

Inclusive by Design: An Implementation Framework for Culturally Responsive Research Advisory Panels

Mehak Batra

M.Batra@latrobe.edu.au

La Trobe University

Tafheem Wani

La Trobe University

Ali Lakhani

La Trobe University

Yibeltal Bekele

La Trobe University

Maria Papamichael

La Trobe University

Mel Spencer

Different Journeys

Rucha Joshi

Independent Public Health Researcher and Consultant

Batra Sean

Harmony Homecare

Dilara Kahraman

La Trobe University

Jamuna Parajuli

Didibahini Women's Network Australia

Hakan Akyol

Australian Multicultural Foundation

Bircan Erbas

La Trobe University

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Abstract

Background

Culturally and linguistically diverse (CALD) communities remain underrepresented in health research despite experiencing substantial health inequities. Community advisory panels are increasingly recommended to strengthen community engagement, cultural responsiveness, and research relevance; however, there is limited guidance on how to systematically establish, implement, and sustain advisory panels in CALD research contexts. This study aimed to develop and establish the content validity of an implementation framework to guide the implementation of culturally responsive advisory panels in CALD research settings.

Methods

A two-phase study was undertaken. First, a scoping-informed best-fit framework synthesis integrated concepts from five complementary frameworks spanning Indigenous governance, culturally grounded co-design, cross-cultural research, multicultural health research, and inclusive patient and public involvement. Framework development was supported by concept-to-source mapping and an audit trail documenting adaptation decisions. Second, a two-round modified Delphi study involving experts in multicultural health, implementation science, community engagement, public health, health service delivery, and consumer involvement was conducted to refine the framework and establish content validity through expert consensus. Participants rated framework components on a 9-point Likert scale and provided qualitative feedback to refine it.

Results

Framework synthesis identified five interconnected domains underpinning advisory panel implementation: (1) Foundational Principles of Cultural Partnership; (2) Community-Centred Panel Composition and Setup; (3) Culturally Responsive Engagement and Co-Design Processes; (4) Structural Supports and Resources for Implementation; and (5) Iterative Reflexivity, Evaluation, and Knowledge Translation. Most components achieved consensus in Round 1. Components relating to recruitment pathways, remuneration and recognition, and institutional support were refined following participant feedback and achieved consensus in Round 2. The framework conceptualises advisory panels as implementation strategies intended to strengthen acceptability, appropriateness, feasibility, fidelity, and sustainability of research conducted with CALD communities. An implementation checklist was developed to support practical application.

Conclusions

The CALD Advisory Panel Implementation Framework provides an implementation-focused approach to establishing, evaluating, and sustaining advisory panels in multicultural research contexts. By operationalising cultural partnership, co-design, power-sharing, and implementation support processes, the framework offers practical guidance for researchers, institutions, and funders seeking to strengthen meaningful community engagement and reduce tokenistic involvement. Future research should evaluate implementation, feasibility, and effectiveness across diverse settings.

Contributions to literature

- This study presents the first implementation framework specifically designed to guide the establishment, implementation, evaluation, and sustainability of culturally responsive advisory panels in culturally and linguistically diverse (CALD) research contexts.
- The framework integrates concepts from Indigenous governance, multicultural health research, cross-cultural research, inclusive patient and public involvement, and implementation science, translating these into practical implementation guidance.
- By conceptualising advisory panels as implementation strategies, the framework identifies mechanisms through which culturally responsive governance may enhance implementation outcomes, including acceptability, appropriateness, feasibility, fidelity, and sustainability.
- The accompanying operationalisation guide and implementation checklist provide practical tools to support consistent implementation and reduce tokenistic community engagement in multicultural health research.

INTRODUCTION

Global demographic shifts, driven by increasingly complex migration patterns, have transformed health systems, placing urgent pressure on research to meaningfully engage with multicultural and culturally diverse populations (1). In the Australian context, these populations are commonly referred to as culturally and linguistically diverse (CALD) communities and encompass non-Indigenous groups differentiated by ethnicity, language, ancestry, migration history, or religion (2). These communities represent a broad spectrum of cultural identities shaped by complex migration trajectories and sociocultural histories. Importantly, each cultural community carries its own social, political, and historical context that shapes distinct health beliefs, settlement experiences, and barriers to care. Despite this diversity, health research continues to under-represent multicultural communities, particularly those with limited English proficiency or recent settlement experiences (2). This under-representation can produce evidence that is insufficiently responsive to the needs, priorities, and lived experiences of multicultural communities, limiting the effectiveness, acceptability, and cultural safety of programs and services. Over time, such exclusion may reinforce longstanding patterns of mistrust, inequity, and disadvantage among communities that are already underserved by health systems (3).

Addressing these challenges requires governance models that embed the voices of multicultural communities at the centre of research design, implementation, and translation. Such approaches can help bridge the gap between the populations that health systems seek to serve and the evidence used to guide policy, practice, and service delivery. One strategy increasingly recognised for addressing these inequities is the establishment of community or consumer advisory panels. These panels bring together community members, cultural leaders, and other stakeholders to provide guidance across the research lifecycle, from priority setting and study design through to implementation and dissemination, ensuring that research reflects community needs and cultural contexts (4). At their best, advisory panels challenge traditional research hierarchies by redistributing power, enabling shared decision-making, and positioning community knowledge as an essential contributor to research quality, relevance, and implementation success. This emphasis on partnership, empowerment, and relationship-building is reflected in broader community-engaged research models, including the Communication, Awareness, Relationships and Empowerment (C.A.R.E.) Model, which identifies trust, community ownership, and advisory board involvement as key mechanisms for meaningful engagement among underserved populations (5.).

Increasingly, advisory panels are recognised as implementation strategies that can support the adaptation, acceptability, feasibility, and sustainability of research and interventions within culturally diverse settings. By facilitating culturally responsive decision-making, community partnership, and local adaptation, advisory panels can help ensure that research and interventions are better aligned with the needs and priorities of multicultural communities. Internationally, research funders increasingly mandate inclusive and community-engaged governance. The Australian Research Council's Diversity and Inclusion Framework (2024–2026) emphasises culturally responsive, co-designed research; similarly, the U.S. National Institutes of Health and the UK's National Institute for Health and Care Research require meaningful stakeholder and public involvement in funded projects (6–8). These policy shifts position community governance and stakeholder engagement as integral components of high-quality and implementable research rather than optional additions.

Despite growing recognition of their value, implementation guidance for advisory panels in multicultural research contexts remains underdeveloped. Evidence from multicultural health and implementation research suggests that when advisory panels are supported through culturally responsive engagement, trusted community partnerships, and meaningful opportunities for influence, they can strengthen trust, enhance intervention acceptability, and support the implementation of research findings in practice (9, 10). Nelson et al. (2025) further demonstrate that lived-experience advisory boards can enhance cultural relevance, relational trust, and community autonomy within research. However, these benefits are not automatic. Their review highlights that meaningful engagement requires ongoing relationship-building, adequate organisational support, and structures that actively prevent advisory fatigue and tokenistic involvement. Without such supports, advisory panels may have limited influence on research processes and outcomes, reducing their potential to contribute to sustainable and culturally responsive implementation.

Existing frameworks and ethical guidelines emphasise inclusion, cultural safety, and community governance; however, few provide integrated, context-specific guidance for translating these principles into sustainable advisory panel implementation. As a result, researchers are often required to operationalise advisory structures using broad engagement principles rather than structured implementation pathways. Nelson et al. (2024) argue that advisory boards often fail not because the concept itself is flawed, but because institutions underestimate the structural, relational, and organisational resources required to support meaningful community governance. This challenge is particularly pronounced in research involving multicultural and culturally diverse communities, where participants may differ substantially in their migration histories, linguistic backgrounds, settlement experiences, and sociocultural norms. As a result, generic engagement approaches may be insufficient to support culturally responsive and sustainable advisory panel implementation. Consequently, the absence of practical implementation guidance increases the risk of inconsistent implementation, tokenistic engagement, and reduced sustainability. In multicultural research contexts, these challenges may compromise meaningful participation, weaken community partnerships, and diminish the cultural responsiveness of research and services, ultimately limiting the effectiveness of advisory panels in supporting equitable and community-informed research.

To our knowledge, no operational framework exists to guide the implementation of advisory panels in multicultural research contexts, potentially limiting their ability to influence research design, governance, implementation processes, and outcomes. It also places pressure on research teams to interpret broad policy expectations (6–8, 11) without practical guidance on how to implement and sustain meaningful community involvement. Despite the breadth of existing frameworks in Indigenous research, co-design, patient and public involvement (PPI), and implementation science, none provide the operational guidance needed to implement advisory panels in multicultural research contexts. Existing models do address important key elements of engagement and governance, but few provide guidance on structuring multicultural advisory panels, recruiting and supporting multilingual and migrant members, embedding power-sharing processes, integrating advisory panels within organisational governance structures, and ensuring adequate remuneration and resourcing. Similarly, guidance relating to cross-cultural decision-making, culturally safe communication systems, prevention of tokenism, long-term sustainability, and evaluation remains fragmented across the literature rather than consolidated within a single implementation framework. This fragmentation represents a clear methodological and implementation gap.

This study aimed to develop an evidence-based implementation framework and establish its content validity through expert consensus for culturally responsive advisory panels in CALD research contexts. Using framework synthesis and a two-round modified Delphi process, we sought to establish expert consensus on the core components required to implement, sustain, and evaluate culturally responsive advisory panels in CALD research contexts. Conceptually, we position CALD advisory panels not merely as governance structures, but as implementation strategies that operationalise community partnership, cultural responsiveness, and shared decision-making to support the successful adoption and sustainment of research and interventions in diverse settings.

METHODS

This study comprised two sequential phases: (1) development of a draft CALD Advisory Panel Implementation Framework through a scoping-informed best-fit framework synthesis; and (2) refinement of the framework and establishment of content validity through a two-round modified Delphi process involving multidisciplinary experts.

Phase 1: Framework development using a scoping-informed best-fit framework synthesis

We developed the framework using a scoping-informed best-fit framework synthesis approach. The purpose of the search was not to conduct an exhaustive scoping review, but rather to identify conceptually rich and operationally relevant frameworks capable of informing the development of culturally responsive advisory panels. Searches were undertaken to identify and map existing evidence relevant to the implementation of culturally responsive advisory panels (12), while best-fit framework synthesis techniques were used to iteratively integrate, compare, and refine governance and implementation components across selected frameworks (13). An initial scoping search identified conceptually relevant frameworks from Indigenous research, multicultural health research, and patient and public involvement (PPI) literatures. A best-fit framework synthesis was then undertaken to derive an initial analytic structure from the selected frameworks, which was iteratively refined through constant comparison. This process enabled the synthesis of transferable governance and implementation components from diverse but complementary literatures into a coherent framework for culturally responsive advisory panels in CALD research contexts.

Information sources and search strategy.

Searches were undertaken to identify candidate frameworks relevant to the implementation of culturally responsive advisory panels. We searched Scopus, Web of Science, and PubMed from database inception to October 2025 and conducted an updated search in June 2026 using the original search strategy to identify any newly published frameworks. To maximise coverage of policy, governance, and practice-based frameworks, we also searched relevant organisational repositories and grey literature sources, including national research guidelines, government reports, and non-government organisation publications. The full search strategy, developed and reported in accordance with PRISMA-S recommendations (14), is provided in Supplementary Material (Table S1). The updated search did not identify any additional frameworks that met the inclusion criteria.

Eligibility criteria and selection process.

Framework selection was purposive rather than exhaustive and aimed to identify conceptually rich and operationally relevant frameworks capable of informing the implementation of culturally responsive advisory panels. Frameworks were eligible for inclusion if they provided operational or procedural guidance relevant to culturally diverse community governance and to the establishment or operation of

advisory panels, including guidance on roles, decision-making processes, power-sharing mechanisms, recruitment, support structures, and community engagement practices. Frameworks were excluded if they lacked cultural specificity or articulated ethical principles without providing actionable procedural guidance for advisory panel implementation.

Titles and abstracts were screened independently by two reviewers (MB and YB), with disagreements resolved through discussion and consultation with a third reviewer (BE) where required. Framework identification, screening, and reporting were informed by PRISMA-ScR recommendations to enhance transparency in the framework selection process. Of 44 candidate frameworks identified, 36 were excluded during title and abstract screening due to insufficient cultural specificity (n = 22) or lack of operational guidance (n = 14). Eight full-text frameworks were assessed for eligibility, with three excluded because they focused primarily on ethical principles without implementation guidance (n = 2) or on service-specific co-design processes that did not provide transferable governance mechanisms for advisory panel implementation (n = 1). Five frameworks were selected as the most relevant sources for framework development based on their cultural specificity, operational detail, and relevance to advisory panel governance and implementation. Additional implementation science, co-design, ethics, and policy frameworks were reviewed to contextualise the findings and inform the implementation lens applied throughout framework development (Table S2).

Broader implementation and co-design frameworks, including CFIR (Consolidated Framework for Implementation Research)(15), EPIS (Exploration, Preparation, Implementation, Sustainment) (16), RE-AIM/PRISM (17), the Health Equity Implementation Framework (HEIF) (18), and Experience-Based Co-Design approaches (19), were reviewed but not selected as primary source frameworks because their focus is implementation assessment, implementation processes, health equity, evaluation, or service redesign rather than establishment, governance, of culturally responsive advisory panels. Nevertheless, these frameworks informed the implementation science lens applied throughout the synthesis and contributed to the conceptualisation of implementation pathways and outcomes within the final framework.

Definitions

Key terms were defined a priori to guide the synthesis. CALD is used as an Australian policy term referring to non-dominant ethnocultural communities, including migrant and minority populations that differ from the societal mainstream in language, culture, religion, ancestry, or migration history. Internationally, analogous terms include ethnic minority communities, migrant communities, racialised populations, and culturally diverse populations. Community is defined as a group sharing a common identity, experience, or affiliation, not necessarily a geographic location. An advisory panel refers to a formal group of non-researcher stakeholders, including community members, patients or consumers, and cultural leaders, convened to provide structured input into research priorities, design, implementation, and dissemination (20); encompasses community advisory boards, consumer advisory groups, and steering committees with community representation.

Analytic lens and implementation outcomes.

We applied an implementation science lens throughout the synthesis, conceptualising advisory panels as implementation strategies intended to improve the cultural fit, acceptability, appropriateness, and uptake of research within CALD contexts by strengthening governance, trust, community partnerships, and community relevance (21). We drew on established implementation outcome constructs, including acceptability, appropriateness, feasibility, fidelity, and sustainability, to articulate potential mechanisms through which advisory panels may influence research implementation. Specifically, power-sharing and co-design processes were expected to enhance acceptability and appropriateness; multilingual and culturally safe engagement mechanisms to improve feasibility; and integration of advisory panels within organisational governance structures to strengthen fidelity and sustainability. These hypothesised pathways informed the organisation and refinement of the final framework.

Synthesis, traceability, and reflexivity.

Synthesis involved an iterative, collaborative identification of recurring concepts across the five frameworks, coded in a priori analytic structure and refined through constant comparison. Recurring themes included reflexivity, power-sharing, multilingual engagement, capacity-building, governance integration, and sustainability.

To ensure transparency, a concept-to-source mapping table and an audit trail documenting key abstraction and synthesis decisions (Table S3), consistent with recommendations for qualitative synthesis reporting (22). Methodological tensions were addressed through reflexive discussion, retention of culturally specific concepts where appropriate, and transparent reporting of boundaries to transferability. Concepts such as relational accountability, power-sharing, cultural safety, community authority, and partnership were assessed for transferability across culturally diverse research contexts and informed the development of the framework. However, Indigenous sovereignty, relationships to Country, and self-determination carry distinct political, legal, historical, and cultural meanings grounded in Indigenous rights; these were not generalised to CALD contexts, with the framework drawing instead on broader principles of community leadership, respect, and culturally responsive engagement.

Framework refinement and coherence testing.

Following synthesis, components were organised into a coherent implementation framework comprising foundational principles, operational processes, and outcome-oriented elements. Two implementation phases emerged inductively across the included frameworks: (1) planning and preparation (pre-implementation) and (2) implementation, evaluation, and sustainability (implementation and post-implementation). These phases provided the organising structure for the final framework.

The draft framework was iteratively reviewed against the original source materials to ensure that key concepts and procedural guidance were retained and accurately represented. Where we identified gaps or inconsistencies, the source literature was revisited and framework components refined accordingly.

Given the focus on advisory panels, community involvement, and governance structures, reporting and interpretation were informed by the Guidance for Reporting Involvement of Patients and the Public (GRIPP2) framework (23). Particular attention was given to roles and responsibilities, power-sharing, anti-tokenism, capacity-building, remuneration, and impact evaluation. Conceptually, the five domains operate through distinct but interconnected implementation pathways. Domains 1 and 2 establish the relational and governance foundations necessary for acceptability and appropriateness. Domain 3 drove the mechanism through which advisory panels influence research adaptation and implementation processes. Domain 4 focuses on organisational resources required to support fidelity and sustained engagement, while Domain 5 supports ongoing evaluation, adaptation, and sustainability.

Phase 2: Modified Delphi Consensus Process

Following framework development, a two-round modified Delphi study was undertaken to establish its content validity by assessing the clarity, relevance, and importance of framework components. The Delphi technique is a structured consensus-building method that systematically gathers and refines expert opinion through iterative rating and feedback (24). Experts across multicultural health, implementation science, community engagement, public health, health service delivery, and consumer involvement were invited to participate. In each round, participants rated components using a 9-point Likert scale and provided qualitative feedback; components not meeting predefined consensus criteria were revised and re-presented in Round 2.

Delphi participants and recruitment

Purposive sampling was used to recruit experts from academic, clinical, community, policy, and consumer sectors. Participants were identified through professional networks and demonstrated experience in multicultural health, community engagement, implementation science, health service delivery, or consumer involvement. Invitations were distributed via email and participation was voluntary. The panel comprised eleven experts across implementation science multicultural health community engagement, consumer involvement health services, and academic research ($n = 2$ per domain, except health services $n = 1$). Expertise categories were not mutually exclusive, and several participants contributed expertise across multiple domains.

Delphi Consensus criteria and analysis

Consensus criteria were established a priori and prospectively registered through the Open Science Framework. Consensus was defined as $\geq 70\%$ of participants rating an item between 7 and 9 and a median rating of at least 7 (25); items not meeting this threshold were revised based on qualitative feedback and re-evaluated in Round 2.

For each component descriptive statistics were calculated including median ratings, interquartile ranges (IQRs), and percentage agreement. Free-text responses were reviewed to identify areas requiring clarification, modification, or additional operational detail, with all inter-round changes documented. to maintain transparency, auditability, and methodological rigour.

Table 1

Source Frameworks Included in the Framework Synthesis and Their Relevance to CALD Advisory Panel Implementation

Framework	Origin / Context	Core Purpose	Key Principles / Components Relevant to CALD Advisory Panels	Reason for Inclusion in Synthesis
He Pikinga Waioara (HPW) Implementation Framework (Oetzel et al., 2020; Rarere et al., 2019)	Indigenous Māori implementation science	To guide culturally grounded design and implementation of health interventions	Cultural centredness Indigenous self-determination, Community engagement Systems thinking Integrated knowledge translation	Provides foundational principles for co-governance, community authority, and partnership that can be adapted to CALD advisory structures
Culturally Grounded Policy Co-Design (“Basket Weaving”) Framework (Fono et al., 2025)	Indigenous policy co-design	To support co-design of policies with Indigenous communities through relational, culturally grounded processes	Governance (“Hands”) Worldview (“Core”) Dialogue (“Grass”) Shared vision (“Mind”) Resources & power (“Needle”)	Offers explicit relational processes, power-sharing structures, and co-design mechanisms relevant to advisory panel governance
Cross-Cultural Qualitative Research Framework (McDonald et al., 2025)	Cross-cultural health research methodology	To guide culturally safe, reflexive, multilingual, and equitable qualitative research processes	Reflexivity Cultural safety Multilingual planning Equitable partnership Attention to communication and context	Directly relevant for setting up culturally safe procedures, communication, and reflexive practices within CALD advisory panels
Preferred Practices in Multicultural Health Research (Woodland et al., 2021)	Multicultural health research practice	To outline best practices for doing culturally competent research in multicultural societies	Culturally competent teams Community participation Equity and safety Working with bicultural/bilingual staff	Highlights the need for diverse representation, safe engagement, and inclusion — all core requirements for CALD advisory panel formation

Framework	Origin / Context	Core Purpose	Key Principles / Components Relevant to CALD Advisory Panels	Reason for Inclusion in Synthesis
RE-EQUIPP Inclusive PPI Framework (Mitchell et al., 2024)	Patient & Public Involvement (PPI)	To provide equity-focused strategies for involving under-represented population groups in research	Inclusion & diversity Accessible engagement Anti-tokenism Support & capacity building Relationship-centred processes	Provides detailed operational guidance for making governance structures inclusive, accessible, and equitable – highly transferable to CALD advisory panel design

Results

The CALD Advisory Panel Implementation Framework

Synthesis of the five included frameworks yielded the CALD Advisory Panel Implementation Framework, comprising five interconnected domains that collectively support the implementation, operation, evaluation, and sustainability of advisory panels in CALD research contexts (Fig. 1). Drawing on indigenous governance, multicultural health research, cross-cultural research methodology, PPI, and implementation science, the framework provides operational guidance for culturally responsive advisory panel practice. The five domains are: (1) Foundational Principles of Cultural Partnership; (2) Community-Centred Panel Composition and Setup; (3) Culturally Responsive Engagement and Co-Design Processes; (4) Structural Supports and Resources for Implementation; and (5) Iterative Reflexivity, Evaluation, and Knowledge Translation.

Domain 1. Foundational Principles of Cultural Partnership

The first domain establishes the relational and ethical foundations underpinning advisory panel implementation. Core elements include cultural centredness, mutual trust and reciprocity, cultural safety, and cultural humility. These concepts recurred across the He Pikinga Waiora framework, the Basket Weaving framework, and multicultural health research literature as foundational to equitable partnerships, community authority, and meaningful engagement (2, 26, 27). Collectively, these principles support implementation outcomes including acceptability, appropriateness, and trust.

Domain 2. Community-Centred Panel Composition and Setup

Domain 2 addresses the establishment and governance of advisory panels encompassing culturally representative membership, recruitment through trusted community networks, clearly defined roles and responsibilities, training and orientation processes, and integration of advisory panels within organisational governance structures. Informed by multicultural health research, inclusive PPI frameworks, and culturally grounded co-design approaches, these elements collectively support the credibility, legitimacy, capacity building, and shared governance while enabling meaningful participation from diverse communities (2, 27, 28).

Domain 3. Culturally Responsive Engagement and Co-Design Processes

Domain 3 addresses how advisory panels are engaged throughout the research lifecycle, encompassing early and ongoing involvement, culturally appropriate communication, multilingual engagement, shared decision-making, and adaptive co-design processes. Consistently identified across cross-cultural research, Indigenous co-design, and inclusive involvement frameworks as mechanisms for ensuring that research priorities, methods, and outputs remain responsive to community needs and cultural contexts (1, 27, 28). This domain represents the primary mechanism through which advisory panels influence research implementation and cultural adaptation.

Domain 4. Structural Supports and Resources for Implementation

Domain 4 recognises that effective advisory panel implementation requires dedicated organisational support and resources, including remuneration, funding, coordination support, capacity-building opportunities, institutional commitment, and accessible communication infrastructure. Consistently identified as necessary conditions for sustaining engagement, supporting equitable participation, and reducing the risk of tokenistic involvement (2, 28). This domain reflects the structural requirements necessary to support long-term implementation and sustainability.

Domain 5. Iterative Reflexivity, Evaluation, and Knowledge Translation

Domain 5 focuses on continuous improvement, accountability, and Knowledge translation, encompassing reflexive practice, partnership evaluation, transparent reporting of advisory contributions, co-dissemination, and sustainability planning. Drawing on cross-cultural research, implementation principles, and participatory evaluation approaches that components position advisory panels as active contributors to knowledge translation and implementation efforts and not just advisory mechanisms operating during project development while ensuring ongoing learning accountability and community benefit (1, 26, 28).

Table 2 maps common implementation challenges in CALD research settings mistrust, under-representation, language barriers, tokenistic engagement, and limited organisational support, to

corresponding framework components, mechanisms of action and anticipated outcomes. Through trust-building, shared decision-making, cultural adaptation, and accountability, the framework is hypothesised to improve acceptability, appropriateness, feasibility, fidelity, penetration, and sustainability (Table 2).

Table 2
Determinants, Framework Components and Expected Implementation Outcomes

Implementation Challenge	Framework Response	Mechanism	Outcome
Mistrust of research	Foundational principles	Trust-building and cultural safety	Acceptability
Limited representation	Community-centred composition	Inclusive membership and governance	Appropriateness
Language barriers	Multilingual engagement	Improved communication and participation	Feasibility
Tokenistic involvement	Shared decision-making and governance integration	Meaningful influence on decisions	Fidelity
Lack of organisational support	Structural supports and resources	Consistent engagement infrastructure	Sustainability
Poor translation into practice	Reflexivity and knowledge translation	Continuous learning and dissemination	Penetration, sustainability

Delphi Consensus Process

Round 1

Eleven of the fifteen invited experts completed all survey items. Overall, participants expressed strong support for the proposed framework, with most components achieving consensus during Round 1. High agreement was observed for culturally representative membership, clear role descriptions, culturally tailored engagement methods, documented pathways for advisory influence, flexible engagement processes, dedicated coordinator support, and transparent feedback mechanisms, each achieving 100% agreement. In addition, high agreement was also observed for early community involvement, shared decision-making, cultural safety and reflexivity, capacity-building, evaluation, and co-dissemination components (90% agreement).

Qualitative feedback supported the framework while identifying areas requiring operational clarity particularly around governance authority and decision-making processes, authentic community representation, recruitment pathways, remuneration and resourcing, and institutional support. One component, recruitment through trusted community channels (63.6% agreement; median = 7), did not meet the predefined consensus threshold. Two additional components, remuneration and recognition (72.7% agreement; median = 7) and institutional recognition of advisory panels (72.7% agreement;

median = 8), met the quantitative criteria but were revised and re-evaluated in Round 2 because qualitative feedback indicated a need for clarification and contextual refinement. (Table 3).

Table 3
Round 1 Delphi ratings and items revised for Round 2

Component	Item	Median	Agreement (%)	IQR	Round 2 Revision Required
1. Foundational Principles	Cultural centredness and shared governance	8.0	81.8	2.00	No
	Early community involvement	9.0	90.9	2.00	No
	Shared decision-making processes	9.0	90.9	1.75	No
	Cultural safety and reflexivity	8.0	90.9	1.50	No
2. Panel Composition & Setup	Representative membership	9.0	100	0.00	No
	Recruitment through trusted community channels	7.0	63.6	2.75	Yes
	Clear role descriptions	9.0	100	0.00	No
	Orientation and capacity building	8.0	90.9	1.75	No
	Governance integration	8.0	81.8	1.75	No
3. Engagement & Co-design	Early co-design involvement	8.0	90.9	1.75	No
	Culturally tailored engagement	9.0	100	1.00	No
	Documented influence pathways	8.5	100	1.00	No
	Flexible engagement processes	8.0	100	1.75	No
4. Structural Supports	Translation and communication resources	8.5	90.9	1.75	No
	Dedicated coordinator support	8.5	100	1.75	No
	Remuneration and recognition	7.0	72.7	2.75	Yes*

Note. Consensus defined as $\geq 70\%$ of participants rating an item 7–9 and median ≥ 7 . *Items met quantitative consensus criteria but were revised and re-evaluated in Round 2 because qualitative feedback indicated a need for clarification and contextual refinement.

Component	Item	Median	Agreement (%)	IQR	Round 2 Revision Required
	Institutional recognition	8.0	72.7	2.75	Yes*
5. Reflexivity, Evaluation & KT	Process evaluation	8.0	90.9	1.00	No
	Transparent feedback mechanisms	8.5	100	1.00	No
	Co-dissemination and knowledge translation	8.5	90.9	1.00	No
	Sustainability planning	8.0	81.8	2.00	No
Global Assessment	Framework coherence	8.0	81.8	1.00	No
	Operational utility	8.0	81.8	1.00	No
Note. Consensus defined as $\geq 70\%$ of participants rating an item 7–9 and median ≥ 7 . *Items met quantitative consensus criteria but were revised and re-evaluated in Round 2 because qualitative feedback indicated a need for clarification and contextual refinement.					

Round 2

Ten experts participated in Round 2 reviewing the three revised framework components. All met predefined consensus criteria, providing further support for the framework's content validity and perceived relevance. In particular, revised components relating to recruitment through trusted community channels, remuneration and resourcing, and institutional recognition of advisory panel contributions achieved consensus following modification (Table 4).

Participants affirmed the framework's overall structure, practical utility, and relevance to CALD research contexts and no domains were removed during the Delphi process.

Final Framework

The final CALD Advisory Panel Implementation Framework comprises five interconnected domains spanning planning and preparation, implementation, evaluation, and sustainability derived through integration of the He Pikinga Waiora Implementation Framework, Basket Weaving Framework, Cross-Cultural Research Framework, Preferred Practices in Multicultural Health Research, and RE-EQUIPP Inclusive PPI Framework. Collectively, these sources contributed principles relating to governance, cultural safety, co-design, implementation support, reflexivity, evaluation, and sustainability.

The framework provides an evidence-informed approach for establishing, supporting, and sustaining culturally responsive advisory panels within CALD research contexts positioning advisory panels as implementation strategies that enhance acceptability, appropriateness, feasibility, fidelity, and sustainability while promoting meaningful community partnership and reducing the risk of tokenistic engagement.

To support translation into practice, two implementation resources were developed: (1) an operationalisation guide providing practical examples for each framework component (Supplementary Appendix S1) and (2) a CALD Advisory Panel Implementation Checklist to support implementation planning, monitoring, and quality improvement (Supplementary Appendix S2).

Table 4
Framework modifications following Round 1 Delphi feedback

Original Item	Key Feedback	Revised Item
Recruitment should occur through trusted community channels rather than open generic calls alone.	Concern that exclusive reliance on community channels may limit broader representation.	Recruitment processes should prioritise trusted community pathways while supporting broad and inclusive representation.
Advisory panel members should receive appropriate remuneration and recognition for their contributions.	Variability in organisational resources and differing expectations regarding compensation.	Advisory panel members should receive appropriate remuneration and recognition that reflects the time, expertise, and contributions provided, within available organisational and funding contexts.
Institutions should formally recognise advisory engagement within governance and research systems.	Variability in organisational readiness and governance structures.	Institutions should support and recognise advisory engagement through governance structures, policies, and organisational processes.
Shared governance wording	Clarification requested regarding advisory versus executive governance roles.	Wording revised to emphasise contribution to governance discussions while maintaining an advisory role.
Governance integration	Concerns regarding excessive bureaucracy.	Wording revised to emphasise governance integration while maintaining flexibility.

The final two modifications were minor wording refinements informed by qualitative feedback and were not formally re-rated in Round 2 because the original items had already met consensus criteria.

Discussion

While community advisory panels are frequently recommended as mechanisms for enhancing community engagement and cultural responsiveness in research, practical guidance for their implementation in multicultural and culturally diverse contexts remains limited. The CALD Advisory Panel Implementation Framework addresses this gap by synthesising evidence from complementary frameworks into a cohesive, implementation-focused approach. The framework was developed through a scoping-informed best-fit framework synthesis and subsequently refined and content-validated through a two-round modified Delphi process involving multidisciplinary experts. Rather than replacing existing frameworks, it integrates their complementary strengths into a practical implementation tool.

The He Pikinga Waiora (HPW) framework provided foundational principles of cultural centredness, self-determination, systems thinking, and integrated knowledge translation (26, 29). The Basket Weaving framework contributed a relational governance lens emphasising balance, dialogue, accountability, and shared power (27). McDonald et al.'s (2025) cross-cultural qualitative research framework informed the framework's emphasis on reflexivity, cultural safety, and multilingual research planning, while Woodland et al.'s (2021) preferred practices in multicultural health research strengthened the focus on culturally competent teams, equity, and community partnership. The RE-EQUIPP framework further highlighted the importance of inclusion, resourcing, coordination, and evaluation as essential rather than optional components of meaningful engagement (28). Although broader in scope than any individual source framework, the resulting framework provides operational guidance for implementing culturally responsive advisory panels while remaining compatible with Indigenous-led and other community-governed research approaches.

Strengths and Novel Contributions:

A central strength of the framework is its comprehensiveness, spanning abstract principles through to concrete implementation actions across the full advisory panel lifecycle, from establishment and recruitment to knowledge translation and sustainability. This breadth explicitly prompts steps that are often overlooked in community-engaged research, such as relationship-building, governance integration, resourcing, and the operationalisation of advisory input, thereby reducing the risk of tokenistic engagement. Each component is grounded in existing frameworks and empirical literature, enhancing the framework's credibility and facilitating uptake across research, clinical, and community settings. The framework is also deliberately flexible. While it provides a logical progression for implementation, it is not intended as a prescriptive checklist. Adaptation is encouraged to reflect local contexts and community priorities, provided that core principles of cultural partnership, reciprocity, shared leadership, and respect are maintained.

The framework's novel contribution lies in its integration, operationalisation, and validation of culturally responsive advisory panel implementation. Rather than proposing new engagement principles, it consolidates concepts from Indigenous implementation science, multicultural health research, cross-cultural methodology, and inclusive patient and public involvement into a coherent, expert-endorsed implementation framework. Importantly, the framework moves beyond high-level principles by translating concepts such as power-sharing, community governance, and cultural safety into practical implementation actions. For example, power-sharing is operationalised through co-chairing arrangements, shared authorship practices ("sharing the pen"), consensus-based decision-making processes, and structured accountability mechanisms such as "You said, we did" feedback logs. Similarly, partnership quality is embedded through reflexive monitoring, process evaluation, and ongoing review mechanisms, creating feedback loops that are rarely systematised within community engagement frameworks.

A further strength of this study is the development of both a conceptual framework and accompanying implementation tools. In addition to the framework itself, we developed an operationalisation guide (Supplementary Appendix S1) and an implementation checklist (Supplementary Appendix S2) to support implementation planning, readiness assessment, fidelity monitoring, and consistent application across diverse CALD research settings. Together, these resources increase the framework's practical utility and support its translation from conceptual guidance into routine research practice.

Limitations and Challenges:

Implementing the framework requires substantial time, relational investment, and financial resources, not always prioritised in conventional research budgets. This highlights a broader advocacy issue: funders and institutions must recognise advisory partnership work as integral to rigorous research rather than an optional addition (2). Community fatigue is another concern. Marginalised groups are frequently over-consulted without experiencing tangible benefits meaningful impact ultimately depends on researchers honouring commitments. Failure to do so risks reinforcing mistrust. Structural power imbalances also persist even with shared decision-making mechanisms, power can be re-centralised unless actively monitored through ongoing reflexivity and, where appropriate, external facilitation or community accountability mechanisms.

At a methodological level, framework synthesis cannot fully capture the cultural specificity and relational nuance embedded within each source framework. Conceptual transferability may dilute contextual depth, and alternative teams, shaped by different positionalities, might prioritise different elements. Importantly, this framework is not a substitute for direct engagement with multicultural communities; rather, it provides a theoretically grounded starting point that should be adapted through local cultural governance processes. The Delphi process established expert consensus rather than empirical evidence of implementation effectiveness, and the framework will require adaptation across diverse cultural, linguistic, organisational, and settlement contexts. Finally, while concepts from Indigenous governance frameworks informed framework development, Indigenous sovereignty, relationships to Country, and self-determination were not transferred directly to multicultural contexts. Future research should evaluate framework implementation and associated outcomes, including acceptability, appropriateness, feasibility, fidelity, penetration, and sustainability, across diverse community and organisational settings.

Transferability and Contextualisation:

Although developed and content-validated within multicultural health research contexts involving CALD communities, the framework may have broader relevance for other equity-seeking populations, provided appropriate contextual adaptation is undertaken. For Indigenous communities, it may complement but not replace existing governance structures and protocols, such as community research agreements or Indigenous-led approval processes. For other communities (e.g., disability, LGBTQ+, or socioeconomically disadvantaged groups), the core components, respect, representation, co-design, structural support, and reflexivity, remain applicable with operational details adapted to the context in which it refers to. This framework should be viewed as an adaptable implementation resource rather

than a prescriptive model. “Cultural” should be interpreted broadly to encompass shared identities or lived experiences requiring tailored engagement approaches.

Alignment with Implementation Science:

This framework aligns closely with implementation science, which emphasises stakeholder engagement, contextual adaptation, and sustainability as key determinants of successful implementation. Advisory panels are conceptualised as implementation strategies that function as structured mechanisms for embedding stakeholder voice into intervention design, adaptation, implementation, and translation. Within the framework, foundational partnership principles, including cultural safety, trust, and reciprocity, are expected to enhance intervention and research acceptability. Representative panel composition and community-centred governance structures may improve appropriateness by ensuring that research priorities and activities align with community needs and values. Culturally responsive engagement and co-design processes may strengthen feasibility by facilitating participation, reducing communication barriers, and supporting adaptation to local contexts. Structural supports, including dedicated coordination, remuneration, and institutional commitment, may enhance implementation fidelity by enabling consistent and meaningful engagement. Finally, reflexive evaluation and knowledge translation processes may support sustainability through continuous learning, accountability, and long-term community partnerships. By engaging community advisors throughout the research lifecycle, core intervention functions can be preserved while enhancing contextual relevance, appropriateness, and acceptability, all recognised determinants of implementation success. Moreover, the framework strengthens evidence-to-action pathways by integrating community interpretation and feedback into dissemination and practice change. While implementation frameworks such as RE-AIM and CFIR acknowledge the importance of stakeholder engagement, they provide limited operational guidance on how to enact meaningful and sustained community partnership in practice (15, 17). The framework addresses this gap by offering structured, power-conscious mechanisms for community involvement that are hypothesised to improve implementation outcomes, including acceptability, appropriateness, feasibility, fidelity, and sustainability, while reducing the risk of tokenistic engagement.

Unlike broader implementation frameworks such as CFIR, EPIS, RE-AIM/PRISM, and the Health Equity Implementation Framework, the CALD Advisory Panel Implementation Framework was specifically developed to operationalise culturally responsive community governance and advisory panel implementation. While these frameworks provide valuable guidance for understanding implementation determinants, implementation processes, equity considerations, and implementation outcomes, they offer limited procedural guidance on how to establish, support, and sustain culturally responsive advisory structures. The present framework complements these approaches by providing practical guidance on representation, power-sharing, multilingual engagement, governance integration, structural supports, and accountability processes that may strengthen implementation outcomes in culturally diverse settings.

The implementation pathways outlined in Table 2 demonstrate how the framework extends beyond community engagement principles by explicitly linking implementation determinants to implementation strategies, mechanisms, and outcomes. For example, mistrust of research, a commonly reported barrier in CALD populations, is addressed through cultural safety, reciprocity, and trust-building processes that are expected to enhance acceptability. Similarly, language barriers are addressed through multilingual engagement strategies that may improve feasibility, while governance integration and shared decision-making mechanisms may strengthen fidelity by ensuring advisory input meaningfully influences project decisions. The implementation pathways proposed in Table 2 are theoretically derived and should be empirically tested in future implementation studies.

Capacity for Scale and Sustainability:

Widespread adoption of this framework could reposition community advisory panels as routine components of ethically robust studies, much like ethics review. Achieving this requires investment in researchers but also in community capacity. Communities may benefit from research literacy development, peer networks of trained advisors, and dedicated funding for community organisations to act as liaison partners. To enhance sustainability, institutions should move beyond project-specific panels toward standing advisory structures. For example, a hospital serving a multicultural population could maintain a permanent Multicultural Health Advisory Board that supports multiple projects over time, promoting continuity and reducing the need to repeatedly establish and dissolve panels. Implementing the framework demands that process be valued alongside *outcomes*. While this may challenge conventional timelines, it strengthens long-term impact. Structured advisory engagement is likely to improve recruitment and retention through increased trust, enhance data validity through culturally informed adaptation of tools and interventions, and increase translation and uptake because communities feel genuine ownership of findings.

Conclusion

This paper presents the first evidence-informed implementation framework specifically designed to guide the establishment, operation, evaluation, and sustainability of culturally responsive advisory panels in CALD research contexts. By integrating cross-cultural, inclusive involvement, and implementation science principles, the framework provides practical guidance for embedding community voice within research governance, implementation, and knowledge translation. Advisory panels, long advocated in principle, can now be implemented with rigour, intentionality and accountability. As health inequities continue to affect culturally diverse populations, this framework offers a power-conscious a meaningful community centre approach that the field can no longer afford to overlook. We call on researchers, institutions and funders to adopt, adapt and evaluate this framework across diverse community and organisational settings that will generate the evidence base needed to make culturally responsive advisory governance the standard and not the exception.

Declarations

Ethics approval and consent to participate

The framework synthesis component of this study involved the analysis of published and publicly available grey literature and did not require human research ethics approval. The subsequent Delphi study received approval from the La Trobe University Human Research Ethics Committee (Approval No. HEC26087), and all participants provided informed consent prior to participation.

Consent for publication:

Consent for publication obtained from all participants

Competing interests:

The authors declared no competing interests

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Author Contribution

Conceptualisation: MB and BE. Methodology: MB, MP, YB, & TW. Formal analysis: all authors. Writing-original draft preparation: MB & YB. Writing-review and editing: all authors. All authors have read and agreed to the published version of the manuscript.

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Availability of data and materials

All data generated or analysed during this study are included in this manuscript.

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Figures

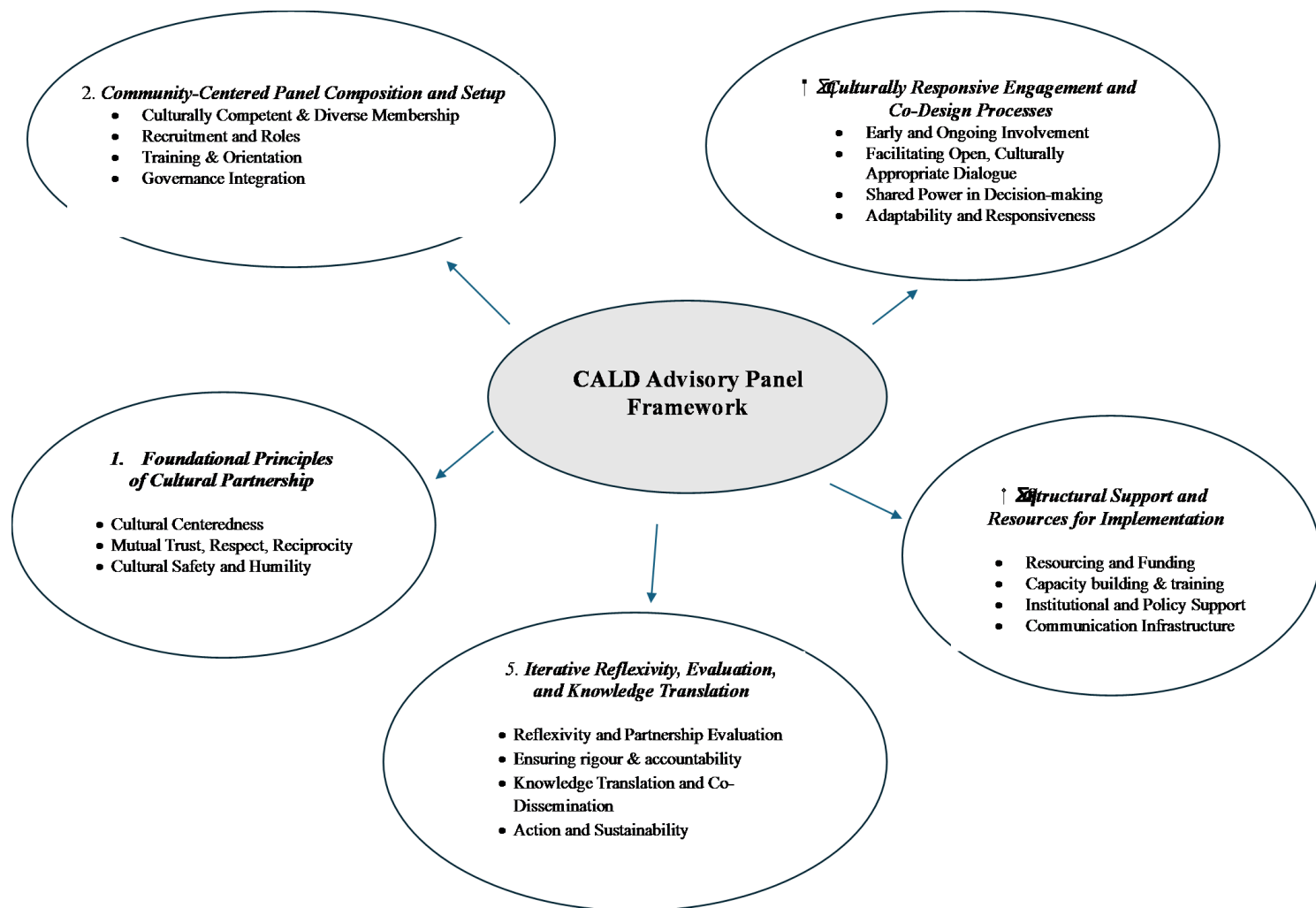


Figure 1

CALD Advisory Panel Implementation Framework.

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