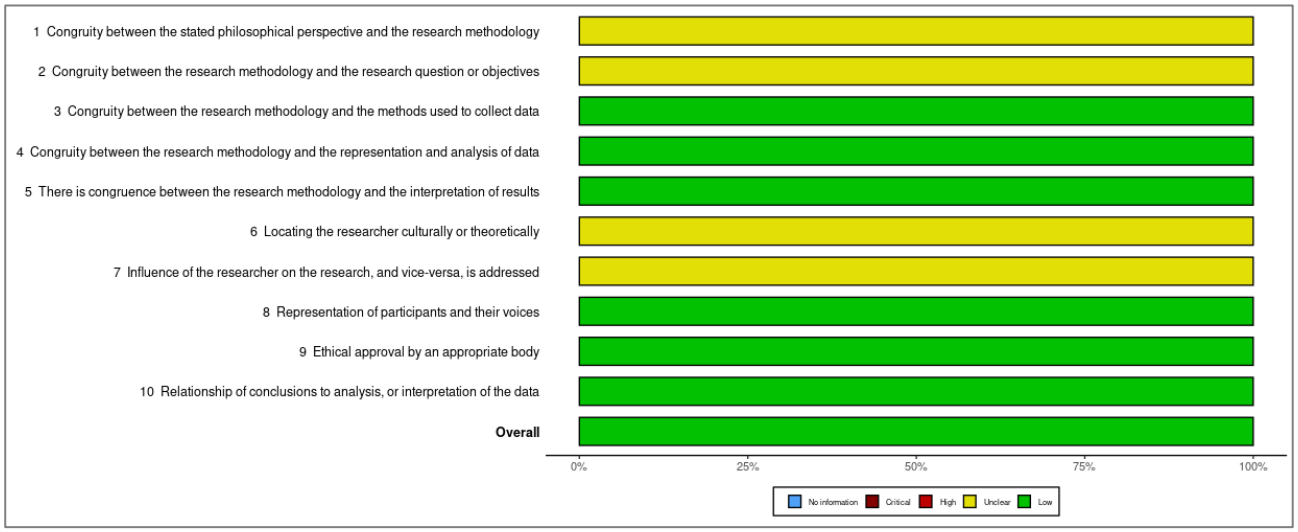


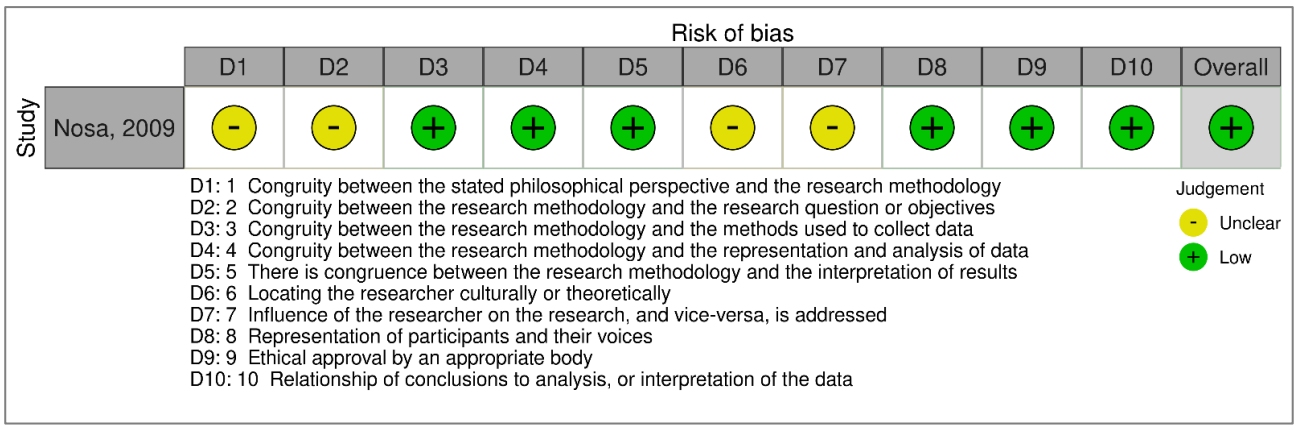
Appendix 16: Risk of Bias for Quasi-experimental Studies



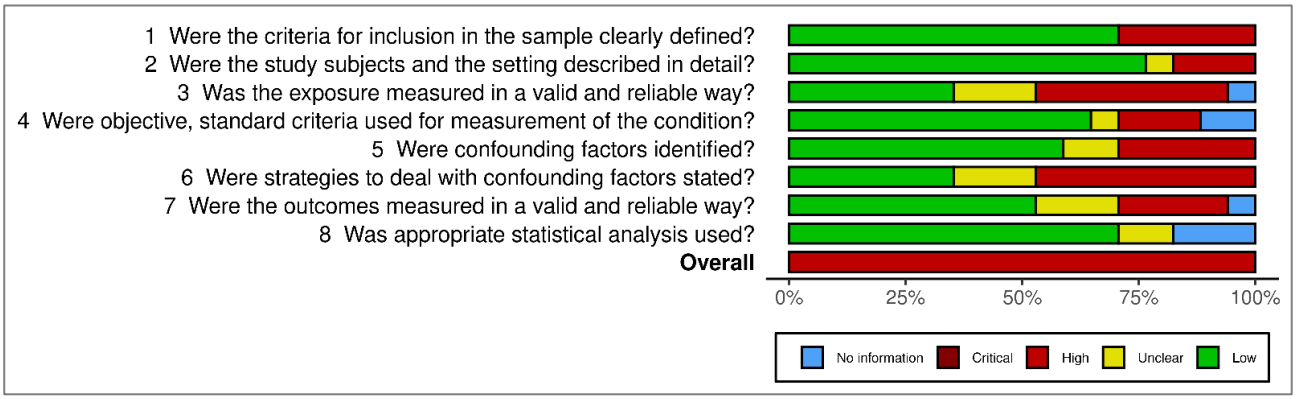


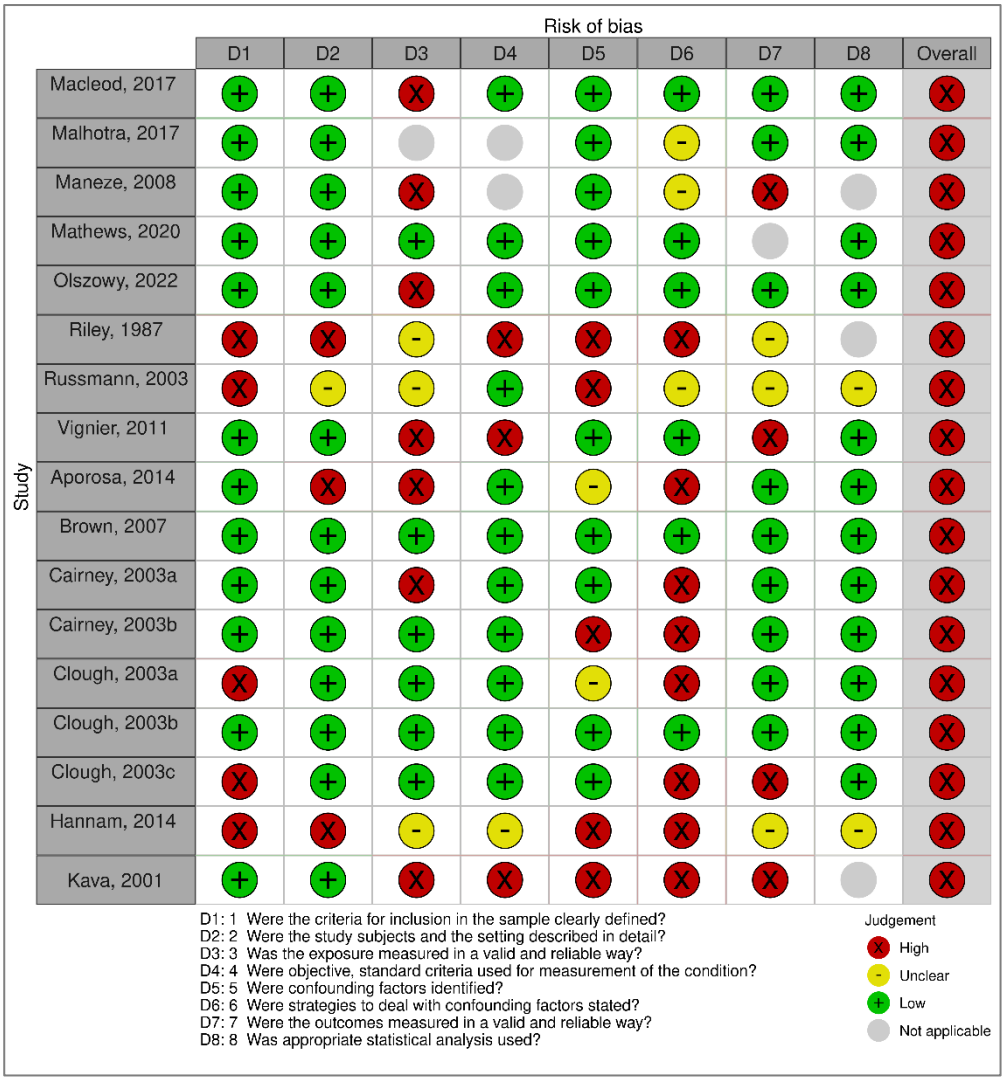
Appendix 17: Risk of Bias for Qualitative Studies



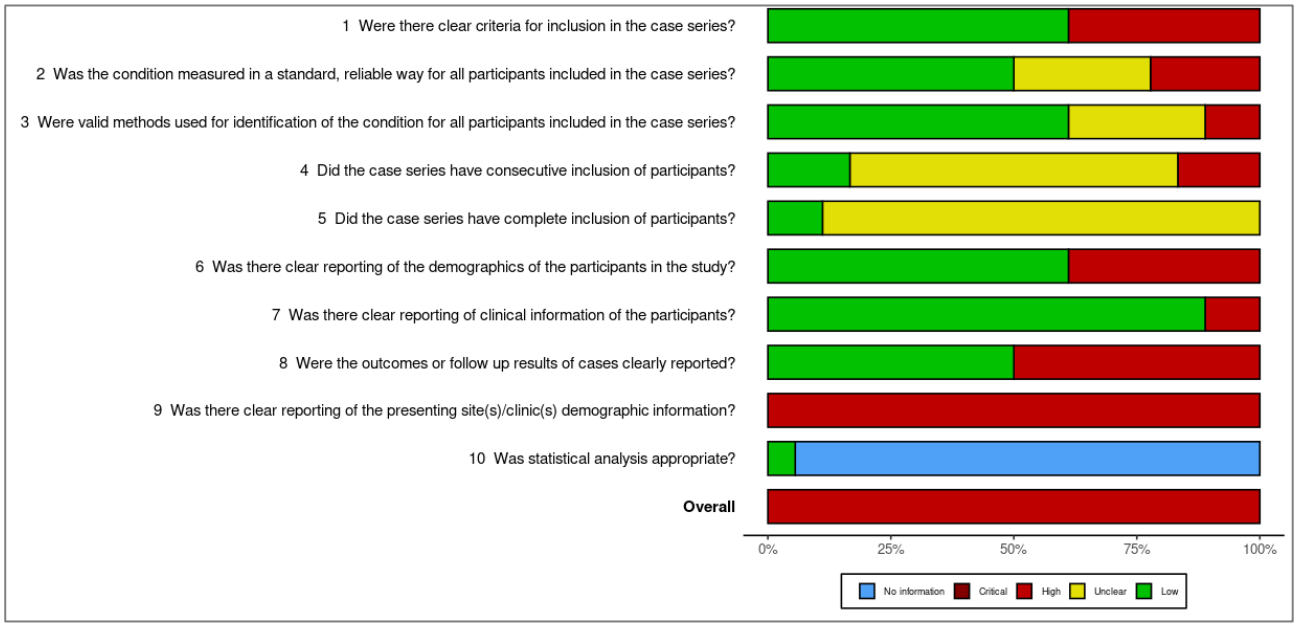


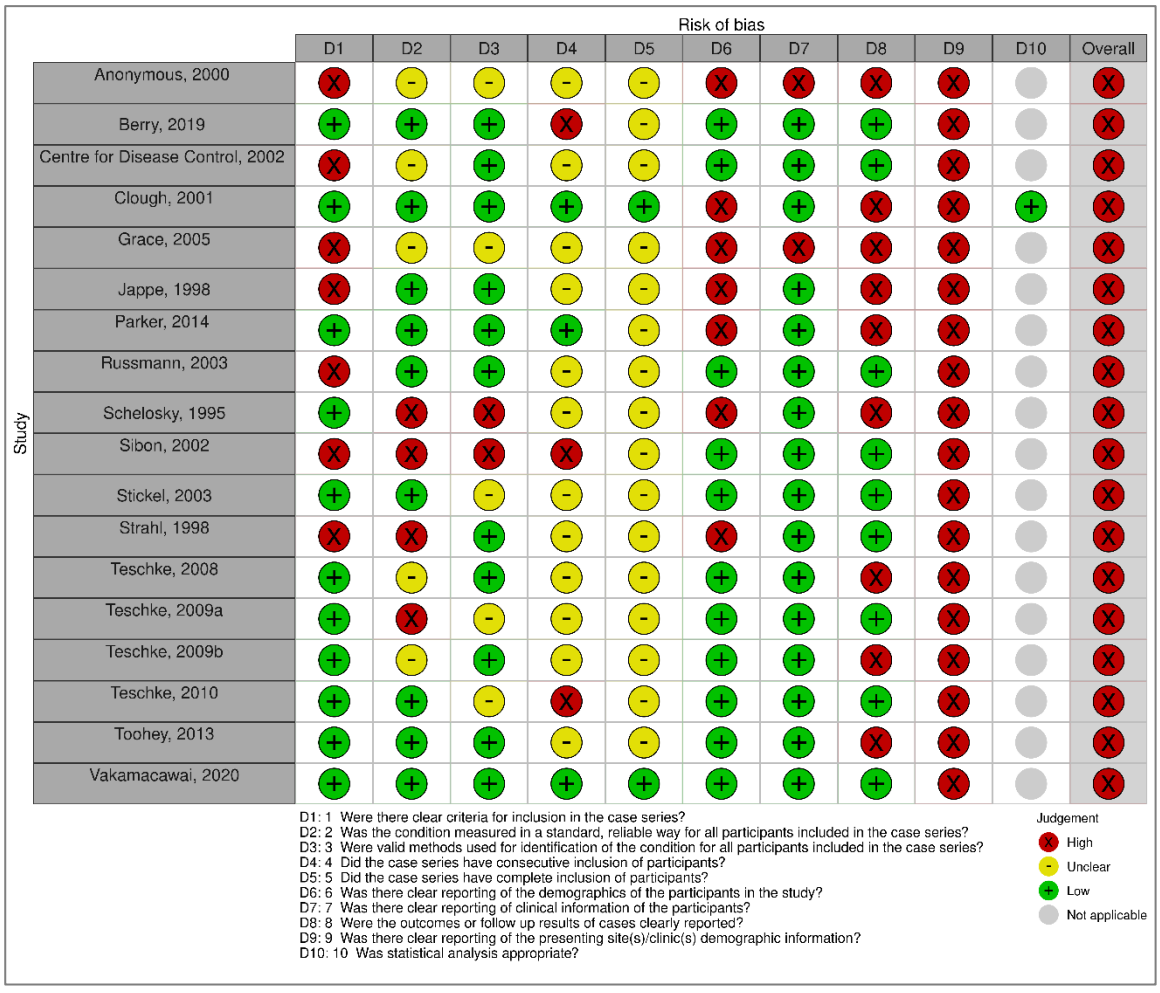
Appendix 18: Risk of Bias for Cross-sectional Studies



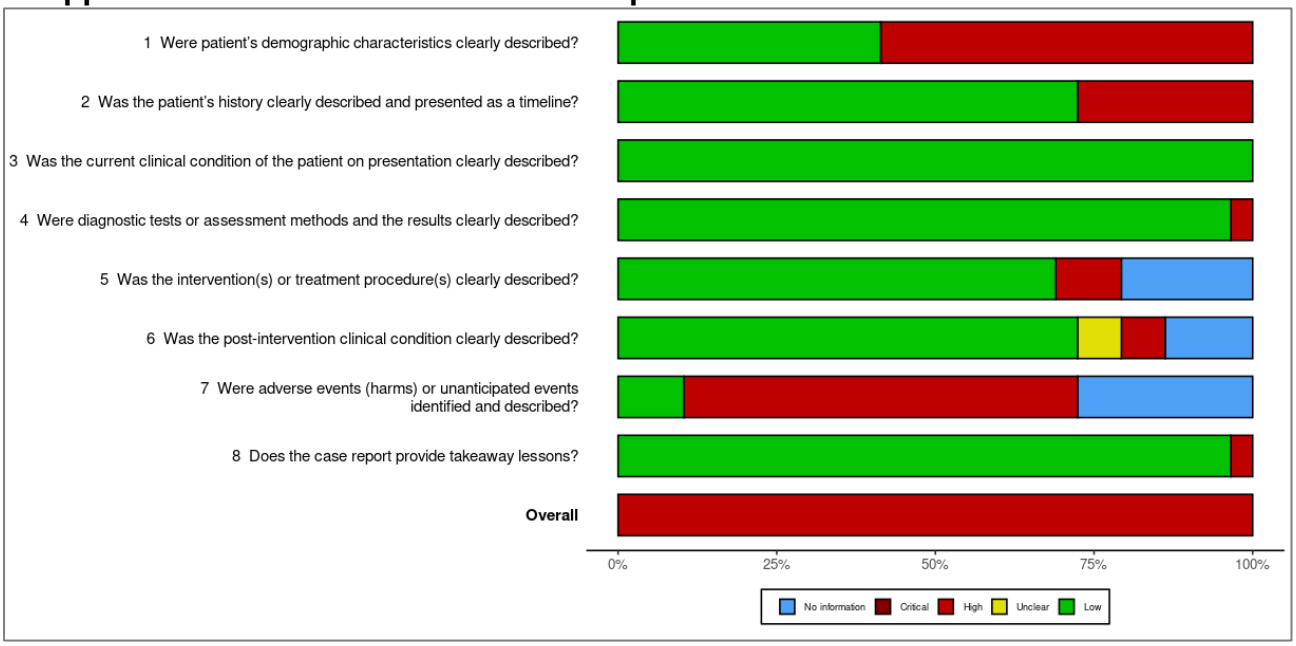


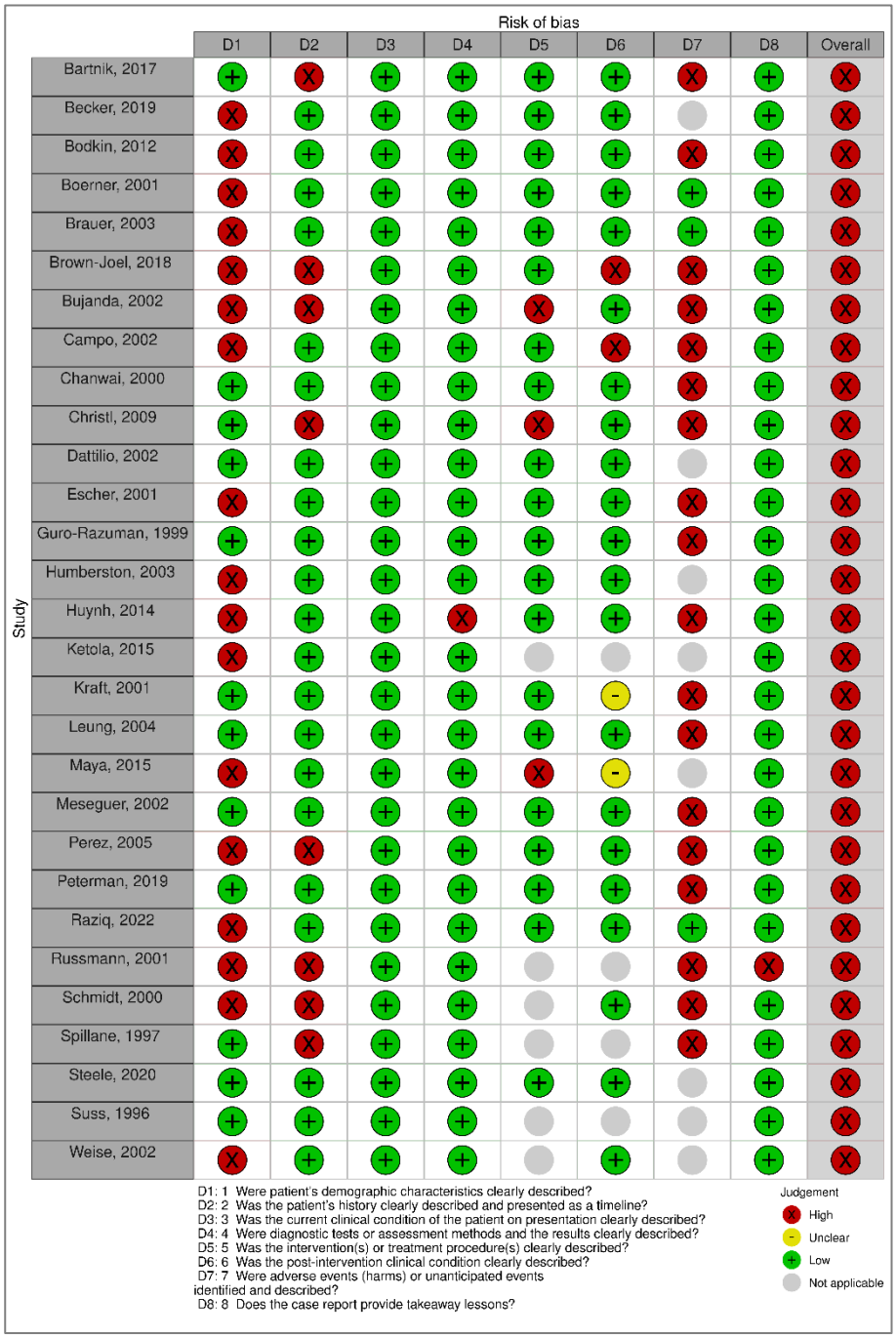
Appendix 19: Risk of Bias for Case Series



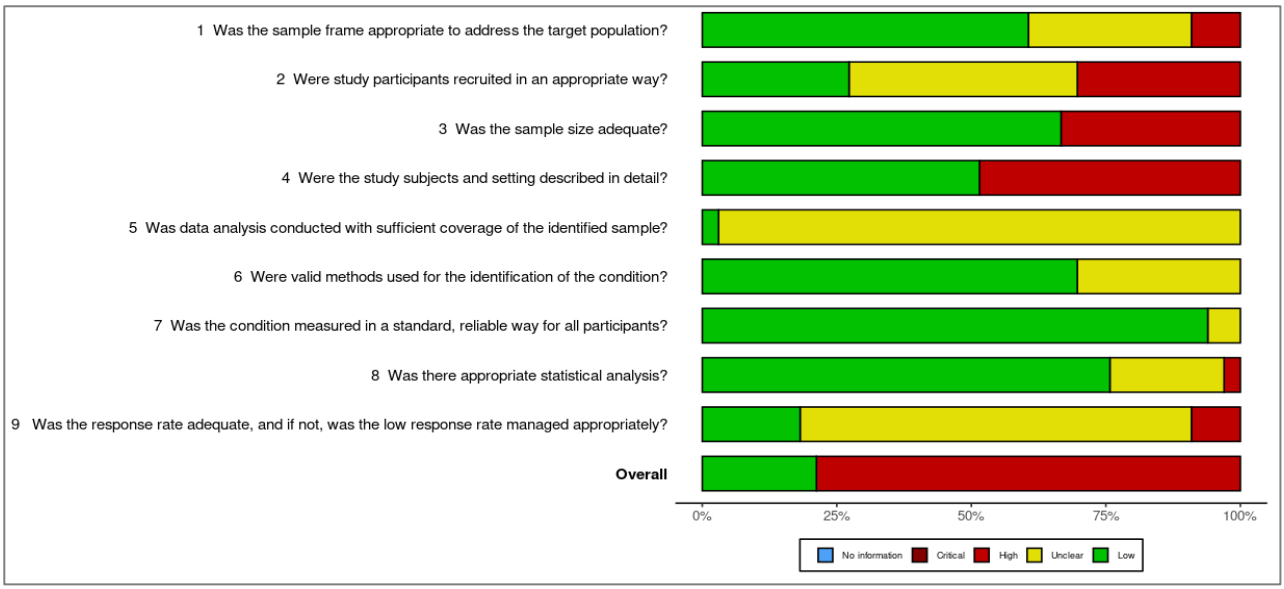


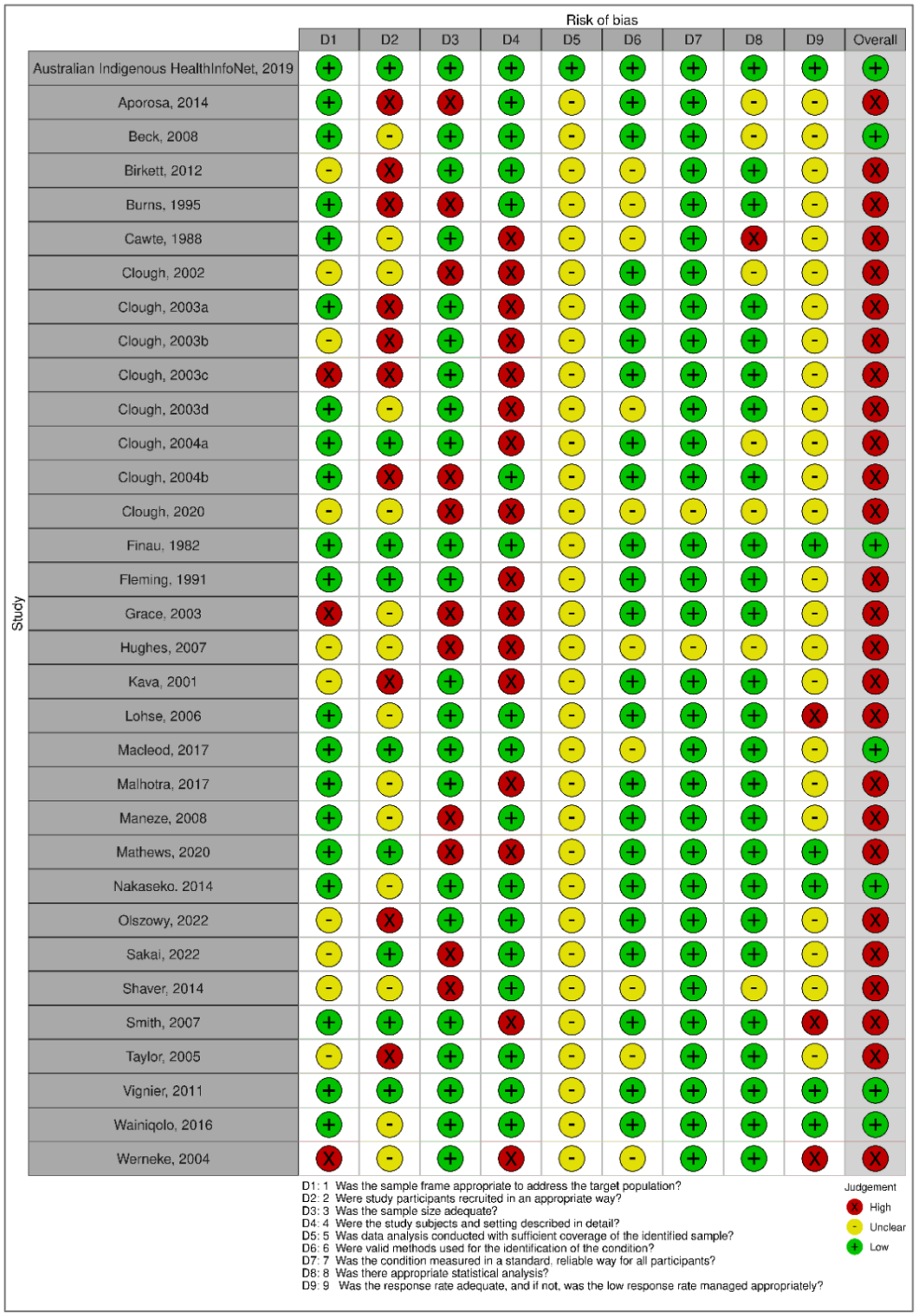
Appendix 20: Risk of Bias for Case Reports




Risk of bias
D1
D2
D3
D4
D5
D6
D7
D8
Overall
Study
Bartnik, 2017
Becker, 2019
Bodkin, 2012
Boerner, 2001
Brauer, 2003
Brown-Joel, 2018
Bujanda, 2002
Campo, 2002
Chanwai, 2000
Christl, 2009
Dattilio, 2002
Escher, 2001
Guro-Razuman, 1999
Humberston, 2003
Huynh, 2014
Ketola, 2015
Kraft, 2001
Leung, 2004
Maya, 2015
Meseguer, 2002
Perez, 2005
Peterman, 2019
Raziq, 2022
Russmann, 2001
Schmidt, 2000
Spillane, 1997
Steele, 2020
Suss, 1996
Weise, 2002
D1: 1 Were patient's demographic characteristics clearly described?
D2: 2 Was the patient's history clearly described and presented as a timeline?
D3: 3 Was the current clinical condition of the patient on presentation clearly described?
D4: 4 Were diagnostic tests or assessment methods and the results clearly described?
D5: 5 Was the intervention(s) or treatment procedure(s) clearly described?
D6: 6 Was the post-intervention clinical condition clearly described?
D7: 7 Were adverse events (harms) or unanticipated events identified and described?
D8: 8 Does the case report provide takeaway lessons?
Judgement
High
Unclear
Low
Not applicable

Appendix 21: Risk of Bias for Prevalence Studies




Risk of bias
D1
D2
D3
D4
D5
D6
D7
D8
D9
Overall
Study
Australian Indigenous HealthInfoNet, 2019
Aporosa, 2014
Beck, 2008
Birkett, 2012
Burns, 1995
Cawte, 1988
Clough, 2002
Clough, 2003a
Clough, 2003b
Clough, 2003c
Clough, 2003d
Clough, 2004a
Clough, 2004b
Clough, 2020
Finau, 1982
Fleming, 1991
Grace, 2003
Hughes, 2007
Kava, 2001
Lohse, 2006
Macleod, 2017
Malhotra, 2017
Maneze, 2008
Mathews, 2020
Nakaseko, 2014
Olszowy, 2022
Sakai, 2022
Shaver, 2014
Smith, 2007
Taylor, 2005
Vignier, 2011
Wainiqolo, 2016
Werneke, 2004
D1: 1 Was the sample frame appropriate to address the target population?
D2: 2 Were study participants recruited in an appropriate way?
D3: 3 Was the sample size adequate?
D4: 4 Were the study subjects and setting described in detail?
D5: 5 Was data analysis conducted with sufficient coverage of the identified sample?
D6: 6 Were valid methods used for the identification of the condition?
D7: 7 Was the condition measured in a standard, reliable way for all participants?
D8: 8 Was there appropriate statistical analysis?
D9: 9 Was the response rate adequate, and if not, was the low response rate managed appropriately?
Judgement
High
Unclear
Low

Appendix 22: Perceptions of impact of previous and current kava import restrictions

Variable	Response	n	%
Impact of previous restrictions on cultural connection or practices	*A lot/some positive impact*	8	3.4
	No impact	17	7.3
	A lot/some negative impact	208	89.3
Impact of previous restrictions on social or community connection	*A lot/some positive impact*	17	7.3
	No impact	18	7.7
	A lot/some negative impact	198	85.0
Impact of eased restrictions on cultural connection or practices	*A lot/some positive impact*	221	94.8
	No impact/A lot/some negative impact	12	5.2
Impact of eased restrictions on social or community connection	*A lot/some positive impact*	216	92.7
	No impact/A lot/some negative impact	17	7.3

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Includes all 234 eligible survey respondents

Appendix 23: Main reasons for importation of kava in personal luggage

Reasons for Importation	n	%	95% CI	
Personal Use	59	*86.8*	78.6	95.0
Share with Friends/Family	64	*94.1*	88.4	99.8
Share with Community	45	*66.2*	54.7	77.6
Favour for Friend/Family	32	*47.1*	35.0	59.1

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Response options not mutually exclusive
**In the 12 months before COVID-19 travel restrictions*
^Only includes those 68 reporting importing kava in their personal luggage

Appendix 24: Attitudes towards the Kava Pilot Program

Variable	Response	n	%
I want kava to be available to people in my community	*Disagree/Strongly Disagree/Neither Agree nor Disagree*	12	5.2
	Agree/Strongly Agree	221	94.8
I agree with the increase in kava limits in personal luggage from 2kg to 4kg	*Disagree/Strongly Disagree/Neither Agree nor Disagree*	14	6.0
	Agree/Strongly Agree	219	94.0
I would like further increases in the kava limits in personal luggage	*Disagree/Strongly Disagree/Neither Agree nor Disagree*	30	12.9
	Agree/Strongly Agree	203	87.1
I agree with allowing commercial importation of kava in powder and beverage forms	*Disagree/Strongly Disagree/Neither Agree nor Disagree*	23	9.9
	Agree/Strongly Agree	210	90.1
I would like commercial importation in other forms	*Disagree/Strongly Disagree/Neither Agree nor Disagree*	27	11.6
	Agree/Strongly Agree	206	88.4

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Includes all 234 eligible survey respondents

Appendix 25: Main reasons for using kava in the last 12 Months

Reasons for Kava Use	n	%	95% CI	
Social gatherings/recreation	170	*98.8*	97.2	100.5
Cultural/ceremonial purposes	160	*93.0*	89.2	96.9
Religious/spiritual reasons	47	*27.3*	20.6	34.0
Boredom	47	*27.3*	20.6	34.0
Health reasons	24	*14.0*	8.7	19.2
Better understanding cultural identity	61	*35.5*	28.3	42.7
Better relationships with community elders/leaders	68	*39.5*	32.2	46.9
Better traditional language skills	48	*27.9*	21.2	34.7
Ability to communicate with people	82	*47.7*	40.2	55.2
Opportunities to deal with challenges	13	*7.6*	3.6	11.5
New ways to extend my support network	33	*19.2*	13.3	25.1

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Response options not mutually exclusive
Only includes those 172 reporting using kava in the last 12 months

Appendix 26: Main health-related reasons for using kava in the last 12 Months

Health-Related Reason	n	%	95% CI	
Relaxation	24	*14.0*	8.7	19.2
Pain relief	11	*6.4*	2.7	10.1
Anxiety	8	*4.7*	1.5	7.8
Sleep/insomnia	12	*7.0*	3.1	10.8
Better sleep	12	*7.0*	3.1	10.8
As traditional medicine	10	*5.8*	2.3	9.3
As complementary medicine	5	*2.9*	0.4	5.4
Any health-related reason	24	*14.0*	8.7	19.2

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Response options not mutually exclusive
Only includes those 172 reporting using kava in the last 12 months

Appendix 27: Location kava usually used in the last 12 months

Location of Kava Use	n	%	95% CI	
Own home	156	*90.7*	86.3	95.1
Friend's/partner's house	151	*87.8*	82.9	92.7
Public gathering	117	*68.0*	61.0	75.0
Party at someones house	89	*51.7*	44.2	59.3
workplace	11	*6.4*	2.7	10.1
Kava drinking circle/club	50	*29.1*	22.2	35.9

Respondents are from a convenience sample; random sampling was not undertaken
Numbers may not add to total sample size due to missing values
Response options not mutually exclusive
Only includes those 172 reporting using kava in the last 12 months