

**An exploration of the extent to which an  
Australian metropolitan service model for specialist  
(Level 2) Child and Family Health services can be  
implemented in diverse settings**

**by Deborah A. Stockton**

Thesis submitted in fulfilment of the requirements for  
the degree of

**Doctor of Philosophy**

University of Technology Sydney  
Faculty of Health

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## CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Deborah Anne Stockton, declare that this thesis is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Public Health, Faculty of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

This research is supported by the Australian Government Research Training Program.

**Signature:** Production Note:  
Signature removed prior to publication.

**Date:** 23<sup>rd</sup> August 2022

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## List of Abbreviations

ACCHO	Aboriginal Community Controlled Health Organisation
ACCHS	Aboriginal Community Controlled Health Services
ACEs	Adverse Childhood Experiences
AH&MRC	Aboriginal Health and Medical Research Council
CASCADES	Collaborative Adaptation of Service Models for Child and Family Health in Diverse Settings
CFH	Child and Family Health
CFIR	Consolidated Framework for Implementation Research
eMR	Electronic Medical Record
GP	General Practitioner
HREC	Human Research Ethics Committee
ICT	Information Communications Technology
LGA	Local Government Area
LHD	Local Health District
NGO	Non-Government Organisation
NSW	New South Wales
PAR	Participatory Action Research
PIS	Participant Information Sheet
PSOB	Pro-Social Organisational Behaviour
REGIS	Research Ethics Governance Information System
SDG	Sustainable Development Goals
SSA	Site Specific Assessment
USA	United States of America
UTS	University of Technology Sydney
VC	Video-conference
WCFI	Wilder Collaboration Factors Inventory
WHO	World Health Organization

## Research Outputs associated with this Thesis

### Peer-reviewed Papers

1. **Stockton, D.**, Fowler, C., Debono, D., Travaglia, J. (2022). Development of a Framework for the Collaborative Adaptation of Service Models for Child and Family Health in Diverse Settings (CASCADES), *Journal of Child Health Care*.  
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### Book Chapters

1. Fowler, C. & **Stockton, D.** (2021), 'Child and Family Health Nursing' in *Nursing in Australia: Contemporary professional and practice insights*, eds Wilson, N., Lewis, P, Hunt, L & Whitehead, L. Routledge Publishers, London.

### Conference Papers and Presentations

1. **Stockton, D.** (2022), *Harnessing collaborative research approaches to adapt service models for rural communities*, 16<sup>th</sup> National Rural Health Conference, Brisbane, August 2022
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3. **Stockton, D.** (2021), *Community Co-design: Harnessing Participatory Action Research and Modified Delphi approaches for service adaptation and innovation*, Consumer Health Forum Symposium, Virtual Symposium, March 2021
4. **Stockton, D.** (2020), *Reducing Stigma: An Integrated Family Friendly Model for Rural Communities*, Australian Rural and Remote Mental Health Symposium, Virtual Symposium, October 2020.
5. **Stockton, D.** & Mills, R. (2019), *From pilot to state-wide scale up: extending Tresillian's rural reach through partnership*, Proceedings of the 15th National Rural Health

Conference, editor Leanne Coleman, Hobart, Tasmania, 24-27 March 2019. Canberra: National Rural Health Alliance, 2019. ISSN: 1445 3363

6. **Stockton, D.** (2019), *Going Mobile: Tresillian 2U – The Early Years Parenting Service*, 8<sup>th</sup> Maternal Child and Family Health Nurses Australia Conference, International Convention Centre, Sydney, August 2019.
7. **Stockton, D.** & Daggar, L. (2019), *Shaping our response to address diverse needs - Developing a responsive, flexible service model*, 8<sup>th</sup> Maternal Child and Family Health Nurses Australia Conference, International Convention Centre, Sydney, August 2019.
8. **Stockton, D.** & Mills, R. (2017), 'Navigation, adaptation and collaboration: creating a path for rural service development', *Proceedings of the 14th National Rural Health Conference*, editor Leanne Coleman, Cairns, Queensland, 26-29 March 2017. Canberra: National Rural Health Alliance, 2017 (concurrent presentation and paper published in conference proceedings ISSN: 1445 3363).

## **Media, Teaching and Other Communication**

1. Stockton, D.A. & Mills, R. 2021, *Enhancing Local Rural Health Response through Participatory Action Research: Harnessing a Collaborative Co-design Approach to Inform Service Model Adaptation and Innovation*, National Rural Health Alliance, Canberra 2021, <<https://www.ruralhealth.org.au/partyline/article/tresillian-goes-rural-parents-and-children>>.
2. Submission to the NSW Government *Parliamentary Inquiry into health outcomes and access to health and hospital services in rural, regional and remote New South Wales*, December 2020.
3. UTS Media Release: *Lessons learned: Rural Healthcare - Collaborating with community and local stakeholders is essential to improving rural health services*, May 2021, <<https://www.uts.edu.au/about/faculty-health/news/lessons-learned-rural-healthcare>>
4. Impact Narrative: Delphi Panel Participants' Newsletter - *Adaptation of Child and Family Health Service Models for Diverse Settings study*. Distributed July 2021 (Appendix 11)
5. Co-development of a module section (including content informed by this research) and responses to questions on the Student Discussion Form for a core subject, 'Foundations of the Australian Health Care System (96337)' in the Postgraduate Health Services Management program, UTS. This subject is run 1-2 times/year and since its initial delivery in 2020, the enrolment numbers continue to increase. To date, 313 students have completed this subject since the module section was developed.
6. Three-Minute Thesis (3MT) presentations, UTS Research Students Forums, Autumn 2021 and 2022
7. Five-minute 3-poster presentations, UTS Research Students Forums 2017, 2019 (First Runner-Up), 2020 (First Runner-Up)

## Abstract

Community-based Child and Family Health (CFH) services work collaboratively with parents to support optimal child development and positive parent-child relationships so children can thrive. They play an integral role in the identification and response for children and families with increasingly complex developmental and psychosocial health needs. Inequity, however, in health and social outcomes is pervasive, with poorer outcomes identified in rural communities. An international call to action to address the health outcomes gap for those living in disadvantaged regions has been emphasised by the World Health Organization (WHO), highlighting the need to adapt interventions and develop contextualised service models for lower resourced settings.

This thesis describes doctoral research comprising of three discrete studies. The aim of the research was to explore the extent to which an Australian metropolitan service model for specialist (Level 2) CFH services can be implemented in rural and regional areas. A scoping study and an integrative review informed the three studies which were as follows: (i) Participatory Action Research (PAR) in a rural setting in New South Wales (NSW) Australia to review the fit of an established metropolitan CFH service model for local context; (ii) a Modified eDelphi Study to identify elements to be considered when adapting CFH service models for rural community contexts; and (iii) a second PAR study in a different rural community setting to test a draft framework to guide the adaptation of CFH service models. PAR and Delphi approaches were used to engage consumers and a range of key stakeholders to foster inclusivity and address the power differential that can occur between researchers and participants.

The results of the three studies informed the development of the framework for *Collaborative Adaptation of Service Models for Child And Family Health in Diverse Settings* (CASCADES Framework). The CASCADES Framework, which includes a toolkit of resources, uses the analogy of a waterfall, with the water cascading from one tier to another, to represent and support the iterative collaborative community co-design process.

This research identified that established specialist CFH service models can be implemented in diverse contexts, however scope for adaptation must be built into such service models. Flexibility and time are required to effectively engage, consult with and co-produce innovative and culturally safe service adaptations, drawing on community strengths while addressing local need. Research findings identified the benefits of community participatory co-design extend beyond the immediate service implementation to service sustainability, integration and community capacity building.

# **Chapter 1**

## **Introduction and Background**

# 1. Introduction and Background

*There can be no keener revelation of a society's soul, than the way in which it treats its children*  
Nelson Mandela (1995, p. 595)

## 1.1 Setting the Scene

### 1.1.1 Introduction

The early years of a child's life are critical to the health and social outcomes of individuals, their families and communities. Adverse Child Experiences (ACEs) are '... strongly associated with poor childhood and adult health, mental health, behavioural and social outcomes and demonstrate a pattern of high rates of intergenerational transmission' (Burke Harris 2019, p. 1). It is now well accepted in Australian and internationally, that intervening early during infancy to identify risk issues, and if necessary implementing interventions as early as possible, are effective in preventing or reducing health issues across the life course (Australian Health Minister's Advisory Council 2015a; Gerlach & Varcoe 2021; Moore et al. 2017; Solar & Irwin 2010). Specialist Child and Family Health (CFH) services play an integral role in the identification, support and response for children and families with increasingly complex physical, developmental, psychosocial and behavioural health needs (Australian Health Minister's Advisory Council 2015a).

The 'National Framework for CFH Services – secondary and tertiary services' (Australian Health Minister's Advisory Council 2015b) identifies children living in rural and regional areas as being among the groups of children and families at risk of vulnerabilities that potentially impact their health and wellbeing. Indeed, when discussing child rights in the context of the Sustainable Development Goals, the United Nations High Commissioner for Human Rights warned of the need to reach first those children identified at risk of being left behind including those living '... in rural or marginalized communities' (United Nations Human Rights Office of the High Commissioner 2019, p. 26).

The need for service development in rural and regional areas is highlighted in the New South Wales (NSW) Rural Health Plan (NSW Ministry of Health 2014), noting poor health outcomes for families in rural NSW, Australia, that is impacted by geographic isolation, socio-economic disadvantage and climate change. Rural health data indicate poorer health behaviours and outcomes for families in rural areas including lower breastfeeding rates, low birth weights of infants and rates of high or very high psychological distress (NSW Ministry of Health 2014).

Parents in rural, regional and remote communities experience significant barriers to accessing specialist help and support. Families who are able and decide to travel, often cover vast distances to access the help they need for early parenting difficulties often complicated by sleep deprivation, psychological morbidities and psychosocial vulnerabilities associated with the social determinants of health (Priddis et al. 2018). Other families not in a position to travel struggle alone or with limited access to help and support. This can result in the escalation of perinatal mental health issues and represents a lost opportunity to improve outcomes for the child and parent/s through early intervention.



*A typical rural road depicting vast distances between population centres, NSW Australia  
(Photo Credit: P Spooner)*

In 2019, the NSW Ministry of Health released the First 2000 Days Framework (NSW Ministry of Health 2019), a strategic policy document outlining the importance of the first 2000 days in a child’s life, seeking to ensure all children have the best possible start in life. The Framework highlights the period of life from conception to five years as a critical time for physical, cognitive, social and emotional health. Objective 3 of the Framework articulates the need for “...additional services for those who need specialised help, when they need it” (NSW Ministry of Health 2019, p. 6), noting the importance of agencies working in

partnership to ensure well developed pathways for families needing additional support and care. An overarching theme throughout the Framework is the importance of collaboration between agencies across the health care continuum.

### **Tresillian Family Care Centres**

Tresillian Family Care Centres (Tresillian) is the largest early parenting organisation in Australia, providing specialist secondary and tertiary level CFH services in NSW since 1918 (Fowler, Dickinson & Brown 2019). Tresillian operates the Regional Family Care Centres (FCC) which are the sites for this research. The Tresillian Standardised Service Model for Day Services (Tresillian 2018) is the service model considered by participants for potential contextual adaptations in each of the studies comprising this research. The specialist services delivered by Tresillian teams provide a Level 2 CFH service response (NSW Health 2009), playing a significant role in the provision of stepped up care through short-term intensive help and support for families experiencing early parenting difficulties (NSW Ministry of Health 2019).

The organisation has sought to be responsive to the changing needs of families and communities to contribute to addressing the social determinants of health. The Tresillian Strategic Plan 2017-2020 (Tresillian 2017) reflects the organisation's commitment to provide greater access to families within a diverse range of settings while providing an evidence-based model of care. Strategic priorities articulated in the Plan relevant to this research include: expanding services to reach families in more diverse settings through partnerships; enhancing consumer participation in the patient journey; extending research engagement; harnessing research and innovation to promote comprehensive and effective services across Australia; and adapting the model of care for diverse settings to address unmet needs. The Tresillian Strategic Plan 2021-2024 has reiterated this commitment, with a key strategic priority being "Increase accessibility – expand services to meet the needs of the child and family in diverse cultural communities and geographic locations" (Tresillian 2021, p. 1).

These priorities are consistent with the NSW Rural Health Plan (NSW Ministry of Health 2014) which emphasises the need to invest in best practice models of care and research to

provide health services which are sustainable, tailored to the needs of rural communities to address health outcome inequity, and enhance the capacity of the rural workforce. The Plan also recognises the importance of the early years of a child's life on long-term health outcomes including the need for innovative models of maternal, child and family healthcare which meet the needs of rural communities. The 'Future Health: Strategic Framework – Guiding the next decade of care in NSW 2022-2032' commits to 'strengthening equitable outcomes and access for rural, regional and priority populations' including children and young people (NSW Ministry of Health 2022, p. 29).

### **1.1.2 National and International Calls to Action**

On a national level, a number of policy documents have been released which highlight the imperative to improve access to services for families with children during the critical early years, and the need to work collaboratively to develop and deliver effective services. The Commonwealth Government published a suite of frameworks targeted at CFH Services in 2015. These included the 'Healthy, Safe and Thriving: National Strategic Framework for Child and Youth Health' (Australian Health Minister's Advisory Council 2015a) and accompanying document, the 'National Framework for Child and Family Health Services – secondary and tertiary services' (Australian Health Minister's Advisory Council 2015b).

These framework documents argue strongly for the importance of equity of access to services for families living in rural areas to address poorer health and welfare outcomes. They also acknowledge that in order to provide effective services to address the needs and vulnerabilities often experienced by young children and their families in rural and regional areas, 'innovative models of care and service delivery' are required (Australian Health Minister's Advisory Council 2015b, p. 19). Likewise, the 'National Strategic Framework for Rural and Remote Health' (Standing Council on Health 2012), highlights the need for the adaptation of health service delivery models in order to address not only the difference in the needs of rural and metropolitan communities, but also the differences of the unique contexts of different rural communities.

An international call to action to address the health outcomes gap for those living in disadvantaged regions, including those families living in rural areas, has been promoted in

several documents released by the World Health Organization (WHO). In the paper ‘Scaling up Health Services: Challenges and Choices’ (World Health Organization 2008), the WHO emphasises the need to scale up successful health service models to address the health needs of less well-resourced communities and countries. The WHO describes a process of innovation in which the interventions from ‘well-equipped urban centres’ should be adapted in order to develop contextualised service models that are ‘designed in such a way that they can be rapidly rolled out to low-resourced rural settings’ (World Health Organization 2008, p. 18). Further emphasis on the importance of tailoring and adapting interventions to fit specific contexts is also highlighted in the Global Policy Recommendations issued by the WHO (2010) for ‘Increasing access to health workers in remote and rural areas through improved retention’. In 2016, the WHO released the report ‘Scaling up projects and initiatives for better health: from concepts to practice’, providing a synthesis of frameworks and learnings from case studies, noting that even with the availability of such information ‘... know-how and capacity are often missing’ (World Health Organization 2016, p. v).

The need to develop service models which will effectively meet the healthcare needs of rural and regional communities in order to address inequities currently experienced by populations outside large metropolitan centres has been identified as a high priority both nationally and internationally. Consultations undertaken in the development of the National Strategic Framework for Rural and Remote Health highlighted key messages including ‘the lack of capacity to tailor service delivery models... to the unique characteristics of rural and remote settings and communities creates a barrier to access and equity’ (Standing Council on Health 2012, p. 20).

Differences between metropolitan and rural communities which impact on the social determinants of health include socioeconomic status, distance and access. Adapted service models are required to appropriately respond to the challenges of rural health service delivery. Outcome area 2 of the Framework – ‘Service models and models of care’ – promotes support for ‘...research to improve health service design and delivery’ and the identification and assessment of ‘...successful innovations in health service delivery... for sustainability, scalability and transferability across other rural’ locations (Standing Council on Health 2012, p. 38).

Internationally, inequities in the health outcomes of people living in rural areas have highlighted the need for strategies to improve access to health services and health professionals outside of metropolitan areas. The differences between the health outcomes of those living in rural and regional areas as compared with their metropolitan counterparts has been identified as a world-wide phenomenon (Allan, Ball & Alston 2008).

### **1.1.3 Health Outcome Inequities**

The issue of access to healthcare for those living in rural, regional and remote communities is a complex challenge. The nature of the geography, transport availability and distances creates significant obstacles to timely appropriate diagnosis, treatment and management of health conditions (Commission on Social Determinants of Health 2008; Humphreys et al. 2008; McCabe & Macnee 2002). Access is a complicated concept, with additional complexities which may result from the stigma and lack of privacy associated with seeking healthcare treatment within smaller communities creating a deterrent to seeking help early (Allan, Ball & Alston 2008; Gerlach & Varcoe 2021; Hastie 2021).

A further significant challenge in addressing health outcome inequities is the difficulty in attracting and retaining appropriately qualified healthcare providers to regional, rural and remote areas. A clear correlation has been demonstrated between the absence or lack of healthcare practitioners and the reduction in treatment choices for those living in rural areas (McCabe & Macnee 2002). The WHO (2010) developed a set of global policy recommendations to address this challenge with an emphasis on improving recruitment and retention and therefore access to health professionals in rural areas. These strategies include the need for opportunities for professional development and career advancement in specialities without having to leave rural areas.

### **1.1.4 The World Health Organization Framework for Strengthening Health Systems.**

In 2007 the WHO released the Framework for Action titled ‘Everybody’s business: Strengthening Health Systems to Improve Health Outcomes’ (World Health Organization

2007). The framework recognises that despite the many advancements in health interventions and technologies in modern times, gaps in health outcomes remained in many communities and countries.

The document highlights the priority to strengthen health systems to ensure the delivery and scale of the healthcare required by those with the greatest need (World Health Organization 2007). The primary purpose of the Framework is to ‘...promote common understanding of what a health system is and what constitutes health systems strengthening’ (World Health Organization 2007, p. v). The Framework highlights the need to adapt effective interventions for implementation across differing contexts, to address local healthcare priorities and inequity.

Central to the Framework are six building blocks of a health system: 1) service delivery; 2) health workforce; 3) information; 4) medical products, vaccines and technologies; 5) financing; and 6) leadership and governance. The descriptions of the building blocks in the Framework include recommendations for key priority areas under each category as follows:

#### Building Block 1: Service Delivery

Building Block 1, ‘Service Delivery’, defines good health services as ‘... those which deliver effective, safe, quality personal and non-personal health interventions to those that need them, when and where needed, with minimum waste of resources’ (World Health Organization 2007, p. vi). Priorities under the ‘Service Delivery’ Building Block are listed by the WHO as: ‘packages; delivery models; infrastructure; management; safety & quality; demand for care’ (World Health Organization 2007, p. 14).

#### Building Block 2: Health Workforce

The second building block defines a well-performing health workforce as ‘... one that works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (i.e. there are sufficient staff, fairly distributed; they are competent, responsive and productive)’ (World Health Organization 2007, p. vi). Priorities under the ‘Health Workforce’ Building Block are listed by the WHO as: ‘national

workforce policies and investment plans; advocacy; norms, standards and data' (World Health Organization 2007, p. 14).

### Building Block 3: Information

The third building block defines a well-functioning health information system as '... one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status' (World Health Organization 2007, p. vi). Priorities under the 'Information' Building Block are listed by the WHO as: 'facility and population based information & surveillance systems; global standards, tools' (World Health Organization 2007, p. 14).

### Building Block 4: Medical Products, Vaccines and Technologies

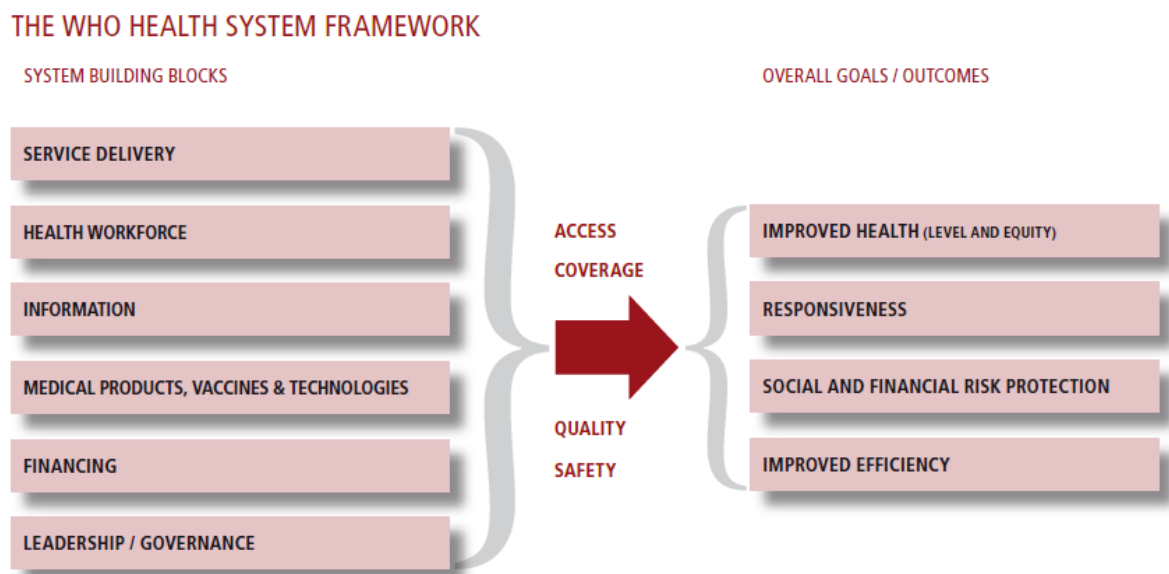
Building Block 4 has been defined by the WHO as 'a well-functioning health system which ensures equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use' (World Health Organization 2007, p. vi). Priorities under the 'Technologies' Building Block are listed by the WHO as: 'norms, standards, policies; reliable procurement; equitable access; quality' (World Health Organization 2007, p. 14).

### Building Block 5: Financing

The 'Financing' Building Block has been defined as a system which ensures adequate amounts of funding for health to ensure people can access the services they need and '...are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient' (World Health Organization 2007, p. vi). Priorities under the 'Financing' Building Block are listed by the WHO as: 'national health financing policies; tools and data on health expenditures; costing' (World Health Organization 2007, p. 14).

## Building Block 6: Leadership and Governance

The final building block in the Framework is defined as leadership and governance which ‘... involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design and accountability’ (World Health Organization 2007, p. vi). Priorities under the ‘Leadership and Governance’ Building Block are listed by the WHO as: ‘health sector policies; harmonization and alignment; oversight and regulation’ (World Health Organization 2007, p. 14).



*Figure 1: The WHO Health System Framework*

Figure 1 above (World Health Organization 2007, p. 3) provides a diagrammatic representation of the relationship of the six building blocks with the anticipated impact and overall outcomes for stronger healthcare systems to meet the needs of communities. These building blocks will provide a reference point for the design of the research approach and a lens for analysis throughout this study (Adam et al. 2011; Manyazewal 2017).

## **1.2. Tresillian’s Rural and Regional Service Development Journey**

The following paper was presented at and published in the proceedings of the 15th National Rural Health Conference, held in Hobart, Tasmania in March 2019. The paper, titled “From pilot to state-wide scale up: extending Tresillian’s rural reach through partnership” was

presented by the PhD Candidate, Deborah Stockton. Deborah was the author of the published paper; with review, feedback and organisational approval to publish provided by R Mills named as co-author. This paper is included in this Introduction chapter to provide background context regarding the services which are the focus of this research, the service delivery model and the need for this research. Please note that the following paper is reproduced using the spelling and formatting requirements of the publisher.

The citation for this paper is: Stockton, D. & Mills, R. (2019), *From pilot to state-wide scale up: extending Tresillian's rural reach through partnership*, Proceedings of the 15th National Rural Health Conference, editor Leanne Coleman, Hobart, Tasmania, 24-27 March 2019. Canberra: National Rural Health Alliance, 2019. ISSN: 1445 3363.



### From pilot to state-wide scale up: extending Tresillian's rural reach through partnership

**Deborah Stockton, Robert Mills**  
Tresillian Family Care Centres

## 1.2.2 Introduction

*The following is an excerpt of the Introduction section of the published conference paper, having removed sections to avoid repetition with the preceding section of this thesis.*

Consultation with rural and regional clinicians by Tresillian confirmed that families often need to travel vast distances from across NSW to access help for early parenting difficulties complicated by psychosocial issues and vulnerabilities. Families residing in rural Local Health Districts (LHD) without Level 2 referral services travel to facilities in Sydney, resulting in many families experiencing distress and exhaustion with others opting to struggle

on at home rather than make the long, time-consuming and expensive journey, highlighting the need for services within their local communities.

### **1.2.3 The Tresillian Family Care Centres Model**

Tresillian is Australia's largest specialist child and family health organisation, providing support to families experiencing difficulties in the early parenting period in NSW since 1918. The organisation has evolved as it has responded to current community needs, while maintaining a focus on child wellbeing and building resilient families and communities. This has been achieved through a service model which acknowledges the social determinants of health, engaging with families in the early years of their child's life and working collaboratively with parents, local health services and non-profit organisations to build confident, resilient families and communities.

The Tresillian Family Care Centres model enables a central hub to act as a base from which a range of services are provided including comprehensive assessment and consultation for the management of a range of early parenting challenges, home-based services, evidence-based group programs, perinatal mental health services and an extended home visiting program for families experiencing complex vulnerabilities impacting on parenting capacity. Telehealth virtual consultation services and satellite services to surrounding communities further extend the reach to geographically isolated communities.

Core to the model is the provision of professional development and clinical support to enhance the capacity of primary-level clinicians working with families in the local area. The foundation of the model are the partnerships with the LHDs, enabling the effective delivery of integrated care for families. Tresillian has developed a conceptual framework to guide service development, with the key elements of partnership and collaboration being support through the principles of trust and respect; consultation; valuing of shared expertise; the development of service linkages; and commitment to adaptation to suit the local context.

#### **1.2.4 A Flexible and Responsive Service Model**

Tresillian's commitment to increase access to specialist Level 2 child and family health services for rural and regional families started with the commitment of the Board of Directors. The current Strategic Plan reflects the organisation's focus on providing greater access to families in a diverse range of settings while providing an evidence-based model of care. Strategic priorities articulated in the Plan include the expansion of clinical services to address the needs of more people in diverse settings including through partnerships.

In late 2015, Tresillian developed partnerships with Albury Wodonga Health, and Northern NSW Local Health District and the North Coast Primary Health Network. These partnerships enabled the establishment of specialist Tresillian services in Albury Wodonga (Southern NSW / North Eastern Victoria) and Lismore in the NSW Northern Rivers region. These first pilot sites were commissioned as Tresillian undertook a significant project to review the Standardised Service Model for Tresillian Day Services across both metropolitan and regional sites. The project included the review of peer-reviewed and grey literature, benchmarking, process mapping and consultation with clinicians, managers and consumers. The result was the development of a Service Model which provides a framework for effective and efficient service delivery while being responsive and flexible to the unique needs of families and communities.

Central to the service model is the concept of an individualised package of care informed by comprehensive assessment which is tailored to the needs of the family and their context. The package of care enables the mobilisation of a range of services provided by the organisation through a variety of modes of delivery to address differing needs and increase access. The service model articulates a series of program outcomes statements and related measures, providing a focus on the difference the service seeks to make in the lives of children, families and the community. The service model then moves to provide a framework for implementation to guide practice, detailing referral and prioritisation criteria and highlighting the importance of interprofessional teamwork and communication. Care coordination is integral to the service model, particularly when supporting families experiencing vulnerabilities with complex needs.

The development of the Standardised Service Model for Tresillian Day Services was an important step in the process of enabling service expansion across multiple locations. A health service model can be conceptualised as ‘... a set of principles across clinical and other services and between organizations to promote a seamless continuity and coordination of services’ (Hungerford 2014, p. 159). The experience and learnings from the initial pilot sites in Southern and Northern NSW influenced the service model, highlighting the need for flexibility to address a broad range of contexts while guiding practice to enable responsive service provision including management of waiting times to promote access.

Consistent with Tresillian’s commitment to increase access to Level 2 specialist child and family health services for families in rural and regional areas, consultation and the exploration of opportunities to develop partnerships continued throughout 2016. This resulted in a third regional Family Care Centre (FCC) being established in 2017 through a partnership between Tresillian and Murrumbidgee Local Health District (MLHD) in the Riverina region of NSW. The ‘Tresillian in Murrumbidgee’ FCC was launched in Wagga Wagga, enabling the service model to inform planning, staff training and the provision of clinical support from the outset. Consultation was undertaken with community stakeholders including local health services, community services and Aboriginal community members and Elders. The Aboriginal community engagement identified three key themes to encapsulate meaningful FCC services for the local community: nurturing, family and connectedness.

### **1.2.5 From Pilot Sites to State-wide Partnerships**

Government relations advocacy was a key element in enabling Tresillian to expand services and increase access to rural and regional families across NSW. A proactive approach was taken, meeting with Members of Parliament and Government representatives to increase awareness of the needs of families and communities and the role Tresillian could take in the provision of referral services for families requiring intensive support and preventing the escalation of need and distress.

Meetings and presentations to individuals and groups of Government officials was followed by the submission of a service development funding proposal, informed by consultation with

key stakeholders including health service managers, clinicians and community representatives. Additional funding for resources was essential to realise the vision for specialist services to be available across all rural LHDs. The time and energy committed to this important part of the journey to the expansion of services resulted in the allocation of funding by the NSW Government for five new Level 2 FCC services to be established across regional NSW.

Importantly, the model was based on partnerships between Tresillian and the Local Health Districts (LHD), with locations of the new services to be in Dubbo (Western NSW LHD), Coffs Harbour (Mid North Coast LHD), Queanbeyan (Southern NSW LHD), Taree (Hunter New England LHD) and Broken Hill (Far West LHD). Developing services in partnership was consistent with Tresillian's Strategic Plan and was seen as integral to the development and implementation of integrated services, ensuring that services remain child-focused and family centred across the continuum of care. The model enables the strengths of the partnering organisations to be maximised to improve outcomes for children and families, with Tresillian providing the clinical governance and support to deliver specialist Level 2 child and family health services, while drawing upon local knowledge, expertise and resources. The partnerships include capacity building and local clinical workforce development and support by Tresillian for primary healthcare professionals working with families, many of whom often work within isolated workplace environments.

### **1.2.6 Adaptation and Extending Reach**

Adapting to the context and needs of the surrounding communities in multiple locations requires a robust consultation and governance approach. Tresillian's commitment to the true nature of partnership has been reflected in the development of Joint Governance Committees for each service location to enable timely, joint decision making and regular review of progress towards mutual goals for the FCCs and the communities they serve. The Joint Governance Committees provide a forum at Senior Management and Executive level for collaborative planning and resource allocation, while Joint Management Meetings enable operational and clinical support matters to be addressed and an avenue for recommendations to the Joint Governance Committees. This structure has proven effective in continuing to build a relationship of trust, transparency and mutual respect. Importantly, a clearly

articulated service model has been demonstrated to be useful in developing a shared understanding and purpose, and focus for discussions and planning (Farmer & Nimegeer 2014).

A number of strategies have been implemented to extend Tresillian's reach to families across the vast geographical areas many of the rural and regional LHDs cover. Satellite services have been commenced 1-2 days per week from FCCs, utilising a *hub and spoke* approach (Elrod & Fortenberry 2017; Pidgeon 2015). This strategy has decreased the time and cost impost of travel on families while providing the important opportunity to build relationships throughout the service system network. Additional opportunities for collaboration have been identified and acted upon, including pooling resources such as group facilitators to enable evidence-based group programs to be delivered in local communities.

Telehealth virtual consultations are an integral part of the service delivery model to extend reach to families across the LHDs. The virtual consultations, provided through a video-conferencing platform, are provided by specialist child and family health nurses working within the Tresillian Regional FCC hubs. This approach enables families to receive comprehensive assessment, support and care planning with nurses who reside within the LHD, understand the complexities and challenges of living in a rural setting, and have knowledge of and linkages with other health and community service providers throughout the district. This local knowledge and established professional relationships; facilitated collaborative care planning to address complex needs, linking families to the services they need in as seamless a fashion as possible to minimise further stress; and provided access to early intervention to improve outcomes for infants, children and parents.

The consultation and partnership building process also provided opportunities to realise the vision of community and health service providers shared in forums. An example of this is the *Tresillian 2 U – The Early Years Parenting Service*, an innovative new service utilising a mobile service delivery approach to increase access to Level 2 specialist child and family health services for families with children 0-3 years residing within the Mid North Coast living in lower population density areas. The service, enabled through a partnership between Tresillian and Mid North Coast LHD, is the first of its type in Australia, providing specialist

CFH services to families through a fit-for-purpose van which moves on a rotational schedule to a series of towns, thus enhancing accessibility by bringing the service to families within their own communities. The service, which is provided by an interprofessional team of CFH Nurses and Aboriginal Health Workers, provides a referral pathway for individual Level 2 consultations while enabling a presence at key community events to promote child health messages to a broad cross section of the community.

### **1.2.7 The Journey Continues—Contributing to the Evidence-base**

Tresillian’s journey to provide greater access to high quality, specialist CFH services for families in rural and regional areas is grounded within a commitment to research and evaluation. Evaluation strategies centre on both service outcomes as well as drawing on service development learnings to inform future planning.

A robust evaluation strategy has been developed to measure the expected outcomes of the services, focusing on building parenting confidence, alleviating and reducing parental distress and perinatal mental health difficulties, building positive parent-child relationships and improving the health and developmental outcomes for young children in the critical early years of their life. A formative evaluation approach is being utilised to enable data to be collected and analysed progressively so outcomes and learnings can be utilised to inform service improvements rather than waiting until the end of service implementation (Semansky et al. 2012). Partnerships have been established with universities and a number of doctoral studies are being supported by the organisation to explore not only the impact of the services but also contribute to the body of evidence regarding the contextualisation and adaptation of service models; and harnessing the opportunities provided through community co-design (Taylor et al. 2010).

### **1.3 Aim of the Study**

This research aimed to explore the extent to which an Australian metropolitan service model for specialist (level 2) CFH services can be implemented in diverse settings such as rural and regional areas.

The research engaged consumers, clinicians and other key service stakeholders including referral agencies and Non-Government Organisations (NGOs). The research used Participatory Action Research (PAR) and modified Delphi Technique methods to answer the research questions with findings informing the development of a framework for the adaptation of metropolitan child and family health service models for diverse settings.

#### **1.3.1 Research Question**

To what extent can an Australian metropolitan service model for specialist (level 2) CFH services be implemented in diverse settings?

##### **Sub-Questions:**

- a) What are the enablers and barriers to the implementation of metropolitan specialist CFH service models in rural and regional areas?
- b) What elements of the service model need to remain stable and what elements need to be flexible to enable adaptation for different contexts?
- c) What matters to consumers and stakeholders in relation to specialist CFH service models in rural and regional areas?
- d) How do you engage, build trust and relationships with service providers and the community? Does the model need to change to facilitate this?
- e) Is it important to have a local presence to provide effective and relevant services?
- f) Can technology be used instead of a local presence or to extend the service reach from local hubs?

## **1.4 A Passion for Improving Health Outcomes for Children and their Families**

As a young child I was fortunate to be raised in a number of rural settings. While I have many idyllic childhood memories, being the daughter of a country pastor, I also observed hardships and challenges encountered by those living in rural communities. From the young couple who suffered the heartbreak of stillbirth, to those experiencing financial hardships who would come to our door seeking a meal and a listening ear, and others experiencing chronic illness requiring treatment - travelling far away from home and the support of loved ones.

One of those experiencing the challenge of a chronic condition was my brother. Born prematurely in the 1970's, with the support of my parents he bravely battled cerebral palsy. This required multiple trips to Sydney for treatment, some 750kms away, and frequent drives to the nearest regional town for physiotherapy. Observing the lengths my parents had to go to access the care my brother needed left an indelible impression on me and led me into the nursing profession. I left my family to head to Sydney to complete my nursing education, and went on to complete my midwifery qualification with the intent to return to contribute to the health and wellbeing of country communities.

Life took me in another direction and I stayed in Sydney much longer than expected. In that time, I moved into the specialty of CFH nursing and discovered a passion for supporting young children and their families experiencing multiple vulnerabilities and often complex histories. The focus of my work became building confidence and resilience in parents, ensuring they received the help they needed as soon as possible to avoid the impact of distress on their mental health and wellbeing, and the development of a positive relationship in which their child could thrive.

Ten years ago, I was able to return to the country, and fulfil my goal of supporting rural families and communities. After working in a small rural health service in Victoria and a larger regional city with outreach support for smaller communities, the opportunity arrived to lead the establishment of new specialist CFH services across rural and regional NSW. The

position enabled me to combine my passion for CFH and contribute in a tangible way to increasing access to specialist services for families in regional, rural and remote areas. I have worked together in partnership with similarly passionate health professionals in these communities, listening to community members about the needs of the families in their region; advocating to politicians and policy makers about the need to extend the reach of services to those most in need; collaborating and sharing resources to enable new services to be established.

Throughout the service development journey questions arose in my mind: how do we take an essentially metropolitan service model and adapt it for implementation in diverse settings, with differing strengths and service gaps? How do we maximise this opportunity given the need is immediate, but still take the time necessary to ensure we are taking an evidence-based approach? And what does the literature tell us about how others have approached these challenges?

In seeking answers from the literature, I could find no guidance or framework specific to the unique context of specialist CFH services. These services not only seek to address health needs but also to impact on the social determinants of health and to make a positive difference early in a child's life which will reap benefits for life-long health outcomes. Hence, I have embarked on this doctoral study, seeking to not only answer my questions but to share the learnings and to develop resources which will support others as they adapt successful metropolitan services models for implementation in a range of community settings. It is my hope that this research will make a difference to the lives of children, their families and the health professionals who care for them in less well-resourced communities.

## **1.5 Thesis Overview**

This thesis will be presented in nine chapters.

*Chapter One* provides the introduction and background, outlining the significance of the study including the need to adapt successful service models developed in well-resourced metropolitan settings for rural and regional community settings, in order to address the health

inequities experienced compared with their metropolitan counterparts. The background also provides a description of the organisational context of regional service development embarked upon by a specialist CFH organisation which were the service settings for the PAR.

*Chapter Two* provides an analysis of the literature, presenting the methods and results of two literature reviews. **Part A** reports a scoping review which aimed to explore the adaptation of health service models and interventions for implementation within rural contexts, including barriers and enablers. The scoping review also sought to identify key research priorities and gaps which were used to inform this study.

**Part B** reports the findings of an integrative review which built upon the outcomes of the scoping review. This enabled a focused review of the presence and/or absence of the WHO Building Blocks for Strengthening Health Service Systems (World Health Organization 2007) in rural health literature published in the decade following the release of the Framework. The aim of the integrative review was to identify lessons learnt from literature describing experiences of rural and remote community health service planning and implementation, and inform recommendations to strengthen often disadvantaged rural and remote health systems for policy makers. The WHO Building Blocks referred to throughout this thesis have been utilised to hone the focus of the PAR working group meetings, to inform the structure of the Modified Delphi Study e-questionnaires, and to analyse responses.

*Chapter Three* presents the research methodology and design of the three studies of which this research comprises. This includes descriptions of a Participatory Action Research (PAR) study to identify adaptations required to a metropolitan CFH service model for regional and rural context (Study 1); a Modified Delphi Study (Study 2) to identify the elements required for inclusion in a framework for the adaptation of specialist CFH service models for diverse settings; and a second PAR study (Study 3) to pilot a draft framework, developed based on the two previous phases of research, for adaptation of specialist CFH service models.

*Chapter Four* describes the outcomes of Study 1, this is, the first PAR study. This chapter describes the PAR cycle, findings of the thematic analysis of transcriptions of PAR workshops, and the PAR group's recommendations.

*Chapter Five* describes the second phase of this research being a Modified e-Delphi Study (Study 2) with an expert panel comprising of a diverse range of stakeholders. The participants included consumers, service managers, government representatives, academics and researchers. This chapter includes descriptions of the development of the e-questionnaires drawing on the structure of the WHO Building Blocks for Strengthening Health Service Systems (World Health Organization 2007), the criteria developed to ascertain reaching of consensus, and the outcomes of the two-round Delphi process.

*Chapter Six* describes the third phase of the research (Study 3), which was conducted at a second PAR site to pilot a draft framework for adaptation of specialist CFH models. The framework was developed based on the outcomes of Studies 1 and 2, seeking to build on the findings of a local PAR group by broadening the applicability of the findings through the Modified e-Delphi Study.

*Chapter Seven* describes the Framework for the Adaptation of Specialist CFH Service Models for Diverse Settings. This chapter discusses the development process based on the outcomes of Studies 1 and 2, and the iterative process of refinement following the analysis of findings from Study 3. Recommendations for utilisation of the Framework are also included in this chapter.

*Chapter Eight* provides a discussion of the key findings which emerged from the three studies and the framework development process. The significance of this research is discussed, including implications for practice and recommendations for policy makers, health service planners and future research.

*Chapter Nine* presents reflections of the researcher's experience of PAR, including conducting research during the COVID-19 pandemic, informed by a reflective journal kept throughout the cycles of PAR.

## Chapter Style

This thesis is presented as a thesis by compilation. It is structured as a single manuscript including chapters and works either published or submitted for publication.

Chapters 2 (Part B), 5 and 7 of this thesis were prepared as papers for publication (see ‘*Research Outputs*’ section, p. xii), and contain separate introductions, methods, results and discussion sections, with individual reviews of literature for each manuscript. This format inevitably leads to some minor repetition between chapters, particularly in the introductions. This format, however, has the advantage of producing discrete studies suitable for rapid dissemination and communication of results in a local and international context. Each of these chapters is identical to the published or submitted manuscript, except for the following minor changes: (i) removal of abstract and, where indicated, sections of the introduction, (ii) uniform referencing and style, (iii) renumbering of tables and figures, (iv) cross-references to thesis chapters included for ease of reader’s reference, (v) and consolidation of references to one list at the end of the thesis.

## **Chapter 2**

### **Part A: Scoping Review**

## 2. Literature Reviews

This chapter presents the methods and results of two literature reviews. **Part A** reports a scoping review; and **Part B** reports the findings of an integrative review which built upon the outcomes of the scoping review.

### 2.1 PART A – Scoping Review

#### 2.1.1 Introduction

The need to adapt and contextualise health service models developed in metropolitan areas in order to address health outcome inequity in rural communities has been identified nationally and internationally (Standing Council on Health 2012; World Health Organization 2008, 2016). The purpose of this scoping review was **to explore the adaptation of health service models and interventions for implementation within rural contexts, including barriers and enablers**. The review also sought to identify key research priorities and gaps.

#### 2.1.2 Methods

A scoping review of literature was undertaken to provide the background context to this study and inform the research proposal. Scoping reviews may be used to map existing literature inclusive of a range of research designs, to identify key concepts and gaps in existing evidence (Arksey & O'Malley 2005; Levac, Colquhoun & O'Brien 2010). This scoping review utilised the methodological framework described by Arksey and O'Malley involving five stages: “(i) identifying the research question; (ii) identifying relevant studies; (iii) study selection; (iv) charting the data; and (v) collating, summarizing and reporting the results” (Arksey & O'Malley 2005, p. 22).

The scoping search interrogated CINAHL, Cochrane, PubMed and Scopus databases. In addition, a snowball approach was used to explore the reference lists of key articles identified through the database search. A search of key journals relating to Implementation Science and Rural Health was also conducted.

The searches focused on rural health service models, adaptation, implementation and service delivery. The literature search parameters included articles published between 2002 and 2017 for which full text English versions were available. Key search terms included ‘*rural health service*’, ‘*model*’, ‘*context*’, ‘*adaptation*’, ‘*implementation*’ and ‘*service delivery*’.

Empirical articles were retained for thorough analysis if they met the inclusion criteria being: (a) focus on service intervention and provision within rural and/or remote health context; (b) adaptation of interventions and service model design for rural and/or remote primary and/or community health practice; (c) written in English language and published between January 1 2002 and 1 March 2017; and (d) peer reviewed.

The term rural or rurality can be considered in terms of geographical, locational and sociocultural terms (Farmer, Clark & Munoz 2010). Definitions of rural or remote are not homogenous and differ between countries and regions, however the majority of rural communities experience similar challenges in terms of ‘... access to care, resource allocation, health inequalities and deprivation’ (Swindlehurst et al. 2005, p. 4). For the purposes of this literature review, articles in which the context has been identified by authors as “rural” and/or “remote” have been included to draw upon learnings from a range of relevant studies.

Articles were **excluded** where the focus differed, including (a) articles concentrating purely on workforce issues and health student training; (b) descriptive articles of population data analysis for specific locations; (c) articles describing population health beliefs and attitudes specific to particular locations; (d) articles discussing funding and health insurance in isolation from implementation issues; (e) those describing health promotion awareness raising programs rather than service provision models; (f) articles focusing on screening and diagnostics, acute care settings and targeted programs without reference to the rural context.

The initial search yield of 508 articles was reduced through screening for duplicates and the application of inclusion and exclusion criteria to 80 articles, which were reviewed in full text (see Figure 2 for PRISMA Flowchart). In addition, 10% of the full text articles were reviewed by two supervisors independently to check the reliability of the application of the

criteria for inclusion and exclusion. As reliability was confirmed, the remainder were reviewed by the candidate. A total of 44 articles were retained with a structured template developed to support the extraction of relevant information and facilitate synthesis of key concepts and learnings.

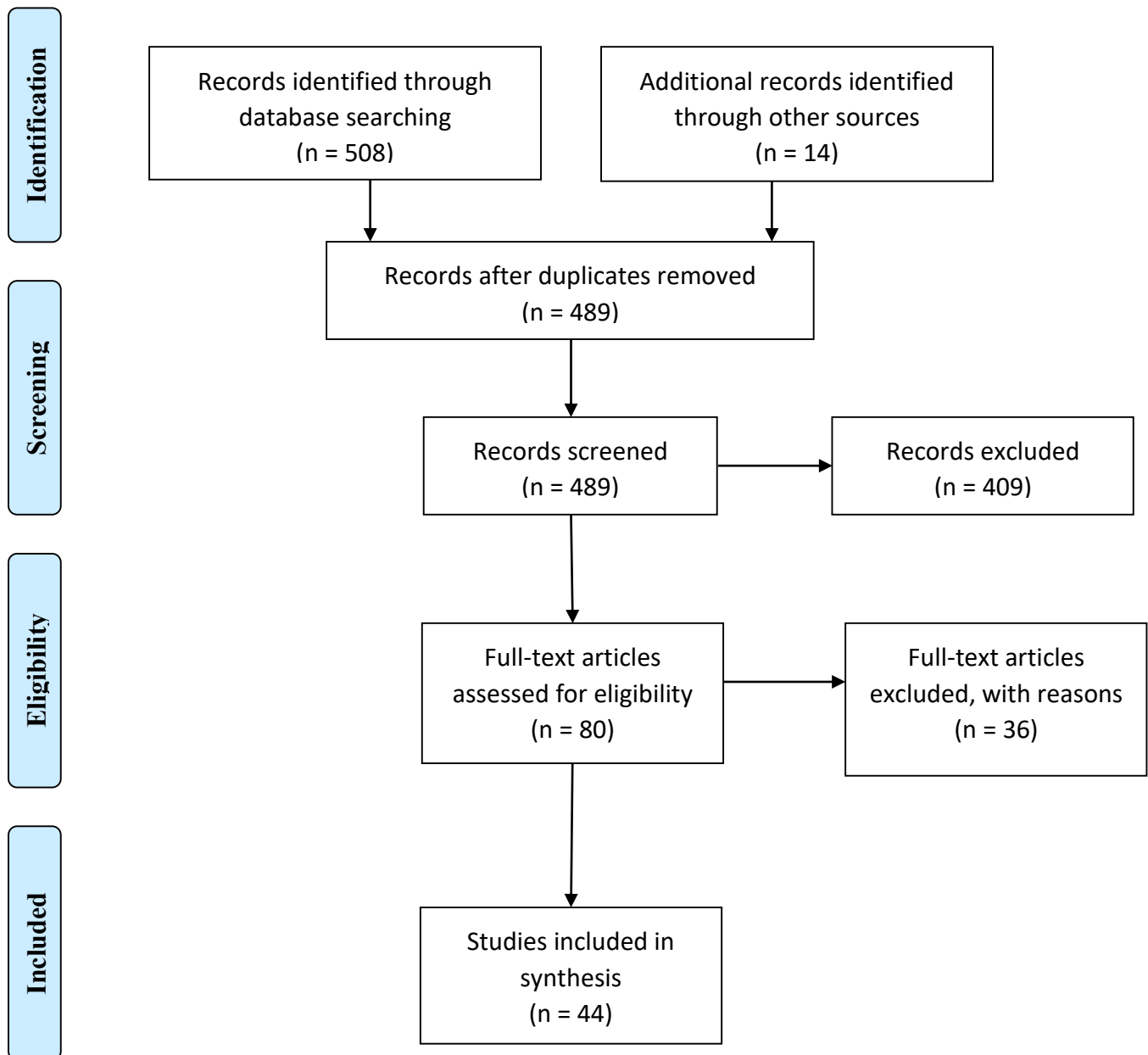


Figure 2: PRISMA Flowchart for Scoping Review

### 2.1.3 Definitions

It has been identified that terminology relating to **healthcare service models** and **interventions** are often found in literature without clear definition of their difference (Hungerford 2014). For the purposes of this study, the term **service model** will be defined as a model of healthcare service provision which ‘enables the application of a set of principles across clinical and other services and between organizations to promote a seamless continuity and coordination of services’ (Hungerford 2014, p. 159). **Interventions** can be seen as a set of interrelated specific, often complex components (Sekhon, Cartwright & Francis 2017), aligned with the service model and implemented to address specific objectives.

The **adaptability** of service models and interventions can be defined as ‘the degree to which an intervention can be adapted, tailored, refined, or reinvented to meet local needs’ (Damschroder et al. 2009, p. 6). Organisational theory also supports the adaptation of interventions for local contexts as being ‘critical to adoption and sustainability’ (Hunt et al. 2012, p. 2).

**Context** has been defined as ‘complex adaptive systems that form the dynamic environment(s) in which implementation processes are situated’ (May, Johnson & Finch 2016, p. 5). Recognising the impact of context, such as the differences between urban and rural health settings, is vital to effective service provision and equity of access to address health outcome inequities (Humphreys 2009).

### 2.1.4 Results

Forty-four peer reviewed articles that met the criteria were included in this review. Data were charted in relation to the following:

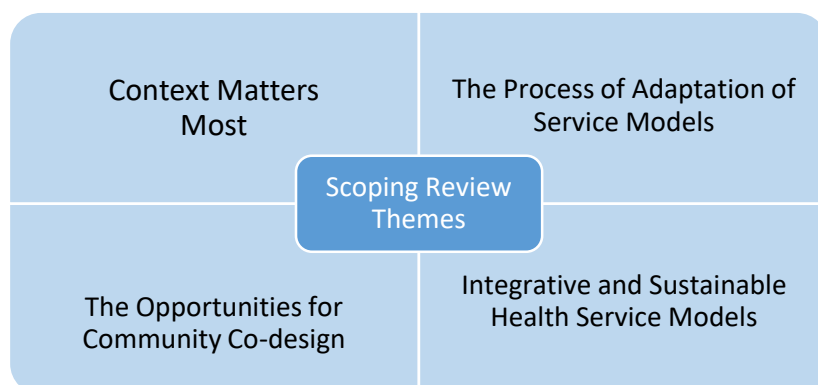
- Author(s), year of publication
- Document type
- Study design and methodology
- Study location and context including sample
- Findings

- Key themes

The scoping review identified key themes relevant to the research aim to explore the extent to which an Australian metropolitan service model for specialist CFH services can be implemented in diverse settings such as rural and regional areas; and how such service models can, and indeed need to be, adapted to the context of different communities.

Of the articles reviewed, 19 used a qualitative design and ten used a mixed methods approach with the other articles consisting of 13 literature reviews and two descriptive pieces. The articles provided a rich cross section of settings including 22 from Australia, eight from USA, seven from Canada, five from the United Kingdom, and one each from New Zealand and Saudi Arabia. The articles focused predominately on rural settings (n = 27) with five focusing on remote health settings and 12 on a combination of rural and remote.

Four key themes emerged from the literature review (Figure 3), noting that some articles contributed information to more than one theme. The key themes were (a) context matters most (n = 7); (b) the process of adaptation of service models and interventions (n = 13); (c) the opportunities for community co-design of health service initiatives (n = 9); and (d) the need for integrative and sustainable health service models (n = 15). Gaps in literature and research questions for further exploration posed by authors were also identified and discussed, identifying alignment with this research proposal.



*Figure 3: Scoping Review Themes*

## **Context Matters Most**

The diversity within rural health environments and the complexity associated with the provision of health services within these communities demonstrates the need to ensure a thorough understanding of settings when implementing rural health services and initiatives (Parker et al. 2013). In their review ‘Implementation, context and complexity’, May, Johnson and Finch (2016, p. 5) stated that ‘the chief message of the growing body of “process evaluation” studies...is that context matters and that it is often the contextual dynamics of interventions that matter most.’

When seeking to understand the elements required for successful implementation within rural health services, the contextual environment has been described as ‘the context in which players operate and the other systems with which they interact’ (Wakerman 2009, p. 24). Seven articles focused on the integral role of context in the adaptation of health service models and interventions within rural settings, with two articles reporting primary research and an additional five articles describing secondary research including literature reviews.

The contextual setting is often considered in relation to the geographical location and **rurality** of the service (Farmer, Clark & Munoz 2010; Parker et al. 2013), with the geography and degree of **isolation** from services impacting significantly on **accessibility** for consumers and of clinical support for health professionals. Authors, however, warn against considering context within the simplistic frame of location alone (Burley & Greene 2007), noting the complex myriad of elements that together form the context of the health service.

**Frameworks of broad categories** of contextual factors to assist rural health service planning were identified in two articles. Contextual needs can be described in terms of the micro and macro environment (Tolson et al. 2007) to provide a framework for the many elements which impact on health service implementation. Alternatively, contextual factors can be considered as ‘core drivers’ at a systems level, organisational level, community level and the individual level (Burley & Greene 2007).

The review identified six articles describing domains and contextual factors which require consideration and understanding when implementing health services within rural areas. At the macro level, the **political, policy and fiscal** environment impact on the support and capacity for the implementation of initiatives within rural health services (Farmer, Clark & Munoz 2010; Wakerman 2009). Health policies developed based on a ‘one size fits all’ perspective present challenges for rural health service implementation rather than enabling such initiatives, a key concern acknowledged in the United Kingdom where commitment was made to review policies to ensure adaptability to meet the needs of different communities through a process of ‘rural proofing’ (Swindlehurst et al. 2005).

Other domains include the existing service system network (Brown & Dietsch 2013), the **culture** of that network and that of the organisation in which the service will be implemented (Tolson et al. 2007). **Organisational structure** and readiness for change with leadership and vision for service provision play a vital role in the support of staff and the availability of required funding, infrastructure and resources (Parker et al. 2013; Wakerman 2009). An organisational and team culture (Tolson et al. 2007) which supports interprofessional practice, including the consumer as an active key participant in their own care planning, with an outcomes-focused commitment to the provision of quality service provision has been identified as key contextual factors to rural health service planning and implementation (Wakerman 2009).

Culture can also be considered in terms of the team of health professionals within the service and of the community members who will be prospective patients (Tolson et al. 2007). The community itself is a vital contextual element when considering health service development and implementation (Parker et al. 2013; Wakerman 2009). The **readiness of the community for change** and the **connectedness of the community** to the health service will impact the success of any proposed service initiative meeting its aims. This highlights the need to explore the unique context of rural services with **stakeholders** who have an intimate understanding of the community including consumers, health professionals within the service, and those within the broader service system network (Tolson et al. 2007).

Context also includes **professional or workforce related** factors (Tolson et al. 2007; Wakerman 2009) such as the professional education and the experience of the health professional workforce (Brown & Dietsch 2013). This extends to the availability of suitably qualified health professionals with the necessary skillsets and interests to provide the proposed service (Parker et al. 2013).

### **The Adaptation of Service Models and Interventions**

A key theme identified in 13 papers related to the process of adapting service models and interventions with six of these identifying the **need to scale and adjust** service models and interventions to fit the needs of different communities (Asthana & Halliday 2004; Lockhart 2002; Perkins et al. 2006; Semansky et al. 2012; Smith et al. 2016; Vanderpool et al. 2011). These adjustments enabled a two-way process whereby implementation at the local level informs the model to a similar extent to which the model informs the implementation (Lockhart 2002). When the ideal model is informed by the unique local needs ‘...then the reality of living and working in rural and remote regions of Australia becomes a powerful means to critically examine the broader context that idealised, top-down models almost inherently obscure’ (Lockhart 2002, p. 37).

Service models developed for metropolitan populations were not considered adequate for implementation in the context of rural and regional areas (Semansky et al. 2012). In a study of 70 funded grants to support implementation of evidence-based programs in rural areas of the USA, the majority of grant recipients reported adapting established models in order to address local challenges and tailor to the needs of their community (Smith et al. 2016). Another study of 13 USA community-based health services identified the challenges presented when modifying programs yet attempting to ensure program fidelity is maintained (Vanderpool et al. 2011).

Adaptations to service models and interventions take many forms. These include the **mode of delivery** and the **setting** for implementation (Smith et al. 2016) including recognition of the need to proactively seek cultural alignment (Smith et al. 2016). Modifications may be needed in terms of **processes** and implementation requirements due to practical or funding

limitations (Semansky et al. 2012; Smith et al. 2016). While some elements of service models may not be available in certain settings due to **resource limitations**, others may be added such as wrap-around strategies (Smith et al. 2016) drawing on established service relationships within rural communities. Adaptation therefore requires a clear understanding of the '**core components** of an intervention' which can be prioritised to be maintained while other elements are readily modified to suit the community context (Vanderpool et al. 2011).

Recommendations to consider when adapting service models for rural contexts were described in 11 papers. These included the need to undertake careful planning including **mapping** of the community needs, strengths and challenges to inform modifications and implementation (Cornwell, Hawley & Romain 2007; Semansky et al. 2012; Sherrill et al. 2005). Strong leadership, governance and **coordination** (Cornwell, Hawley & Romain 2007; Dooley et al. 2009; Jennett, Gagnon & Brandstadt 2005) are needed to provide an environment for the identification of goals which are realistic for the context (Haggarty, Ryan-Nicholls & Jarva 2010) and to ensure that the resources required including **time and funding** are available (Sherrill et al. 2005; Vanderpool et al. 2011).

Resources also refers to the support and **professional development** needs of the local health workforce to build capacity, including consideration of expanding the scope of traditional roles (Asthana & Halliday 2004), in order to implement the intervention (Dooley et al. 2009; Vanderpool et al. 2011). It is important that the new roles that may be required be designed to allow healthcare staff to work beyond normally accepted expectations while remaining within the parameters of safe governance (Hyde, Harris & Boaden 2013). **Assessing readiness** for implementation includes not only physical resources but also whether the community and stakeholders perceive the need for a new service or intervention (Jennett, Gagnon & Brandstadt 2005) and are open to supporting a new approach.

Openness to new ideas is required in order to cultivate the **flexibility** (Asthana & Halliday 2004; Perkins et al. 2006; Pidgeon 2015; Sherrill et al. 2005; Vanderpool et al. 2011) and **creativity** (Dooley et al. 2009) needed when adapting a service model. Willingness to make adjustments through an iterative process based on progressive evaluation throughout implementation is considered vital when adapting to meet the unique needs of a local

community (Perkins et al. 2006; Semansky et al. 2012). **Networking** with other communities and learning from their experiences can provide invaluable information, particularly when seeking innovative ways to overcome implementation challenges (Asthana & Halliday 2004; Smith et al. 2016).

Of the papers reviewed, six emphasised **community participation** as a key element of service development and adaptation (Cornwell, Hawley & Romain 2007; Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010; Pidgeon 2015; Sherrill et al. 2005; Sullivan, Hegney & Francis 2013). The concept of **collaboration** when seeking to adapt service models for rural contexts includes community members and providers across the network of local health services (Cornwell, Hawley & Romain 2007; Sherrill et al. 2005). A proactive and respectful approach is needed to build a sense of trust and collegiality (Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010), recognising and drawing on the strengths of stakeholders and enabling a collaborative interprofessional approach (Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010). This includes building coalitions through the development of strong, trust-based relationships between the executives and senior managers of partnering organisations (Mannion et al. 2011).

### **The Opportunities for Community Co-design**

Of the papers reviewed, nine highlighted the benefits of community co-design with six of these emphasising the role of **active participation** by the community to address often complex local needs and challenges (Eyre & Gauld 2003; Farmer & Nimegeer 2014; Kenny et al. 2015; Morgan et al. 2009; Pesut et al. 2015; Taylor et al. 2010). By enabling and actively facilitating community participation, the design can be tailored to the context providing the opportunity ‘...to define and uncover solutions to complex local problems’ (Kenny et al. 2015, p. 1909). This is thought to support communities in identifying health priorities and providing essential information (Pesut et al. 2015) to **inform modifications** to service models to address issues different from those which may have been considered by health authorities (Farmer & Nimegeer 2014).

Those living in the local community are best placed to identify the feasibility of a proposed model and **design innovative solutions** (Morgan et al. 2009; Taylor et al. 2010). A study of

four communities in Scotland demonstrated that while established service models may be beneficial during community consultation, the diversity in the design of local health programs was indicative of the impact of community participation to address local contextual issues (Farmer & Nimegeer 2014).

The diversity in the design of service models indicates the vital importance of considering the myriad of contextual factors which must be considered for effective local healthcare planning (Kenny et al. 2015). Kenny and colleagues highlighted both the importance and **complexity of community participation**, and therefore the need for clarity of focus, purpose and role, including a delineation between consultation and actual decision making power, thereby moving from ‘symbolic engagement’ to **coproduction** (Kenny et al. 2015, p. 1914). To facilitate the shared understanding of purpose, providing a standardised service model with core components can be a useful approach to assist in focusing discussions (Farmer & Nimegeer 2014).

Consumer-driven service design provides benefits including flexibility and adaptation, addressing the ‘**power differential**’ between health service providers and consumers, while capturing the ‘... energy and passion of rural communities to improve the wellbeing of community members’ (Taylor et al. 2010, p. 2). The benefits of collaborative community initiatives extend beyond the appropriateness of the service design to increased uptake of the intervention (Chilenski et al. 2014) and a positive impact on **social capital** with improved community network connections (Chilenski et al. 2014; Pesut et al. 2015; Taylor et al. 2010), confidence (Taylor et al. 2010) and cohesiveness (O’Meara, Kendall & Kendall 2004). Confidence and skills may be built not only in community collaboration but also advocacy at the political and policy level (Eyre & Gauld 2003). To build such relationships, and ensure comprehensive consultation, representation across the community must be broad and actively engage any **marginalised groups** in the population (Eyre & Gauld 2003). The engagement of such a broad cross section of community members has been identified as helpful in reducing potential conflicts and utilising collective wisdom to find solutions to often complex situations (Kenny et al. 2015).

Leadership, coordination and communication are vital elements for successful community collaboration (O'Meara, Kendall & Kendall 2004). The **sustainability** of the required participation and supports required to enable this must also be considered (Eyre & Gauld 2003). While some authors recommended initiatives being driven by local leadership in order to build local capacity (Pesut et al. 2015), others discussed the integral role of a project officer or project worker (O'Meara, Kendall & Kendall 2004; Smith, Grundy & Nelson 2010), acting as a facilitator of change while operating within the principles of cultural comfort and community control to 'sustain core cultural strengths and values' (Smith, Grundy & Nelson 2010, p. 2).

### **The Need for Integrative Sustainable Models of Rural Health Service Provision**

Of the articles reviewed, 15 articles (eight reporting primary research and seven describing secondary research) discussed the need for integrative and sustainable models of rural health service provision. Eight of these articles provided descriptions of integrated health service provision, advocating strongly for the benefits for rural communities (Berkowitz 2004; Fitzpatrick et al. 2017; Forbes & Edge 2009; Humphreys 2009; McCabe & Macnee 2002; Nancarrow et al. 2015; O'Meara, Burley & Kelly 2002; Wakerman & Humphreys 2011).

Descriptions of integrated service models included a focus on **coordination** (Humphreys 2009; McCabe & Macnee 2002; Wakerman & Humphreys 2011) and **collaboration** (Fitzpatrick et al. 2017; Humphreys 2009), taking a holistic approach to the needs of patients across the **continuum of care** (Berkowitz 2004; Fitzpatrick et al. 2017; Forbes & Edge 2009; Wakerman & Humphreys 2011). The sharing of resources was identified as key to enhancing viability and maximising efficiencies including considering opportunities for co-location (Humphreys 2009). Additional benefits were identified for health consumers by providing a 'one-stop shop' (Berkowitz 2004), and building strong linkages and networks of support for health providers and consumers (Forbes & Edge 2009; O'Meara, Burley & Kelly 2002).

Addressing community needs to promote physical and mental health and wellbeing requires a **strong integrated network** of services and interprofessional teams (Gaudet, Kelley & Williams 2014) across the continuum from primary health, inpatient acute and tertiary services to specialist services (McCabe & Macnee 2002; Nancarrow et al. 2015). Integration

extends beyond health to include other service providers within the community such as education, fire, police and local councils (McCabe & Macnee 2002; O'Meara, Burley & Kelly 2002).

To implement integrative health service models responsive to the needs of rural communities, **flexible funding arrangements** are required to enable innovative solutions and facilitate pooling of resources to maximise benefit for the local population (Berkowitz 2004; Wakerman & Humphreys 2011). This creates challenges in terms of policy and governance, maintaining a balance between program priorities and flexibility for local implementation through integrated service partnerships (Fitzpatrick et al. 2017; Wakerman & Humphreys 2011) while monitoring service quality and outcomes (Aljasir & Alghamdi 2010; Humphreys 2009).

Funding must also be considered in terms of service models which will be effective for the unique context of a particular population including **available resources** such as transport, workforce and information technology infrastructure (Berkowitz 2004; Humphreys 2009; O'Meara, Burley & Kelly 2002). A study of rural Aboriginal communities to quantify the economic differences between primary health care provision through Aboriginal Community Controlled Health Services (ACCHS) and through mainstream general practitioners identified that '... more resources are required in the delivery of health interventions via ACCHS due to their comprehensive nature , ...however this is accompanied by greater benefits due to improved health service access' (Ong et al. 2012, p. 1).

The scoping review identified six papers that discussed a **range of service models** which may be considered when implementing health services in diverse rural and remote settings. These models included those targeting more populated regions, comprehensive primary health care services and mobile visiting services (Humphreys 2009; Wakerman 2009). A key consideration was how to address the **challenge of distance** and expand the reach of services to smaller rural and remote communities. Service modes of delivery included outreach in the form of satellite services, mobile services visiting on a periodic basis (Aljasir & Alghamdi 2010) and telehealth to decrease isolation and provide support for patients, caregivers and clinicians (Forbes & Edge 2009; Judd et al. 2002). Caution was noted for those planning 'Fly-in Fly-out / Drive-in Drive-out' services to proactively develop strong network linkages

to ensure health professionals providing such services were not practising in isolation (Hussain et al. 2015).

In order for healthcare services to be **sustainable**, a number of key elements are required. Humphreys and colleagues (2008, p. S77) described these as ‘...macro-scale environmental enablers (supportive health policy, federal-state relations, and community readiness) and five essential service requirements (workforce organisation and supply; funding, governance, management and leadership; linkages; and infrastructure)’. By meeting key requirements in a manner that fits the local context while being aligned with and supported by these macro enablers (Humphreys et al. 2008), healthcare services can build a robust foundation to withstand the test of time and be responsive to the needs of the communities they serve. The implementation of locally developed integrative service models provides opportunities for local workforce capacity building, enhancing professional opportunities, workforce retention and service sustainability (Berkowitz 2004; O’Meara, Burley & Kelly 2002; Quinn et al. 2013).

### **2.1.5 Gaps in the Literature – Directions for Future Research**

Authors of the papers included in the scoping review identified key areas in need of further research. Core to addressing inequitable health outcomes in rural and regional areas, is the understanding that no one model is suitable nor effective for all settings (Humphreys et al. 2008; Swindlehurst et al. 2005). Humphreys and colleagues (2008, p. S79) noted that as just as no one “coat” fits all, so too it is vital to understand ‘... what works well where...’ To this we must also add ‘why’ interventions are successful or not within certain contexts (Breimaier et al. 2015) and to further expand our understanding, we can consider ‘for whom’ interventions effectively improve health outcomes.

In order to answer these questions, authors reflected on the need for a systematic approach to building an evidence base to inform rural service planning and delivery (Haggarty, Ryan-Nicholls & Jarva 2010). These included four papers which recommended investigating the impact of local context on the design of health services within rural settings (Allan, Ball & Alston 2008; Burley & Greene 2007; Farmer, Clark & Munoz 2010; Smith et al. 2016). Such an approach must seek to understand the elements which are important to an intervention

being efficacious and those which must be flexible for successful adaptation within a different context (Brown & Dietsch 2013; May, Johnson & Finch 2016; Vanderpool et al. 2011). It has been advocated that this exploration be extended to interprofessional service models to optimise service provision in regional and rural areas (Allan, Ball & Alston 2008) and to better understand the expectations and needs of the healthcare workforce. Such evidence can be used to develop strategies to address recruitment and retention challenges (Brown & Dietsch 2013) while identifying workforce readiness for change (Jennett, Gagnon & Brandstadt 2005).

It was recommended that the most effective mechanism for gaining such understanding is through the engagement of those most closely involved with and affected by proposed initiatives (Farmer & Nimegeer 2014). This includes direct participation by ‘... clients, families, provider agencies, and other relevant stakeholders’ (Semansky et al. 2012, p. 850), a practice that is known to improve evaluation. Although invaluable, it has been identified that community involvement in systematic service change can be ‘messy’ as diverse needs and perspectives are explored. Therefore further research would add value to understanding and facilitating this process effectively (Farmer & Nimegeer 2014) while also exploring the impact on social capital (Chilenski et al. 2014).

Continuing evaluation and testing of service models has been identified as vital to improving our understanding of “what works well where” and “why and for whom” (Berkowitz 2004; Wakerman & Humphreys 2011). Such ‘ongoing evaluation provides an evidence base to design mid-course corrections’ (Semansky et al. 2012, p. 849) before damage occurs including wasted resources and opportunities (Asthana & Halliday 2004). Evaluation of service models to better understand suitability for diverse contexts requires the development of indicators which can be monitored over a period of time (Wakerman 2009). Indeed, Fitzpatrick and colleagues (2017) called for detailed exploration of service models which successfully overcame barriers with thorough attention to the context in order to inform future rural health service provision. The literature included a clear call to researchers and program developers to ensure robust evaluation. Providing comprehensive information about service models and context is needed to build the evidence base for rural health service provision (Smith et al. 2016).

### **2.1.6 Conclusion**

The scoping review findings reflected the international call to action to address rural health outcome inequities by ensuring health services are contextualised and integrated to meet the needs of rural communities. The adaptation of successful metropolitan service models is a key strategy to address rural health inequities. This includes understanding the unique context of the rural community, flexible funding models, cross sectoral and community collaboration to develop innovative local solutions. It also requires providing appropriate resourcing and support for health service practitioners in rural and regional areas. Robust evaluation models are required in order to understand what service models provide effective outcomes in different contexts and how such models can be adapted for diverse settings.

## **Chapter 2**

### **Part B: Integrative Review**

## 2.2 PART B – Integrative Review

### 2.2.1 Background


The following paper has been published in the peer reviewed journal *Health Science Reports*. The citation for this paper is: Stockton, D., Fowler, C., Debono, D., Travaglia, J., (2021). World Health Organization Building Blocks in Rural Community Health Services: An Integrative Review. *Health Science Reports*. <https://doi.org/10.1002/hsr2.254>

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**REVIEW**

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### World Health Organization building blocks in rural community health services: An integrative review

Deborah A. Stockton<sup>1</sup>  | Cathrine Fowler<sup>2</sup> | Deborah Debono<sup>1</sup> | Joanne Travaglia<sup>1</sup>

The paper's primary author was the PhD Candidate, Deborah Stockton. Design and editing contributions made by the doctoral supervisory panel of Prof. J Travaglia, Prof. C Fowler and Dr. D Debono.

This paper builds on the scoping review, enabling a focused integrative review of the presence and/or absence of the WHO Building Blocks for Strengthening Health Service Systems (World Health Organization 2007) in rural health literature published in the decade following the release of the Framework for Strengthening Health Service Systems (World Health Organization 2007). The aims of the literature review were to inform rural and remote health service delivery systems; to identify lessons learnt from literature describing experiences of rural and remote community health service planning and implementation; and inform recommendations to strengthen often disadvantaged rural and remote health systems for policy makers. In terms of this thesis, the WHO Building Blocks have been utilised to hone the focus of the PAR and Modified Delphi Studies.

### 2.2.2 Introduction

Differences between the health outcomes of people living in rural and remote areas as compared with their metropolitan counterparts have been identified as a world-wide phenomenon (Adongo et al. 2014; Allan, Ball & Alston 2008). Inequities in the health outcomes of people living in rural areas have highlighted the need for strategies to improve access to health services and health professionals outside of metropolitan areas. The United Nations International Labour Organization reported that ‘while 56% of the global rural population lacks health coverage, only 22% of the urban population is not covered’, further compounded by rural health workforce shortages resulting in a lack of access to urgently needed care for half the global rural population (International Labour Office 2015, p. xiii). The deficits observed in access and health spending in rural areas have been identified as resulting in avoidable suffering with an example being ‘rural maternal mortality rates that are 2.5 times higher than urban rates’ (International Labour Office 2015, p. xiii).

The issue of access to healthcare within rural and regional settings is a complex challenge. The specific geography, transport availability and the distance to various (or any) services can all create significant obstacles to timely appropriate diagnosis, treatment and management of health conditions (McCabe & Macnee 2002). In addition, there is often stigma associated with help-seeking, as well as privacy concerns in small communities (Allan, Ball & Alston 2008).

The need to develop service models which effectively meet the healthcare needs of rural and remote communities in order to address the inequities currently experienced by populations outside large metropolitan centres has been identified as a key priority in both national and international healthcare systems (Standing Council on Health 2012; World Health Organization 2008). An international call to action to address the health outcomes gap for those living in disadvantaged regions, including populations in rural areas, has been promoted by the World Health Organization (WHO), highlighting the need to: adapt effective interventions for rural contexts (World Health Organization 2007); scale up interventions from urban centres for ‘...rapid roll-out in less-resourced rural settings’ (World Health Organization 2008, p. 18); and implement strategies to retain appropriately trained healthcare workers (World Health Organization 2010).

In 2007 the World Health Organization (WHO) released their Framework for Action titled 'Everybody's business: Strengthening Health Systems to Improve Health Outcomes' (World Health Organization 2007). The framework acknowledged that despite sophisticated developments in interventions and technology, health outcomes gaps remained due to inadequacies in '...health systems to deliver them to those in greatest need, in a comprehensive way, and on an adequate scale' (World Health Organization 2007, p. iii). The primary purpose of the Framework is to '...promote common understanding of what a health system is and what constitutes health systems strengthening' (World Health Organization 2007, p. v).

Central to the Framework are six building blocks of a health system: 1) service delivery; 2) health workforce; 3) information; 4) medical products, vaccines and technologies; 5) financing; and 6) leadership and governance. In the decade since the release of the Framework, research has identified that 'the WHO health system framework is instrumental in strengthening the overall health system and as a catalyst for achieving global health targets such as the Sustainable Development Goals' (Manyazewal 2017, p. 2).

The purpose of this integrative review is to identify evidence of the WHO health system building blocks in rural and remote health service literature. The review also sought to identify the published reports of challenges and barriers which need to be overcome to strengthen rural community health systems and improve the health outcomes of rural communities to address health inequities experienced by rural and remote populations.

### **2.2.3 Method**

The integrative review method was utilized to enable the inclusion of data from theoretical and empirical literature, providing a variety of perspectives to inform a thorough understanding of phenomena. This method has been identified as a useful approach in healthcare research (Whittemore & Knafel 2005).

The literature search included the CINAHL, Cochrane, PubMed and Scopus databases. In addition, the reference lists of key articles were reviewed and a hand search of key journals relating to Implementation Science and Rural Health was conducted. The searches focused on rural health service models, adaptation, implementation and service delivery. The initial literature search parameters included articles published between 2002-to-2017 for which full text English versions were available. Key search terms included ‘rural health service’, ‘model’, ‘context’, ‘adaptation’, ‘implementation’ and ‘service delivery’.

The terms rural or rurality can be considered in relation to geographical, locational and sociocultural domains (Farmer, Clark & Munoz 2010). Definitions of rural or remote are not homogenous and differ between countries and regions, however the majority of rural communities’ experience similar challenges in terms of ‘... access to care, resource allocation, health inequalities and deprivation’ (Swindlehurst et al. 2005, p. 4). For the purposes of this literature review, articles in which the context has been identified by authors as “rural” and/or “remote” have been included to draw upon learnings from a range of relevant studies.

The PRISMA framework (Figure 2) provides a summary of the search and screening process. The initial search yielded 508 articles. This yield was reduced through the removal of duplicates and the application of inclusion and exclusion criteria which reduced the number of articles under consideration to 80. Empirical articles were retained for thorough analysis which met the inclusion criteria: (a) focus on service intervention and provision within rural and/or remote health context; (b) adaptation of interventions and service model design for rural and/or remote primary and/or community health practice; (c) written in English language and published between 2002–to–2017; and (d) peer reviewed.

Articles were excluded if their focus was: (a) purely workforce issues and health student training; (b) a description of population data analysis of specific locations; (c) a description of population health beliefs and attitudes specific to particular locations; (d) funding and health insurance in isolation from implementation issues; (e) a description of health promotion awareness raising programs rather than service provision models; (f) screening and diagnostics, acute care settings and targeted programs without reference to the rural context.

To achieve the aim of reviewing strategies that inform policy and planning to strengthen rural community health services capacity to address health inequities, the inclusion criteria were further refined to focus on the decade (2007-2017) since the release of the WHO Framework for Action: Everybody’s Business: Strengthening Health Systems to Improve Health Outcomes (World Health Organization 2007). This resulted in 20 articles being retained which were reviewed in full text and compared to the Building Blocks articulated in the WHO Framework (see Figure 4: PRISMA Flowchart for Integrative Review).

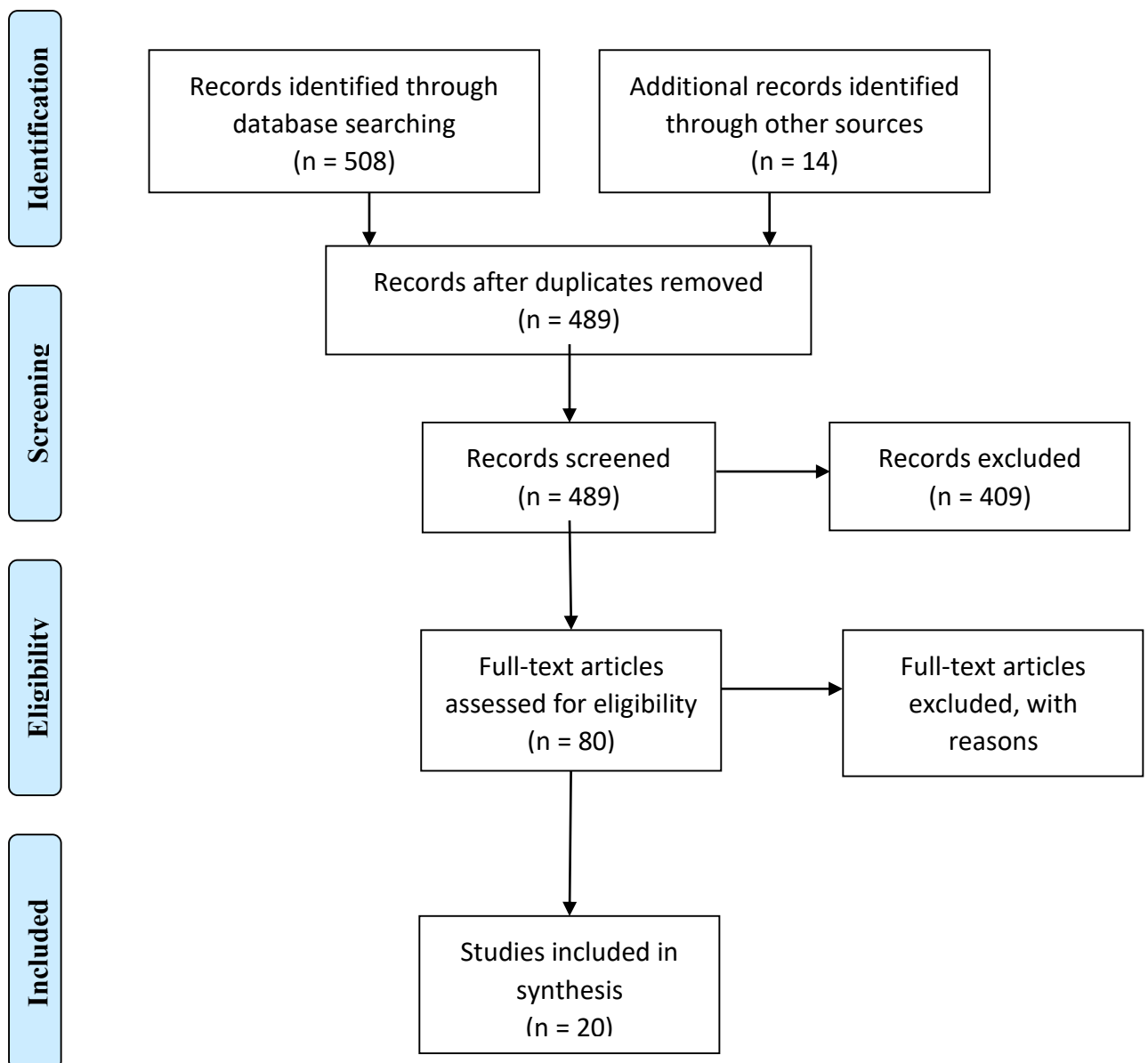


Figure 4: PRISMA Framework: Search Process for Integrative Review

Of the 80 initial full text articles, 10 percent were reviewed by three of the authors independently (a combination of DS, JT, CF, DD) to check the reliability of the application of the criteria for inclusion and exclusion. A structured template was developed to support the extraction of relevant information (author/year/title, country, sample/setting, study purpose, design, and findings) and evidence of examples or difficulties relating to the six WHO Framework building blocks. Template analysis (King 2012) was undertaken, involving sorting and categorizing from the structured template spreadsheet into tables, followed by further summarising of the data to facilitate synthesis of key concepts and learnings.

#### **2.2.4 Results**

A total of twenty peer reviewed articles that met the selection criteria were included in this review. The review identified examples of rural health services in which the WHO Framework Building Blocks are reflected in delivery models and implementation. These examples serve as exemplars, providing rural health policy makers and planners with learnings to further strengthen local health systems. We also noted gaps where some WHO Building Blocks were not identified within rural health service research and authors' reports of challenges and barriers to the implementation of certain sub-sets of the Building Blocks.

Of the articles reviewed, ten used a qualitative research design and ten used a mixed methods design. The articles provided a cross section of settings including eight from Australia, five from USA, five from Canada, and one each from the United Kingdom and Saudi Arabia. Of these, the settings for four papers were Indigenous communities - two in Canada and two in Australia. The articles focused predominately on rural settings which were reflected in 11 articles with a further four focusing on remote health settings and five on a combination of rural and remote, with rural and/or remote being as defined by the authors.

Certain Building Blocks from the WHO Framework were identified as more highly represented in the literature in the decade following the Framework's release than were others. Commentary regarding challenges or barriers relevant to the implementation of particular Building Blocks were also identified. Table 1 provides an overview of the number

of articles which reported content regarding each of the Building Blocks. A table of evidence from the integrative review (Appendix 1) provides a summary of the key review findings for each article.

*Table 1: Results of articles identified by WHO building block*

<b>Building Block</b>	<b>Articles providing exemplars</b>	<b>Articles describing challenges or barriers</b>
1. Service Delivery	20	11
2. Health Workforce	13	8
3. Information	2	2
4. Medical Products, Vaccines & Technologies	4	2
5. Sustainable Funding and Social Protection	2	8
6. Leadership and Governance	8	4

### **Building Block 1: Service Delivery**

The 20 articles reviewed included examples of the WHO Building Block 1: Service Delivery. This block includes six priorities: integrated service delivery models and packages; consumer engagement influencing demand for care; infrastructure and logistics; patient safety and quality of care; and leadership and management. Innovative service models identified in the rural health literature reviewed, included examples of mobile services (Aljasir & Alghamdi 2010), fly/drive in models (Pidgeon 2015) and telemedicine (Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010; Morgan et al. 2009; Pidgeon 2015; Semansky et al. 2012).

Community collaborative engagement was identified in the literature as key to successful service model or program implementation. Authors reported the role of stakeholders as being vital to contextualisation for a rural setting. This involvement ranged from early engagement to inform program selection and design (Cornwell, Hawley & Romain 2007; Morgan et al. 2009; Semansky et al. 2012), input into solutions to improve access and ensure culturally sensitive care (Dooley et al. 2009; Smith et al. 2016) to more formalized relationships such as community-based governance committees (Pesut et al. 2015). Community stakeholder engagement and facilitation was reported as either being undertaken by project managers (Morgan et al. 2009; Smith, Grundy & Nelson 2010), the key local agency fund-holder

(Chilenski et al. 2014) or in some instances was legislatively mandated as a condition of receiving government funding (Semansky et al. 2012). In rural settings, community advisory committees or similar entities to facilitate community engagement and guide health service planning and implementation can encompass a broad cross section of community actors including but not limited to 'primary care, community agencies, faith groups, agricultural, Aboriginal, law enforcement, pharmacists, key employers' (Haggarty, Ryan-Nicholls & Jarva 2010, p. 8) in addition to representatives from other government agencies.

Community-based participatory action research was reported as being an effective approach to the identification and customisation of models and ensuring adaptations address local community needs (Farmer & Nimegeer 2014) and service evaluation (Taylor et al. 2010). An example is participatory action research undertaken in Scotland to design primary healthcare services for local communities. The research was undertaken as a partnership between local health authorities and university-based researchers who engaged community members through nominations by local organisations or self-nominations following community advertising of the opportunity to participate (Farmer & Nimegeer 2014). Additional benefits of stakeholder engagement were noted in terms of building of social capital (Chilenski et al. 2014), capacity building (Smith et al. 2016), shared vision and local ownership (Quinn et al. 2013), promotion of trust and service legitimacy (Taylor et al. 2010), communication of healthcare information and identifying innovative local solutions to implementation challenges (Haggarty, Ryan-Nicholls & Jarva 2010; Smith, Grundy & Nelson 2010).

The Service Delivery Building Block elements of integration and trust were reported in a number of articles, with Fitzpatrick and colleagues emphasising the case for place-based systems of care (2017). Sullivan and colleagues (2013) reported a collaborative practice model consisting of multiple rural health services supported by a state government. Smith and colleagues described collaboration between mainstream services and the traditional Indigenous owners of the land enabling community health services to be delivered by ensuring that local culture was central to the service model design, seeking consistency with the worldview of the local Indigenous community (Smith, Grundy & Nelson 2010). Interprofessional practice was seen as integral in rural health, from implementation planning processes through both formal networks and informal relationships (Gaudet, Kelley &

Williams 2014; Morgan et al. 2009), to service delivery collaboration and increasing access to comprehensive care to address diverse health needs of the community (Parker et al. 2013).

Rural service delivery exemplars commonly reported a systematic approach to planning, implementation, adaptation and evaluation. This included an emphasis on taking the time to understand the health priorities and local contextual factors to be considered when choosing or customising interventions (Farmer & Nimegeer 2014; Fitzpatrick et al. 2017). Smith and colleagues described a conceptual model utilized to inform effective rapid implementation while retaining the flexibility to incorporate locally developed protocols to strengthen the systems of care (Smith et al. 2016). Evaluation was identified as being vital, both in terms of enabling early intervention modifications to suit the context (Semansky et al. 2012) and contributing to the body of rural health service evidence including economic evaluations to ensure appropriate resource allocation for disadvantaged populations (Ong et al. 2012).

A total of eleven articles noted challenges to the implementation of Service Delivery including improvements needed at the interface between services in order to effectively deliver integrated care (Fitzpatrick et al. 2017), and constraints on both a macro and micro level which impede collaboration and interprofessional practice (Parker et al. 2013). Examples of such constraints include funding models and service fragmentation at a macro level in addition to lack of diversity in the health disciplines represented in the workforce at a local level and workload constraints at the micro level. The time constraints placed on those implementing funded initiatives were identified as a barrier to truly understanding the local context and building community trust (Pesut et al. 2015). Without such time, best practice models cannot be effectively implemented as this impacts the ability to fully explore and understand local environments, culture, beliefs, resources and the local communities' health priorities (Aljasir & Alghamdi 2010; Pidgeon 2015). Flexibility was noted as a key requirement in order to effectively implement service models and initiatives to address unique contextual factors and community needs (Pidgeon 2015; Semansky et al. 2012; Vanderpool et al. 2011). In order to tailor models to address local community needs, long-term commitment is needed with the sharing of resources between organisations providing an opportunity to optimize capacity (Semansky et al. 2012).

Evidence-based models developed and evaluated in rural settings are necessary to build the evidence-base to inform implementation (Smith, Grundy & Nelson 2010; Vanderpool et al. 2011). Increasing the evidence-base will enhance planning and inform strategies to overcome challenges (Haggarty, Ryan-Nicholls & Jarva 2010; Vanderpool et al. 2011) while providing guidance and support to avoid misalignment of interventions which can become a mixture of different interventions and lack evidence of efficacy (Smith, Grundy & Nelson 2010).

## **Building Block 2: Health Workforce**

A total of thirteen articles contained examples of the Building Block of Health Workforce to improve health service systems. This building block includes priorities relating to the recruitment of appropriately qualified health professionals with the skill sets required for the context, and the retention, professional development and clinical support of staff. The literature included references to a broad range of health care providers working in rural settings including nurses, physicians, midwives, social workers, occupational therapists, pharmacists, psychologists, social workers and Indigenous Health Workers.

Recruitment and retention for the rural and remote context is required in order to secure multi-skilled health practitioners able to work across a broad scope of practice (Dooley et al. 2009). Local health professionals representing a range of disciplines and skill-sets enables an interprofessional team approach (Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010), which in turn is required to address the diverse range of local health needs of rural and remote communities and maximize finite financial and workforce resources.

Interprofessional teams enable the sharing of knowledge and expertise and contribute to the professional development and clinical support of other rural healthcare team members (Morgan et al. 2009; Parker et al. 2013; Pesut et al. 2015). Such support, both within the local community, through telehealth education (Semansky et al. 2012), or through clinician exchange programs with metropolitan centres (Quinn et al. 2013) enable clinicians to not only maintain clinical competency but also to work in the extended scope of practice often required within a remote context (Pidgeon 2015).

Education extended to more than clinical training, with education on the local health context a unique element in the successful health service delivery in rural and remote settings (Cornwell, Hawley & Romain 2007). Training and mentorship from health professionals in other communities and from experts help to overcome implementation challenges when establishing new services or programs (Smith, Grundy & Nelson 2010; Vanderpool et al. 2011).

Health workforce strategies in exemplar initiatives included working collaboratively across the health workforce and organisational boundaries, in order to provide effective integrated care in rural and remote settings (Gaudet, Kelley & Williams 2014). Successful service systems highlighted the role of healthcare workers, including General Practitioners (Gaudet, Kelley & Williams 2014) and Nurse Coordinators, as both care coordinators and as advocates for their communities, including providing input into service system improvements (Gaudet, Kelley & Williams 2014; Haggarty, Ryan-Nicholls & Jarva 2010).

Of the articles reviewed, eight identified key workforce challenges and provided recommendations to overcome these and other identified gaps. Authors proposed the need for strategies to address challenges to recruitment and retention of appropriately trained staff (Semansky et al. 2012), including incentive schemes (Dooley et al. 2009). Given the multifaceted nature of healthcare delivery in rural and remote communities, the development of core competencies for rural workers was recommended (Haggarty, Ryan-Nicholls & Jarva 2010). Some programs reported the negative impact of a lack of health professionals from particular disciplines and a lack of understanding of interprofessional roles on the opportunities for interprofessional practice (Parker et al. 2013; Quinn et al. 2013).

Authors noted that healthcare workers should be acknowledged as holders of knowledge of local community needs and that decision makers should harness this knowledge to inform service system improvements (Gaudet, Kelley & Williams 2014). Strategies to increase access to professional development, connection and clinical support for isolated health care workers were identified. Challenges to engaging some health care providers in telehealth on a regular basis were identified, particularly due to competing demands (Morgan et al. 2009). Support and education were identified as being vital to health care workers with an extended

scope of practice and building capacity to deliver culturally safe health care by being informed as to the values of the individual and community; communication which is respectful of the belief systems of the clients; working collaboratively with ‘cultural translators’ such as Indigenous Health Workers or family members; and ensuring inclusive treatment decision making (Pidgeon 2015). Those implementing evidence-based programs were warned that a standardised approach to training may not be relevant to rural and remote contexts and that train-the-trainer packages were recommended for the sustainability of such initiatives (Vanderpool et al. 2011).

### **Building Blocks 3 and 4: ‘Information’ and ‘Medical Products, Vaccines and Technologies’.**

Only two articles were identified with explicit mention of Building Block Three: Information, while four articles discussed Building Block Four: Medical Products, Vaccines and Technologies, with the references to building block four all relating to telehealth/telemedicine. Exemplar programs identified the importance of obtaining all relevant data to inform planning and priority setting (Cornwell, Hawley & Romain 2007), with specific data being collected in some instances to demonstrate the impact of new interventions such as the travel distance saved through telehealth (Morgan et al. 2009).

Only two articles discussed specific challenges or requirements in relation to ‘Information’ while a further two authors identified particular challenges in relation to technology. Despite calls for data-informed service planning decisions and robust evaluation design, there was little mention of data and information sources identified in the literature reviewed. This is somewhat surprising given the need to contribute to the body of rural health service evidence (Haggarty et al., 2010). Ong and colleagues (2012) discussed the challenges in accessing contextually specific economics data to inform healthcare planning, particularly in relation to disadvantaged populations. The literature contained warnings that those planning healthcare implementation need to be clear on the data and measures from the outset, recommending that given the myriad of contextual factors that may or may not be foreseen, formative evaluations were needed to make changes progressively in real-time (Semansky et al., 2012).

Telehealth was identified by a number of authors as the predominant technological advance with the potential to improve access to services, overcome the barriers of geography and isolation, and improve rural and remote health outcomes (Dooley et al. 2009; Haggarty, Ryan-Nicholls & Jarva 2010; Semansky et al. 2012). Telehealth was not seen as a replacement for local services, but rather as an adjunct, providing additional access between community visits by fly/drive-in clinicians in remote areas (Pidgeon 2015). In addition, telehealth technology was utilised in exemplars to increase clinician access to clinical support, consultation and education (Dooley et al. 2009).

While telehealth was identified in a number of exemplar service implementations, difficulties were encountered in relation to reliable internet and technological connectivity and a lack of on-the-ground support for technical support staff (Pidgeon 2015). In addition, the opportunities afforded by telehealth were noted to be constrained in some instances by the narrow parameters of reporting, billing and health insurance requirements (Semansky et al. 2012).

### **Building Blocks 5 and 6: ‘Sustainable Financing and Social Protection’ and ‘Leadership and Governance’.**

While an emphasis was present throughout much of the literature on the importance of reliable and sustainable funding and resourcing, there was little commentary on how this could be achieved. Of the articles reviewed, two included reporting of examples of financial models to support rural health service delivery and implementation. Finance was discussed in relation to capitalising on external grants (Cornwell, Hawley & Romain 2007). Financial models such as bulk billing to address the financial barriers to healthcare access (Fitzpatrick et al. 2017) and Medicare rebates to enable coordinated care (Parker et al. 2013) were identified as key strategies for rural and remote communities.

Several articles (eight) reported challenges in relation to sustainable funding and the associated social protection for rural communities. The WHO identified pooling of both financial risk and funding as a means to address some of the challenges experienced in rural and remote settings (World Health Organization, 2007), however evidence of this was

lacking in the papers reviewed for this integrative review. Authors described the problems associated with short-term funding or lack of clarity as to whether funding would continue for service sustainability (Cornwell et al., 2007; Dooley et al., 2009; Fitzpatrick et al., 2017; Haggarty et al., 2010). Funding models with constraints and narrow requirements were noted as not being aligned with the realities of rural healthcare provision (Semansky et al., 2012; Vanderpool et al., 2011). Others discussed the difficulties in relation to funding inadequacies to implement new models given specific challenges within the rural and remote health context including distance and travel (Dooley et al., 2009; Quinn et al., 2013) and the need for additional funding for recruitment and retention incentive schemes (Haggarty et al., 2010).

Of the articles reviewed, eight described leadership and governance models within the rural and remote health service contexts while four papers provided recommendations focusing on leadership and governance of rural health service systems. Exemplars of leadership and governance in rural healthcare systems consistently reported the benefits of local stakeholder involvement in planning and decision making (Chilenski et al. 2014; Cornwell, Hawley & Romain 2007). Collaboration was further seen to be promoted when it was integrated into the model required at a macro level by state agencies who provided funding (Semansky et al. 2012). Examples of intersectoral and community-based leadership were provided by Chilenski and colleagues, describing the establishment of local teams to oversee the selection and implementation of evidence-based school-based health programs (Chilenski et al. 2014). The team drew on local knowledge and engagement through the inclusion of not only local health agency representatives, but importantly a diverse range of stakeholders including consumers, education sector and prevention agencies and further extending to ‘businesses, law enforcement, faith-based institutions, parent groups, the juvenile justice system and/or the media’ (Chilenski et al. 2014, p. 127).

An example of such intersectoral collaboration and coalition building in action is the case study of a consumer-driven mental health service established in South Australia (Taylor et al. 2010). The service was enabled through partnerships between the local mental health team with additional staffing resources provided by the regional health service and the state government, further supported through local government in-kind contributions. The governance arrangements included the service becoming an incorporated organisation with a

management committee heavily weighted to community representation to facilitate the community-led approach with community members, mental health service consumers and a mental health professional.

In addition, organisational culture and champions were identified as being key to program implementation and sustainability in rural settings (Dooley et al. 2009; Fitzpatrick et al. 2017). Interestingly, Gaudet and colleagues (2014) reported an unexpected benefit of the geographical distance between an organisation's head office and more remote service providers, which was seen to empower the local providers in their decision making for their local community. While some papers identified examples of support for local stakeholder engagement in governance, others identified service fragmentation as presenting barriers to open engagement (Parker et al. 2013), with collaborative governance needing to be supported at a macro level by policy makers (Fitzpatrick et al. 2017). The need for government policy development to consider rural and remote contexts to avoid a malalignment between policy and service delivery was emphasised (Haggarty, Ryan-Nicholls & Jarva 2010). This was also highlighted in terms of professional registration requirements which can present barriers to new models of care in remote communities (Quinn et al. 2013).

### **2.2.5 Discussion**

Evidence of innovation was apparent within rural health delivery exemplars as health services sought to adapt and overcome local contextual challenges. Examples were seen of seeking community engagement to better understand population health needs, local barriers and opportunities, and input into planning to identify suitable solutions to overcome challenges, with some harnessing Participatory Action Research to enable this (Farmer & Nimegeer 2014; Taylor et al. 2010).

Leadership and governance were discussed explicitly in the literature (Cornwell, Hawley & Romain 2007; Fitzpatrick et al. 2017; Semansky et al. 2012), and also referred to when describing service delivery models. Consistent with the key functions of this WHO building block, collaboration and coalition building across jurisdictional and sectoral boundaries was

identified as a key enabler to effective rural and remote health service delivery (Chilenski et al. 2014; Taylor et al. 2010).

Such collaboration is required at both the macro level to inform policy (Humphreys et al. 2008) and at a service system level between service system interagency and community partners, mirroring the requirement for collaborative interprofessional health care at the direct service delivery level. Restrictive and narrow policy and governance requirements can and do impede the ability of health service managers and clinicians to be responsive to the needs of local communities. Flexibility is required if contextual needs and challenges are to be understood and service delivery models adapted to effectively address these (Taylor et al. 2010).

The WHO building blocks have been utilised by authors of reviews and research reports for varying purposes. These include a framework for the review of health sector reform and strategies to strengthen health systems (Senkubuge, Modisenyane & Bishaw 2014); and reviewing the status of health systems in particular countries, with an area of focus being countries of low or middle income (Adam et al. 2011; Manyazewal 2017; Mutale et al. 2013). This integrative review adds to this body of literature by utilising the WHO building blocks as a lens through which to review rural and remote health literature, to gain learnings to inform future areas of focus for rural health systems strengthening.

Differing opinions exist regarding the utility of the WHO building blocks for evaluation, acknowledging that the framework was not originally developed for this purpose but rather to guide resource investment to strengthen health systems (Mounier-Jack et al. 2014). Authors have reported the effectiveness of using the building blocks to inform a framework for research (Adam et al. 2011; Manyazewal 2017) while others have proposed using a formative approach, enabling the adaptation of the building blocks framework to the research context (Mounier-Jack et al. 2014).

A critique of the WHO building blocks framework by Sacks and colleagues suggested expanding the framework to include an explicit focus on community health, noting that without such attention, the focus of policy makers and therefore funding often centres on

facility and specialist based health services (Sacks et al. 2018). While the WHO framework identifies the vital nature of ‘civil society organizations in service delivery planning and oversight’ (World Health Organization 2007, p. 16) and for the building of coalitions and intersectoral collaboration, the authors propose the expanded framework include specific attention to societal partnerships and community organizations in order to effectively address the social determinants of health and acknowledge the role of household production of health. Research into unlocking community capabilities has emphasised the extent to which a thorough understanding of local community context and the development of effective collaborations is intimately connected to the building of trust with communities, particularly when this has been compromised by previous experiences (Asha et al. 2016).

A limitation of this review is that it does not explore the inter-relationship between the building blocks, but rather reports on the presence of each as an individual element. Mounier-Jack et al (2014, p. 1) discussed the value of the WHO framework in providing a shared language for researchers and service planners, while warning that ‘... it is not suitable for analysing dynamic, complex and inter-linked systems impacts’. There is much to be learnt through seeking to understand the relationships and interactions between building blocks, noting that challenges in certain building blocks will impact other functions (Mutale et al. 2013; Senkubuge, Modisenyan & Bishaw 2014). In addition, a lack of weighting of the building blocks may be of concern, presenting each as being of equal importance although this may differ between contexts (Mounier-Jack et al. 2014).

## **2.2.6 Conclusion: Future Implications for Practice and Research**

While there is international acknowledgement of the need to address the inequities in health outcomes between populations living in rural and remote communities and their metropolitan counterparts, further commitment and action is required in regards to sustainable funding models and the ‘rural proofing’ of policy and service models (Swindlehurst et al. 2005). Policy makers and funding bodies need to acknowledge the time, resources and funding required to build trust and local coalitions, providing the scope to engage community and local stakeholders in planning, implementation and evaluation in order to identify and, where needed, effectively adapt service models and interventions for rural and remote contexts, which are by very nature not homogenous but rather present unique challenges and

opportunities (Aljasir & Alghamdi 2010; Asha et al. 2016; Fitzpatrick et al. 2017; Pesut et al. 2015; Sacks et al. 2018).

Collaboration is an essential enabler for rural and remote community health service delivery (Chilenski et al. 2014; Dooley et al. 2009). This spans the health system governance continuum from national and state governments and policy makers, to local health service decision makers, stakeholders and importantly consumers. Collaboration is required up, down and across this continuum to enable services to be delivered which address local health priorities while being reflective of local culture and inclusive of all population groups, particularly minorities who are often those with the greatest need. The expanded Building Blocks Framework presented by Sacks and colleagues provides further guidance for those involved in planning, funding and implementation of rural community health services by explicitly focusing on the role of community-based health services and societal partnerships in order to effectively address local health priorities (Sacks et al. 2018).

Community-based participatory action research provides an opportunity to learn from those who understand the contextual nuances best, those living and working in their local communities (Farmer & Nimegeer 2014; Sullivan, Hegney & Francis 2013). Working together with researchers enables learning from one another, between traditional and mainstream services, building capacity of both community members, researchers and health service personnel alike, while importantly contributing to the body of rural health research knowledge.

Researchers should consider collecting data and reporting to not only increase the evidence-base regarding rural and remote health interventions and evaluation (Smith, Grundy & Nelson 2010; Vanderpool et al. 2011), but also the process of engaging communities and the impact of such community engagement (Asha et al. 2016; Chilenski et al. 2014; Haggarty, Ryan-Nicholls & Jarva 2010; Vanderpool et al. 2011). Such evidence will be invaluable to inform future planning from a policy level to local implementation decision making, enabling an informed approach to addressing the health inequities currently experienced in rural and remote populations and strengthening rural health systems as envisaged in the WHO Framework.

## **Chapter 3**

### **Research Methodology and Design**

## **3. Research Methodology and Design**

### **3.1 Research Objective**

This research explored the extent to which an Australian metropolitan service model for specialist (level 2) CFH services can be implemented in diverse settings such as rural and regional areas.

The research engaged consumers, clinicians, health service planners and other key service stakeholders including referral agencies and non-government organisations (NGOs). It used PAR and modified Delphi methods to inform the development of a framework for the adaptation of metropolitan child and family health service models for diverse settings.

#### **3.1.1. Research Question**

To what extent can an Australian metropolitan service model for specialist (level 2) CFH services be implemented in diverse settings?

##### Sub-Questions:

- a) What are the enablers and barriers to the implementation of metropolitan specialist CFH service models in rural and regional areas?
- b) What elements of the service model need to remain stable and what elements need to be flexible to enable adaptation for different contexts?
- c) What matters to consumers and stakeholders in relation to specialist CFH service models in rural and regional areas?
- d) How do you engage, build trust and relationships with service providers and the community? Does the model need to change to facilitate this?
- e) Is it important to have a local presence to provide effective and relevant services?
- f) Can technology be used instead of a local presence or to extend the service reach from local hubs?

## **3.2 Methodology**

### **3.2.1 Mixed Methods: Combining Participatory Action Research and Delphi Technique.**

This research was informed by a realist evaluation approach (Pawson & Tilley 1997), to delve deeply into a comprehensive exploration of contextual influences while seeking to understand mechanisms of complex programs and why they are successful (or not) within particular settings and circumstances (Parker et al. 2013; Taylor et al. 2010; Tolson et al. 2007). The realist evaluation approach seeks to understand the social world and the way this is interpreted by our senses and perspectives as constructs (Wong et al. 2012), as we seek to understand what interventions or models work for whom, where, how and why. The ‘context – mechanism – outcome’ (CMO) framework informs data analysis throughout the phases of this research. The CMO framework has been found to be beneficial in rural health practice research (Mitchell et al. 2013) while nurturing a collaborative and reflective approach to all aspects of the research including the interpretation of findings (Tolson et al. 2007).

The research uses a mixed methods approach drawing on PAR techniques and a Delphi Study (Rowell et al. 2015). The use of these approaches enables the perspectives and insights of those situated within the local setting contexts of the PAR cycles to be combined and compared with those of the Delphi Expert Panel. This approach enables access to a broad set of relevant experiences and perspectives (Rowell et al. 2015), generating qualitative and quantitative data to address the research questions and inform the development of a framework for application across a range of diverse contexts. Delphi approaches and PAR provide opportunities to address power differentials and foster inclusivity (Fletcher & Marchildon 2014), with PAR participants situated as partners in the research and Delphi panel participants from a broad cross section of backgrounds, including consumers, identified as experts on the focus of the study as they participate in the iterative Delphi rounds. The findings of the PAR groups, located in two separate sites in rural and regional NSW, Australia, provide an opportunity for a diverse range of local stakeholders who best understand the context of service implementation and community needs, to inform findings and recommendations which the Delphi Expert Panel were able to consider in terms of broader service application.

It is the cyclic, reflective process of PAR, with cycles consisting of stages of ‘ask, acquire, appraise, apply and assess’ (Hughes 2013) which plays the key role in aiding the identification of each step of an implementation process (Breimaier et al. 2015). Each step is critically informed by those who know the context best, being those who are situated within the setting before, during and after the PAR project and who can continue to utilise the learnings to inform further change. The PAR group participants guided the data collection, participated in review of analysis and interpretation of findings, and considered the implications of the findings for local implementation and future action research directions. Similarly, through the rounds of the Delphi Study, the expert panel refined the key elements to form the Framework for Adaptation of Child and Family Health Service Models for Diverse Settings.

### **3.2.2 Participatory Action Research**

The scoping review undertaken to inform this research identified a recurring theme of the appropriateness and value of community participation when undertaking rural health research (Haggarty, Ryan-Nicholls & Jarva 2010). This was recognised as being vital in order to yield comprehensive descriptive data and provide contextualisation of findings (Fitzpatrick et al. 2017; Semansky et al. 2012). Participatory Action Research enables the facilitation of a partnership between researchers and rural community stakeholders, creating a platform for the thorough exploration of myriad contextual factors impacting rural health service implementation while addressing power differentials, building local capacity and providing a bridge to the utilisation of research findings to influence positive change (Judd et al. 2002; Vanderpool et al. 2011; Wakerman 2009).

The PAR approach draws on the theoretical underpinnings of constructivism and critical theory (Baum, MacDougall & Smith 2006). To be more precise, social construction ‘...traces the origin of knowledge, meaning, or understanding to human relationships’ (Gergen & Gergen 2013, p. 160) and aims to reduce oppression and create an environment for ‘...collaborative creation of more viable futures’ (Gergen & Gergen 2013, p. 164). Likewise, critical theory maintains a focus on power relationships and seeks social justice and equity (Crotty 1998; Kemmis 2013) by viewing all interests as equally valuable while ‘...finding how perspectives, social structures and practices are interlinked’ (Kemmis 2013, p. 125). The

cyclical or upward spiralling process of critical inquiry allows each piece of information and each action to be critiqued against assumptions through reflection as the impact of action changes the context (Crotty 1998), a process which is integral to PAR.

### **The Iterative and Cyclical Nature of Participatory Action Research (PAR)**

One of the strengths of a PAR approach is the ability to enable an iterative process. An iterative, or formative approach, is also reflected in the stages of this research, with each study informing those that follow. The findings from the integrative review and from Study 1 (PAR Site 1) have informed the content of the e-questionnaires presented to the Expert Panel (Study 2 – Modified Delphi Study) who identify the key elements for inclusion in a draft framework. The framework is then tested through PAR at a second site (Study 3), enabling the refinement of the framework for adaptation of CFH service models in diverse settings.

The PAR approach provides an opportunity for researchers and participants to undertake a collective inquiry to explore a deep understanding of situations, practices and problems through a ‘reflective process directly linked to action, influenced by understanding of history, culture, and local context and embedded in social relationships’ (Baum, MacDougall & Smith 2006, p. 854). The PAR approach has been identified as appropriate and useful for implementation research (Breimaier et al. 2015; Grol et al. 2007), enabling the monitoring of progress while determining whether the intended outcomes are being achieved. This provides the opportunity for the timely adjustment of plans and improvements of practices in order to achieve those outcomes (Damschroder et al. 2009; Grol et al. 2007).

The cyclic, reflective process of PAR (Crotty 1998) provides a platform to harness opportunities for consumer co-design (Semansky et al. 2012; Sullivan et al. 2005), enabling members of communities to be involved in all stages of the research process to address real-life questions and challenges by creating ‘...participative communities of inquiry’ and action (Reason & Bradbury 2013, p. 1). The inclusion of participants as co-researchers seeks to reduce the power differential between researchers and research participants by building trust, harnessing personal strengths and empowering the participants (Baum, MacDougall & Smith 2006; Hunt et al. 2012; Rumsey et al. 2022). The aim was for researchers and community members to learn together and from each other, enhancing the relevance of the research

questions, design, outcomes and application (Garst et al. 2012). The PAR approach is also consistent with the definition of ‘facilitation’, described in the Expert Recommendations for Implementing Change (ERIC) project as being ‘a process of interactive problem solving and support that occurs in a context of a recognized need for improvement and a supportive interpersonal relationship’ (Powell et al. 2015, p. 9).

The PAR approach enables an iterative process, drawing on the experiences, reflections, knowledge and perspectives of a range of stakeholders who hold key understandings of community needs, service priorities, challenges and ultimately the adaptations required to ensure the service model is appropriate, relevant and effective. This has been conceptualised as a ‘First-, Second-, Third-Person’ approach, enabling local learnings to be applied to inform broader application (Reason & Bradbury 2013; Torbet & Taylor 2013).

Consistent with the premise of PAR, while these cycles are focused on key objectives (‘the problem’), the decisions regarding the data to be collected, data collection methods and intervention to be evaluated were decided by the PAR groups (Baum, MacDougall & Smith 2006; Garst et al. 2012). Each cycle informed the next through an iterative process (Baum, MacDougall & Smith 2006), enabling the collective co-production of knowledge (Swantz 2008) to inform local service improvements while building the body of information required to develop and test a framework to inform the adaptation of service models for diverse settings.

### **3.2.3 Modified Delphi Technique**

A Modified Delphi Study of two rounds with experts and consumer representatives in fields relevant to CFH was undertaken in 2020. The 12-member expert panel consisted of parents from rural and remote communities, professionals from health and community services, health service managers, government officials and academics. This study drew on the findings of the integrative review and the outcomes of the first PAR study, both of which informed the suite of element options presented to expert panel participants. The building blocks articulated in the World Health Organization Framework for Strengthening Health

Service Systems (World Health Organization 2007) were used to inform the integrative review, PAR study and structure of the Delphi e-questionnaires.

A Delphi Study has been described as having four key features: anonymity of response, multiple iteration of the questionnaire, controlled feedback and statistical derivation of the group response (Toma & Picioareanu 2016). The Delphi approach is a methodology which seeks to identify a level of consensus on a series of statements or questions among a select group of experts (Hirschhorn 2018; Hsu & Sandford 2007; Thangaratinam & Redman 2005).

A Modified Delphi Study approach enables only two rounds of Delphi questionnaires rather than the traditional three, as the items in the first questionnaire are developed from previously obtained data, for example, through a previous study or a literature review (Bryar et al. 2013; Day & Bobeva 2005; Stewart et al. 2017; Thangaratinam & Redman 2005). McMillan et al. (2016) also note that Delphi studies often use two rounds given that more than two rounds can increase the attrition rate of the panel members. Statements are presented to the expert panel electronically (e-Delphi) which has been shown to be both efficient and effective in the development of consensus statements (Holloway 2012) enabling the identification of key elements and strategies to be included in a draft Framework for Adaptation of CFH Service Models for Diverse Settings.

The definition of 'expert' for inclusion in expert panels for Delphi studies is broad and dependent on the knowledge and experience being sought. This may include panellists from a variety of backgrounds and roles (Giannarou & Zervas 2014; Hirschhorn 2018) who hold knowledge and experience relevant to the study aims (Thangaratinam & Redman 2005). The sample sizes reported in previous Delphi Studies vary (McMillan, King & Tully 2016; Thangaratinam & Redman 2005). The expert panel of this Delphi Study included 12 expert panel members representing a range of stakeholder categories with varied insights to contribute – this being similar in size to other published studies (McMillan, King & Tully 2016; Naughton et al. 2017).

Papers reporting Delphi and Modified Delphi study outcomes incorporate a range of approaches to the definition of consensus (Giannarou & Zervas 2014; Stewart et al. 2017).

Some studies report outcomes in terms of percentage of panel members who have responded in the top two scoring categories in a Likert scale (Day & Bobeva 2005; Giannarou & Zervas 2014; Hsu & Sandford 2007), while others report using the mean as the determining factor for retaining items into the next round (Bryar et al. 2013; Day & Bobeva 2005; Hsu & Sandford 2007; Thangaratinam & Redman 2005), with broad agreement amongst authors that a percentage of greater than 80% can be used to determine consensus having been reached (Hsu & Sandford 2007; Naughton et al. 2017; Stewart et al. 2017; Toma & Picioreanu 2016). Consensus for this modified Delphi study was defined as items with a mean  $\geq 4$  and rate of consensus  $\geq 80\%$ .

In step 1 of the Delphi Study the expert panel participants were asked to respond to a set of statements (informed by the outcomes of the integrative review and first PAR study) utilising a Likert scale. In step 2 of the Delphi Study, the expert panel were provided with both their own response and the aggregated response of all panel participants including the median and frequency of responses (Boone & Boone 2012; Hsu & Sandford 2007; McMillan, King & Tully 2016; Naughton et al. 2017; Tetzlaff, Moher & Chan 2012; Toma & Picioreanu 2016). The panel members were then asked to reflect on and revise as necessary their scores for those items which had not yet reached consensus in light of the feedback of the full group (McMillan, King & Tully 2016; Stewart et al. 2017). After the two rounds, those items which reached the definition for consensus were retained and utilised to inform the draft framework which was piloted in Study 3 (Site 2 PAR group).

### **3.3 Research Design**

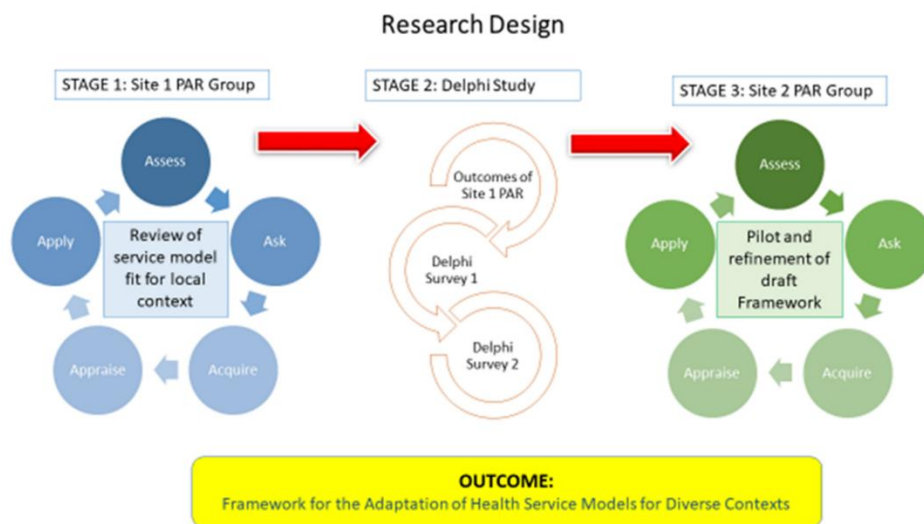
This research consists of three studies:

**Study 1:** Participatory Action Research (Site 1) to identify adaptations required to a metropolitan CFH service model to meet the needs of local regional and rural communities.

**Study 2:** Modified e-Delphi Study to identify the elements required for inclusion in a framework for the adaptation of specialist CFH service models for diverse settings.

**Study 3:** Participatory Action Research (Site 2) to pilot the framework for adaptation of specialist CFH service models.

A key aim was to utilise learnings from the integrative review and the first PAR cycle undertaken at a local (specific context) level, with input from an expert panel through a two-round Modified e-Delphi Study to inform the development of a framework to guide the adaptation of CFH service models to suit the context. The primary aim was to support effective and appropriate service provision, improving outcomes for children and their families, in a diverse range of settings. Figure 5 provides a diagrammatical representation of the manner in which each step of this research informed the next, that is, the findings from the first PAR Site 1 cycle (Study 1) informed the Modified Delphi Study (Study 2) enabling the development of the draft framework for broader application; which in turn was piloted and further refined through the Site 2 PAR cycle (Study 3).



*Figure 5: Research Design and Stages*

The following describes the three discrete studies which combine to form this research and provides a summary of each stage:

### **3.3.1 STUDY 1 - Participatory Action Research (Site 1)**

Review of the fit of the Tresillian Standardised Service Model for a local rural context  
(Participants: PAR Group 1, Duration: 23 weeks)

The key aims of PAR Cycle 1 were to enable:

- i. Exploration of participants' expected outcomes/priorities for a Level 2 CFH referral service;
- ii. Identification of elements of the Tresillian Standardised Service Model fit for context and those requiring adaptation;
- iii. Participatory co-design of questions and data collection methods identifying current state, required adaptations and evaluation strategy to measure against identified objectives;
- iv. Implementation of consumer co-designed service model adaptations (to be evaluated in the second PAR cycle at local level)

The steps in Study 1 were as follows:

- 1) PAR Group Set Up - Recruitment of PAR group participants and consent; pre-workshop questionnaire.
- 2) Workshop 1 – Review of questionnaire results and identification of potential elements of Tresillian Standardised Service Model for adaptation; Time 1 completion of Wilder Collaboration Factors Inventory.
- 3) Workshop 2 - Explored adaptation recommendations and identified data collection strategies.
- 4) Data Collection and Review – Accessing available local data to check emerging themes and assumptions from Workshops 1 and 2.
- 5) Analysis Validation and Formulation of Recommendations - Participant Analysis Survey.

- 6) Workshop 3: Validation of analysis and evaluation strategy.
- 7) Post workshop completion of Wilder Collaboration Factors Inventory (online).
- 8) Implementation of changes to service model and evaluation strategy. This step led into a second cycle for the Site 1 PAR group, which was integrated into the local service quality improvement plan, outside of the parameters of this research.

### **3.3.2 STUDY 2 - Modified Delphi Study**

Development of DRAFT 'Framework for Adaptation of Service Models for Diverse Settings'  
(Participants: Expert Panel; Duration: 26 weeks)

The Modified Delphi Study aimed to draw on the knowledge and experience of an interdisciplinary expert panel, including consumers, service providers, community-based referral agents, service managers and planners, and academics, to identify the key elements for inclusion in a framework to guide the adaptation of specialist CFH service models for diverse settings. A modified Delphi approach of two rounds of e-questionnaires was utilised as the statements in the first questionnaire were drawn from the findings of an integrative review and first PAR cycle (Study 1).

Study 2 involved the following steps:

- 1) Expert panel recruitment and obtaining of consent.
- 2) Provision of background information to participants, including service model and summary of findings from Study 1 PAR cycle.
- 3) Modified Delphi Study e-questionnaire 1 - demographic information and questions to explore expert panel beliefs and knowledge regarding:
  - the extent to which metropolitan service models can be adapted for diverse settings;

- the enablers and barriers to implementation of service models in rural and regional areas;
  - which elements of the Tresillian Service Model need to remain stable and which elements need to be flexible for adaptation in different contexts;
  - strategies to facilitate adaptation including strategies to build engagement and trust;
  - the role of technology in service delivery as an adjunct or replacement for local presence.
- 4) Identification and collation of key elements for the Framework for Adaptation of Service Models for Diverse Settings: collation and analysis of e-Delphi questionnaire responses; identification of key elements and strategies to be included in draft framework and those elements which had not yet reached consensus in the first round.
- 5) Delphi Study Round 2: second e-questionnaire - validation and refinement of key elements for Framework:
- Individualised second questionnaire provided to expert panel members to review scoring for items which had not yet reached consensus in Round 1.
  - Further exploration of key questions/statements presented in Round 1, including prioritisation, to refine the structure and key elements to be included in the Framework.
  - Exploration of the perception of the expert panel regarding the potential applications and usefulness of the Framework.
- 6) Write up of draft Framework for pilot in Study 3.

### **3.3.3 STUDY 3 - Participatory Action Research (Site 2)**

Pilot and Refinement of Draft Framework (Participants: PAR Group 2; Duration: 20 weeks)

Study 3 involved the following steps:

- 1) PAR Group Set Up - Recruitment of PAR group participants and consent; pre-workshop questionnaire.

- 2) Workshop 1: Facilitated via video-conference (VC) due to COVID-19 pandemic restrictions on gatherings. Questionnaire results reviewed; draft Framework for adaptation of health service models introduced; potential elements of Tresillian Standardised Service Model for adaptation identified; Time 1 completion of Wilder Collaboration Factors Inventory.
- 3) Workshop 2 (via VC): Detailed exploration of elements for adaptation, adaptation strategy recommendations and co-design of local PAR project informed by framework.
- 4) Data Collection and Review – Accessing available local data to check emerging themes and assumptions from Workshops 1 and 2.
- 5) Analysis Validation and Formulation of Recommendations - Participant Analysis Survey and Workshop 3 (via VC): Validation of analysis and evaluation of the usefulness of the draft Framework in guiding and supporting the adaptation process.
- 6) Post workshop completion of Wilder Collaboration Factors Inventory (online).
- 7) Implementation of changes to service model and evaluation strategy - this step leads into Cycle 2 for Site 2 PAR group, which has been integrated into the service quality improvement plan outside of the parameters of this research project.

### **3.3.4 Settings**

The two sites participating in the PAR studies were integrated into the Tresillian network of services within the two years prior to the commencement of the study. Each was commissioned under a different partnership model. One service is fully managed and operated by Tresillian. The other is operated under a collaborative model with delineation of responsibilities regarding corporate and clinical governance and a team consisting of a mix of Tresillian and local health service employees. These differences support the exploration of the adaptation of the service model across different contextual settings including geographical location, service system network and integration, and partnership model.

The PAR studies (Studies 1 and 3) were conducted in two Tresillian Family Care Centres – Regional Day Services. Site 1 is situated in Southern NSW and Site 2 is located in the Northern part of the state. One site was an inland location with a major regional town surrounded by small rural and agricultural communities; the other encompassed coastal towns and farming communities. The services operate as partnerships between the LHDs within which they are located and Tresillian Family Care Centres. Tresillian’s head office is located in Sydney. Site Specific Applications were submitted to the Research Governance Offices that cover the LHDs with which Tresillian partners to deliver these services.

In light of COVID-19 and subsequent Government restrictions on the number of people who can gather in a given setting, participants for Stage 3 (second PAR study) were invited to participate in the workshops via video-conference or teleconference. The NSW Ministry of Health-supported video-conferencing platform, PEXIP, was utilised for video-conference and teleconference access. The platform has been identified as being secure at a level approved for clinical service delivery. The platform includes functions that enable the host to control who enters the virtual meeting room to further ensure the privacy of participants.

The Modified Delphi Study with an expert panel was undertaken electronically (see descriptions of participants in Section 3.4).

### **3.3.5 Duration of the Research**

The studies were conducted over three years between 2018 and 2021 once Human Research Ethics Committee (HREC) approvals had been received. The following outlines the duration of each study (including recruitment and set-up periods)

- Study 1 - PAR Site 1: conducted over 23 weeks (2019)
- Study 2 - Delphi Study: conducted over 26 weeks - allowing 6 weeks for return of e-Delphi questionnaire for Round 1 and 2 (2020)
- Study 3 – PAR Site 2: conducted over 20 weeks (2021)

### 3.4 Participants

The PAR groups were approved to consist of up to 24 participants across the two PAR settings, with the final composition being eight in PAR Group 1 and 13 in PAR Group 2 (see Chapters 4 and 6 for details of final composition of PAR groups). Consultation with the local Joint Governance Committees for each of the service sites (established committees consisting of Tresillian and Local Health District Senior Managers which oversee the partnerships between the organisations) informed the recruitment of PAR group members.

Both PAR groups included representatives of the following categories:

- Consumers / local parents of children 0-3 years,
- Local senior health manager,
- Key stakeholders including referral agents' representatives (i.e. Level 1 service health professionals also known as primary level clinicians; NGOs),
- Tresillian Family Care Centre staff representatives,
- Researcher.

The Modified Delphi Study Expert Panel members (n=12) were invited to participate based on their knowledge of the needs of the target client groups. Those with experience in service development and delivery across a range of diverse settings, including interstate and international experts, were included to inform the development of a framework for adaptation of service models applicable to a variety of contexts. The membership of the Expert Panel below was informed by consultation with the Tresillian Executive and research supervisory team:

- Consumer (client) representatives,
- Aboriginal and Torres Strait Islander community representative,
- Ministry of Health representative,
- Interstate and international representatives,
- Academic representative,
- Professional body rural representative,
- Referral agency representative e.g. Government agencies such as family and community services sector workers/managers, Primary Health Networks and/or non-government organisations,
- Tresillian senior clinical representative.

### 3.4.1 Recruitment (PAR and Delphi Studies)

Purposive recruitment (Farmer & Nimegeer 2014; Parker et al. 2013) was used throughout this research. The rationale for this approach was the need for participation by those who have experience and knowledge of the service context, and expertise in relation to the needs of families, communities, services and service networks. This allowed local knowledge and expertise to inform the local PAR Cycle outcomes and the development of the framework for adaptation of service models for diverse settings. Delphi Expert Panel members brought a range of experience, knowledge and perspectives to enable broader application of the research findings. The panel members were identified as having expertise in understanding the needs of the target client groups, drawing on their experiences across a diverse range of settings in order to inform the development of the framework for adaptation of service models for a variety of contexts. Recruitment of participants was informed by consultation with the Tresillian and LHD Joint Governance Committees for each of the sites as per Figure 6 below which provides a diagrammatic representation of recruitment process.

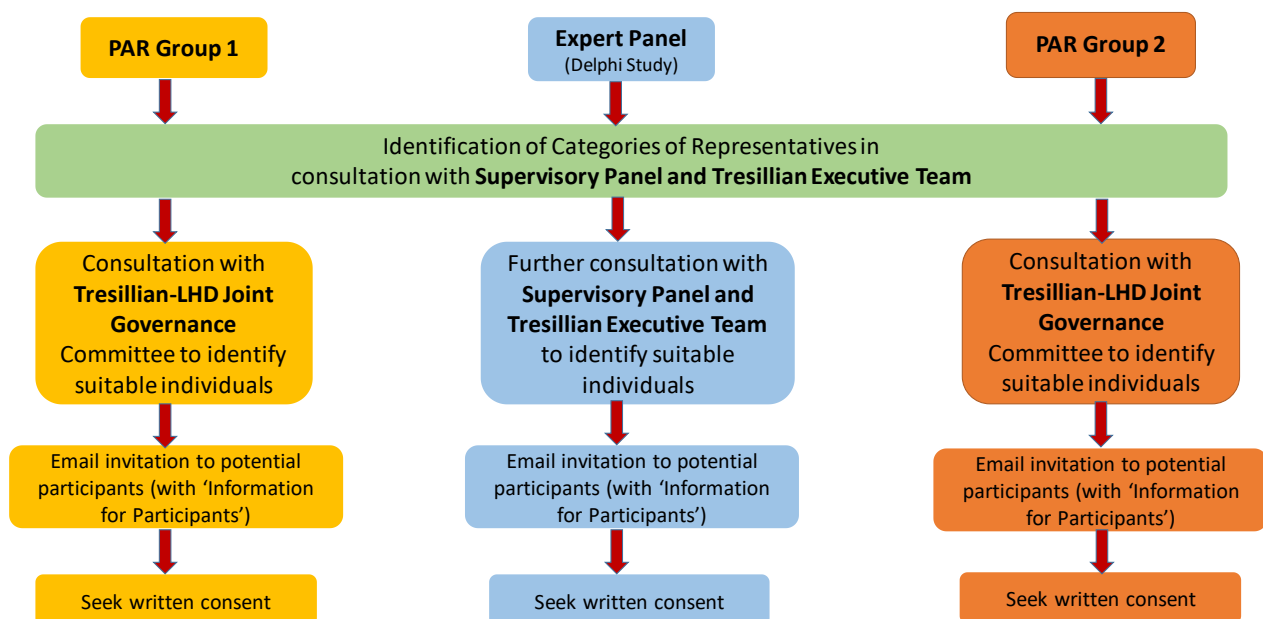


Figure 6: Recruitment Process

Recruitment processes included the provision of 'Information for Participants' sheet, which described the project and estimated time commitment, and consent forms. The 'Information

for Participants' was provided via email. Participants were given 3-4 weeks' lead-in time to consider participation, indicate whether they agree to proceed (upon which a consent form was sent to the participant) or if not, to allow time for alternate participants to be identified to represent the stakeholder category.

### **3.4.2 Key Inclusion Criteria**

The key inclusion criteria centred on consumer and service network stakeholders within the communities of the sites of the PAR groups. Participants required experience as either a health service consumer in the local area or as a health service provider relevant to the FCC service scope and objectives, as well as a focus on services for families with children 0-3 years experiencing early parenting challenges.

Inclusion criteria for the members of the Delphi Expert Panel, were based on those able to contribute insights and perspectives relevant to the study aims, seeking to draw on a broad range of backgrounds, experience and knowledge (Havers et al. 2019). The Delphi Expert Panel participants represented a range of stakeholder groups. Panel members were required to have an understanding of the needs of families in rural and regional areas, expertise in health service planning, and/or experience in the delivery of CFH services.

Exclusion criteria were as follows:

- Individuals who did not fit the inclusion criteria.
- Individuals unable to speak or understand English
- For the PAR groups - individuals who did not reside or work within the communities serviced by the Family Care Centres.
- For Delphi Expert Panel – individuals unable to read English.

## **3.5 Data Collection and Analysis**

### **3.5.1 Data Collection**

The combination of qualitative and quantitative data collection methods assists in gaining a deeper understanding of the setting and situation (Semansky et al. 2012) and provides a lens to consider findings which may be applicable to other settings in order to build sustainable health service models for rural communities (Wakerman & Humphreys 2011). Data were collected through online questionnaires with both PAR groups and the Delphi Expert Panel at various stages as described in Section 3.3 'Research Design'. Each workshop was audio recorded, and notes taken during workshops to ensure comprehensive records of interaction (verbal and non-verbal) and discussions. The researcher kept a journal for reflection throughout the research process for personal and facilitated discussion with doctoral supervisors as part of ensuring the integrity of the research.

The PAR groups identified data for collection and associated procedures to be undertaken during each cycle to address the identified local contextual issues (Taylor et al. 2010). In addition, the participants of the PAR groups were asked to complete the Wilder Collaboration Factors Inventory (Mattessich, Murray-Close & Monsey 2001) tool at the commencement of the PAR cycle and at the conclusion of their work together on this project. This data collection instrument was identified following a search of measures of collaboration including the review of compendiums of measures collated by the US Administration for Children and Families (Chien et al. 2013) and a systematic review of measures of community readiness (Kostadinov et al. 2015). The Wilder Collaboration Factors Inventory (Appendix 2) was identified as the measure which was most closely aligned with the research sub-question: how do you engage, build trust and relationships with service providers and the community? Importantly, the data produced by the administration of this tool also contribute to addressing the question: what does this mean for the model?

The Wilder Collaboration Factors Inventory is a 40 item self-report questionnaire which addresses a range of domains relevant to effective engagement and collaboration (Mattessich & Monsey 1992). The Inventory has been used in a wide range of settings and research contexts and was the focus of a validation study which identified that the 40 items could be

analysed meaningfully in terms of six distinct categories, being environment; membership characteristics; process and structure; communication; purpose; and resources (Mattessich, Murray-Close & Monsey 2001). The authors of the Wilder Collaboration Factors Inventory were contacted and confirmed the appropriateness of the tool for the PAR studies as outlined in the research design section of this chapter.

### **3.5.2 Data Sources**

Several data sources were used in the three studies which comprise this research. De-identified routine service data held in organisational databases were accessed including clinical activity data, referral statistics and outcomes data. No client medical records were accessed. Online questionnaires developed specifically for this research were completed by members of the PAR groups and the Delphi Expert Panel. The Wilder Collaboration Factors Inventory (Mattessich, Murray-Close & Monsey 2001) tool was completed by PAR group members at the commencement of and after the PAR group cycles.

Recordings of each workshop were transcribed. Notations were made in a field journal during and after workshops to ensure comprehensive records of interaction (verbal and non-verbal) and discussions. Documents used in document analysis included service model documentation, joint governance committee meeting reports, and Tresillian regional service development planning documents.

Table 2 below provides a summary of the link between the research questions, the data sources and study participants.

Table 2: Link between research questions, data sources and participants

Research questions	Data sources / participants					
	Online questionnaires and surveys	Delphi Study questionnaires	Transcripts and field notes	Service activity data	Document analysis	Researcher reflective journal
	<i>PAR Groups Expert Panel</i>	<i>Expert Panel</i>	<i>PAR Groups</i>	<i>Tresillian Service Data</i>	<i>Tresillian Corporate Records</i>	<i>Research Journal</i>
To what extent can an Australian metropolitan service model for specialist (level 2) CFH services be implemented in diverse settings?	✓	✓	✓	✓	✓	
What are the enablers and barriers to the implementation of metropolitan specialist CFH service models in rural and regional areas?		✓	✓	✓		✓
What elements of the service model need to remain stable and what elements need to be flexible to enable adaptation for different contexts?	✓	✓	✓	✓	✓	
What matters to consumers and stakeholders?	✓	✓	✓			✓
How do you engage, build trust and relationships with service providers and the community? Does the model need to change to facilitate this?	✓	✓	✓	✓		✓
Is it important to have a local presence to provide effective and relevant services?		✓	✓	✓		
Can technology be used instead of a local presence or to extend reach from local hubs?		✓	✓	✓		

### **3.5.3 Data Management and Storage**

Data were only collected which were directly relevant to the research aims and objectives. Confidentiality was maintained through the de-identification of data including careful attention to de-identification of individuals, organisations and locations when reporting results.

Data security was maintained through secure storage of data in locked filing cabinet. Electronic data were entered into REDCap to enable digital collection, analysis and for secure storage. REDCap was accessed through the University of Technology Sydney (UTS) license. Access to raw data was limited to the research student and three doctoral supervisors. Following completion of the research, the data will be held in secure storage units and both hard copy and digital data destroyed 7 years after completion of the research.

All data were de-identified. Coding was utilised to link data for individuals and PAR /Expert Panel groups. Care was taken to ensure no individual or location was identifiable in notes and publications. Doctoral research supervisors checked all information for publication and dissemination as an additional check to ensure confidentiality had been maintained.

Historical data previously collected for organisational and service quality improvement and earlier service development and planning processes were made available and used. The host organisation (Tresillian) which operates the data collection sites was consulted and confirmed support for this research and approval to utilise such data and analysis of relevant organisational documents for the purpose of this research project.

### **3.5.4 Data Analysis**

Thematic analysis was used for the qualitative data and descriptive statistics used for quantitative data. Thematic analysis ‘... is a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set’ (Braun & Clarke 2012, p. 57). The audio-recordings of workshops were transcribed, cross-checked for

accuracy and loaded into NVivo for coding and thematic analysis. These data were cross-referenced with notes taken during each workshop and the researcher's field and reflective journals. The six phases of analysis described by Braun and Clarke (2006) were used to structure the approach to analysis, being: (i) familiarising oneself with the data; (ii) generating initial codes; (iii) searching for themes; (iv) reviewing themes; (v) defining and naming themes; and (vi) producing the report. A robust process was used to ensure the reliability of the data interpretation including workshopping with academic supervisors. Data from e-questionnaires with open-ended questions were similarly entered into NVivo for thematic analysis.

Validation of the themes generated through this process was undertaken through an online questionnaire between Workshops 2 and 3 with each PAR group, and further discussion in Workshop 3. The outcomes of the validation process which further refined the interpretation of the data were then integrated into the results reported in the PAR chapters (Chapters 4 and 6).

Microsoft Excel software was used to generate the descriptive statistics for the Modified Delphi Study. This included calculations for each item in the e-questionnaires in terms of mean, standard deviation, median and percentage of respondents scoring 4 or 5. The median for each item was calculated to provide to participants, in addition to their previous response, when reviewing items in round 2. Prioritisation order was calculated based on mean scores (Hoekstra et al. 2017) and cross-checked against frequency of votes.

The 'Consolidated Framework for Implementation Research' (CFIR) (Damschroder et al. 2009) informed the analysis approach. The CFIR, with the five domains of intervention characteristics, outer setting, inner setting, characteristics of individuals and process, has been identified as being useful in organising '...findings of an implementation process to explain the outcomes (i.e. to understand what worked where and why)' (Breimaier et al. 2015, p. 2). Further analysis of the elements identified through the Delphi Study for inclusion in a framework for adaptation of CFH service models was undertaken utilising the lens of realist evaluation (Pawson & Tilley 1997), using the Context-Mechanism-Outcome (CMO) frame

which has been identified as relevant and beneficial in rural health practice research (Mitchell et al. 2013)

Outcomes of each step were reviewed by the relevant group (PAR groups or Delphi Expert Panel) to assess the accuracy of the interpretation, ensure key messages had not been missed and the outcomes were utilised to inform the next step in the cycles and ultimately the development of the framework for adaptation of CFH service models for diverse settings. Triangulation was undertaken by reflecting upon and comparing the ‘...first-person subjective research methods, second-person intersubjective research methods, and third-person objective research methods’ described in Torbert and Taylor’s (2013, p. 240) framework for action inquiry. This allowed a comparison of outcomes within each stage and comparison of findings of each preceding study stage (i.e. Study 1 – PAR Site 1, Study 2 – Modified Delphi Study, Study 3 – PAR Site 2).

### **3.5.5 Research Trustworthiness**

In order to conduct research which is justifiable and of value, researchers are required to implement strategies to ensure the quality and integrity of research design, data collection, analysis and reporting (Connelly 2016). In qualitative research this is referred to as the trustworthiness of the research, and has been described in terms of four criteria: credibility, dependability, confirmability and transferability (Lincoln & Guba 1985).

**Credibility** relates to the rigour of the research through the use of accepted methods to derive findings congruent with reality or truth (Shenton 2004). Several strategies were utilised throughout the three studies reported in this thesis, including the use of PAR and Delphi approaches to reflect a range of insights and perspectives; triangulation of data within and across the three studies; searching for disconfirming evidence; and the reflective process undertaken by the researcher (reported in Chapter 9). Peer debriefing and the peer review process undertaken when publishing papers provided the lens of people external to the study to further critique the credibility of the research.

**Dependability** has been recognised as closely related to the concept of credibility, with overlapping of methods often addressing both criteria (Shenton 2004). Dependability relates to the keeping of records and detailed reporting of research process based on the premise that the research should be as repeatable as possible (Morrow 2005). Research procedures for dependability undertaken throughout the studies reported in this thesis include the clear description of methods of data collection and analysis; keeping records to enable an audit trail of research activities and decisions; and records including the iterative emergence of themes through thematic analysis.

**Confirmability** is described as ‘... neutrality or the degree findings are consistent and could be repeated (Connelly 2016, p. 436). Strategies to address confirmability implemented throughout this research included ensuring the recording of field notes and detailed descriptions of the research process. Member checking, to review data interpretation to ensure these are not based on the researcher’s assumptions or imagination (Tobin & Begley 2004) was conducted across the three studies.

**Transferability** refers to the degree to which the research findings may be applicable in other contextual settings (Connelly 2016). The transferability criterion sits at the core of this research, seeking to address the research question while developing a framework for the adaptation of CFH service models to guide implementation in diverse settings. Strategies to achieve this aim have included purposive recruitment to provide rich reporting of insights and perspectives of participants representing a range of stakeholder categories and from different contextual settings; detailed reporting of the research through this thesis and published papers; and the dissemination of the research outputs.

Table 3 provides a summary of the strategies implemented when conducting this research to ensure research trustworthiness as described above.

Table 3: Summary of research trustworthiness strategies

Strategies to ensure research trustworthiness	Credibility	Dependability	Confirmability	Transferability
<b>Purposive recruitment:</b> participation from representative categories of stakeholders	✓		✓	✓
<b>Data triangulation</b> Within PAR groups; between PAR groups; across PAR and Delphi studies	✓	✓	✓	
<b>Member checking:</b> validation of themes from online questionnaires and preliminary thematic analysis with PAR groups	✓	✓	✓	
<b>Testing of e-Delphi questionnaires:</b> pilot of questionnaires to check clarity of statements.		✓		
<b>e-Delphi rounds:</b> Two rounds of questionnaires to achieve and check consensus	✓	✓	✓	✓
<b>Cross-checking of transcripts:</b> Checked against recordings and field notes for accuracy	✓	✓	✓	
<b>Audit trail:</b> Recorded in field notes and reflective journal		✓	✓	
<b>Review of data interpretation</b> during meetings with research supervisors	✓		✓	
<b>Reflexivity:</b> reflective process recorded in reflective journal and supervision meeting notes (described in Chapter 9)	✓	✓	✓	
<b>Reporting and sharing of research findings:</b> Descriptions of research and findings in this thesis, peer-reviewed publications, reports, conference presentations.				✓
<b>Development of a framework for adaptation of service models:</b> informed by and to support the implementation of the research findings.				✓

### **3.6 Ethical Considerations**

This research is a low-risk research project. Participation in the research was voluntary and all data were de-identified to protect the anonymity of participants and community locations. In addition to de-identification, multiple sites were included in the study design to further minimise this risk. Care was taken to avoid information which could identify participants or services, and all information was treated with professionalism and respect.

A plain English 'Participant Information Sheet' (PIS) provided a comprehensive explanation of the nature of the research, the study procedures, risks and benefits for full transparency as well as outlining the burden of participation, the voluntary nature of participation and confidentiality. All recordings were transcribed by a professional confidential transcription service. Written consent was obtained and participants were assured verbally and in writing of the voluntary nature of participation. Participants were assured that should they decide not to participate or withdraw their consent, this would in no way effect the professional relationship with the researchers nor the hosting organisation (Tresillian).

Specific ethical considerations when utilising PAR techniques were addressed to ensure participants were protected from potential harms while maintaining research integrity. While PAR techniques seek to minimise the power imbalance that can exist between researchers and participants through an inclusive approach, valuing diversity and seeking to empower community participants; such inclusiveness must be balanced with the need to protect the confidentiality and anonymity of the participants. During the first meeting of each PAR group, group rules were established with an intentional focus on confidentiality, cultural sensitivity and ensuring participants only disclosed information that they felt comfortable to discuss. If a participant was unable to attend a workshop, they were offered the opportunity to provide their feedback through a telephone call prior to the workshop, to facilitate input from all participants.

Respect for participants is inclusive of the welfare, values, beliefs, perceptions and culture of the individual and the collective. Participants in this research represented a variety of cultural, socio-economic and educational backgrounds. Aboriginal elders and other Aboriginal community representatives were potential participants in the PAR site

groups and the Expert Panel. PAR has been identified as being beneficial in Indigenous health research in view of the emancipatory basis of the approach (Taylor et al. 2010). The Aboriginal Health and Medical Research Council (AH&MRC) were consulted as to whether AH&MRC specific ethics approval was required for this research to proceed. Advice received indicated that a separate AH&MRC ethics submission was not required. However, it was agreed that if at any stage the research design were to change to include a focus on Aboriginality or increased representation of Aboriginal peoples, further advice was to be sought from the AH&MRC and an ethics application submitted if required.

### **3.6.1 Ethics Guidelines and Approval**

The Sydney Local Health District HREC guidelines and process were consulted as were the University of Technology Sydney Ethics policies and protocols. Site Specific Assessments (SSA) were submitted and approved by the LHDs within which the Tresillian regional FCCs which were the focus of the PAR studies are located.

The ethics approvals have been recorded in the Research Ethics Governance Information System (REGIS) used for health and medical research conducted within NSW. The names of and the abbreviations for the LHDs which provided SSA approvals have been redacted in the interests of maintaining participant confidentiality. The approval numbers are recorded in the NSW Health Research Ethics and Governance Information System (REGIS) and university records as follows:

REGIS Parent Project: 2019/PID04918; REGIS Project Identifier: 2019/ETH07430

Principal Health Research Ethics Committee: Sydney Local Health District Ethics Review Committee (RPAG Zone) – approval: HREC/18/RPAH/504-X18-0358

SSA xxx Local Health District (Site 1): SSA/19/xxx/9; REGIS project identifier: 2019/STE04450

SSA xxx Local Health District (Site 2): SSA/19/xxx/19; REGIS project identifier: 2020/STE03929

UTS HREC ratification reference number: ETH19-3496.

The outbreak of the COVID-19 pandemic and subsequent Government restrictions to gatherings and meetings resulted in the need to submit an application for ethics amendment. The amendment sought approval to utilise video/tele-conferencing for the facilitation of the second PAR group workshops (Study 3). The amended study protocol and PIS were approved by both Principal Health Research Ethics Committee: Sydney Local Health District Ethics Review Committee (RPAH Zone) and the UTS Human Research Ethics Committee (September 2020).

### **3.6.2 Consent**

Participants were provided with written information in a clear, easy to understand format describing what information would be collected; the mode of recording; confidentiality and security of data; and how it would be used (PIS for the PAR and Delphi Studies are provided in Appendices 3-5). This promoted informed decision making prior to participants signing a written consent form, emphasising that consent does not end with a signed form but rather is continually negotiated to ensure participants understood that they may choose not to answer particular questions or may terminate their participation at any time. Consent forms for the PAR and Delphi Studies are located in Appendix 6-7. When facilitating workshops and interviews, an intentional focus was made to create conditions to ensure participants only disclosed information they felt comfortable to reveal and nothing further.

### **3.6.3 Safety Considerations and Risk Mitigation**

There is a risk, albeit low, of causing psychological harm when exploring subjective human experiences and seeking to explore issues, beliefs and values which even participants may not identify as potentially sensitive. The researcher was mindful to ensure that the content of workshops and interviews remained within the scope of the project, listened carefully to participants and checked that interpretation is accurate. The researcher maintained awareness that the participants were giving their time and in recognition of this, this community based research included a focus on producing results which would be useful and of benefit to the community.

If any parents/consumers were to become distressed as an outcome of participating in this research, the host organisation (Tresillian) had existing protocols to manage this situation. If any health or community service professional became distressed as an outcome of participating in this research, a plan was in place to provide support and refer to the relevant Employee Assistant Service. If the participants became distressed the researcher, an experienced CFH nurse, was available to respond. The researcher was ready to provide reassurance that they could withdraw from the research at any time and this decision would be readily accepted, and the professional relationship they have with Tresillian would not change.

There was a risk of a breach of confidentiality by other PAR group members. Time was set aside at the first workshop for each of the groups to discuss 'group rules' including confidentiality. These rules were set by the group and included a commitment to only share outside of the group that information which has been approved by the group for distribution or consultation purposes. The 'group rules' were also revisited at each subsequent PAR workshops.

The risk of reputational harm to stakeholder organisations when discussing service delivery challenges was also considered. This included Tresillian (host organisation of services within the scope of the project) and other local service network stakeholder organisations who were represented within the PAR and expert panel groups. To address this risk, all data were de-identified and the focus of the study on the research questions and aims was maintained. If a concern about a service was raised the relevant group member was to be advised to raise the concern with their organisational manager outside of the research process. The researcher remained cognisant of the need to only relay such information if it was identified as a dangerous practice that put clients, participants or the general public at risk. The ethics committee was to be notified if there was a need to break confidentiality, which did not eventuate.

## **Chapter 4**

### **Participatory Action Research – Study 1**

## 4. Participatory Action Research - Study 1

### 4.1 Introduction

This chapter describes the undertaking and findings of *Study 1: Participatory Action Research (Site 1)*. The aim of this study was to identify adaptations required to a metropolitan Child and Family Health (CFH) service model to meet the needs of regional and rural communities. Consistent with the findings of the Integrative Review reported in Chapter 2, Part B, the PAR approach used in this study provided a platform for collaboration and capacity building through a working group formed to review the fit of a specific service model for the local community context. Local stakeholders representing health professionals and consumers worked together on several tasks. These included: identifying local priorities; reviewing the appropriateness of a particular service model; and identifying adaptations needed to meet their local context. The PAR group developed an action plan to improve outcomes for children and families in their community.

Figure 7 situates this study within the three phases of this doctoral research. The findings from this PAR study were used to address the research questions and contribute to a list of elements to be considered when adapting specialist CFH service models for diverse settings in a Delphi Study as depicted below.

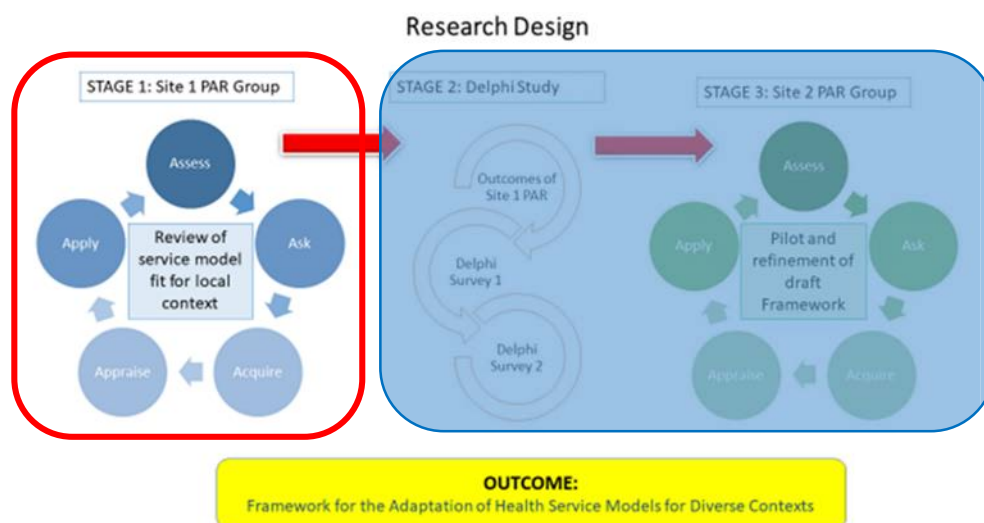
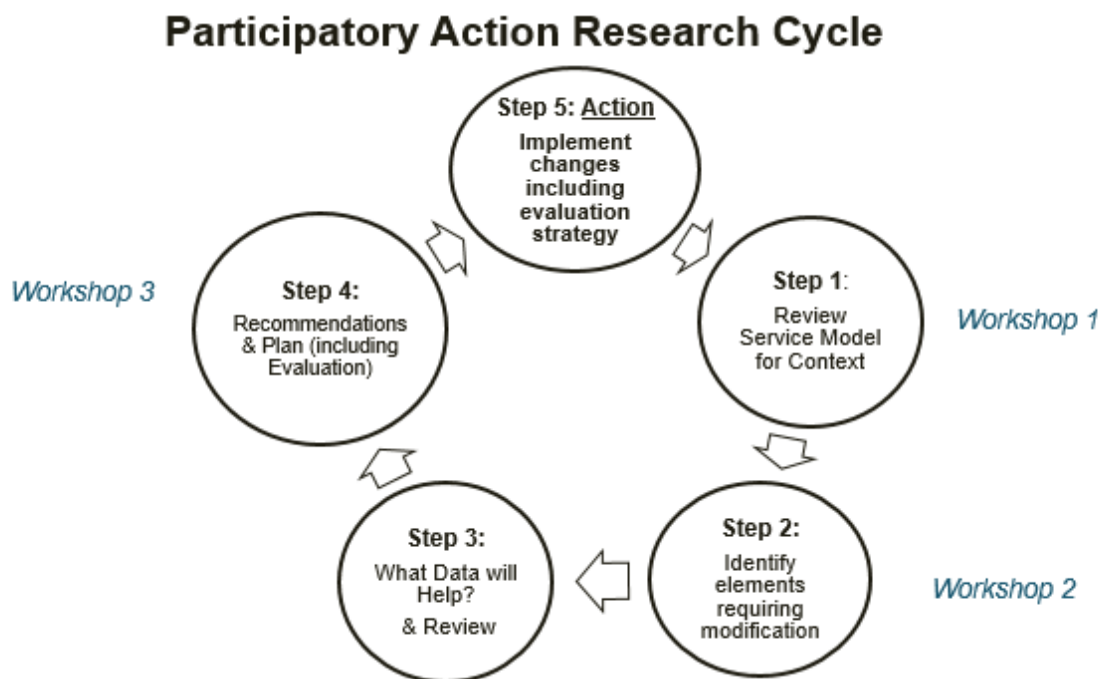


Figure 7: Study 1 (Site 1 PAR Group) situated within the three phases of this research

The PAR study was undertaken within a community in inland rural NSW, Australia. A Level 2 specialist CFH referral service (see Chapter 1 for definition), also known as a Family Care Centre (FCC), had been established through a partnership between the LHD and a specialist early parenting organisation, Tresillian. This context provided an opportunity to review the service model to assess its fit to meet the needs of the local community from the perspective of various stakeholders.

The PAR cycle was undertaken through a series of three workshops, with the structure as per the diagram below (Figure 8) which was shared with participants during the first workshop. This chapter will report the findings of the thematic analysis of data from PAR group workshops, and the results of the analysis of additional data collected at time points before and after the workshops. This includes e-questionnaires completed prior to workshops 1 and 3, with the preliminary analysis presented to the PAR group participants for validation and clarification of interpretation. The results of the Wilder Collaboration Factors Inventory (Mattessich, Murray-Close & Monsey 2001) measuring the level of collaboration of the PAR group members, completed by participants before and after the PAR cycle, are also reported.



*Figure 8: PAR cycle (Site 1) including the three PAR Group workshop meetings*

## **4.2 Workshop 1: Review of the Service Model Fit for Context.**

### **4.2.1 Exploring the Local Context**

An e-questionnaire was distributed prior to the first workshop, to commence the process of collating information and insights from the participants to develop a shared understanding of the local community context. To facilitate the ‘forming’ stage of the group (Bonebright 2010; Tuckman & Jensen 1977), the workshop commenced with introductions and an overview of the focus of the study, including the background and key aims. A description of PAR was provided and discussed, emphasising the value of each participants’ contributions to the development of a collective deep understanding of local issues. It was acknowledged that those living and working in the local community are often best placed to design innovative and sustainable solutions to often complex challenges (Meyer Tucker 2019). The role of the researcher as a participant alongside the other PAR group members was discussed. The dual roles of health professional participants were likewise explicitly discussed, noting that these participants were also consumers of local health services; therefore, both personal and professional insights were welcomed. The confidentiality of all information shared within the group was emphasised.

The PAR group participants identified that collectively they represented five groups: parents in the local community; those who support parents (i.e. health professionals); those who support workers (i.e. clinical leads and managers); referral agents; and community members. Participants were asked to indicate whether each insight they shared was from the perspective of being a member of the community or from their experience as a health professional.

### **4.2.2 Pre-Workshop Questionnaire: The Aims and Role of a FCC**

The participants were asked to complete a pre-workshop questionnaire to explore their beliefs regarding the role of a Level 2 CFH service (FCC). The five aims of a FCC, as outlined in the service model being reviewed, were presented to the participants. All seven PAR group members responded to the pre-workshop questionnaire. When asked to rate the aims in order of importance on a scale of 1-5 with 1 being least important and 5 being most important, 86% of respondents identified the aims of *supporting families to cope with challenging*

*circumstances, find solutions to problems and obtain help to meet their needs and aspirations* as being either important or most important.

When asked to consider the **key service delivery components** of a FCC, all participants identified the vital role of individualised consultations and planning with families in addition to the role of the FCC team in collaborating with other services to meet the needs of families; and the importance of telehealth as a mode of delivery option. Of the seven respondents, six identified the following components as being key to the role of a FCC: assessment of needs impacting the family; strategies and coaching support; therapeutic group programs; and support for primary level CFH services.

When considering what the role of a FCC should be in helping to address these needs, participants identified accessibility of the service as a key variable. This included reducing the factors associated with limited access such as distance, cost and program funding. The need to address equity of access issues for disadvantaged populations was also identified. **Flexibility** and alternate delivery modes to reduce the burden of travel were highlighted, noting that location should not determine care, with participants stating:

*Offering a flexible approach to service delivery to reduce the burden of travel, take services to where the people in need are (P1)*

*Reducing factors associated with reduced access to support services relating to distance, cost and funded programs. Location should not determine care! (P7)*

The questionnaire respondents identified the role the FCC could provide in raising awareness of other services and supporting access through group programs for parents. This included a focus on **building strong connections** with other services through collaboration and case conferencing to enable a seamless transition of care and advocating for the needs of families in their community. Respondents highlighted the need for the FCC to be responsive to the local and evolving needs of the community, including advocacy for the needs of parents. They identified that the requirement to work in partnership through a strengths-based approach to build parental confidence and capacity was aligned to being an advocate for the needs of families and the local community.

The results of the pre-workshop e-questionnaire was presented to the PAR group during the first workshop, providing the opportunity for participants to validate and/or clarify the results. This process enabled reflection and acknowledgement of individual concerns, to develop a shared understanding of concerns relevant to the group which would inform their purpose and work together (Cassidy 2007). The deeper exploration of individual and group concerns through discussion in the workshop was captured through audio recording of the workshop, transcription and thematic analysis. The following sections describe the themes that emerged from both the pre-workshop e-questionnaire and the thematic analysis of the transcript of the workshop recording. Two key overarching themes were identified, being: (i) *Barriers to Access* and (ii) *Service Integration*. The sub-themes and relationships between them can be seen in Figure 9 below:

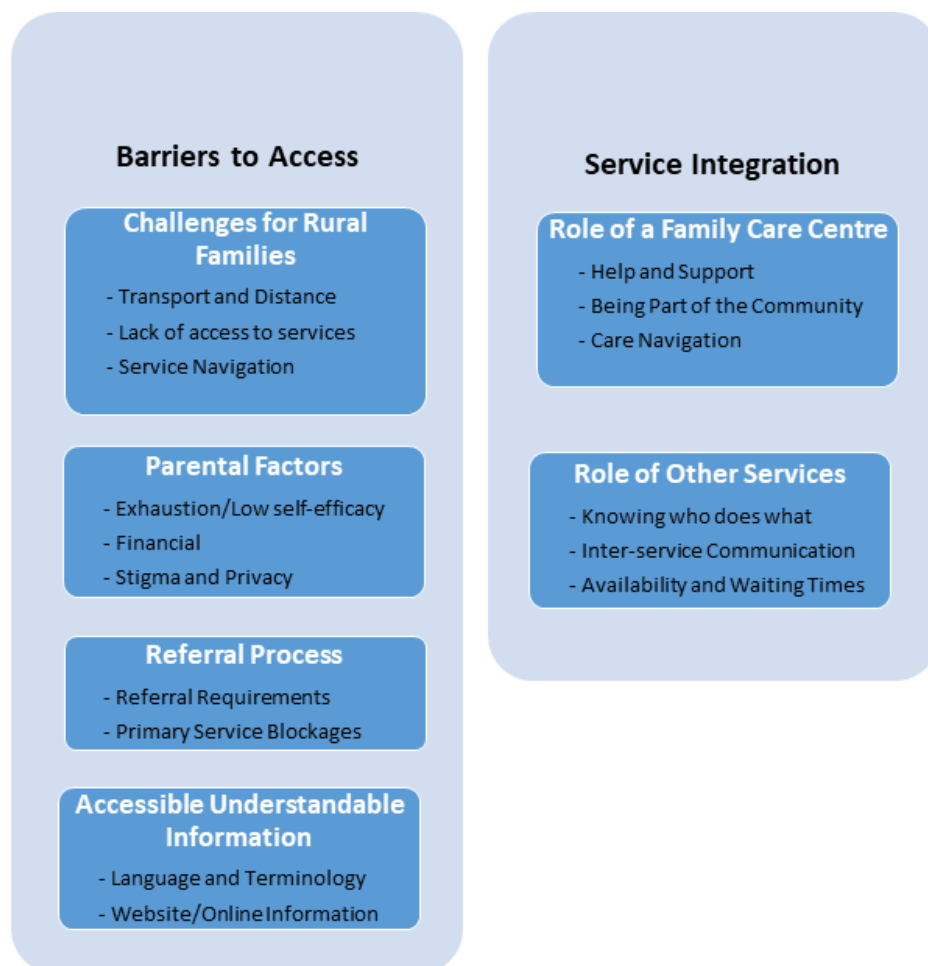


Figure 9: PAR 1 - Workshop 1 themes

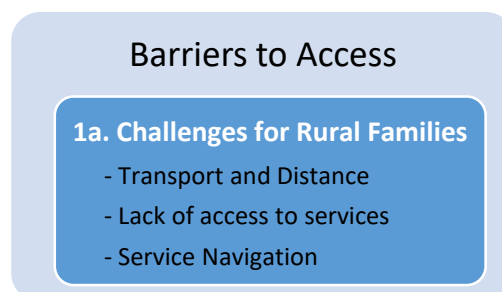
### 4.2.3 Workshop 1 Themes

#### Theme 1: Barriers to Access

A key theme to emerge from Workshop 1 was the barriers that existed preventing, or making it difficult, for parents to access services when and where they were needed. When asked to consider how the needs of families in rural and regional areas may differ from families living in metropolitan areas, the results of the pre-workshop e-questionnaire identified challenges to accessing support and information.

Respondents described access issues in terms of access to services and supports (both personal and professional) impacted by geographic isolation, distance and travel time, and financial hardship reducing the capacity to travel. Financial implications were also highlighted in relation to the cost of accessing a primary referral agent such as a doctor for referral to the Level 2 service, and limited access to childcare for older children while the parent attended the FCC with a younger sibling. The stigma attached to reaching out for help or fears of privacy not being maintained were also identified in addition to other socio-economic complexities. Access to technology, including connectivity and data, was identified as a barrier to access experienced by some rural and regional parents. The following describes each of the sub-themes, these having been explored in detail during the workshop discussion.

#### Sub-theme 1a: Challenges for Rural Families - *Is Help within Reach?*



*(Excerpt from Figure 9: Sub-theme 1a)*

The **tyranny of distance and logistics of travel**, not only in terms of the length of time to reach health services but undertaking such a trip with a young baby was highlighted by a number of participants. Such challenges are further exacerbated by health issues in the post-natal period, access to transport if the family car is being used for work commitments by the partner:

*And these were all common things, things that you wouldn't have even conceived. So, you know, the single mum with six other children that has to travel an hour and a half, two hours to get to an appointment so doesn't turn up... you've got a baby that's screamed incessantly when you put them in the car so basically, if you can't walk there, you don't go (P7)*

*Yeah. And even down to the individual plan like you're on the farm or a bit further away, you've had a caesar, mum's had the caesar and can't drive, dad [is] on the farm or at work (P4)*

It was noted that this was additionally challenging for rural and regional parents who often did not have same options for alternative means of transport as their metropolitan counterparts. Participants identified that public transport such as trains to reach appointments were not as readily available as in metropolitan areas:

*And for me, it did come down to the access because... when I do go to Sydney or any of the major cities... it's really easy cause you jump on a train... there is an option for them, whereas in the country we don't have, even in a regional centre like [name of regional city] you don't have that option let alone if out in the sticks or somewhere certainly don't have that option. So, that is a big one. (P1)*

The **lack of access to services** for parents in rural and regional areas compared to those available to metropolitan counterparts was highlighted by the PAR group. The impact of this on parents not having ready access to support as early as possible was noted to potentially result in difficulties escalating, sometimes to crisis point. This pertained to both health services and community-based services delivered by NGOs.

*And it's also their access to those supporting services that you would have, you know, have easier access to in a city and more choice of in the city. Whereas in our rural centres and smaller communities, you don't always have a play group or whatever for those, you know, to help support families in getting to the point where they need, you know, that crisis point might be picked up earlier or whatever. So, you're limited to your support, other support services that they have in the cities. So which means that increases the need for the service (P2).*

*And I think on the back of the conversations we've had earlier about the changes in services and the accessibility, because I know I've had conversations with some of the Sydney team about what the NGOs do and the comment is, well, doesn't the NGO do that? Well, no, they don't do that here. Or there's no NGO in that town and so we've had conversations about it is role for the [FCC] staff and the role of the NGO worker. (P4)*

It was identified that access to services is increasingly difficult the further families live from major regional centres. The group discussed the additional barriers to service access for parents living in smaller rural towns. The lack of services was identified as impacting on service providers as they grappled with role delineation in the absence of other options, particularly in small rural communities:

*And, and even when you're talking about, [major regional centre], you know, there are much more services and support types of services here. And then when you get out into the smaller communities, they're more sporadic as well and less, so, you know, they might have this over here, and there definitely, but not over there in [name of small rural community] or somewhere like that. (P2)*

*It's even worse the further you get out... And again, that's the NGOs coming in and say, well, you know, what can you do? ... And again, what is your role to get them into [NGO referral service name]. So just finding not only the local child and family health nurses that possibly have a burden, but us as well, defining who does what is tricky (P4)*

Participants highlighted that the need for reliable support with **service navigation**, particularly when some local service providers did not seem to have a good understanding of the other services available. It was identified that general practitioners (GP), often staffed by temporary locums working for a limited period of time to fill rural workforce shortages, resulted in the medical officer lacking a thorough understanding of available local services, the support they offered and how to refer:

*So in my head I go, well I've seen my GP and they didn't refer me to the service so obviously the service is not appropriate for me, but I wonder you know honestly, I probably could've rung and said, hey, I have no idea what I'm doing with this. Whereas I wouldn't even consider doing it because I didn't think I was appropriate for the service... They're a generalist and we just want them to pick it up and then refer them on. But the problem is when they don't pick it, don't pick it up or don't refer it on because they're not aware of what services are available, (P7)*

*... they're leaving us fast and the strategy that we did have in place most recently was, uh, generally you could only get the overseas trained GPs to go and live in these tiny little places.... But, and then that becomes another barrier to that person's understanding and skill set around mothers with new babies, dads with new babies (P1)*

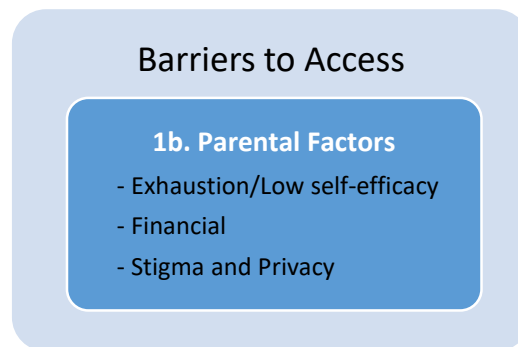
The participants discussed a lack of recognition by some GPs of the impact of early parenting challenges on families. This was observed to extend to a lack of understanding of both the Level 2 FCC service and the universal primary CFH service:

*It isn't even a conversation of if they're accessing primary child and family let alone a [FCC] service think it's, GPs might know that the [FCC] is here, do they understand what [the FCC] can do, do they understand for a mother? So it wouldn't matter how we promote it, do they get the situation that the mother is facing and do they have that knowledge and I'd probably say no (P1)*

The need for GPs and other health professionals to be able to identify needs early and not minimise the challenges parents experience was highlighted. The participants discussed the impact of sleep deprivation and health literacy on parental capacity to clearly articulate the difficulties they were experiencing to health professionals:

*... the mum that hasn't got the educational background and maybe doesn't have the confidence to even ask questions, she doesn't know that this is not normal. And if the GP doesn't recognise that this is not normal, then there's no help. There's no even consideration. (P1)*

### **1b: Parental Factors – Picking your Battles!**



*(Excerpt from Figure 9: Sub-theme 1b)*

Participants noted that the parent's capacity to ask for help, advocate for themselves and their baby, and overcome barriers to access is impacted by the **exhaustion** associated with sleep deprivation in the early parenting period. Discussion centred on the depleted energy and personal resources of parents who often put their own needs behind those of their baby or toddler:

*And you have to trust, not unconfident, but do you know what I mean? Like yeah, you still take what they say. And you kind of go, I pick my battles. I've had two hours' sleep. I kind of asked, I can't be taking this any further right now. (P7)*

The **lack of confidence** and self-efficacy experienced while adjusting to the role of new parent was identified as impacting the ability of parents to ask questions of health professionals. Participants reported that when health professionals minimised parental difficulties as being ‘normal’, the lack of confidence felt by some parents resulted in them not challenging the response and therefore not feeling able to advocate for their needs. Parents’ experiences were not acknowledged or validated, creating a barrier to receiving help when needed:

*And that's what I was saying to [other participant's name], you ask a question and they just tell you something and even though in my head I go, I'm an educated person, that's not the right answer. Yeah. As that person that is on the other side, I go, okay, yeah. (P7)*

The **stigma** that can be associated with reaching out for help and concerns about **privacy** when accessing services in a small rural community were identified as further barriers to parents accessing services early, before concerns reach crisis point. A lack of understanding about what the service provides and what to expect when attending can influence whether a parent will accept a referral for help and support. One participant described her observations of some parents experiencing anxiety or even fear when taking the step to attend a service for help with an early parenting issue.

*They're actually quite frightened and they go, oh my God, this is so much better than I thought it was going to be. Honestly, some of them are quite nervous because they have, some have a perception that ... it's going to be very rigid and there's not always going to be that partnership with them on what they're [wanting]. So I think that some of them are quite pleasantly surprised that there's actually a lot more to it... (P5)*

One participant noted that when service providers are members of the community, this can assist some parents if they know and trust the person. However, other parents may not feel comfortable reaching out to a service which is provided by a member of their local community with whom they interact in other contexts. This can also present challenges for the health professional in regard to professional boundaries and social relationships:

*... I'm wondering just that whole issue around the stigma sometimes and... it can be positive and negative, might be you actually approach someone because you know them and that's a helpful connection. But you actually sometimes don't approach someone because you know you know them socially. Yeah. So like just how those degrees of separation kind of impact on accessing support help, very different to metro than rural areas... (P3)*

The importance of maintaining confidentiality in rural and regional communities was highlighted. One participant recounted being asked by a parent whether they had told anyone else that they had attended the service. Other participants experienced similar challenges in being asked whether parents had attended their service by other community members. It was noted as being vital to never provide such information as this would tarnish the reputation of the service:

*Just, I know that when I worked with Aboriginal health that, that if we tell the clients we will not talk about you unless with your permission except for the mandatory reporting and you follow them up and [someone else] asks if such and such turned up and you go, oh, I don't know... If you say, we don't talk about you, we don't talk about you. And every time you have someone say ask if my niece was there and you say I don't know, that gets out into the community. (P4)*

Another participant described a recent experience in which a parent almost declined the service. The previous health provider delivering the service had discussed private information with other community members, which had resulted in some parents no longer trusting the local service:

*.... prime example, just today at home visit that I did, she was nearly going to decline the service because that very reason. So the prior person had broken trust in a small community and something that this particular family knew very well shouldn't have been out there. Other people had talked to them about and knew where it'd come*

*from. So her husband had said, if it's that same person, I'm not going there. So a prime example. (P6)*

Additional **financial** barriers to access were identified for those living in rural and regional communities. Out-of-pocket expenses when accessing primary health care were highlighted due to the lack of GPs who bulk billed (no out of pocket costs) in rural areas. Participants identified the difference between the experiences of parents living in metropolitan areas who are more readily able to access GP services via Medicare bulk billing with no gap fee required:

*I didn't have any knowledge that the services in Sydney were free anyway, I didn't know that they were for free. I thought that they were just, this is how it is for the world. Everyone has to pay. (P1)*

*One of the mothers [living in a metropolitan area] actually said to me, I just swipe my Medicare card and I see every clinician in one spot. (P7)*

While participants highlighted the impact of lack of access to bulk-billing GP services on parents' ability to seek advice and referral from a primary health provider, they also acknowledged the challenges for country GPs which decreased their capacity to offer bulk-billed services. The additional costs associated with rural health delivery, and living in a rural location, were identified as being factors on the costs passed on by GPs to health consumers.

*But also to be fair, when you're the only GP in the town who's had to pack up your family to move out to this small rural location, there's expenses for your family to be able to get to the school they want to go, to go back to visit family. They can't afford to then bulk bill the client. So they have to actually, it's a business for them and they have to make money. (P1)*

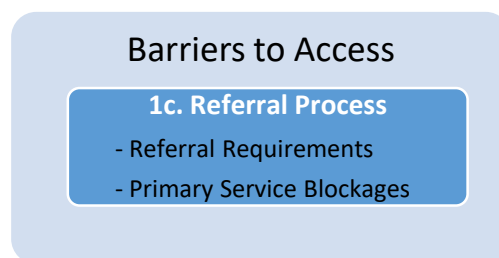
The impact of financial disadvantage and drought was highlighted by the participants as a key barrier to seeking help when needed. Financial hardship can further impact whether a parent

seeks help if it is not clear that a service can be accessed free of charge. Parents may make the assumption that a fee is attached as this has been their experience previously.

*But we actually do [have higher rates of financial disadvantage], the literature actually supports that. There is a higher level, like a disproportionate social and financial disadvantage. People frequently move to the country because it was cheaper as well... cause people like, [ask] why do they live in the country and so remote when they've got a child with significant medical needs because that's all they can all afford. (P7)*

*Um, simple things like when you ring up and you get the spiel from the person on the front desk saying there'll be a \$220 gap, because that's the spiel they are told to give everyone, regardless of whether they going to bulk bill when the paediatrician knows that this patient is financially disadvantaged. So... the family just doesn't turn up. (P7)*

### **1c: Referral Process - Systems Barriers**



*(Excerpt from Figure 9: Sub-theme 1c)*

The **requirement for a referral** was identified by participants as a barrier. The need to seek referral from a primary level health service in order to access the Level 2 CFH service delivered by the FCC was associated with a number of barriers. These included the lack of primary level services in some towns, and difficulties associated with accessing a GP (including financial factors) described in section 1b.

Participants described their understanding of information listed on the service website as emphasising the requirement for a referral. If a primary health provider therefore did not

respond by referring the family, the parent interpreted this as the service not being appropriate to meet their needs:

*You know, cause when you look on the website, it's got this really strong thing about needing referral from a GP. So in my head I go, well I've seen my GP and they didn't refer me to the service so obviously the service is not appropriate for me (P7)*

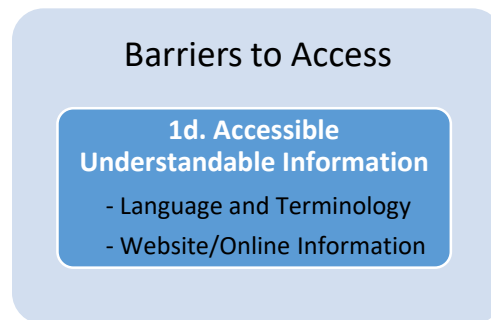
The group were united in strongly advocating for creating an alternate pathway for parents who were unable to obtain a health professional referral to the service. **Primary service blockages** included long waiting lists, primary providers not identifying the need for the Level 2 service and/or not listening to the parent's cry for help. One participant described the importance of making the referral pathway as easy as possible for parents given the many other challenges to access compounding the experience of many families:

*I think the families need the referral pathway to be easy because they're already, it's hard being a parent, without throwing in complex families and financial hardship and mental health. Picking up that phone or going into an appointment and needing to pursue it yourself is really really hard too. And I think, I think that and the rest of the family, and childcare, what childcare you can rely on and other people, and the stigma... if you can make the referral easier, easily available and have that knowledge out there so they know where to go...it needs to be easy for them. (P4)*

Participants identified that there were times when health professionals referred families to the Level 2 CFH service, but the parent may not understand the reason for the referral. Examples were provided by participants of parents being referred without a description of what to expect or the rationale for the referral:

*That even comes across in the referrals sometimes. They're not even sure why they're being referred, like for support but it covers a lot doesn't it? ... (P5)*

## 1d: Accessible Understandable Information - *Reflecting Real Life*



*(Excerpt from Figure 9: Sub-theme 1d)*

The **language and terminology** used by health professionals to describe the services and the reasons for referral may not be meaningful or clear for parents. A participant described her experience of the word ‘challenge’ as giving the impression of her experience needing to be of a more critical or immediate nature. This led to the participant (consumer) not reaching out for help, as her understanding was that the service was for other parents with greater needs than her own:

*While in reality [if I had known], I could probably drop by and go, right, I've got a real issue. My baby hasn't latched on properly for the last week. I don't know what's going on. I need some support. And that to me is not a, I don't look at that as that's a challenge for me. But is that a challenge? Is that what you can call a higher challenge here? Or is that just normal parenting?... So I think when we keep talking about challenging, people automatically think they're not eligible for the service. So I think you cut out a lot of people that would really benefit. (P7)*

**Websites** and other platforms communicating information about the services were identified as needing clear information about what to expect at a local level. Participants emphasised ensuring website and other communication content is provided in formats which will address the needs of a wide range of parents and checking this by asking parents. A clear message was the need to consult with parents as to language and information that would be acceptable and understandable to a broad range of parents. One participant highlighted the usefulness of

visual formats such as video-clips which would lend themselves to providing insights into what to expect when attending the service.

*And I think like even when I look at the website, I'm like, it doesn't actually tell you what [the FCC] does in [name of town]. No it doesn't from a perspective of someone who's never used the service and that's, and I don't mean that as a criticism. what do you actually do and what is appropriate for me because when I look at that, I go, nothing in there is appropriate for me. (P7)*

*Yeah. So if you're trying to communicate with the general public on that website and you've not asked one of them what that looks like to them...And you miss the whole group of people who are actually visual learners as opposed to verbal or word. Lots of people are very visual. So if they can see what the [FCC] service does as opposed to it being dot points of this is what we offer... A little clip or something of actually like snippets of what you actually do in your day. As a consumer, I would find [that] amazing. I'd go, oh, that's me or that's not me. (P7)*

## **Theme 2: Service Integration**

### **Sub-theme 2a: The Role of the Family Care Centre - *Flexible Connected Support***



*(Excerpt from Figure 9: Sub-theme 2a)*

The need for responsive, flexible service provision, connecting parents to the support they need was highlighted in both the workshop discussion and the pre-workshop questionnaire. The themes from the workshop further elaborated on those that emerged from the pre-workshop questionnaire. Discussion focused on key areas of **providing effective support**

**and help for families**, and the importance of assisting parents to **navigate the service system** to access other services to meet their individual needs and circumstances.

The key role of the FCC in providing **help for early parenting difficulties** was reflected in the workshop discussion. Participants discussed why they rated this highly in the pre-workshop questionnaire:

*... health and wellbeing comes with coping with challenging circumstances, finding solutions to problems and obtaining help. So I think I probably rated them with that in mind that if we're able to provide this or help them with this, then the rest is going to happen anyway. (P2)*

*... because I felt that if they could weather the ups and downs with confidence and look for solutions, the rest would come. (P4)*

The concept of a 'one-stop-shop' and co-location with multiple service providers in the one spot was highlighted as being an efficient way to improve access to services for families. It was noted that unlike metropolitan areas which were seen as having access to a variety of support service options, the FCC may be the only available option in some rural and regional areas. This created a sense of urgency and responsibility to provide effective help where no other option was available.

*The one-stop-shop ... in Tasmania where they have child and family health, and social worker, they had everybody together. (P6)*

*So you're limited to your support, other support services that they have in the cities. So which means that increases the need for the service, that [FCC] service. (P2)*

Participants noted that the role of the FCC may differ between metropolitan and rural areas in response to differences in the local service sector. They described role delineation as being 'grey' at times, and sometimes being overshadowed by their sense of responsibility to respond to the needs of the families whom they support:

*Whilst your role might feel very grey at times you do whatever you do for the best interests for the families that we work with them. I guess that's what drives our daily challenges and struggles and knowing who and what you can refer to and thinking outside the box. (P6)*

*So... the boundaries of the role could differ from that of the metropolitan area. Yeah, purely because [of] the services available. (P2)*

The role of the FCC nurse was also identified as being different to metropolitan counterparts. Similar services in metropolitan areas were noted to have ready access to allied health workers such as social workers for FCC nurses to refer to and consult with. The Regional FCC nurses reported having to manage complex presenting issues themselves without suggesting interprofessional support:

*We've had conversations as well with our colleagues within the metro and it was like, like on my visit it was like well I'd just get them to see the social worker. I'll just get them an appointment now... so the complexity of the clients we are seeing is everything from.... and they end up here and we end up ringing around. (P4)*

*... cause you're pretty much taking on the role as a social worker as well. Organising connections to all those other services. (P2)*

*... Yeah. Sometimes I feel more like a social worker now than a nurse. I feel myself saying that all time. (P5)*

The additional challenge of being a service provider while being **a member of a local rural or regional community** was reflected in a number of statements by participants. The FCC staff needed to be mindful to manage professional roles and responsibilities, while maintaining professional boundaries in personal interactions in the community.

*... very different to metro than rural areas when you speak to a metro colleague and I might raise an issue that's like, well actually, I know that person in my town and now I've been asked to consult by a child and family health nurse or midwife or mental health clinician like. (P5)*

*... Whereas in rural areas, it's your neighbour, it's the parent of a child that goes to school with your, with your child. It's, you know, some person that you buy your bread from at the bakery or whatever. So I think that adds a whole another dimension to accessing care and support in rural areas. (P3)*

Participants described the FCC team being drawn into **care navigation** for often complex presenting issues. It was noted that this important role takes extra time resulting in some consultations becoming lengthier than the service model might normally reflect:

*... they went to the GP for help with their mental health and one mother told me last week was told oh, [FCC] will sort that out for you. And she was there for a mental health appointment. It's that navigating the services with them, which is why I sometimes do longer appointments, two, four, five hours cause it's complicated. (P4)*

A sense of some agencies passing responsibility for care coordination to the Level 2 FCC was reflected in recounts from participants. Participants noted how complex it can be to navigate the service system network in order to find the right person or service to address the multifaceted needs of families:

*...the service, they actually referred them to [FCC] when they probably could have and should have had, have had a role in navigating to all the services that they needed to go to. Not just one, but it sounds like they were like pass the buck, give you to [FCC]. [FCC] can sort everything else out. (P1)*

*So I had to really seek so far, you know, six people to help her. And I said, look, both of us here are intelligent, competent people and we're struggling to find the right*

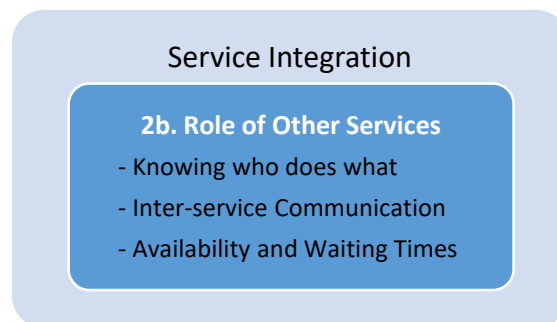
*pathway for you... everything from being given a name, a recommendation and finding that person was horrendous. (P4)*

It was identified that by supporting a family to navigate the system and find the care and support they needed; this could set a precedent with other agencies expecting the FCC team to undertake this role regardless of whether the presenting issue was in scope for the service. While this presented a conundrum to maintaining service scope and boundaries for the FCC, another participant expressed relief that the service maintained flexibility so parents were assisted regardless of the presenting issues:

*.. and the problem is if you do and that's a double-edged sword. Cause the problem is once you've done it once, there's that expectation, that you will just handle that. Yeah. And it's because... you know that this mother actually genuinely really needs these services. And if you don't do it, she won't be linked into the right service. (P5)*

*I'm reassured that you, that you do it and I get that it's frustrating, [that it] takes lots of time, but someone needs to do it, you know, so it's good that you do, so somebody did it... It probably comes down to that flexible... It means it's everybody's business. We've got to help. So if this is the only way that we can get them the help, then I would, I would like to think we still did that. (P1)*

### **Sub-theme 2b: The Role of Other Services - *Who and What Is Out There***



*(Excerpt from Figure 9: Sub-theme 2b)*

The rapidly changing service environment impacted by short-term funding cycles was noted to impact on keeping up to date with which agencies were delivering what services. **Knowing what services are available**, and access to current information on the programs and target groups, were seen as key to supporting parents to access the appropriate help and support for their needs.

*So I think that's sometimes why the referral process get[s] a bit murky... you don't necessarily know what's out there. And we've got all these great services but they're not promoted well enough for that people actually know who they are and what they do. (P7)*

*Is that a result of the funding model? Like, you know, services change and seek some funding for ongoing things and then it stops... that sort of thing changes pretty much all the time. (P2)*

Participants identified the importance of **clear communication** across government and non-government sectors. The PAR group highlighted the impact of limited communication or understanding between services on the effective provision of care for families:

*Because I do often find, and particularly now that I'm a consumer, none of the services talk to each other. (P7)*

*Is that their misunderstanding of what they think [the FCC] does do? (P2)*

Participants suggested that information and understanding of service availability should also include updates on waiting times. Participants identified that, when aware of long **waiting times**, parents and nurses could seek out alternatives rather than parents trying to cope alone while waiting for a service response:

*You're [the parent] going to have to put your issues on hold if there's a waiting time, you just want help now, you don't want to have to wait. And that's the difficulty when there's those barriers... We know they've got quite extensive waiting lists... So you're kind of a little bit reluctant to refer if you know you don't want to put false hope in. (P5)*

*And, and when we find out that this service has got a six week wait, okay, well there's another service that does something similar or it might be the step down, but maybe we can link them in there and they can get some sort of support until the doors are opened up over here. And then actually it might've been intervened or they don't need to go over here. (P1)*

## **4.3 Workshop 2: Identifying Service Model Elements requiring Modification**

### **4.3.1 Aim and Background**

At the conclusion of Workshop 1, participants were asked to consider data sources which may be useful to test the thematic analysis of workshops and cross check understandings and assumptions. Participants remained in contact between workshops via email. The preliminary outcome of the thematic analysis of the transcript of Workshop 1 was presented to the group for validation at the commencement of Workshop 2, providing a platform to move into the review of the service model elements.

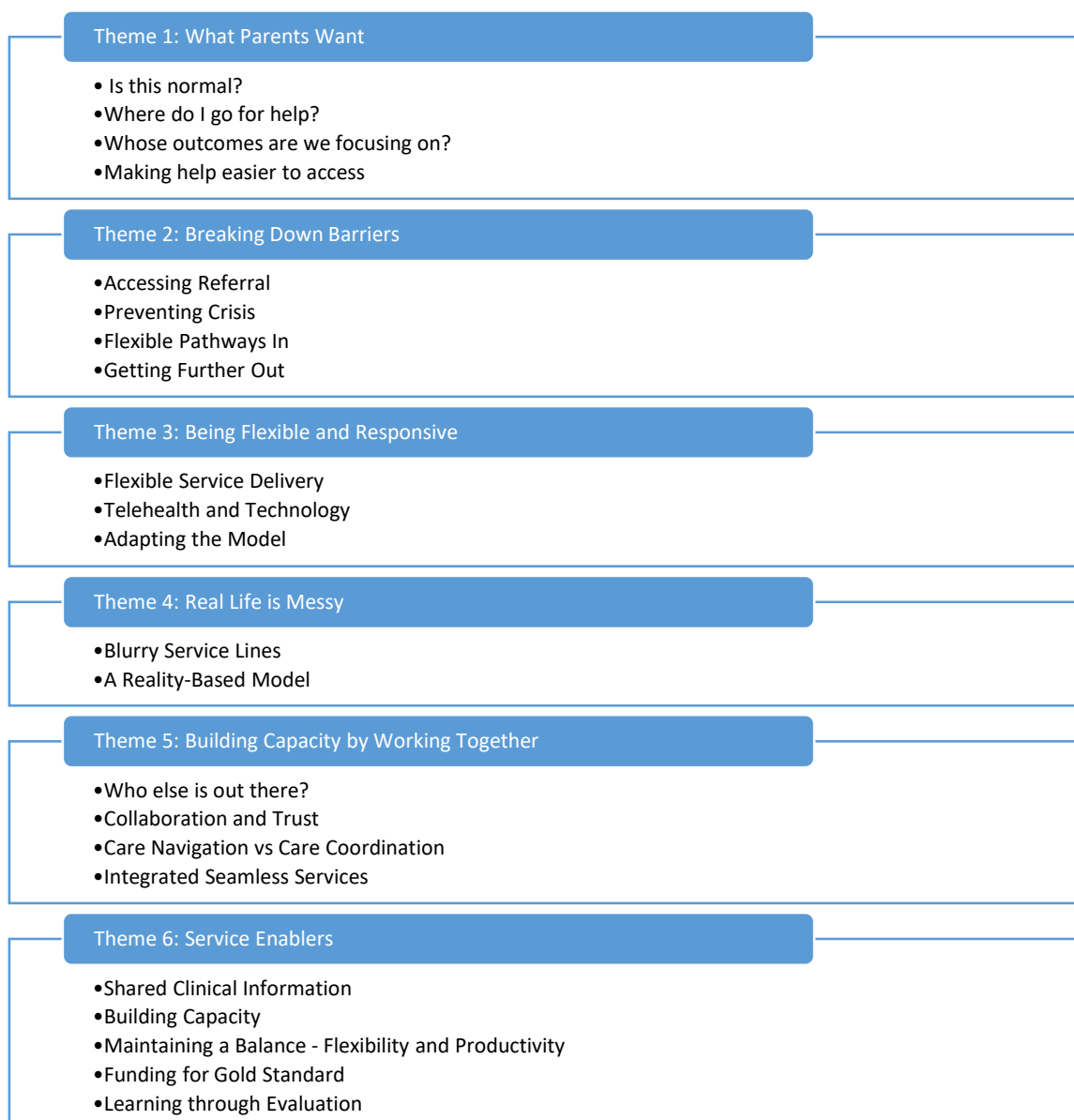
In the second workshop, participants were asked to consider the FCC service model which had been implemented in the previous two years. All participants were provided with a copy of the service model, a journal and a template for recording their reflections. Participants were encouraged to use either of these tools, or other methods if they preferred such as voice recording or an electronic journal. Participants were asked to record their thoughts, suggestions, concerns or questions regarding the service model and to bring these to Workshop 2 so they could refer to their reflections as prompts for the workshop discussion.

Participants were also invited to consult with friends, family members and colleagues about aspects of the service model so these insights could be included in the feedback, noting whether reflections were their own or from others (parents or health professionals). The aim was for the participants to formulate recommendations for aspects of the service model which may need to be adapted to best suit the specific context of their local community; and to utilise this information in Workshop 3 when developing an action plan for the subsequent PAR cycle.

**The focus questions for Workshop 2 were:**

- (i) The fit of the service model for this community – what works and what doesn't?
- (ii) What aspects of the service model require adaptation to effectively meet the needs of this community?

Six themes were identified through the thematic analysis of the transcripts (see Figure 10 below), each with a set of sub-themes: (i) what parents want, (ii) breaking down barriers; (iii) being flexible and responsive, (iv) real life is messy, (v) building capacity by working together, and (vi) service enablers.

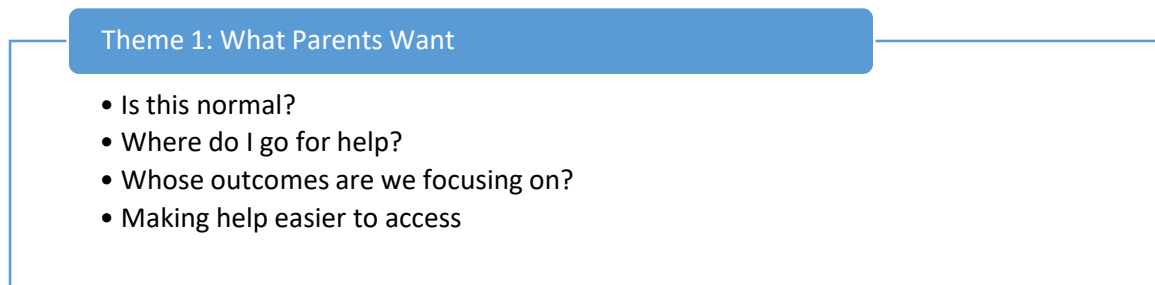


*Figure 10: PAR 1 - Workshop 2 Themes*

### 4.3.2: Themes from Workshop 2

#### Theme 1 – What Parents Want

Four sub-themes were identified from the coding of the first theme which emphasised the need to remain focused at all times on *what parents want*. The sub-themes were: (i) is this normal? (ii) where do I go for help, (iii) whose outcomes are we focusing on? and (iv) making help easier to access.



*(Excerpt from Figure 10 – Theme 1)*

Participants discussed the difficulties encountered by parents in not knowing or feeling confident in answering the question: **is this normal?** The group discussed the assumptions that parents know how and where to access information to guide them as to what to expect in the early days of parenting:

*And it's that assumption, assumption that because we've got access to internet and all the rest of it, we have so much technology these days, that you just Google everything and you'll find what you need. (P5)*

Participants highlighted anticipation of the types of challenges which parents may experience and their understanding of where to access help. One participant suggested group sessions with other parents may help in providing this information while normalising the act of help-seeking:

*And lots of things that you'd finally talk to people and they'd go, "Oh yeah, that's so normal," and it's like, well why does nobody tell you, there's actually a lot that you*

*don't get told. And I think running a group session like that, and offering it after, before people are discharged from hospital, and running it in a group session... and just running through some of the common things and when you might need to ask for help, and where you go for help. (P7)*

Participants described the importance of the timing of referrals to services being parent-driven. It was noted that some well-meaning referral agents would contact the service to refer a family. However, when the family arrived they either did not understand why they had been referred or they were not ready to make changes. Participants suggested the idea of adapting the service model so that, in addition to health professional referral, parents could self-refer at the point that help-seeking was meaningful to them:

*And the converse of that, the other side of that, if it is a self-referral, is that they're coming on their terms, I must say. Based on reflection recently, a lot of referrals we've had, they've got this, this, this, and this issue, but they're not ready to deal with it yet. The health providers are doing the right thing by the client, but it's just not the right time. They're not ready to be able to make the changes. So they choose, the client then chooses the right time. And that's... I would think we're going to get better outcomes for the client when it's the right time for them. (P5)*

The challenge of parents knowing what services are available and **where to go for help** at the time they needed and wanted it was identified. One participant shared that her friend, despite working in the health sector, found it difficult to know how or where to access the support she needed:

*She works in health services, and she still had no idea who to contact, she was so sleep deprived. She couldn't actually even make a decision. (P7)*

The service model document reviewed by the group between workshops included a set of outcome statements. The participants emphasised the opportunity to consider the question of **whose outcomes are we focusing on**, i.e. were the outcomes articulated meaningful for parents or health professionals?

*I looked at... are we looking at our outcomes, or is it the client outcomes? Like, just sort of breaking that down and to find that there could be a significant difference between our expectations of what we can provide and what the client is wanting. (P5)*

The tension between service aims and objectives, as opposed to the immediate needs of families was highlighted. One participant noted that although the presenting issues may not be directly related to the service objectives, a positive outcome should be acknowledged if the parent's needs were met:

*Yes, obviously the overall service aims are to do all of these things. But if we make any difference to any family about whatever it was that was their pressing concern, then that is an outcome... Whatever their need is. And if their need wasn't anything to do with what the service's aims were at the end of the day, and we still met their need, then we've done a good job... (P1)*

The importance of feedback from parents was highlighted. Consumer feedback was seen as pivotal to gaining an understanding of whether the service was meeting the needs of the families who access the FCC for help and support.

*I do love that you do the questionnaires and that you do get feedback from the families, because actually that's really rich and valuable. That tells us... whether we're doing a good job. Doesn't matter about anything else, it's about those people, what they came for, and did they get a service response that met their needs? And if they didn't, how do we improve that... (P1)*

Outcome statements were identified as providing an opportunity to consider the difference the service was seeking to make in the lives of children and their parents. The PAR group discussed whether the child was at the centre of the outcome statements, and whether child-focused outcomes were being measured. In addition, the group identified that there is room to consider the impact of the service on the staff and other health professionals. For example:

*And the expected outcome... but it's parent-centric. It's like, the results of the [parent self-report assessment tools] ... Is there anything out there that we slot into there for the child's perspective, of whether we're meeting the outcomes for the child? (P4)*

*... because when you think of the service, it's not just the client, it's the staff that provide the service as well. So, I was thinking around outcomes for staff as well. (P2)*

A strength of the service model was noted to be the range of flexible modes of delivery. It was identified that more could be done to **make it easier for parents to access help** when they needed. Participants highlighted the concepts of outreach from the main FCC hub in conjunction with working with local primary CFH nursing services to build capacity to respond to the needs of families within smaller communities:

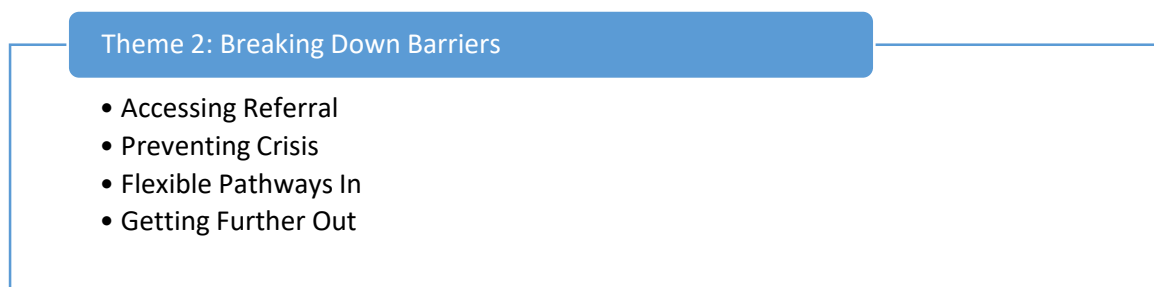
*... the outreach base and even ideas like you've got, in upskilling the nurse that's in the centre certainly sounds like a go forward. Especially for the smaller outlying towns. (P6)*

The group discussed giving parents an alternate route to access the service by providing an option to refer themselves via a hotline. It was identified this could potentially facilitate more timely access to help and support, while also identifying those who may only require information and advice that could be provided via the phone rather than a full Level 2 consultation.

*Could you use a hotline as a referral, a help hotline? And then from that, take up who actually needs the referral. Because that would actually save you being bombarded with referrals, but you might be able to go, "Okay, this person doesn't need a referral, they just need talking through a couple of techniques, and I can do that over the phone." Or, "This person is in real trouble and I actually need to refer them to the [FCC] service." (P7)*

## Theme 2 – Breaking Down Barriers

A total of four sub-themes were identified from the coding of the second theme of *Breaking Down Barriers* which highlighted how vital it is for parents to have timely access to help, particularly in relation to outcomes such as continuation of breastfeeding and the associated health benefits for both child and mother. The sub-themes were: (i) multiple barriers to accessing referral, (ii) preventing crisis, (iii) flexible pathways in and (iv) getting further out.



*(Excerpt from Figure 10 – Theme 2)*

The participants identified **multiple barriers to accessing referral** into the service. This included the length of time waiting to access an appointment to a primary health professional in order to obtain a referral, in addition to the financial impost of a GP consultation when bulk billing is not available.

*I suppose, the quicker you access the less these things deteriorate quickly. And I just think you can just- getting into your GP there can be a wait time. You don't get that time when baby's losing weight or you're feeling not confident, or your milk's running out, or you're trying to adjust to this whole parenting thing. And you're going to wait however many days to see your GP, then you got to pay for... you know, all those kind of things just add another level of complexity. (P3)*

The need to ensure timely access to support and **prevent crisis** was identified by participants. The group discussed the potential presence of a range of factors that can result in situations reaching crisis point before parents are either offered a referral or reach out for help. The concept of taking a proactive approach in reaching out to parents was raised as one

participant described the deterioration of a mother and baby that could have been prevented through earlier access to help.

*So, my question is about how late are we linking them in, are we working less proactively than what we should be, and should we be using our time better and working more on a preventative as opposed to a... because by that stage, she was beside herself. She hadn't slept, because obviously the baby hadn't slept because the baby was malnourished. She had slumped into depression because she felt like she was the worst mother in the world, because her baby couldn't gain weight. (P7)*

A participant noted that when wondering why a parent had not presented sooner, she had assumed that there was a delay in obtaining a referral or taking up the referral. On further exploration the participant realised that the parent had not been referred until the situation had reached crisis point. Of particular concern to the group were the differences in referral behaviour by some primary health care professionals. Participants reported that local data had indicated 'hot spots' of referrals, and some areas of known need with lower referral numbers than expected. Differing referral practices by health professionals impacted on service access for some families.

*No, it was a referral. Because that's why I was like, "Maybe the service is just bombarded," but then I thought well no, it was actually because she wasn't referred until that stage. (P7)*

*And it can only be as good as the referrer who's there as well. It's coming from those service providers who are identifying the need and doing something about it. (P5)*

*It is about the receptiveness of the person who is the referral agent of actually accepting that this is a service that is available, and it can provide something that is more than what can be provided elsewhere. And until we can convince them of that... Then they actually are disadvantaging their clients, because they're not offering them the service. (P1)*

One participant shared that some CFH nurses might be reticent to refer to the Level 2 service due to a concern that this might be viewed as them having failed to provide effective primary level care. The participant identified the need to work as a team across the Level 1 and Level 2 CFH services, rather than as us and them. Other barriers to primary service providers were identified as assumptions made as to what the parent would want or their ability to travel, assumptions made without checking with the parent.

*As a child and family health nurse, we often used to... if we were referring to you guys, think that you might think, "They don't know their job," whereas now I see it as, you've got the extra level of expertise because that's what you specialise in. So for the benefit of my family, I'll use that word, or initiate. I'm going to refer to you as a team player for this family to assist them further as a team unit. (P6)*

*.. there are people out there that have a view that, "Oh no, they wouldn't want to travel. That family wouldn't be able to travel, so I'll have to do it." (P1)*

The group discussed the need to engage higher level management to address inconsistencies in referral patterns by individual health professionals within a health service. The participants identified the role that senior management could play in raising the expectation of referral to the Level 2 service, in conjunction with sharing good news stories to highlight the effectiveness of the service:

*So we literally had the clinical lead ... going in and saying, "This has worked. We've got one child here that wants to do it that you're blocking, you need to cut that out." And you just had the buy-in from them. But you've got to show it, first... whether it's in a patient story for an outcome measurement, and then re-presented so you get the support locally of the executive, that basically says if we're getting blockages locally, it needs to be managed at a higher level down the track. So I think you can combine the two of them. (P7)*

One strategy to ensure health professionals were aware of the importance of and expectation of referring from the Level 1 to Level 2 CFH service was to implement regular reporting of

referral data to managers. One participant identified that this would provide a degree of accountability, and a platform for monitoring areas in which referrals were particularly low to open up a conversation with the CFH nurses in that area.

*I'm going to make them accountable to tell us what they're doing in the inter-agency space, but also around our [FCC], because that's one of our key improvement strategies anyways, that we need to assist from that clinical improvement project, to unblock the barriers and to actually get the referrals through. (P1)*

The group discussed the benefits of taking a more proactive approach. One participant suggested the use of risk stratification to identify those parents who may be a risk of experiencing early parenting challenges and reaching out to them, rather than waiting for them to ask for help. The concept of a scheduled telephone call by a nurse to parents experiencing identified risk factors was suggested by several participants.

*And we've got a lot of data that would pick up, like... using a risk stratification backed into the database. So you're already collecting a lot of this data, so you're doing your depression screening, you're doing all of the things...that we've also seen in the literature that identify parents who are likely to require assistance and are red flags. Could we not red flag them and have that automatically earmarked on a database.... Give the parents a contact... like, make a point to call and say, "How are you going?". (P7)*

*Yeah, I put that down as one of my things as well around, just the phone call. Because there's evidence around just that nurse-initiated phone call may provide that little bit of support at the time that's most needed for that person that normally would not contact anybody, and sit there and flounder, and then end up coming in eight weeks too late. (P2)*

The need for more **flexible pathways** into the Level 2 service was identified by the group. Participants discussed a lack of clarity over which professionals were able to refer into the service.

*Just the questions about referrals from other health professionals. What sort of scope do we say for health professionals? Somebody had asked me recently, "Can a pharmacist refer?" We have other Allied Health. Again, what scope can we put on that as far as what's defined as a health professional? Is it just anybody working with these clients? (P5)*

As noted in Theme 1 (*What Parents Want*), rather than parents being reliant on a health professional providing a referral to the Level 2 service, the group discussed providing parents with an accessible self-referral option, such as using a telephone helpline to refer themselves into the Level 2 service. A concern was raised that opening up referrals to parent initiated self-referrals may result in parents presenting who could have had their concerns successfully addressed through a primary level service. Participants discussed whether this mattered as long as the parent received timely access to help to address their needs. It was noted that by working as an integrated team, the Level 2 service provided an opportunity to link parents back into the Level 1 service if they were not aware of the support available throughout the early years of their child's life up to school entry.

*Because that's the thing, with the self-referrals, we don't always know how much access they've had to primary health services first. And that's the risk that we're going to get people who haven't accessed, and that could have been managed better in a primary service, and on-goingly in primary services. (P5)*

*But I guess, I would see it that if we're a truly integrated service, as I believe we can be. And that many of us are, that actually we can then link these families into the primary health service and offer it in a supported manner. (P1)*

Participants discussed the specific challenges faced by parents who live in smaller, more isolated rural communities, highlighting the need to focus on **getting further out**. They suggested making the most of trips to towns surrounding regional cities by providing early parenting groups in addition to individual consultations as a way to effectively utilise staff time and travel:

*We talked looking at going out to the satellite and the outreach, looking at whether we would do one-off groups. So like... if we need to get to [name of town], and just do a one-off sleep and settling group, do you know what I mean... easier for one clinician to go to that spot and maybe potentially access six to eight families rather than expecting them to come here. And ... that would feed in for all the little towns around it, type thing. (P4)*

The service model upon which the FCC was established included the concept of the centre being located in a regional city and acting as a hub or base from which outreach could take place to surrounding smaller rural towns. This was identified as a good fit for the rural and regional community context in which the PAR group members worked and resided.

*We talk about [regional city] being the hub of the regional area, and that's great. And certainly through some experience that we've had so far with the [smaller town] outreach, I would say that was a really positive experience... And I can certainly see that expanding to other areas, so I think that's really useful. (P5)*

Telehealth was identified as an important adjunct to face-to-face delivery. Telehealth was identified as an enabler to access for families who live outside the travel range of the FCC outreach.

*I think definitely if we're talking about good fits for the area, that the Telehealth and the outreach base... Especially for the smaller outlying towns that are definitely way more than 30-minute travel, if that's the criteria for your home visit. So that would definitely be the way to go for those areas. If the families are unable to access the centres themselves, that is. A lot are willing to, but there's probably those that won't be able to. (P6)*

### **Theme 3 – Being Flexible and Responsive**

Three sub-themes were identified from the coding of the third theme of *Being Flexible and Responsive* with the sub-themes being: (i) flexible service delivery; (ii) telehealth and technology; and (iii) adapting the model.

### Theme 3: Being Flexible and Responsive

- Flexible Service Delivery
- Telehealth and Technology
- Adapting the Model

*(Excerpt from Figure 10: Theme 3)*

The need for **flexible service delivery** to enable the clinicians and service to be responsive to the varying needs and circumstances of families was emphasised by a number of participants. The need for flexibility was identified as being particularly important in regional areas given the distances between communities. The availability of service options and a range of modes of delivery was identified as key to providing access to services for families regardless of location and circumstances:

*There just needs to be flexibility to whatever the need is, and how we're going to give the service to somebody. And yes, if that means that we need to travel to do it. If they're a family that everything is going to fall apart if we don't, and there's nothing else for them, then we have to do it. Because that's, someone's got to do something for them, because otherwise it's going to have repercussions in long term and it all will come back to us anyway. And much harder to fix it later. (P1)*

*... and I agreed that's, probably for us, one of the big things around being flexible is that we can support parents who want to, to link in whatever method that may be. Doesn't have to be face-to-face, particularly out here for the more remote and regional, rural areas... The model needs to be flexible, particularly around the mode of delivery. (P2)*

Another participant identified that, despite language regarding the importance of flexibility, the service model document appeared to be quite rigid in some aspects of the model. They gave the example of terminology regarding initial assessment consultations to be undertaken face-to-face within the centre unless exception criteria were present:

*... I had a few concerns, just around the whole face-to-face thing. It's not essential, if it's not going to meet their need and they would like an alternative. If they're never going to come to us face-to-face, or we can't get to them face-to-face, then... I just sort of felt it was very much, absolutely, that is a must, no matter what. The first appointment must be... and I'm like, no, actually it doesn't need to be... But at the end of the day I just think, we've got to... if they need a service, they need a service, however we can give it to them. It's better than them having no service at all. (P1)*

While the service model document promotes the concept of service flexibility, participants identified that this was not always reflected in the content. The group discussed the dilemma of providing written guidelines while aiming to maintain scope for flexibility:

*I think that was word for word for my comments, need to be flexible. I can understand the need to have, to put boundaries around the points of contact, but when you also want to be child and family-focused and flexible to the needs of the individual family, you can't always, they don't always fit within that scheduled points of contact. So, yeah. And I know that the [FCC staff] most likely are very flexible around that. So I suppose it's just somehow incorporating that formally into the document somehow. (P2)*

One participant articulated concern that clinicians reading the service model will not always have had opportunity to discuss the flexible application of the model. Concerns were raised that some clinicians may take the words literally as though they were a procedure to be followed rather than adapting the model for their particular community context and circumstances.

*... we do have people who are out there that don't necessarily have those monthly meetings and have all those discussions about how we can do things differently. And we do have people out there that will just pick this up and this is their bible, they will do exactly what this prescribes them to do. So therefore, to cater for people that are like that, we need to make these sorts of documents flexible... policies also are not black and white. It's about people's interpretation, and I just think we need to reduce*

*rigidity in documentation, so people don't get... it says, "I must", ... we want them to think outside the box, and do it safely. (P1)*

Flexibility was noted as being needed not only with the mode of service delivery, referral and access, but also the length of engagement. The service model provided guidelines as to the number of expected points of contacts for different program streams. Participants however cautioned that just as families will have varying needs, so too the number of points of contact will need to vary to address those needs:

*Some come in just for, you know some, they've had their three services, they're done, they're discharged within the month. Others are hanging on, and even when you think, you know you offer them extended home visiting, "No, I don't need that," so they're happy to come to the family care centre, but not be involved in the extended home visiting, per se. (P4)*

The concept of 'packages of care' articulated in the service model describes choosing from program streams and modes of delivery options to meet the needs of the family. This was identified as helpful in supporting clinicians to consider drawing together a plan of care individualised to the family's unique needs.

*And the packages of care, I actually, I love having packages of care. I actually really liked that whole, that idea in there around that. But it just needs to be flexible, adaptable, not rigid. Whatever it is, it's going to help a family. (P1)*

**Telehealth** was highlighted as one mode of delivery option key to reaching rural and remote families residing outside a particular distance range of the FCC. Clinician reticence to move to telehealth due a belief that this will provide a lesser level of service was identified as one of the challenges to providing access to families.

*Telehealth is, and I have lots of families with medically complex children whose specialists and that were like, "No, no, no, it can't be done, it can't be done." Well, they're doing it when the parents have pushed for it, and do you know what they were all fed back? It's working beautifully. (P7)*

Further discussion regarding the opportunities provided by telehealth included extending the **technology** to a monitoring function, enabling parents to share videos of their child's behaviour and interaction with clinicians between consultations. One participant expanded further with the suggestion of enabling such footage to be shared with other health providers involved in the care of the family, to inform collaborative care management planning:

*If they're happy to send you monitoring for an hour, so you can actually visually inspect and see what, in their home environment, what it actually looks like for us. You can actually visually monitor... And you could even do it with a multidisciplinary team at their community base. So they could go to their GP with the local child and family health nurse, and sit in a room, dial in, have that conversation. You know, you've saved three hours from [name of town], turnaround time. Actually, probably four there and back. (P7)*

Additional benefits of integrating telehealth as one of a number of optional modes of delivery included not only saving time otherwise spent travelling, but also providing an opportunity for Level 1 CFH nurses to participate in the consultation. One participant described this in terms of building the capacity of the CFH nurses who worked in more remote and isolated rural communities:

*Could you do that in front of a camera with a baby and link in with a community health nurse and show them... and have them do it with the parent physically in that space to save yourself three hours' travel? Is there potential for it? ... because you're upskilling them whilst also saving yourself three hours. (P7)*

The opportunity to implement innovative adaptations and learn what works and does not work in particular settings was highlighted as a means of **adapting the model** and improving the fit of the service model for different community contexts. For example, cycles of place-based learning and quality improvement initiatives were identified as providing opportunities to share innovative solutions with colleagues.

*Doing little cycles. If it works really well there, what's working well, what's not working well, ask the families what's working well and what's not working well. And the staff. And then tweak it, move to your next site, and learn from each spot... it's slower, but you'll get a better outcome, and it will actually meet the needs of the staff and the families. (P7)*

One participant discussed the benefit of consulting a key person, such as the FCC manager, when adapting the service model to suit various contextual situations, including the needs of individual families. This was identified to assist in maintaining a balance between ensuring the integrity of the service model and efficient use of resources while providing flexibility to meet the unique needs of families.

*It needs to have at discretion of [name of position] in those places for our flexibility. So, not saying that you can just go and do whatever you want, but if you run it by the right person. So, the NUM is who they often referred to. (P7)*

The importance of providing scope in the service model documents for flexibility to enable the adaptation of the model to particular contexts was highlighted. Some of the language in the service model document was identified as not applicable for rural and regional settings.

*And the other thing... families requiring a level three service response will only be accepted if the family has a case worker and the primary carer or infant is not acutely unwell at the time of referral. I guess I'm just asking the question, what does a case worker look like? Does that actually happen? Is it realistic in a more remote setting? Who would be the option for a case worker? Like, just unpacking that a bit more with that. (P3)*

One participant identified that while the service model supported telehealth options and care coordination, the local service had taken this a step further. The local FCC team had commenced using telehealth to support building the skill sets and clinical capacity of the Level 1 (primary service) CFH workforce through consultation and collaboration with the Level 2 service.

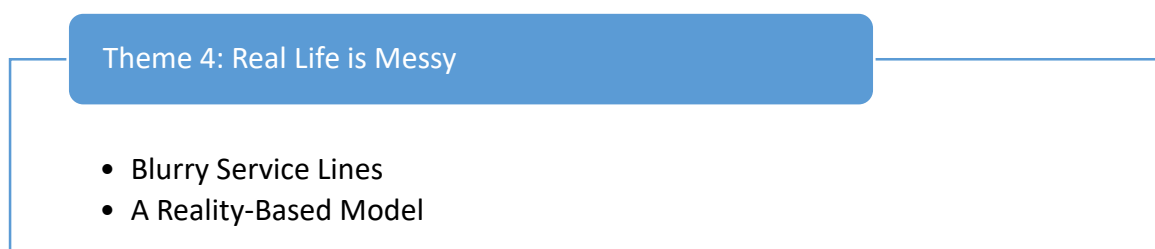
*... things that I thought of the whole way through reviewing this was like, "Oh, we might be just a few steps ahead of the game," because we're actually already implementing some things that are a little bit more flexible approach to these... So, yeah, I think that we could probably safely say we've already adapted the guidelines, just not with the proper process, just trial and error. (P1)*

Statements of expected outcomes within the service model were identified as helpful to return to and reflect when making adaptations. This was seen as important to ensuring that the service does not deviate from the purpose and scope.

*And if we are remaining child family focused, then our outcomes will remain specific, and that should then help guide what those boundaries are as well, so yeah. I think it should all link together in that way. (P2)*

#### **Theme 4 – Real Life is Messy**

The fourth theme of *Real Life is Messy* reflected participants' insights that, to enable effective implementation, a service model document needed to reflect real world realities. The theme consists of two subthemes: (i) blurry service lines and (ii) a reality-based model.



*(Excerpt from Figure 10: Theme 4)*

Participants recognised that **blurry service lines** represented a challenge when considering how to articulate a service model. In attempting to articulate a framework for practice, one participant noted that while guidelines may appear clear in a service model document, they may not encompass the nuances of real-life scenarios with which the clinician is presented:

*It's really lovely and it's really clear on paper, but it's messy when we're dealing with human beings. And actually... the clients are really complex. And needing various ways, various, you know it's variable how much support they need. (P4)*

One participant highlighted the risks associated with limiting access to the Level 2 service to those with a particular identified level of need. It was identified that levels of need can change quickly and escalate to crisis point if not addressed early, regardless of the level of service the family accesses:

*Primary care, secondary, all those levels and just being... and I think it was mentioned before, just around being flexible about where the family's needs are across that spectrum... Will they... become worse, at what point are they just a level one need, and what point are they a level two? So yeah, that's sort of what's running around in my head around that. (P3)*

The service provided by the FCC was identified as needing to take into account other services available, or not available, within a given community context. One participant described the changing nature of the services provided by various providers, identifying the need for the service model to keep pace with such changes.

*So in terms of the changing model, and I know some of the NGOs are taking over, some of that middle of the range, mild to moderate mental illness as a case worker... just understanding the changing landscape of mental health services as well, and what does that look like... (P3)*

The realities of service resources were identified as differing between metropolitan services and those located in rural and regional areas, highlighting the need for a **reality-based service model**. While the model used for the PAR study identified the importance of interprofessional teams, the local FCC team were all CFH nurses, supported by an administration officer. Another service was co-located to provide perinatal mental health consultations, however the practitioner was not part of the FCC team as such. One participant identified that although the broader interprofessional team could be considered as being

beyond the bounds of the FCC staff, inclusive of interagency partners, access to other services is often limited in rural and regional communities.

*When it talked about the interprofessional teams, and when you bring that out into the rural communities, the services that you might... you might not have the services there to take part as you would in the metro. So it's going to vary from outreach to outreach place, to [regional city], to wherever it might be, to what services that there would be able to take part in, that type of thing. (P2)*

While ensuring the service model reflected reality was identified as important, one participant suggested that needs such as those associated with care coordination should not be set aside. Although some service model aspects may not be achievable in the short term, the group discussed the importance of retaining elements reflective of the “gold standard” in the hope of attaining further resources to meet identified needs, i.e. as an argument for service enhancements.

*Mind you, I did wonder, I have to say, I did wonder should we ever get our gold model standard ... But you have to just wait until someone gives us the yes to all of our wish-list. (P1)*

## **Theme 5 – Building Capacity by Working Together**

The sub-themes for *Theme 5: Building Capacity by Working Together* explored the manner in which collaboration not only builds greater capacity to provide for the multifaceted needs of families, but also builds capacity through sharing knowledge and building relationships with one another. The four sub-themes relating to how the service could provide the most effective care and support for families when working together with other services were: (i) who else is out there? (ii) collaboration and trust; (iii) care navigation versus care coordination; and (iv) integrated seamless services.

## Theme 5: Building Capacity by Working Together

- Who else is out there?
- Collaboration and Trust
- Care Navigation vs Care Coordination
- Integrated Seamless Services

*(Excerpt from Figure 10: Theme 5)*

In order to achieve the outcome of enhanced service provision through working together, first service providers need to know **who else is out there** providing what services for whom. Participants highlighted enquiries from parents with children whose age was outside the criteria for the FCC and noted the importance of knowing what other services might be available for these families.

The role of non-government organisations with the various services provided by these agencies was further emphasised by one participant who stated “*I think NGOs play a big part*” (P4). Participants identified the importance to keep pace with what services are being provided by which agencies as this can change so rapidly and can vary considerably between locations.

*I do have lots of phone calls and enquiries about four year olds, and that. And it's just knowing that where else can we link them... What else do we have that we can offer these people. (P5)*

*So it's going to vary from outreach to outreach place, to [name of town], to wherever it might be, to what services that there would be able to take part in, that type of thing. (P2)*

**Collaboration and trust** between service providers was identified as integral to addressing the varied needs of families with young children. Being creative to provide opportunities to enable other service providers involved in the care of the family to join together for joint consultations and care planning meetings was highlighted by participants, noting the role of

telehealth in reducing the burden of travel and time on families of seeing each service provider separately.

*So they could go to their GP with the local child and family health nurse, and sit in a room, dial in, have that conversation. You know, you've saved three hours from [town name], turnaround time... Making the most of it. (P7)*

Building relationships to enable trust between service providers was noted as beneficial for facilitating care planning. This included trust in the assessment information provided from one healthcare provider to another and the importance of sharing information to facilitate effective healthcare planning and care by other providers.

*I just think it's so important, no matter what. If we've got access to any information, their antenatal information, their postnatal information, any information... we've got access to that... Don't duplicate, don't focus our time redoing something that's already been done... and I know that comes with a level of trust and all those things around the person who's done the assessments previously. (P1)*

Just as trust takes time to build with families, so too there needs to be investment in building trust between service providers. Without such investment, issues such as territorialism can be encountered which creates a barrier to service access for families. Transparency was identified as being critical to the building of trust, with parents being integral members of an inclusive interprofessional team. Being open with families about the collaborative working relationships between services, within health and other agencies, is needed so parents understand that those involved in their care are working together to achieve the best outcomes for the family:

*... we're here for the same thing, and it's about their best outcomes and their best care. So it's okay for them to know we're all working together, because that's [why] we're here... it's a continuum of care. And we've got that opportunity. (P1)*

The role of the FCC team in providing care navigation was emphasised, noting the need to be clear between responsibilities for **care navigation versus care coordination**. The description in the service model of a care coordinator to support parents experiencing complex needs was challenged in terms of whether this was a realistic expectation in a rural context. One participant suggested that care navigation may be a more appropriate term rather than an expectation that the clinician will become the key person responsible for the coordination of care to meet the multifaceted needs of the family.

*My question was are they a navigator or are they a care coordinator? Because they're very different. And a navigator would actually probably be a lot more practical and feasible, because care coordination actually takes that extra element, and that's where you're probably looking at, at what point do we kind of say, "This is your service, and even though you're not doing it, we'll just take it on," that tends to be the difference between a navigator and a care coordinator. (P7)*

Participants identified a key goal of working effectively together as a suite of **integrated, seamless services**. To achieve this when supporting children and parents experiencing a range of multifaceted and often complex needs, requires a team approach regardless of who the service provider is employed by.

*But I guess, I would see it that if we're a truly integrated services, I believe we can be. And that many of us are, that actually we can then link these families into the primary health service and offer it in a supported manner. (P1)*

*... I'm going to refer to you as a team player for this family to assist them further as a team unit. (P6)*

## **Theme 6 – Service Enablers**

Participants identified a number of service enablers which have been grouped into the following five sub-themes of: (i) sharing clinical information; (ii) building capacity; (iii)

maintaining a balance - flexibility and productivity; (iv) funding for gold standard services; and (v) learning through evaluation.

#### Theme 6: Service Enablers

- Shared Clinical Information
- Building Capacity
- Maintaining a Balance - Flexibility and Productivity
- Funding for Gold Standard
- Learning through Evaluation

*(Excerpt from Figure 10: Theme 6)*

The benefits for families of the integrated, extended team-based approach described in Theme 5 includes the **sharing of clinical information** with the parent's consent. Such an approach avoids parents having to repeat their story, with service providers adding updates to collate a holistic picture of the family's circumstances and needs. Participants described the following examples of this client-centred approach to the review and collection of clinical information:

*... and they've consented and they've agreed, and they actually find it quite nice, you know? So if you go into child and family [Level 1 service] or you go back to whatever, I'd be able to see all your notes and they can see mine. And everybody's quite happy with that. (P4)*

*Just review what's already been done, and check with, you know touch base with them to check where they're at now so that we can move on to giving them the time that they need... Don't reinvent the wheel... And put the whole perspective there, because I just think that's the, it's integration of our services, and it's what's best for them is to know the whole [story]. (P1)*

One tool which enables such sharing of clinical information is a common electronic medical record (eMR) system. While important not to rely on databases at the expense of case

discussions and collaborative care planning, particularly within the context of child safety issues (White et al. 2015), when available, a shared eMR can be a valuable tool in providing ready access to information and providing the opportunity for the clinician to review the information with the parent, to build the clinical picture:

*... if they are clients of the [name] Local Health District already, we have access fully to their eMR. It's no different in the primary versus antenatal setting as well. Don't duplicate, don't focus our time redoing something that's already been done. Just review what's already being done, and check with, you know touch base with them to check where they're at now so that we can move on to giving them the time that they need. (P1)*

Participants highlighted the opportunities for **building capacity** in the broader workforce as a service enabler. Several participants agreed that there was significant value in this approach, providing a supportive capacity-building opportunity for primary level service providers who will continue to have a longer-term relationship with the family, potentially until the child is ready to enter school

*And currently we're working with the child and family nurse over there to upskill her, and that's been really good because she's already had a relationship with these clients anyway, and that's what's working really well. She's generally the one who's referred, she's sitting in on a session. She can then do the follow-up for those clients. And ultimately, she will take the lead for that down the track. (P5)*

*I think definitely if we're talking about good fits for the area... in upskilling the nurse that's in the centre certainly sounds like a go forward. Especially for the smaller outlying towns. (P6)*

When considering service enablers, participants noted the need for **maintaining a balance between flexibility and productivity**. Managing the expectations of families and other service providers needs to be considered in terms of resources, time and other service constraints. Participants described balancing a flexible approach while ensuring the efficient use of service resources.

*... there could be a significant difference between our expectations of what we can provide and what the client is wanting. Looking at that true family partnership, we do need to put that degree of flexibility to be able to really provide that in the way that we're trained to do so. But I also understand we've got constraints. We do have constraints and boundaries to make it productive. just being aware of the boundaries, the geographical boundaries, the time and productivity... So it's just working out the balance of that productivity as well. (P5)*

Key to enabling services is funding for the resources required for effective service provision. Participants recommended that services not be funded to the minimum resourcing level, but rather **funding for the gold standard** of service provision should be provided to meet the needs of families presenting with complex needs and risk factors. The group discussed advocating and leveraging opportunities to highlight the positive outcomes of the service as a tool when seeking additional funding.

*I did wonder should we ever get our gold model standard of increased FTE, which we've asked for? ... If we had capacity, maybe that's a service that could actually participate as care coordination for our really complex, vulnerable families. (P1)*

*I was going to say, ... as a bargaining when they wanted the application for the awards. Give us some more funding and we'll write you an application. (P7)*

Participants discussed the benefits of **learning through evaluation**. The experience of undertaking this participatory action research and applying action research to other aspects of service improvement was noted as a service enabler. It was acknowledged that while such evaluation takes time, the investment will lead to improved outcomes for both families and staff.

*Doing little cycles. If it works really well there, what's working well, what's not working well, ask the families what's working well and what's not working well... And*

*it's slower, but you'll get a better outcome, and it will actually meet the needs of the staff and the families. (P7)*

## **4.4 Workshop 3: Recommendations and Developing the Action Plan**

### **4.4.1 Pre-Workshop 3 e-Questionnaire**

Prior to the final workshop, participants were provided with a summary of the preliminary thematic analysis of the transcript of Workshop 2, including a questionnaire to validate the findings of the thematic analysis (as described in section 4.3 above). The aim was to use this information to inform the problem statement and action plan for the second PAR cycle. The questionnaire also provided an opportunity for participants to identify key recommendations for future PAR group actions, the FCC more broadly, and for consideration by Tresillian and the Local Health District who partner to operate the FCC service.

The participants agreed with the themes of Workshop 2 transcript with no changes required. To inform the action plan for PAR Cycle 2, triangulation was undertaken with the participants considering the themes from Workshop 2 in relation to data collated by the participants from a range of sources. The review of these data provided an opportunity to check the group members' perceptions of the context, including the challenges facing families with young children experiencing early parenting difficulties in the LHD. The data sourced and shared with permission by the PAR group members included referral and service activity data, population health and demographic data, planning documents from services and the Primary Health Network in which the service is located. Reports from previous consumer and community consultation and quality improvement projects were also reviewed.

Participants were asked to rate the extent to which they agreed or disagreed that these data were consistent with a series of statements developed from the preliminary analysis of the data, noting areas consistent with the thematic analysis of the transcript from the recording of Workshop 2 (see Table 4 below).

Table 4: PAR 1 preliminary analysis participant validation

Statement	Mean Score	Rate of consensus (% scored 4 or 5)
Barriers include having to "tell your story" repeatedly to multiple service providers (fear, stigma, feeling judged, not being heard)	4.71	100%
Barriers include parents not being aware of FCC services (what is provided, what we do, for whom, health literacy)	4.71	100%
Barriers include health professionals' lack of knowledge / understanding of FCC services, how to refer, who to refer to	4.71	100%
Lack of communication between health providers is a problem, impacting on coordination of care	4.43	100%
The requirement to access a primary service provider to obtain a referral creates a barrier for some parents	4.29	100%
Barriers to accessing a primary service provider include travel, cost (including lack of bulk billing options), and lack of services	4.14	86%
Child and Family Health Nursing coverage across the LHD is provided through a cluster arrangement to enable access for both high and low population areas.	4.0	71%
Health consumers report there is a lack of support services for new parents in the region	3.71	71%

#### 4.4.2: Developing the Action Plan for Cycle 2

After reviewing the preliminary themes from Workshop 2 and data gathered by the group, two key priority areas were identified for action planning: (i) addressing barriers to access to services; (ii) service integration. A draft problem statement was included in the pre-Workshop 3 questionnaire, which was refined during the workshop. The resulting problem statement was agreed as **“There are barriers which create difficulties and can prevent parents from obtaining a referral to enable access to [location name] FCC services”**.

The PAR group developed an action plan which, in addition to items for local implementation to be progressed through a second PAR cycle, included recommendations

forwarded to the Tresillian – LHD Joint Governance Committee, the Tresillian Clinical Governance Committee, and the Boards of both Tresillian and the LHD. The Action Plan developed by participants in Workshop 3 is depicted in Figure 11 below. Recommendations for action included **modifications to the referral process** to enable self-referral, addressing the barriers encountered by some families when trying to access a primary level health provider to obtain a referral to the Level 2 service. **Increasing access to services via telehealth** and **raising community awareness via social media campaign** were also recommendations.

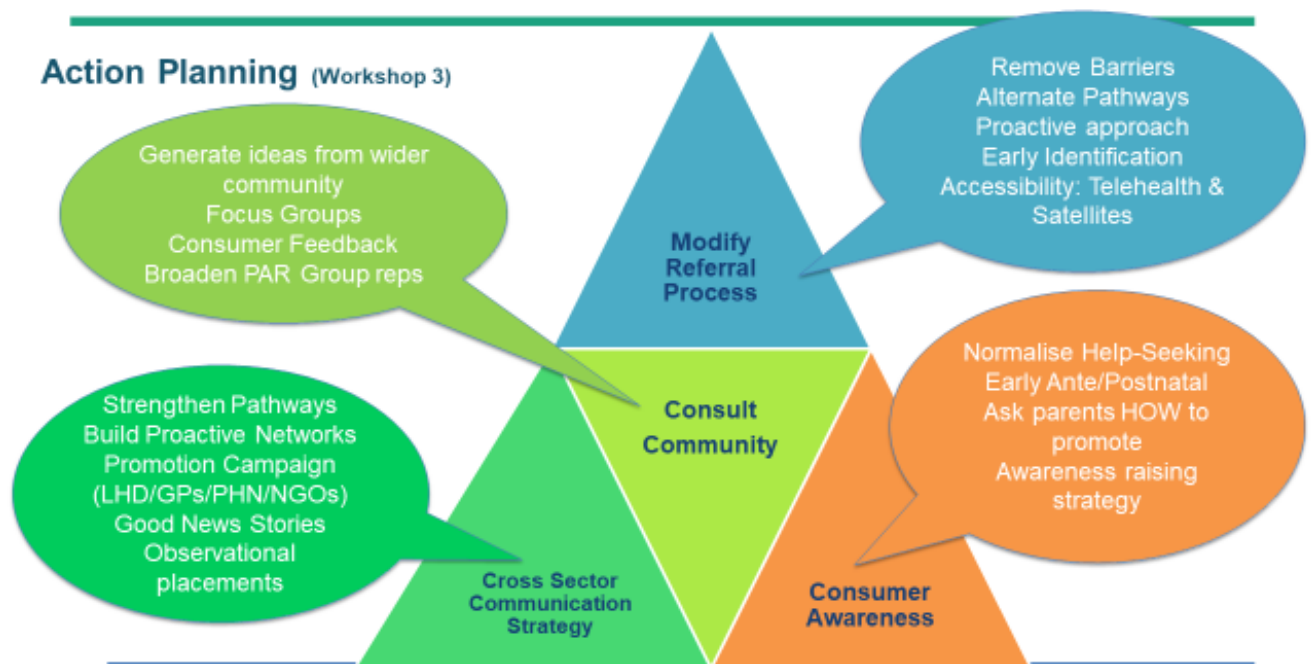


Figure 11: PAR Group Site 1 Action Plan for PAR Cycle 2

The second PAR cycle was incorporated into the FCC’s continuous quality improvement cycle (outside the scope of this doctoral study). The second PAR cycle focused on a **communication strategy**, seeking input from consumers to improve the descriptions used for the primary and Level 2 CFH services, to ensure the words used are understood and resonate with families. The plan was to use this information to develop a “script” for primary health care providers, to be implemented as part of a cross-sector communication strategy.

## 4.5 The Experience of Collaborating Together

The PAR group members were asked to complete the 40-item self-report Wilder Collaboration Factors Inventory (WCFI) pre and post engagement in the PAR cycle. The WCFI was utilised to measure six categories representative of components of collaboration: environment; membership characteristics; process and structure; communication; purpose; resources (Mattessich, Murray-Close & Monsey 2001).

Scores of 4.0 or higher on the WCFI indicate areas of strength of the group and its members. The authors note that although scores may be high during the early phase of collaboration, care needs to be taken to invest the effort required to maintain these areas of group strength. Scores of 3.0 to 3.9 indicate some attention may be required through a discussion with the group. Scores of 2.9 or lower indicates the presence of concern which requires a plan of action to address.

Of the seven participants, six completed the WCFI at the commencement of engagement in the PAR group and after completion of the action planning undertaken during Workshop 3. The WCFI results (see Table 5 below) indicate that the membership of this group was strong from the outset. This was reflected across a variety of components including mutual respect and trust; the group being representative of stakeholders relevant to the focus of the PAR study; having a shared purpose; and the ability and commitment to communicate effectively. Only one category was noted as borderline at the commencement of the PAR group, being Category 1: Environment. This category relates to the history of collaboration within the community and whether the group felt that they were capable to address the relevant issues in light of their experience, the social and organisational climate, and the supports available. Although borderline initially, this category moved to an area of strength by the conclusion of the PAR cycle, indicating increased belief in the collaboration to create positive change for families and services in their community.

Table 5: PAR 1 - Mean WCFI pre and post scores by category

WCFI Category	Mean Score Pre (n=6)	Mean Score Post (n=6)	Status
1. Environment	3.94	4.06	Moved from Borderline to Strength
2. Membership Characteristics	4.25	4.14	Strengths maintained
3. Process and Structure	4.32	4.22	Strengths maintained
4. Communication	4.89	4.61	Strengths maintained
5. Purpose	4.44	4.20	Strengths maintained
6. Resources	4.11	4.06	Strengths maintained

## 4.7 Conclusion

The findings from this study can be summarised in three key points:

1. To address the challenges experienced by families with young children living in rural and regional areas, a flexible and responsive service model is needed;
2. While families living in rural and regional areas can experience barriers to service access including access to referral agents, distance and financial disadvantage, local consultation and collaboration can generate solutions to break down such barriers;
3. Interagency collaboration provides the opportunity to address the multifaceted needs of families and build the capacity of local service providers through the sharing of knowledge and skills.

The themes that emerged from this PAR group have been combined with the results of the integrative review of the presence of the WHO building blocks for strengthening health services in rural health literature. The themes and integrative review results were used to develop a set of potential elements to be considered when adapting a service model for a different community context. The list of elements was presented to an expert panel for refinement through a Modified e-Delphi Study. The e-Delphi Study process and outcomes are described in the following chapter.

## **Chapter 5**

### **Modified Delphi Study (Study 2)**

**‘Adapting Community Child and Family Health Service Models for Rural and other Diverse Settings: a Modified Delphi Study to Identify Key Elements’**

## 5. Modified Delphi Study (Study 2)

This chapter comprises a peer reviewed published paper titled ‘**Adapting Community Child and Family Health Service Models for Rural and other Diverse Settings: a Modified Delphi Study to Identify Key Elements**’. The citation for this paper is: Stockton, D., Fowler, C., Debono, D., Travaglia, J. (2022). Adapting Child and Family Health Service Models for Rural and other Diverse Settings: a Modified Delphi Study to Identify Key Elements, *Health and Social Care in the Community*. The paper’s primary author is the PhD Candidate, Deborah Stockton. Research design, planning and editing contributions were made by the doctoral supervisory panel of Prof J Travaglia, Prof C Fowler and Dr D Debono.

Figure 12 situates this study within the three phases of this doctoral research. The Modified Delphi Study (Study 2) aims to identify a set of elements for consideration when adapting CFH service models for diverse contexts. The findings of this study were used to develop a framework to guide CFH service model adaptation, which was piloted in a second PAR study (Study 3).

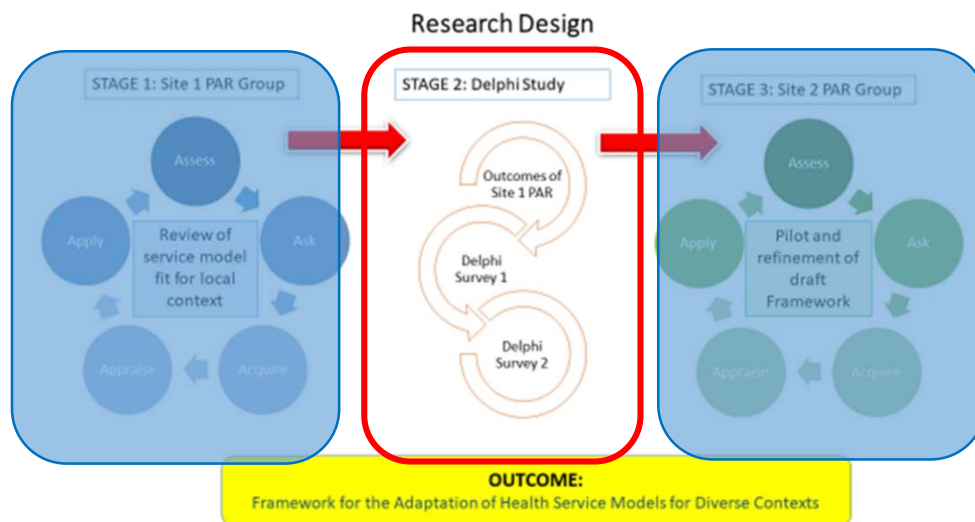


Figure 12: Modified Delphi Study situated within the three phases of this research

## 5.1 Introduction

The early parenting period is vital to the health outcomes of individuals, their families and communities; it is now well accepted ‘that intervening early in the life course to either prevent events that increase risk or address issues early is effective in preventing or reducing later health issues’ (Australian Health Minister's Advisory Council 2015a, p. 9). Specialist CFH services play an integral role in the identification, support and response for children and families with increasingly complex physical, developmental, psychosocial and behavioural health needs (Australian Health Minister's Advisory Council 2015a). Community-based CFH services work collaboratively with parents to support optimal child development, perinatal mental health outcomes and positive parent-child relationships in which children can thrive (Clerke et al. 2017), seeking ‘... to reduce the gap in health inequities within and across populations’ (Fowler & Stockton 2021, p. 151)

Internationally, there is a growing body of knowledge recognising the significant impact of the early years of a child’s life on lifelong health and social outcomes (Moore et al. 2017). The World Health Organization (WHO) supports the emerging science of early brain development starting in pregnancy and throughout the critical early years of life. This period lays the foundation for physical wellbeing and social and emotional development which in turn affects the quality of relationships later in life, educational attainment, economic participation, and the cycle of intergenerational disadvantage (Commission on Social Determinants of Health 2008). It is vital that risk factors associated with adverse experiences in early childhood are identified as early as possible and that services work together to reduce the ‘dose of adversity for kids and enhancing the ability of caregivers to be buffers’ (Burke Harris 2018, p. 211). Prevention and early intervention are pivotal to addressing these challenges, with health services needing to look towards partnership with other sectors in order to strengthen the provision of nurturing care to improve outcomes for children (Jeong, Franchett & Yousafzai 2020).

An international call to action to address the health outcomes gap for those living in disadvantaged regions, including those families living in rural areas, has been promoted in a number of documents released by the WHO (World Health Organization 2007, 2008, 2010). In the paper ‘Scaling up Health Services: Challenges and Choices’ (World Health

Organization 2008), the WHO emphasises the need to scale up successful health service models to address the health needs of less well-resourced communities and countries. The WHO describes a process of innovation in which the interventions from ‘well-equipped urban centres’ should be adapted in order to develop contextualized service models that are ‘... designed in such a way that they can be rapidly rolled out to low-resourced rural settings’ (World Health Organization 2008, p. 18).

Poor health outcomes for families in rural areas impacted by geographic isolation, socio-economic disadvantage and climate change have highlighted the need for service development in rural and regional areas in Australia and internationally (Adongo et al. 2014; International Labour Office 2015; NSW Ministry of Health 2014). Australian rural health data indicate poorer health behaviours and outcomes for families in rural and remote areas including lower breastfeeding rates, low birth weights of infants and high or very high rates of psychological distress (Australian Institute of Health and Welfare 2020; NSW Ministry of Health 2014).

The research conducted in this study was informed by a realist evaluation approach (Pawson & Tilley 1997). The aim of this study was to identify key elements to be considered when seeking to adapt an established metropolitan CFH service model for diverse contexts. The elements identified through this modified Delphi Study will contribute to the development of a framework to support and guide health service planners and community members to explore contextual influences when undertaking service implementation, while considering the mechanisms of complex programs and why they may be successful (or not) within particular settings and circumstances (Parker et al. 2013; Taylor et al. 2010; Tolson et al. 2007).

## **5.2 Method**

### **5.2.1 Study Design**

A modified Delphi study of two rounds with experts including consumers and representatives in fields relevant to child and family health was undertaken in 2020. This study was approved by Sydney Local Health District Human Research Ethics Committee (Protocol No X18-0358

& HREC/18/RPAH/504); and the University of Technology Sydney Human Research Ethics Committee (Ref: ETH19-3496). All participants were provided with a Participant Information Sheet and provided informed written consent. Privacy and confidentiality were maintained through the de-identification of data including de-identification of individuals, organisations and locations. Data security was maintained through secure digital collection and storage of data using an ethics approved secure online platform (REDCap).

The 12-member expert panel consisted of parents from rural and remote communities, professionals from health and community services, health service managers, government officials and academics. This study draws on the findings of an integrative literature review of the presence of the WHO Building Blocks for Strengthening Health Systems in rural community health settings (Stockton et al. 2021) and the outcomes of a PAR study undertaken in a regional community; both of which informed the suite of elements presented in the e-questionnaires to the Delphi expert panel participants. It should be noted that the PAR study which informed the elements presented to the Delphi participants was inclusive of rural community members/ health service representatives and parent consumers, providing an important avenue for consumer contribution to the list of elements developed from the integrative review.

The draft of the first e-questionnaire was developed by one member of the research team and completed during the pilot by the other three researchers separately, to ensure the questions were unambiguous, that the questionnaire had a logical flow and the length of time to complete was within the agreed parameters approved by the human research ethics committee. The clarity of the e-questionnaire was further tested by inviting four health professionals living in rural communities to complete the questionnaire and provide feedback. Responses indicated the e-questionnaire was able to be completed within the timeframe listed in the Participant Information Sheet, and no changes were required to the format or wording of the statements which panel members were to score.

Both the PAR and Delphi approaches seek to address power differentials and foster inclusivity (Fletcher & Marchildon 2014), with PAR participants situated as research partners and Delphi panel participants from a broad cross section of backgrounds (Rowell et al. 2015),

including consumers, identified as experts on the focus of the study to review and refine findings through the iterative Delphi rounds. Through the rounds of the Delphi Study, the expert panel identified and refined the key elements to inform the development of a Framework for the Adaptation of Child and Family Health Service Models for Diverse Settings.

The building blocks articulated in the WHO Framework for Strengthening Health Service Systems (World Health Organization 2007) were used to inform the integrative review, PAR study and structure of the Delphi e-questionnaires. The layout of the e-questionnaires was aligned with and included descriptors of the six building blocks being: 1) service delivery; 2) health workforce; 3) information; 4) medical products, vaccines and technologies; 5) financing; and 6) leadership and governance.

Delphi studies have four key features: anonymity of response, multiple iteration of the questionnaire, controlled feedback and statistical derivation of the group response (Toma & Picioreanu 2016). The Delphi approach is a method which seeks to identify a level of consensus in regards to a series of statements or questions among a select group of experts (Hirschhorn 2018; Hsu & Sandford 2007; Thangaratinam & Redman 2005).

A modified Delphi Study approach enables two rounds of Delphi questionnaires rather than the traditional three, as the items in the first questionnaire were developed from previously obtained data, e.g. through a previous study or a literature review (Bryar et al. 2013; Day & Bobeva 2005; Stewart et al. 2017; Thangaratinam & Redman 2005). McMillan et al (2016) also note that Delphi studies often use two rounds given that additional rounds can increase the attrition rate of the panel members. Statements are presented to the expert panel electronically (E-Delphi) which has been shown to be both efficient and effective in the development of consensus statements (Holloway 2012), therefore enabling the identification of key elements and strategies to be included in a draft Framework for Adaptation of CFH Service Models for Diverse Settings.

The definition of ‘expert’ for inclusion in expert panels for Delphi studies is broad and dependent on the knowledge and experience being sought which may include panellists from a variety of backgrounds and roles (Giannarou & Zervas 2014; Hirschhorn 2018) who hold knowledge and experience relevant to the study aims (Thangaratinam & Redman 2005). The sample sizes reported in previous Delphi studies vary (McMillan, King & Tully 2016; Thangaratinam & Redman 2005). The expert panel of this Delphi study includes 12 members representing a range of stakeholder categories with varied insights to contribute – this being similar in size to other published studies (McMillan, King & Tully 2016; Naughton et al. 2017).

Papers reporting Delphi and Modified Delphi study outcomes incorporate a range of approaches to the definition of consensus (Giannarou & Zervas 2014; Stewart et al. 2017). Studies report outcomes in terms of percentage of panel members who have responded in the top two scoring categories in a Likert scale (Day & Bobeva 2005; Giannarou & Zervas 2014; Hsu & Sandford 2007), while others report using the mean as the determining factor for retaining items into the next round (Bryar et al. 2013; Day & Bobeva 2005; Hsu & Sandford 2007; Thangaratinam & Redman 2005), with broad agreement amongst many authors that a percentage of greater than 80% can be used to determine consensus has been reached (Hsu & Sandford 2007; Naughton et al. 2017; Stewart et al. 2017; Toma & Picioreanu 2016). For the purposes of this study, the level for consensus was defined as a mean  $\geq 4$  and frequency of scores 4 or 5 of  $\geq 80\%$  for each individual element.

In step 1 of this Delphi study, the expert panel participants were asked to respond to a set of statements (informed by the outcomes of an Integrative Review and PAR study) utilising a Likert scale. In step 2 of the Delphi study, the expert panel were provided with both their own response and the aggregated response of all panel participants including the median and frequency of responses (Boone & Boone 2012; Hsu & Sandford 2007; McMillan, King & Tully 2016; Naughton et al. 2017; Tetzlaff, Moher & Chan 2012; Toma & Picioreanu 2016). The panel members were then asked to reflect on and revise as necessary their scores for those items which had not yet reached consensus in light of the feedback of the full group (McMillan, King & Tully 2016; Stewart et al. 2017). After the two rounds, those items which had reached the definition for consensus were retained and utilised to inform the draft Framework which will be piloted in Stage 3 (Site 2 PAR group).

## 5.2.2 Study Participants

Inclusion criteria for the members of the expert panel were based on those able to contribute insights and perspectives relevant to the study aims, seeking to draw on a broad range of backgrounds, experience and knowledge (Havers et al. 2019). Inclusion criteria noted the need for participants to be literate in English in order to read, comprehend and respond to the e-questionnaires. The expert panel participants were selected to represent a range of stakeholder groups with an understanding of the needs of families in rural and regional areas, expertise in health service planning, and/or experience in the delivery of CFH services.

Purposive sampling was used, informed by the results of a preliminary Delphi study undertaken with the research supervisory panel and senior managers of a specialist CFH organisation. The data obtained through this process enabled the identification of key participant categories for this Modified Delphi Study, target numbers of representatives for each category, and a prioritised list of potential participants or organisations to whom invitations to participate would be issued. The list of potential participants drew on the professional contacts and sector knowledge of the research team and consultation with organisational representatives. Table 6 depicts the agreed target representative categories for expert panel composition, compared with actual participants who provided consent to participate as a panel member.

*Table 6: Target expert panel representation categories compared with actual participants*

<b>Representative Categories</b>	<b>Target Number</b>	<b>Actual</b>
Consumers: parents of children aged < 3 years living in rural or remote settings	2	2
First Nations (Indigenous) representative	1	1
Community-based referral agency representatives	2	2
Specialist CFH organisation manager	1	1
Professional body representatives	2	2
Researcher / academic representatives	2	2
Government Health Department representative	1	1
International representative	1	1
Total	12	12

The expert panel of participants consisted of representatives of rural and remote parents, health service managers /clinicians, non-government referral agencies, government departments and professional bodies as well as academics and researchers. Each participant was invited to reflect on multiple perspectives when responding to the e-Delphi questionnaires, i.e. health professionals living in rural and regional areas were able to draw upon their professional experiences and those of being a health consumer living in a rural or regional community. Table 7 depicts demographic characteristics of the expert panel members. The multiple perspectives panel members were able to contribute is reflected in the demographics, noting 50% of the panel members were either currently or had previously lived in a rural community; with 41.6% being responsible for rural and regional services or policy; 41.6% being responsible for specialist CFH services. All participants resided in Australia except one academic from the USA who provided an international perspective.

*Table 7: Demographics of expert panel member participants*

<b>Panel Member Demographics (n=12)</b>	<b>%</b>
Female	83.3%
Male	16.7%
Identify as First Nations (Indigenous) person	8.3%
Currently/previously resided in rural community	50%
Responsibility for rural and regional services or policy	41.6%
Responsibility for CFH service delivery	41.6%
Researcher with focus on rural health / CFH	41.6%

### **5.2.3 Data Collection**

The two rounds of e-questionnaires were developed and distributed through a secure online platform (REDCap). An email was sent to each participant providing an overview of the WHO building blocks to provide context for the structure of the e-questionnaire. The e-questionnaire for round 1 included demographic details and a question exploring the participants' pre-existing beliefs as to whether it was feasible to adapt metropolitan service models for rural contexts. This was followed by listing the potential elements for adaptation

of child and family health service models which participants scored on a five-point Likert scale.

In the second round, an individualised link was sent to each participant to access the second e-questionnaire which provided the listing of the elements presented in the first round which had not yet reached consensus among the expert panel participants. The e-questionnaires were piloted to review clarity and approximate completion time, with each taking approximately 20-30 minutes to complete. The participants were provided with an email with an individualised report of the outcomes for each of these elements including the participant's previous score, the group median, and the frequency of responses across the panel members for each element. The participants were asked to reflect on their score and those of the rest of the panel, and an opportunity was provided to review their scores.

The participants were asked to complete the e-questionnaires within two weeks of receipt of the email link. Up to two auto-reminders were autogenerated by the REDCap system and sent to those participants who were yet to complete the e-questionnaires at five day intervals.

#### **5.2.4 Analysis**

The data analysis from round one informed the composition of the round two e-questionnaire. Microsoft Excel software was used to calculate the descriptive statistics required for this study. This included the following calculations for each item included in the e-questionnaire: mean, standard deviation and percentage of respondents scoring 4 or 5. The median for each item was also calculated to provide to participants, in addition to their previous response, when reviewing items in round 2.

Prioritisation order was calculated based on mean scores (Hoekstra et al. 2017) and cross-checked against frequency of votes. Thematic analysis of responses, guided by the framework of Clarke and Braun (Clarke & Braun 2013; Macguire & Delahunt 2017), was conducted to identify patterns of emerging themes from the prioritisation given the high level of consensus achieved in round one. This information was collected to inform the structure of the Framework for Adaptation of CFH Service Models for Diverse Settings document and to

enable the inclusion of a section to guide users of the framework when prioritising available time when undertaking service model planning and adaptation.

Further analysis of the elements identified for inclusion in a framework for adaptation of CFH service models was undertaken utilising the lens of realist evaluation (Pawson & Tilley 1997), using the Context-Mechanism-Outcome (CMO) frame which has been identified as relevant and beneficial in rural health practice research (Mitchell et al. 2013). The CMO frame aligned well with the intention to inform a framework which would be used across a range of diverse contexts, providing a strong platform for taking the time to clearly understand the unique context of the community in which the framework could be used given the clear consensus of the Delphi panel of experts in relation to a number of items relating to exploring and gaining a thorough understanding of community needs, strengths, culture, power structures and priorities (May, Johnson & Finch 2016) through the modified Delphi study.

The natural progression of the CMO model supported an exploration of ‘mechanism’ and ‘outcome’, the relationship and interactions between these (de Souza 2013), relevant to the context and service models being considered, and the aims of the development of the Framework for Adaptation of CFH Service Models. This approach supports the development of a shared understanding between community stakeholders of the appropriateness of a service model for a particular context, alignment with the expected outcomes required to meet the needs and priorities of particular communities, while informing the development of a plan to evaluate service model adaptation, implementation and impact (Movsisyan et al. 2019; Vanderpool et al. 2011).

### **5.3 Findings**

The response rate to both e-Delphi rounds across the expert panel was 100%. When asked to reflect on their belief in the feasibility of adapting a metropolitan service model for implementation in rural communities on a scale of 1-100, the mean score across the 12 participants was 76.6 (range 50-99). The highest mean scores for belief in the feasibility of metropolitan service model adaptation was among academics (82.25) closely followed by

health service and community service managers (81.6). The mean score for those representing professional bodies and government departments was 75; and the lowest level of self-reported belief in the feasibility of adapting a metro service model for a rural context was reported by consumer (parent) representatives (mean = 60).

Despite the differences in pre-existing beliefs reflected in the above results, a high rate of consensus was obtained in the first round e-questionnaire, with the scores for all elements being within <1 standard deviation of the mean. Of the 107 potential elements presented to the expert panel, 80 were identified through consensus as necessary for inclusion in the framework (see Appendix 8). This included 32 of the 33 elements in the Service Delivery Building Block section. In view of the high number of elements which reached consensus for retention in round 1, participants were asked to rate the priority of groups of elements following thematic analysis (see Table 8 below).

*Table 8: Prioritisation of themes from round 1 grouped by WHO building blocks*

<b>Building Block</b>	<b>Element Themes</b>	<b>Prioritisation</b>
1. Service Delivery	Community Engagement	1
	Accessibility	2
2. Health Workforce	Local workers' knowledge	1
	Recruitment and retention of appropriately skilled clinicians/interprofessional teams.	2
3. Information	Access to data for planning	1
	Meaningful outcomes	2
4. Medical Products	Connectivity & technical support	1
	Telehealth (clinical and prof development)	2
5. Finance	Realistic funding	1
	Flexible funding models	2
6. Leadership & Governance	Organisational culture valuing building trust	1
	Consumer representation	2

Two element themes from each of the WHO building blocks were clearly identified by cross-checking the order by mean, order by frequency of vote and order of sum of scores. Only one building block (workforce) had more than one clear theme for each priority, with the two themes of recruitment and retention, and interprofessional teams being prioritised as equal second – these themes were therefore combined to be “recruitment and retention of appropriate skilled clinicians/interprofessional teams”.

Of the 27 elements which had not reached consensus in round 1, a further 17 reached consensus for inclusion in the framework for adaptation of CFH service models in round 2; with 10 elements removed from inclusion (see Appendix 9). Analysis of the final list of elements for inclusion in the framework was conducted utilising the CMO realist evaluation frame to ascertain alignment and inform the structure of the framework for CFH service model adaptation (see Appendix 10). The categorisation of the elements against the CMO frame was undertaken by DS and independently reviewed by co-authors JT, CF and DD to ensure consistency and accuracy of approach.

Of the final 97 elements identified for inclusion, 30 items were related to developing a thorough understanding of context (C). There were 43 items identified as describing mechanism (M), i.e. the manner in which implementation was undertaken that would be expected to influence the outcomes for the target group within the contextual setting. Based on the feedback of the Participatory Action Research which informed this Modified Delphi Study, the analysis of the 24 retained outcomes (O) related elements were further analysed in terms of expected outcomes (n=12) from the implementation of a specialist service model for CFH; and evaluation approaches (n=12) to be considered when measuring the outcomes.

## **5.4 Discussion**

Focusing analysis through the lens of Context-Mechanism-Outcomes provided a useful analytical frame to configure the elements in a manner which will lend itself to being articulated within the draft Framework for Adaptation of CFH Service Models for Diverse Settings, a primary aim of this modified Delphi study. The retained elements were also cross checked and identified as being aligned with the prioritisations of the themes identified by the

expert panel members in round 2, reinforcing the capturing of key messages and elements which the panel agreed were important to consider when adapting a service model for a different context.

Existing literature has emphasised that when seeking to implement services and initiatives it is a comprehensive understanding of context and contextual dynamics that matters most (May, Johnson & Finch 2016; Parker et al. 2013; Wakerman 2009). Consistent with this, the Delphi panel recommended the retention of a large number of elements focusing on extensive exploration of local context. The retained 'Context' elements included: the need for sufficient time to conduct a thorough exploration of the context; the need for a systematic approach and learning from other exemplar communities; and the importance of organisational culture focused on collaboration, building trust, and mirroring a strengths-based approach at all levels. A key theme was the essential nature of community stakeholder inclusion and drawing upon the local knowledge of both consumers and local clinicians in order to develop a comprehensive understanding of the multifaceted factors which contribute to local context, including strengths such as community cohesiveness, interagency connection and opportunities to collaborate to develop innovative solutions to challenges (Wakerman 2008).

A key theme within the 'Mechanism' related elements were references to the need for flexibility in the delivery of services. This finding aligns with rural health literature highlighting the need for flexibility to adjust to the community context (Pidgeon 2015; Semansky et al. 2012; Smith et al. 2016), including the modes of delivery and pathways in and out of services. Factoring in strategies and resources to support parents to navigate service system networks was identified as a key component for consideration when adapting a model for a local context. While the importance of service models being evidence based was identified (Vanderpool et al. 2011), there were clear messages that service models must reflect real life, including embracing diversity and community inclusion, i.e. through place-based systems of care.

Collaborative and integrated interagency service models with communication based on mutual trust and respect were highlighted as being integral to success. Another key theme was the recruitment of skilled clinicians, ideally to form interprofessional teams to build

workforce capacity (Parker et al. 2013). The provision of training and mentorship was noted as essential for retention of rural workforce.

Telehealth was identified as a key feature of consideration for service models in rural settings. As identified in published literature, telehealth can play an important role as both a clinical service delivery modality to improve access and equity to services, and for clinicians to access professional development and clinical support (Dooley et al. 2009; Pidgeon 2015). Funding streams that support telehealth and technology are needed for the sustainability of such models, as is technical support and connectivity to enable this mode of clinical service and support. The study results emphasised the needs identified within the rural health literature for longer-term, realistic funding models. Funding models need to allow for flexibility to enable adaptation for local contexts rather than short-term cycles with rigid requirements for effective implementation of service models to improve rural health outcomes (Fitzpatrick et al. 2017; Semansky et al. 2012).

The retained elements relating to ‘Outcomes’ were identified as those relating to the nature of the outcomes expected (i.e. the “what are we hoping to change”) when implementing an effective service model to meet the needs of children and their families; and elements which described considerations when planning an evaluation strategy (i.e. “how will we go about measuring change”). When considering desired or expected outcomes, a key theme was the need to consider outcomes in terms of various stakeholders. Given the focus on the adaptation of CFH service models, keeping the child central to all outcomes was identified as vital. From there expected outcomes may branch out in terms of positive change for parents, the broader community, health professionals and other workers, specific organisations, and/or the service sector as a whole. Expected outcomes also related to the need for an effective, well-integrated service system network, built on a platform of trust and shared vision, which facilitates access not only to help in times of crisis, but proactively reaches out to normalise parental help-seeking and builds social capital.

When considering how to go about measuring and evaluating outcomes, identification of and access to relevant data sets in the early stages of planning was identified as a key component for planning and implementation of a new service model. Data may be accessed from various sources and include context specific data, local community-based data, population health

data, descriptors of data relating to the social determinants of health, and/or health economics data to provide a baseline from which to measure change. Evaluation approaches and methodologies for consideration highlighted the opportunity to learn from and with one another through community-based action research (Farmer & Nimegeer 2014; Sullivan, Hegney & Francis 2013) through formative and iterative approaches to evaluation, enabling action cycles to evaluate strategies and implement further improvements.

The need for sufficient funding to support service implementation or consideration of sourcing external grants to enable comprehensive evaluation was highlighted in order to take the time required for thorough local consultation and to assess the efficacy of a service model within a different context. The retained items related to funding emphasised the need for flexible funding, with long term funding being optimal for effective service implementation and evaluation. While a retained item referred to the sharing of interagency resources to optimise collective capacity, a discarded item described ‘pooling of financial resources’. This may be reflective of agency governance requirements (including financial acquittals) creating a barrier to the sharing of funds, however participants confirmed that opportunities exist for collaboration through contributions such as ‘in-kind’.

A limitation of this study was the lack of opportunity to explore the reasons for certain elements being excluded from the framework. Items excluded after the two modified Delphi rounds were noted to have common elements relating to interagency sharing of information and resources. The exclusion of these elements may reflect that while being supported philosophically, the sharing of resources between organisations may not always be practical. Further research is needed to explore and gain a greater understanding of this outcome given that other studies and literature have highlighted the opportunities for increased service capacity and responses when resources and information are shared (Semansky et al. 2012).

Further limitations of this study relate to the targeted number of participants and need for those participating to have access to computers/email and level of literacy to enable completion of the e-questionnaires. While the number of Expert Panel members explicitly representing consumers (rural parents) was limited, 50% of the Expert Panel participants were either currently living in or had previously resided in a rural community setting. In

addition, the PAR studies (one which preceded and one which followed this Delphi study) provided opportunity for those with a lower level of literacy and from “less resourced” communities to participate, contributing to the final set of elements included in the framework developed for the adaptation of specialist community-based CFH service models for rural and other under-resourced settings.

## **5.5 Conclusion**

This study highlighted that community engagement and participation are vital foundations for adapting service models for diverse contexts, including less well-resourced rural and remote communities. Funding models that enable taking time for engagement and the sourcing and utilisation of data, while drawing on the local knowledge of consumers, community members and clinicians to gain a comprehensive understanding of the community context, provide a robust platform upon which to review the appropriateness of a service model to address identified community needs. This then informs the identification of service model components that must remain stable and assess whether these are appropriate to the context; and those that lend themselves to being flexibly adapted to the unique needs of a community to achieve agreed expected outcomes.

A community-based approach to such service model adaptation provides opportunities for both improving child and family outcomes, while building community capacity and trust between stakeholders. This study has also demonstrated that an expert panel combining the diverse experiences and backgrounds of consumers and those working in the health, non-government and academic sectors, can reflect upon their respective experiences and knowledge to reach consensus, providing collective insights upon which to identify elements essential to CFH service planning when adapting interventions for diverse contexts.

## **Chapter 6**

### **Participatory Action Research – Study 3**

Pilot of the CASCADES Framework – Collaborative Adaptation of Service models for  
Child And family health in Diverse Settings.

## 6. Participatory Action Research (Study 3)

### 6.1 Introduction: Situating this Study

This chapter describes the findings of *Study 3: Participatory Action Research (Site 2)*. The aim of this study was to identify adaptations required to a metropolitan CFH service model to meet the needs of a local regional community, guided by the pilot of the Framework for Collaborative Adaptation of Service Models for Child and Family Health in Diverse Settings (known by the acronym CASCADES). The framework was developed from the list of elements required for consideration when adapting CFH service models in the Modified e-Delphi Study described in Chapter 5 (Stockton et al. 2022). The content of the CASCADES Framework was also informed by the findings of Study 1 conducted in the first Participatory Action Research (PAR) site (Chapter 4).

Figure 13 situates this study within the three phases of this doctoral research. The findings from this PAR study, including thematic analysis of the transcripts of the working group meeting recordings, will be used to refine the CASCADES Framework and contribute further data to answer the research question and sub-questions of this thesis, as presented in Chapter 8: Discussion.

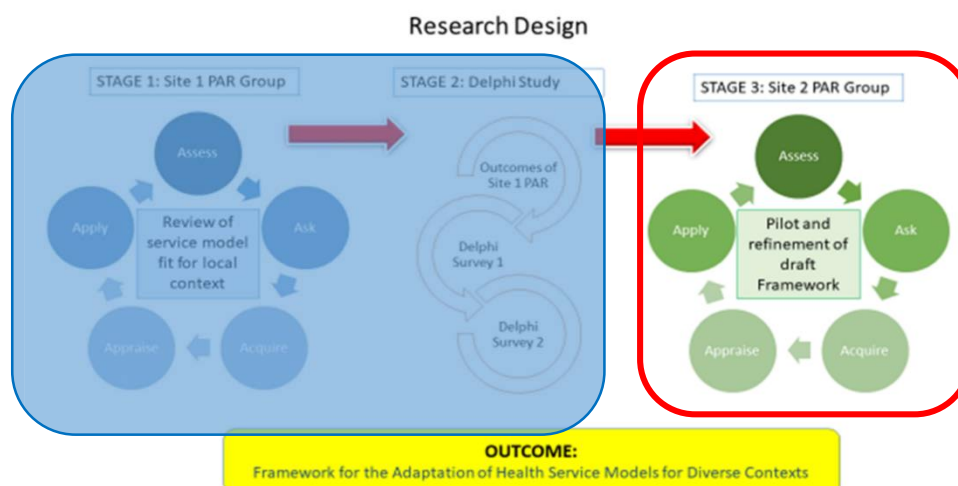
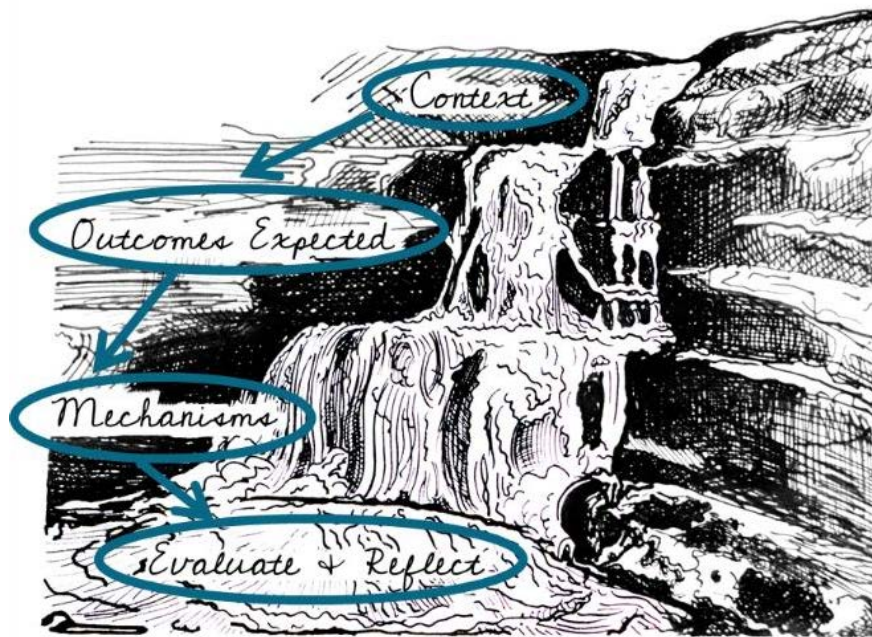


Figure 13: Study 3 (Site 2 PAR Group) situated within the three phases of this research

This second PAR study was undertaken in a rural location of NSW, Australia. The community setting encompasses a LHD which spans two coastal regional centres, with rural towns and farming communities of lower population density scattered across the region. The Level 2 specialist CFH referral service was established and operated by the specialist early parenting organisation, Tresillian, and the LHD through funding provided by the NSW Ministry of Health. The established Tresillian FCC service model (Tresillian 2018) was used as the focus of the review of fit for community context, with the CASCADES Framework providing a road map to four phases or tiers of focus (Figure 14).



*Diagram Illustration: R Spooner*

*Figure 14: Initial CASCADES tiers diagram*

The tiers of the CASCADES Framework were aligned with the PAR cycle which was undertaken through a series of three workshops, as per the diagram below (Figure 15). Each workshop commenced with a review of the group's progression through the CASCADES tiers and reiteration of the aims and focus of that particular workshop.

## Participatory Action Research Design

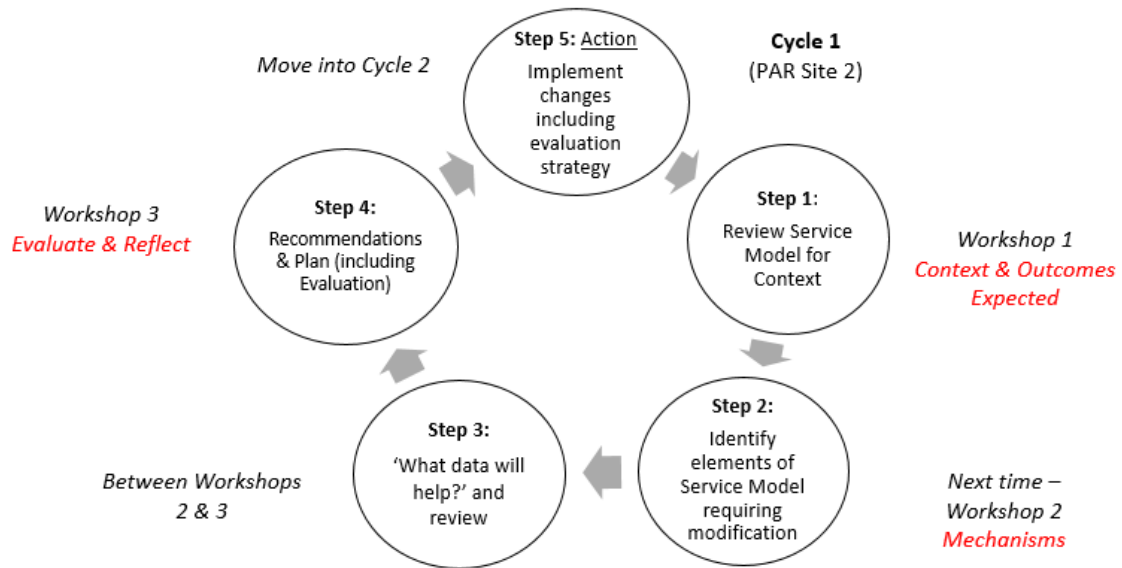


Figure 15: PAR cycle with alignment of draft CASCADES tiers to PAR workshops

This chapter will report the findings of the thematic analysis of the PAR group workshop interviews, and the results of the analysis of data collected before and after the workshops. The data include:

1. responses to e-questionnaires completed prior to workshops 1 and 3 (the preliminary analysis of which was presented to the PAR group participants for clarification of interpretation and validation) and;
2. the results of the Wilder Collaboration Factors Inventory (Mattessich, Murray-Close & Monsey 2001) measuring the level of collaboration of the PAR group members, completed by participants before and after the PAR cycle.

While the first PAR study reported in Chapter 4 was facilitated through three face-to-face PAR group workshop meetings, the experience for this PAR group was very different. The emergence of the COVID-19 pandemic coincided with commencement of recruitment for this second PAR study. Recruitment had to be postponed for the Human Research Ethics

Committee to approve revisions to the mode of facilitation from face-to-face to video- or tele-conference (depending on PAR group participants’ access to relevant technology).

The impact of the COVID-19 pandemic was noted, not only in relation to the experience of establishing the relationships within the group and the method of interaction, but also the focus of attention on issues relating to the isolation experienced by parents and interruptions to normal service provision due to pandemic restrictions. While the use of video/tele-conference as the means of interaction for the workshops was found to be challenging at times, particularly when sound quality was low, the availability of video-conference enabled some group members to participate who otherwise would not be able to do so. For example, participants resided across a broader geographical area, providing greater representation across the LHD than would otherwise have been possible had all meetings been face-to-face.

## 6.2 Workshop 1: Context and Outcomes (Expected)

### 6.2.1 Exploring the Local Context

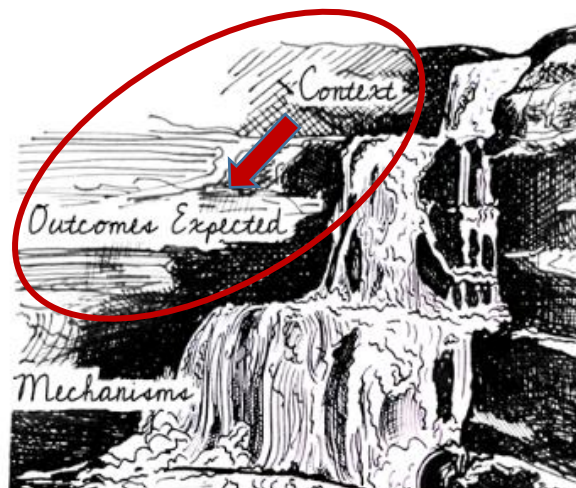
Local stakeholders representing a range of community and service provider categories were recruited to the PAR group. While 13 participants consented to participate in the study, four participants did not engage- three of these being consumer representatives and one a senior health service manager. Table 9 below lists the categories nominated by the participants who engaged in the study, as identified in responses to the pre-workshop questionnaire.

*Table 9: PAR Site 2 participant categories represented*

Category	Number of participants identifying in each category
Health professional - clinician	3
Referral agency – non-government	2
Referral agency – government	1
Health service manager	1
Consumer/parent representative	2

In Workshop 1, the PAR group met to share their perspectives on their community context and priorities regarding the challenges experienced by families with children aged 0-3 years. The draft CASCADES Framework was used to guide this process. Following introductions, the workshop began with explicit discussion about agreed ways of working together and acknowledgment of the value of the shared insights and contributions of all PAR members.

Information was provided through a PowerPoint presentation via the video-conferencing platform, to facilitate discussion relating to the background and aims of the research, and an overview of PAR and the Framework tiers. This information provided a road map of the planned workshops and steps in the PAR process. The results of a pre-workshop e-questionnaire completed by the participants were presented, acting as a trigger for focused discussion. The aim was to develop a shared understanding of the local **context** and the **outcomes expected** should service model implementation be effective in addressing the needs of families in the local community; these were the first two tiers in the draft CASCADES Framework (see figure below).



*Figure 16: CASCADES tiers addressed in PAR 2 – Workshop 1*

### 6.2.2. Pre-Workshop Questionnaire: The Aims and Role of a FCC

Participants were invited to complete a pre-workshop questionnaire to explore their pre-existing perceptions of the role of a FCC. The questionnaire commenced with questions regarding the community context to present to the PAR group at the first workshop as the basis for discussion. This information was used to facilitate the process of developing a shared understanding of priorities to be considered when planning services to support families with young children.

The questionnaire progressed to explore participants' perceptions of the role of the FCC service in addressing the identified needs and the expected outcomes should services be effective in supporting parents. Of the seven participants who completed the pre-workshop survey, six rated their agreement in relation to a series of aims statements, drawn from the expected outcomes articulated in the FCC service model (see Table 10 below).

*Table 10: PAR 2 pre-workshop questionnaire responses (FCC Aims)*

<b>Family Care Centre (FCC) Aims</b>	<b>% Responses of “Important”/ “Most Important” (n=6)</b>
To support children and parents to have good health and emotional and physical wellbeing	33%
To support parents/caregivers to provide their children with positive, confident and effective care	50%
To assist parents to understand and meet their child's health and developmental stages and needs	50%
To enable parents to provide their child with a safe and nurturing environment	33%
To support families to cope with challenging circumstances, find solutions to problems and obtain help to meet their needs and aspirations	33%

All seven of the participants responded to a question exploring their beliefs regarding the key components of service delivery by a FCC team. High rates of agreement were demonstrated

with the elements articulated in the FCC service model. All participants agreed that the FCC service should provide an extended home visiting program for families requiring more intensive support and should provide group programs for parents.

The majority of participants (86%) agreed that key elements of service delivery for a FCC include: individual consultations to develop a plan to address needs collaboratively with parents/caregivers; assessment to identify the factors impacting on the family and their parenting experience; provision of telehealth and care navigation; a focus on working collaboratively with other service providers to support parents experiencing early parenting challenges; clinical consultation support for primary level clinicians and other workers who support families with young children; and help for parents to connect with other parents and build their network of support. The provision of coaching and strategies to address early parenting challenges such as infant sleep and feeding difficulties was identified as a key element by 71% of participants.

When asked to describe the role of the FCC in their own words, participants emphasised the need for flexibility to effectively reach families, in addition to being an advocate for families in the local community. One participant noted that while the FCC could not address all the needs and challenges faced by parents with young children, the service had a key role to play in connecting parents including referring parents to other services to best meet their needs:

*Referral to other agencies, supporting young parents to meet the physical and emotional needs of their children. Housing and employment are difficult issues. Connecting parents to community activities so they feel involved in what's happening around them (P7).*

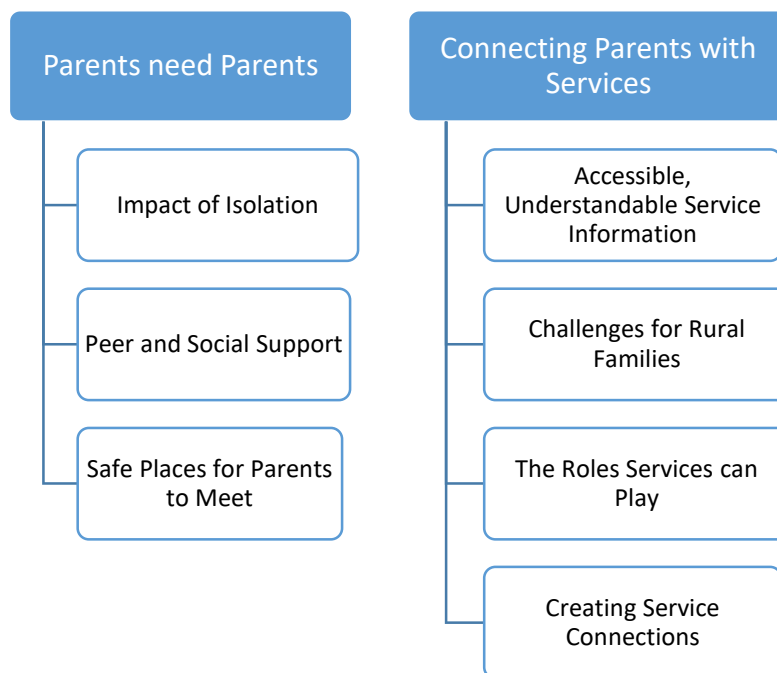
In terms of the difference a FCC should aim to make, participants described an increase in wellbeing in parents through access to support, including psychological services, and increases in parental confidence and capacity to respond to the needs of their child through improved understanding of developmental milestones. One participant described the role of the service in supporting parents to have their own needs met:

*I would like to have a rest and regenerate day centre for mothers... I strongly believe that when mothers have enough regular time to 'fill their own cup' they are able to make the changes in family life which they desire (P9).*

To inform the Workshop 1 discussion, participants were asked to respond to a series of questions to describe their perception of the positives or strengths for families with young children living in the region; the challenges experienced by families living in the area; and key areas of need. This information was collated and presented to the participants at the commencement of the first PAR workshop.

### 6.2.3. Themes from PAR 2 - Workshop 1

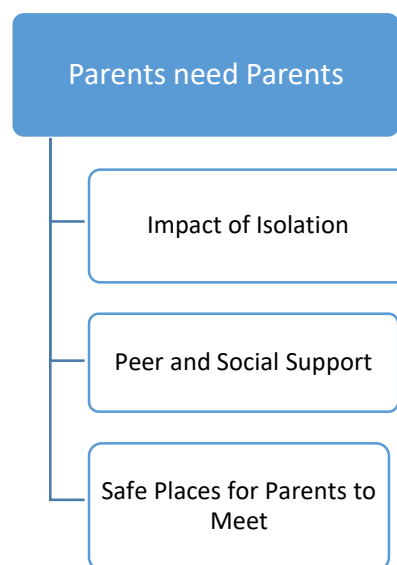
The thematic analysis of the transcript of Workshop 1 identified two overarching themes: (i) Parents need Parents; and (ii) Connecting Parents with Services. Figure 17 outlines the two themes and the associated sub-themes. The following section describes the two themes and associated sub-themes in detail, including quotes from participants.



*Figure 17: PAR Site 2 – Workshop 1 themes*

## Theme 1: Parents Need Parents

The thematic analysis of the first workshop transcript identified strong themes in relation to the need for connection. The first theme of *Parents Need Parents* was a key focus of discussion, as the participants discussed the importance of parents, whether new to the role or with their second and subsequent children, needing connection with other parents. Three sub-themes emerged being: (i) impact of isolation; (ii) peer and social support; and (iii) safe places for parents to meet.



*(Excerpt from Figure 17: Theme 1 – Parents Need Parents)*

In terms of context and the expected outcomes of positive change the PAR group hoped to make to, the **impact of isolation** was identified as a key priority to be addressed. Participants described the experiences of some parents as having minimal social contact with others. This lack of social contact was further exacerbated when a parent was new to the area, having moved away from their family supports:

*... we particularly see families that are quite isolated and actually have no one talking to them or any support apart from a few friends. One or two friends, but secondly, lots of families moving up here that don't have extended family. (P4)*

*So I was trying to find exercise, which was a positive thing to do, but also to connect socially... and because I was feeling that need, cause I just recently moved back to [name of regional town] from [large metropolitan centre]. (P5)*

Meeting other parents and drawing on their local knowledge of navigating the service network were highlighted as sources of trusted information by parents. One participant described the anxiety she experienced when becoming a new parent, in an unfamiliar town and not previously having engaged with the health system:

*And, particularly for me, I mean, I was very anxious about going through everything, and I found it really powerful to connect with parents, to be new parents, to be before going through the medical system. I had never been to hospital before. (P5)*

Another participant representing a group of service providers in the region shared her experience of being a young mother. She described the strength of connections made with other parents that had lasted through the decades of raising her children and beyond. The participant identified the importance of these relationships, particularly when living away from one's extended family:

*... when I was pregnant with my daughter 25 years ago... we're actually all still friends and I also went to the child and family health new parents' group, and I'm still friends with those people as well. So, and that's when you can see how important on a personal level those groups are. And, when you don't have any family here, you really rely on those supports. It's quite powerful. (P7)*

The COVID-19 pandemic, which had reached Australian shores in the year prior to the commencement of the PAR study, was a recurring theme throughout the PAR group discussions. The impact of COVID on parents was identified in terms of heightened anxiety in relation to contracting the virus (and passing this on to a young infant or child); experiencing isolation from usual support networks; and the financial impacts on individuals and businesses associated with government-enforced lockdowns (Westrupp et al. 2021). The pandemic was also associated with the scaling back of CFH services so staff could be

redeployed to COVID-19 response services, resulting in parenting groups being cancelled, further exacerbating the isolation experienced by many parents. One participant provided the example of the impact of the cancellation of a supported playgroup on large numbers of parents.

*... prior to COVID myself and my colleagues, we ran Twinkle Tuesdays, which was in [name of shopping centre] in the space outside of either [name of two stores]. Prior to COVID we could get up to a hundred parents and children, more in school holidays. ... And that was a drop-in. We would have mums with babies... We are working towards hopefully, you know, bringing that back in some form of modified form. (P7)*

Another participant described the importance of reassuring parents of safety and the measures being taken to minimise the risk of contracting COVID when re-commencing services. Participants reflected on the opportunity to learn from the experience of using alternate modes of delivery during COVID, such as virtual groups. It was identified that such an approach provided opportunities to reflect and consider ways to improve services and access for families:

*... because of COVID and everything, a lot of things have, you know, shut down for a while and we're trying to try to get them back going, but trying to get it better than it was maybe. (P1)*

*... how valuable the groups are and we have been very protective of them this last year, honestly, with COVID and finding different ways we are linking with Mums. (P3)*

One participant described the impact of parenting groups being cancelled, noting that while the introduction of virtual groups for parents via video-conference provided some connection, many parents were reaching out for a personal connection. It was observed that, while helpful, online interaction did not replace the need for human face-to-face connection upon which to build a relationship:

*they're online or have stopped them stone cold for last year. We started doing online classes for child and family, and a lot of people didn't want to do that because like yourself [referring to a consumer in the group], it's more important to meet other people and get out of the house and get some network. We can teach them stuff, but it's getting together with other mums and feeling normal. I think that's the biggest thing in the world. And when that stops, it's very isolating. (P1)*

Another impact of the COVID-19 pandemic identified by the group was the increase in property and rental prices. This was particularly noticed as residents of highly populated metropolitan cities sought to move to regional areas. Participants discussed the impact this had on housing security for many of the families known to them, both socially and professionally.

*The other issue that we have on a daily or at least weekly basis is housing, with evictions and rental terminations. And I mean, the market here was always very high, become a lot worse with COVID in the sense that a lot of people are moving out of Sydney or metropolitan areas, which is totally a lovely thing for them to do, but that's had a massive impact on our clients for housing. Of course, if you, if you haven't got stable housing, then that's where like a lot of stress, a lot of anxiety, a lot of couch surfing from friends of friends, family, family, motel, emergency accommodation. So that is, that's a massive issue, for us which has got worse. (P7)*

The challenges of isolation and lack of opportunity to connect with other parents was highlighted as being exacerbated by the tyranny of distance. Participants discussed the experience of parents living in smaller, less populated communities compared with those living in larger regional towns:

*And they've got a big meeting area. So that's, you know, there's, I guess there's a few options around that you can, you know, but I think small communities, they're not so lucky. (P13)*

In light of the isolation experienced by parents of young children who did not live close to or have support from their extended family, participants discussed the potential role of volunteers in helping to alleviate loneliness and to provide practical support. Participants stated that volunteer programs had previously been active in helping to combat the impact of isolation on parents, however changes to funding had resulted in some programs no longer being available in local communities.

*And it would be great to have a volunteer organisation that maybe has some semi-retired people that can come in and, you know, nurse the baby while mum's playing with the three-year-old, or do real practical things. And I know there used to be something like that around, back in the day. Yeah, for multiple babies, you know multiple births and [parents] struggling without family support. It's really quite difficult. (P7)*

*We'd have family support agencies. We had volunteer agencies when I moved here and they're both gone now, so just change in government funding, but it's a big hole in the market, I guess. (P1)*

One participant shared knowledge of an agency which was not known to the rest of the group. The agency was described as being eager to establish volunteer programs to address identified needs in the community, including support for parents with young children.

*The [name of location] neighbourhood centre still operates a volunteer coordination program. Obviously that's not replicated in all of the LGAs [Local Government Areas] in the districts, but there is that program still available... I know when we were talking with them about needs for the community, there was a particular focus on being able to build their base of volunteers, for 0-5s and to assist in, and kind of value-add to playgroups and preschools and other types of, you know, social connection, activities and initiatives. (P8)*

Despite the need for parent-to-parent **peer and social support**, a number of barriers to parents connecting with one another were identified. A parent in the group reported being unsure of where to start when wanting to meet and reach out to other parents:

*I found it challenging to connect with other women who were pregnant...I set up a WhatsApp group myself. So yeah, I mean, maybe I wasn't informed, like I said, in that there weren't groups around, but I mean, I'm not on Facebook that much. So I guess that excludes me from those kinds of things. I want it to be meeting up with people in person and doing something active and healthy [together]. (P5)*

Parenting groups were highlighted as important opportunities for parents to make such connections. When parenting groups were no longer available, whether due to changes in funding or meeting restrictions associated with the COVID-19 pandemic, this opportunity for connection was removed:

*I definitely agree with that. Once the new parents group ended, a lot of us ended up at [local hotel] ... would seem to be very few other options. (P5)*

A number of participants identified group programs as being amongst the most important service provided by their organisations. It was noted, however, that there was not equity of access across the district.

*And that I think, there's the best thing for the mums and bubs, in [name of town] I don't think there's enough... you know, we may have one up in the [name of location] area and one at [name of location], that's not enough. We need more. (P3)*

Group programs for parents conducted over a sustained period of time, including pathways into supported playgroups for continued support and contact throughout early childhood were identified as important to helping parents maintain these connections. Parenting groups which continued or flowed into pathways for continued connection, were described as building a community of parents.

*and so when I walked into the new parents group... I knew most of the faces and there was like, the community had been built before at the [antenatal exercise classes] and it was just a beautiful thing. And then I met more people and it was just lovely. I felt connected before I had my child. And that was very powerful. (P5)*

*... a group for mainly pregnant young mums and [name of facilitator] is with them on their journey through pregnancy. And she has a mums and bubs group that she has them for another six months. So there's that lovely flow on. And then if they wish to, they may come into me into the play group setting. So it's that nice little flow on. (P7)*

Assumptions made by service providers regarding the content and structure of group programs was identified as a possible deterrent to parental participation. One PAR group participant described improvements in parenting group participation rates once parents were asked their preferences for where groups should be run and how.

*It's amazing because originally Health wanted to set it up at a Health facility at the hospital and it wasn't going to work cause it wouldn't be, you know, a lot of young parents don't want to come to big institutions. So we set it up at [name of community centre] and when I set it up, it was like, I didn't try and tell parents, you know, what, that it was more asking what, you know, their worries and concerns were rather than me telling them what they should know. So yeah. And it's worked that way ever since, which is amazing and it's still going. (P1)*

Cultural inclusivity was identified as a key consideration when establishing groups and activities for parents. The participants recognised the general acceptance of cultural diversity in their community as a strength.

*But I think the amazing thing to me in [name of location] is the acceptance of the diverse range of community. We get, particularly the refugees, and I'm quite proud of [name of location] for being very accepting. (P1)*

*... one positive is the reach to diverse cultures that we have in our community and that I am also privileged to work with, so we have Burmese families, African families, Afghanistan, Aboriginal families, so so many families, many Indian families, Sri Lankan families. I think that's the beautiful combination that have worked really well in connecting as well, so that's a lovely strength. (P7)*

Providing options of culturally specific and culturally inclusive groups for parents was identified as important. Key to the successful of such parents' groups was the ability to provide options for parents, for them to come together in an environment in which they felt comfortable and accepted:

*Like, I think I like a lot of, some of the organisations take it on like, you know, to start something like [name of Aboriginal Community Controlled Health Organisation (ACCHO)] for instance, for them non-Aboriginal too, they all attend [name of ACCHO]. (P13)*

*... the Koori preschool in [name of location] were running a parenting group and a weekly parenting group for a while, you know, for Aboriginal families and that worked quite well because it was a place where they could go for childcare as well. (P1)*

As highlighted by the participant in the quote above, the co-location of childcare in the same venue as a parents' group assists parents to participate in the group program. Participants identified the provision of **safe places for parents to meet** as being a key consideration when planning groups or other opportunities for parents to connect.

One participant described the experience of coming to the end of a facilitated group. The completion of the program of facilitated groups resulted in some parents who wished to remain connected trying to source a location which was non-clinical and welcoming. In this case, the option identified by the parents was a family friendly hotel with a play area for children:

*A lot of us ended up at [name of location] pub, as there seemed to be very few other options, but it was the space that most people knew about, to be in a comfortable environment with very young babies. Under cover with coffee on hand. (P5)*

One participant described a setting in a shopping centre which was frequently accessed by parents as being an effective location for a drop-in group, providing the opportunity for parents to meet other parents and the service coordinators. The FCC itself, and other non-clinical settings, were identified as being welcoming and non-threatening spaces where parents would feel comfortable to attend groups.

*Because it's a small family cottage, I think it works because they feel like it's a little home they can go to and somewhere safe to be and all that stuff. (P9)*

*So we had all age groups in there... It's a lovely space where parents can get their coffee. And then the mum or the dad or grandparents, I had a lot of grandparents, could do the craft with the older ones. Then in [name of town] we coordinated facilitated play groups at the family centre, so when COVID happened we were located around numerous parks around [name of town]. ... it's very exciting to be back in the centre now running these rotational groups with families. (P7)*

Participants discussed the difficulty in maintaining access to certain spaces, such as those requiring bookings. The importance of reliable, inviting spaces and avoiding disruption to the continuity of the meeting space was identified as ensuring parents felt safe and secure. With so much change occurring in the community and the lives of parents, this continuity was identified as important and service providers expended energy to safeguard these meeting places or to provide an alternative if this was not possible.

*But we're also interested to hear what others are saying about the site, somewhere rooms are located as well, because down in [name of town] we are little bit at risk of, we've lost the room that we use to run the groups in. So they don't really have a secure place that's where sort of going on here to there at the moment or sometimes*

*outside and sort of just really ad hoc that we are really sort of protective of continuing to groups. (P3)*

In addition to identifying a location parents feel comfortable to attend, participants identified the challenges in finding a venue with safe spaces for children. The need for local government municipal councils to consider the requirement for family friendly, child safe spaces where parents could also meet on an informal basis was emphasised.

*I can say something in parenting circles, um, time and time again, we, we live in such a beautiful location, um, but with young children you essentially need shade and a place to sit. And so I think we just need more infrastructure like that... cause I mean, it seems really simple, but say you've got a child under two, like you need to have some safe place to contain them out of the rain and out of the sun. (P5)*

*Down this way. So there have been some changes... over time there have been new things being done [to create family friendly spaces], across [names of locations] ...but I have noticed that there's more work being done for that certain places that people can just go to specific times... so there are a little bit more family friendly places. (P3)*

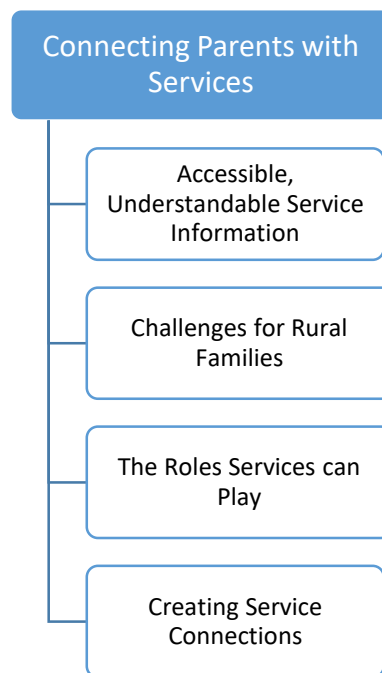
Participants discussed the possibility that alternative venues for parents to meet might be available. Of concern, these were not always well promoted and therefore parents were not aware of other options. These included a local neighbourhood centre with spaces and play areas that groups of parents could book. The concept of collaborative service spaces where parents could meet with each other in a safe, trusted space while having access to support from service providers was raised, with one participant referring to a previous experience in their home country:

*I come from [name of country] originally and ... a lot of their new centres have a coffee room where mums can meet as groups and make coffee themselves and organise themselves. So that, and they have an extended playground and can make it a safe space... So to me, that would be amazing to do that in [name of town] where,*

*you know, it's a safe place for mums to come and you can run services with agencies or as parents running them, all being self-motivated, but under a good, you know, I guess watchful eye or whatever you like to say, but it allows that people to get together and ... maybe work from there. (P1)*

## **Theme 2: Connecting Parents with Services**

The second theme identified from the first workshop was in relation to *Connecting Parents to Services*. Participants identified a number of barriers impacting parental awareness of services and how to access them. The sub-themes were distilled as follows: (i) accessible understandable service information, (ii) challenges for rural families, (iii) the roles services can play, and (iv) creating service connections.



*(Excerpt Figure 17: Theme 2 – Connecting Parents with Services)*

The group discussed the need for parents to have **access to understandable information about services**, in a form and language which was relevant and resonated with parents. The group discussed various approaches to promote service information reaching parents so they knew what supports are available and how to access them when needed. The group recognised the valuable opportunities presented through early parenting groups in both

connecting parents with one another, and raising their awareness of support services available in their community:

*As a new parent, I found it really amazing to be connected in with a new parents' group as part of Child and Family Health, and we were given a wealth of information to tap into. So that was a really great beginning point to get an idea of the services that are available. (P5)*

The participants identified that even when parents were aware of services, there were additional **challenges experienced by rural families** in accessing those services. Access to support service options were described as being extremely limited in towns of smaller population density when compared with those available for families living in the larger regional centres.

*I guess there's a few options around that you can, you know, but I think small communities, they're not so lucky. (P13)*

Short-term funding for services in some rural areas was noted to create obstacles for parents in both knowing and trusting that services would be available when needed. The group described instances in which services were stopped due to time-limited funding, or decisions by health services. The impact on the communities was identified as being both the result of lack of access to support, but also a sense of not being able to rely on services being available when needed.

*We used to have family support agencies... and they're both gone now, so just change in government funding, but it's a big hole. (P7)*

*...for those classes to have stopped because of systems in the hospital and in the last year that has been entered and the ones that have been on, people haven't been reliable. (P5)*

The group discussed **the roles services can play** in advocating for parents, helping parents connect with other parents, and helping parents connect with the most appropriate services to meet their needs. The important role of group programs for parents, and the roles of services in facilitating and supporting such groups, was a recurring topic of discussion with two participants referring to such group programs as “*one of the best things we do*” (P3) and “*they’re the best thing for mums and bubs*” (P13). Participants recommended that services prioritise the provision of groups, to enable parents to connect with one another and raise their awareness of the services available in their community.

Opportunities to advocate for the needs of families with young children included lobbying the local council. It was identified that local municipal councils needed to shift their focus on other population groups to include young families:

*... to speak up to council because... it’s more of an older and retired population with focus on services, maybe not at [name of town] but definitely down this end that’s been the case. And having services work together to advocate for the needs of families. (P3)*

One participant shared their knowledge of a local inter-agency group which facilitated forums to support advocacy. The forums provided a platform for service providers to come together to collectively plan and collaborate to address unmet need in the local community. It was noted that such forums also provided a platform for other interested community members to attend and contribute:

*... has everybody kind of either heard or participated in the child and family inter-agency meeting at all or there’s one in each of the LGAs across the district? ... they’re places for people to kind of raise an unmet community need and try to match with services and create some place-based initiatives... unmet or hasn’t previously been considered... you know, action around it. So, you know, we are trying to make sure that those... produce some really purposeful and meaningful outcomes and place-based kind of initiatives to meet local needs... and interested community can come, this one has them come as well. They’re not exclusive. (P8)*

A key role of services was to hold up-to-date information as to support services provided by other agencies in their community. Throughout the workshop, participants shared information with each other regarding services, resources and locations suitable for group programs for parents with young children. This sharing of collective wisdom was valued by the participants, demonstrating their own sense of agency as they shared information both during the PAR workshop, and between workshops via email.

### 6.3 Workshop 2: Mechanisms (Review Model Fit for Context)

#### 6.3.1 Aim and Background

The second PAR workshop focused on the third tier of the CASCADES Framework (see Figure 18), being the mechanisms or elements of the service model, to assess the fit of the model for the local community context. Participants were provided with an overview of the preliminary themes which emerged from Workshop 1, to validate and refine the themes, ensuring they reflected the group’s earlier discussions. This included developing consensus about the expected outcomes if a service model was effectively addressing key priorities for families in the community.

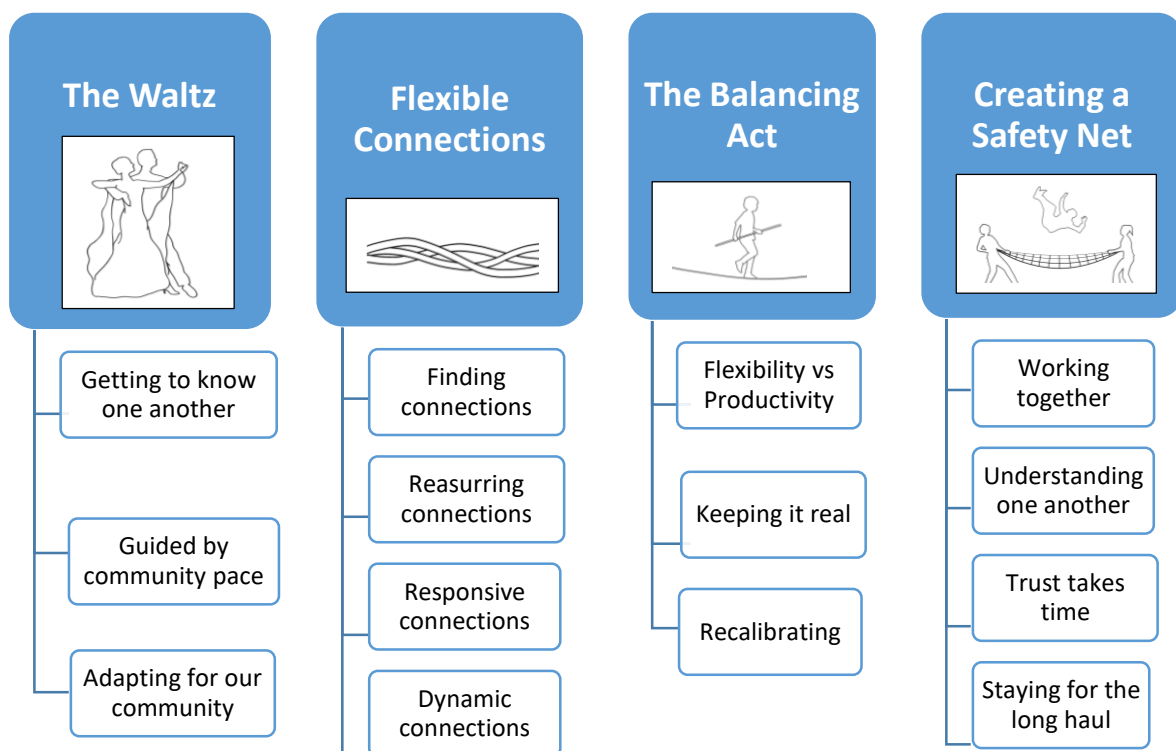


Figure 18: CASCADES Tier addressed in PAR 2 - Workshop 2 “Mechanisms”

An overview of the *Mechanisms* tier from the Framework was provided, leading to participants being asked to consider the service model elements using two key focus questions: (i) is this service model the right fit for this community and (ii) what aspects may need to be changed for the service model to meet the community’s needs? An electronic copy of the service model had been provided to the participants prior to the workshop to which they were able to refer during the discussion.

### 6.3.2 Themes from PAR 2 – Workshop 2

The following sections discuss the results of the thematic analysis of the transcript of the second workshop. The four overarching themes (depicted in Figure 19 below) were: (i) The Waltz; (ii) Flexible Connections; (iii) Walking the Tightrope, and (iv) Creating a Safety Net.



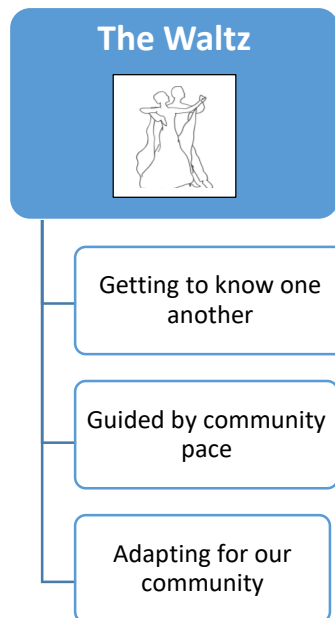
(Illustrations by R. Spooner)

Figure 19:  
Themes and sub-themes from PAR 2 - Workshop 2: Service Model Fit for Community

## Theme 1: The Waltz

When implementing a new service or service model in a particular community context, one participant described the relationship between the service and the community as a waltz. The theme of “the waltz” was identified as having three sub-themes: (i) getting to know one another; (ii) being guided by community pace; and (iii) adaptation for our community. The analogy drew parallels between the service and community members as dance partners, sometimes moving backwards and sometimes forwards, but all the while being in step with one another and learning to trust in one another.

*I was just going to say and the important thing for the organisation is to read the community. So it's sort of like we talk about us doing a little waltz (P7)*



*(Excerpt from Figure 19: Theme 1 – “The Waltz”)*

In order for the dance partners, in this case the service and community, to effectively perform together, they must first spend time **getting to know one another**. This includes not only information about the organisation and staff providing the new service, but importantly visiting the community and taking the time to listen to develop a deep understanding of the community’s strengths, challenges and priorities.

*I think visiting the communities works. I know down in [name of town] but we had four get together ... but I would like to go over and do some more stuff in [name of town]. Like visit some community groups and do that again, do that random thing. Particularly in [name of town]. (P13)*

As when dancing a waltz, the partners need to reflect a joint pace, without one rushing the other. One participant described the importance of being **guided by community pace** as being particularly significant when working in rural communities, with time needed to develop understanding of the new service and its relationship with the rest of the community stakeholders.

*... because you're sort of walking alongside of them and you can't rush them. They don't like to be rushed. And again I'm thinking down in [name of town], and giving them that space to understand it. (P7)*

The analogy of the waltz extended to the notion of **adapting for our community**, with scope needed to be creative. Such creativity is enabled when the service model provides scope for the service providers to take the time to develop a strong underpinning knowledge of the attributes of the particular community context.

*I'm happy to have a go and it gives us more creative control than ordinarily [name of organisation] metro model would be. (P4)*

Building this relationship through asking community to guide what will work in their context, enables service providers to adapt the service model, rather than delivering a prescribed set of structured interventions.

*... what jumps out for me there is he's suggesting going outside the [name of organisation] box. So [name of organisation] has designated prescribed groups doesn't it, and [name of other participant] is going why don't you do a bit of this and a bit of that and a bit of this which makes perfect sense to me but I don't know how*

*that works with [name of organisation]. Because that means we devise the groups [to suit our community]. (P9)*

A key element to understanding and responding to the needs of the community, is an understanding of the cultural context. In the case of the regional community in which this PAR study was undertaken, families represented a broad range of cultural backgrounds – each with their own set of values, beliefs and parenting traditions. The PAR group discussed how challenging it was for many of these families, with one participant describing the opportunity for service providers to be innovative in their approach in order to be culturally responsive and relevant to the needs of all young children and their families.

*Aboriginal families, African families, Indian families, Afghanistan families, they're often relate to their situations but it's hard in the general Australian context so we are going to have to adapt to their ways, thinking of new and innovative ways of supporting their parenting. (P13)*

Discussions regarding the need to consciously consider barriers that service providers may inadvertently place between themselves and the families they wish to serve, extended to the issue of staff uniforms. The PAR group did not identify a clear position on whether uniforms were good or bad as such, but rather reflected that wearing a uniform may express a subliminal message. One participant described concern that a uniform could potentially interrupt the development of a partnership between the parent/s and the clinician, particularly when seeking to work from a strengths-based collaborative approach.

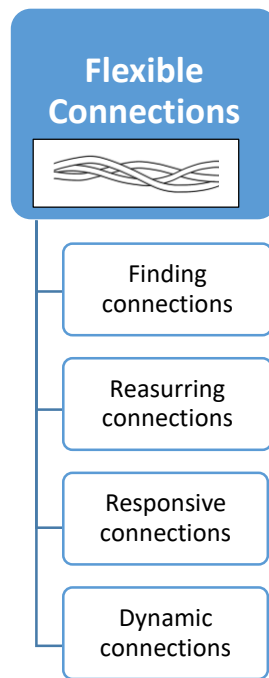
*Yeah, and when I think doing some home visits and even doing groups out at the outreach centres I haven't been wearing my [organisation's name] shirt as such. I do think it's important not to be seen as the expert in the room. Especially when we're working in partnership and we know that the families that we're working with have some great strengths. They may not be able to see that at the time that they're here with us but our role is to support parents and bringing their strengths forward, not be seen as the person that holds all the knowledge. (P4)*

The concept of adapting to the needs of the community was also reflected in the PAR group discussions regarding the limitations of services operating in a 9am-to-5pm, Monday-to-Friday business hours approach. Participants emphasised the impact on limiting access to services for parents and other carers, including grandparents, who were employed during these hours. This call to organisations, challenges managers and decision makers to consider working in different ways other than traditional service provision; providing more equitable and inclusive access for both parents and other carers who play an important role in the lives of young children.

*But I think more broadly working around work commitments... so I don't know if the significant other would be able to take time off work then because then that's only one parent who's missing out on work. The parents I know are working part time and so that could be a more flexible day in the week but certainly yeah, a Saturday morning parents are much freer... Grandparents might be more available on the weekend because a lot grandparents are still working. So I guess providing options is always the best thing to fit in with as many people. (P5)*

## **Theme 2: Flexible Connections**

Consistent with the themes from Workshop 1 regarding connecting parents with other parents and connecting parents with services, the second PAR group recognised the importance of connections, elaborating further when discussing the fit for the service model in addressing this high priority. The theme of flexible connections emerged, including sub-themes of (i) finding connections; (ii) reassuring connections; (iii) responsive connections; and (iv) dynamic connections.



*(Excerpt from Figure 19: Theme 2 – “Flexible Connections”)*

The PAR group spoke at length about the role services needed to play in helping parents **find connections**, noting that such connections included those with other services and with other parents. The participants discussed this dual need for both social connection and access to evidence-based information to guide the parenting journey, provided within a safe and supportive space acceptable to parents.

*... it's the parent looking for social connection but also information as needed and as you did with your other needs with the breastfeeding, those needs [for information] can be met so you're in that supportive environment. (P7)*

A key strategy recommended as a priority for services supporting parents in the early years of their child’s life was identified as parenting groups. The coordination and facilitation of groups for parents was described as not only addressing the needs for connection, but also providing an element of structure during a period when parents often felt life was chaotic and out of their control. The predictable nature of a weekly group provided a grounding for parents, that they could rely upon and look forward to each week.

*Going off to those sessions, which just were so important to be coming together with people, even if it's just once a week. (P5)*

Groups, whether supported playgroups or early parenting information programs, provided parents with opportunities to build **reassuring connections**. The PAR group discussed the high rates of anxiety experienced by parents in their community. It was noted that parental anxiety was often exacerbated by the challenge of having a plethora of web-based parenting information available but finding inconsistencies and not knowing whether information was trustworthy or not.

*Well, I've noticed a growing anxiety amongst parents in general. And I think part of that is ... Well, I think that coupled with the online presence of people searching for information online which is so contradictory, and sort of overwhelming for people. (P1)*

The PAR group discussed the responsibility of services to collectively enable parents to access **responsive connections**. This included the need to review and reflect upon the experiences of parents when reaching out to seek help. The imperative for services to make it easier to get help from the very first point of contact was identified as fundamental.

*...and just scheduling an appointment and then that was done. Just being helped with that so then you worked towards that and then just getting to that next step of seeking support and finding a solution to whatever the struggle is for the parent. (P5)*

In order for parents to reach out for help when experiencing challenges, they need to know where to go when help is needed. The PAR group discussed the need for service models to include scope for being proactive in providing anticipatory information to parents, rather than waiting until the need for help escalates to crisis.

*Little flyers or things that you can put on your fridge in those early weeks and months where you're so sleep deprived and trying to figure it all out, for it to be very easy to call and arrange something is critical. (P5)*

The concept of being responsive to the needs of parents and families was further emphasised regarding the need for timely response from services. One participant (consumer) described the sense of vulnerability and distress experienced when needing urgent help and support in caring for her very young infant.

*And this is a stage where I was feeling very vulnerable and I really needed help fairly quickly otherwise I would say I would be getting more distressed with a newborn. And how else did I receive support?... So that was quite distressing and I was able to seek support and go in for relaxed day visits. So [nurses' name] gave me lots of time, we had probably two or three appointments of well over an hour and a half from memory. And it was just brilliant to be able to have that time with a professional to discuss what my specific needs were. (P5)*

The PAR group identified that the changing needs of families required **dynamic connections** at any given point in time. These changing needs are not aligned to a linear journey of the parenting experience, but rather can differ between families and within the one family on a day-to-day basis depending on a range of circumstances and factors.

The group shared strategies that could be used by service providers to enable flexible approaches to service delivery, whether through different access options for help and support or by prioritising limited resources according to the urgency of the need. One such strategy was the use of a flexible approach when providing group programs to allow scope for individual support in addition to the group activity.

*Oh yeah, because it's ... two types of modelling that's done. We have the early childhood education in a session which goes for an hour and a half and then we have parental education for individual babies or group babies so it's very flexible. (P5)*

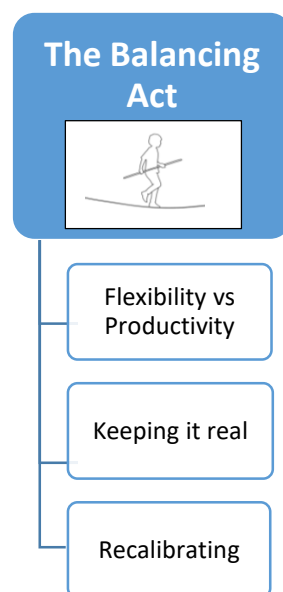
Another participant shared the importance of flexibility when setting aside time for individual consultations. The challenge for parents with young children travelling significant distances when seeking access to help in person requires a flexible approach to appointment times.

Additional efforts must be made to ensure the service maximises the opportunity for the family before they return on their journey home.

*So yeah, and if someone's for example traveling, we've had a couple families from [town 2.5 hours' drive time from service], then they might decide to stay for the morning and go and have lunch and come back, you'd have to extend that service to the morning or afternoon or offer telehealth for follow-ups. So really putting forward the format of how we deliver care based on what the family is requesting and needing. (P4)*

### **Theme 3: The Balancing Act**

The challenges faced by service providers of addressing the needs of the community while faced with the realities of resource and funding constraints can be likened to a balancing act. Three sub-themes emerged in relation to this theme, as the PAR group described the manner in which service providers needed to regularly check their priorities and service planning decisions against the realities experienced by families in the local community. The three sub-themes were identified as: (i) flexibility versus productivity; (ii) keeping it real; and (iii) recalibrating.



*(Excerpt from Figure 19: Theme 3 – “The Balancing Act”)*

Service providers faced a conundrum faced in seeking to be flexible to meet the needs of local families while also needing to remain within the agreed scope of the service and ensuring resources are responsibly utilised, leading to a number of identified challenges. The analogy of a tight rope walker evokes an image of walking the fine line between **flexibility versus productivity**.

One participant described the example of assessment appointments being undertaken at the centre rather than through home visits, to allow more time for staff to attend to the associated documentation requirements. While flexible modes of delivery to enable family-centred care were articulated in the service model, participants identified potential areas of conflict where the rationalisation of resources and time appeared to be prioritised over client (parent) choice.

*But we do try and encourage people coming to the centre if they actually have the ability to and that's generally is around time efficiency and the staff in there to be able to do their notes and then do their follow up appointments in the afternoon. (P4)*

The concept of the preferred mode of delivery for assessment consultations being centre-based, contrasted with PAR group descriptions of the benefits of taking services to families, such as through home visiting. The PAR group noted that while the service model did include provision for assessments to be conducted through home visits, there appeared to be some conflict as the parameters were described in terms of a set of criteria or approval being sought, rather than being driven by family preference:

*Well I guess with some families still like the idea of home visiting... so it was interesting to hear [name of participant] talking about that because I guess sometimes, and not just with the Aboriginal families, sometimes just for those more complex families who just don't necessarily fit into more of a schedule, their flexibility sometimes can be difficult. So I guess I just have that in my mind, but I think the home visiting for some. (P3)*

While face-to-face (or in person) services were deemed ideal by the PAR group, the use of technology, through telehealth service delivery, was also discussed. One participant described the importance of including telehealth as part of a suite of modes of delivery options, particularly for families who would otherwise have travelled significant distances while anxious and potentially sleep deprived with an unsettled infant.

*I think so. We've done a couple of online parent groups with [name of nurse] when COVID was happening... that actually worked quite well. It can be a bit chunky... but definitely when working with families I feel nothing beats the gold standard of face-to-face, that's for sure. But certainly telehealth is the better option if there's no other option, or it helps the family access the service which they otherwise wouldn't be able to travel to. Because I imagine coming with an unsettled baby and an anxious mum for an hour or more in the car... It's really not great. (P8)*

The realities of limitations on the resources available to deliver a service was apparent as the PAR group discussed the ideal of getting out into the community. Attending community events where families gather was identified as a key opportunity to raise awareness and build trust with families who might otherwise not have reached out to the service for help and support.

*... so going to a community event that hopefully culturally and linguistically diverse families are already attending, I think is probably the best way for the community to feel safe around [name of service] and what we offer. (P4)*

This balancing of community needs with service delivery limitations also extended to how service providers could provide service access outside business hours. Despite funding models rarely providing scope to pay penalty rates for staff, and the need to ensure minimum staffing levels to meet safety requirements, the PAR group identified providing services outside of traditional opening hours as being vital to enabling equitable access to information, help and support for all parents in the community.

*In some of the gaps that I can see, particularly around how we support some of the dads, or the parents I suppose, it's non-gender but the parents that might be working*

*and not available to access that service Monday to Friday, eight to four. So thinking about, I know some of the other day services in other centres offer a Circle of Security [group session] for parents in the evening and certainly that would be something that we hope to aim for, just to give another layer. (P4)*

The concept of **keeping it real** refers to ensuring the service model is responsive to the realities of life for families in the local community, was raised in the PAR group discussions. Such realities included the financial imperatives for both parents to return to work soon after the arrival of their baby, as well as the lack of social and family support available to young parents living away from their family of origin. The PAR group identified the impact of lack of access to childcare for older siblings as the service model stated parents should attend consultations and/or groups only with the infant or toddler within the age range criteria for the service.

*But particularly in [name of town] there are a lot of families here that don't have extended family support.... so childcare is an issue, we have groups [for specific ages] like they don't have babies any older than six months... attend the group and that is a challenging... If you don't have family, it's a challenging thing to be able and they really want to attend the group. (P7)*

Reflecting on the realities and priorities for families living in the community required service providers to recalibrate their service plans according to community need. This recalibrating of service delivery provides the opportunity to reflect and regularly check assumptions regarding the community, and update knowledge as to the services provided by other organisations. Over time this information can become dated, and service gaps may appear which can be overlooked unless a system of checks and balances as to the current state of the service network is undertaken regularly.

*But I think some of the issues are filling in the gaps that sort of slip between services. (P1)*

An example provided by one participant was in relation to the types of group programs provided in the local area. An assumption had been made that other services were providing

information for parents regarding the introduction of solids, however following the completion of a time-limited project, a gap had become apparent which appeared to be associated with increasing anxiety in parents:

*And one of them, I think for me, is that some practical hands-on parenting. Particularly around the area of ... introducing solids, which was covered a little bit by the [name of project], but there seems to be growing anxiety in parents about starting solids with their kids and the anxiety about gagging and choking, which seems to be having an impact on children starting solids when their mums are so anxious. And it's sort of one of those things that no one covered that area really. (P1)*

This recalibration, or re-balancing of the performer (service provider) on the high wire, is also required when clinicians consider how to respond to the unique needs of individual families. The PAR group discussed flexibility in terms of not only the manner in which the service is provided, but also the length of engagement, intensity and/or frequency of service encounters.

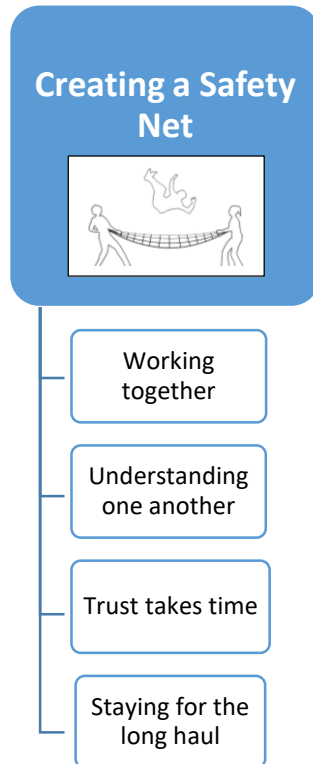
*And within the model there is a ... while people might be offered just two or three contacts to start off with, that can be extended out depending on circumstances and people's needs. (P1)*

*So the flexibility to have, I guess a variety of modes of engagement or contact with families. The flexibility to be able to go up and down in terms of intensity and in different settings as well. All of that, feeling pretty familiar to where we're transitioning to for a range of our programs as well. (P8)*

#### **Theme 4: Creating the Safety Net**

To address the risk of gaps developing across the service system network, the PAR group identified the opportunity for service providers to work collaboratively to create a safety net. The **safety net** concept extends to both ensuring children and their families do not fall through the gaps resulting in a lack of access to timely early assessment and intervention; but also to a safety net of support between service providers. Four sub-themes were identified in

relation to: (i) working together; (ii) understanding one another; (iii) trust takes time; and (iv) staying for the long haul.



(Excerpt from Figure 19: Theme 4 – “Creating a Safety Net”)

The benefits of integrated service provision were identified by the PAR group as extending beyond agency bounds. Services **working together**, regardless of agency affiliations or funding sources, was identified as a source of combined strength when addressing the multifaceted and often complex needs of families and communities across a continuum of care.

*I was looking at the intersection between the health services, say for the first 2,000 days predominantly in relation to, I think the new pilot that they selected [name of town] as their initial start. So it was broad-reaching because those services required to fit in and around the existing service settings just to avoid duplication and to increase continuity, like a continuum. (P8)*

The first step in services being able to work effectively together requires that service providers take the time to develop **understanding of one another**. The fact that community

agencies and organisations evolve over time and the focus may not be the same or they may not provide the same services year on year, required that service providers share current information with one another on a regular basis.

*... and get the service out there and I suppose get the information about [name of service] out and they know what we do and realise that we're trying to focus on the parent child relationship and maybe not what [name of organisation] used to do 20 years ago. (P4)*

By sharing up-to-date information regarding the focus and scope of each agency, services were then well placed to consider the intersection between their service and others. Reflecting on this information enabled services to avoid duplication and consider the combined fit of all services in providing access to families in the local community. Such knowledge also contributed to the referral pathways available for families from one service to another depending on the needs and circumstances of the family at that time.

*I think, yeah, it kind of fits in well with other services available, because it's a good service and support for young parents and stuff. And the play groups through [name of service]. And also with the young parents' session available at the women's health centre through us. (P1)*

Working towards a safety net of integrated services across the community was identified as requiring **trust which takes time**. The PAR group had previously discussed the building of trust between families and the community in local service providers. The vital element of trust building was extended to the relationships between service providers, identifying this as fundamental to effective inter-service collaboration.

*We really have to... take into consideration the established relationships of particular community and services providers. Because otherwise we can fund a service that can largely take two years to establish a relationship or momentum...because it takes a long time to establish connections or relationships or understanding or to recover from a change in service model. (P8)*

To establish such trust, whether this is between service providers or with the community, organisations need to be committed to **staying for the long haul**. The quotes below from two participants highlight the concept of momentum taking time to grow, with both participants describing their observations of seeing services and programs fold at a point when they were just starting to reach their potential.

*It does take momentum with groups, to get those up and running. And you know we've been running groups for years but it can take time for those things to gain momentum and to get the word out in the community. So time and patience. (P7)*

*... so services pull out because they're gaining momentum but it feels like they haven't quite succeeded, being patient... (P9)*

The group identified **the dangers of short-term funding** as a key barrier to services remaining engaged for sufficient time to build community trust and inter-service relationships. The group discussed government preferences for short-term funding cycles to leave the door open to re-deploy funding for new and emerging priorities. The unintended consequence of such an approach to funding was highlighted by the observations that programs were not given the opportunity to succeed or showcase the potential outcomes of a service model.

*I would really echo that with our experience... that where it's a new program or the agency is in a new area or with a change of model. It does take time for things to establish momentum and from our perspective when we get very short-term funding for a pilot program and things like that...it can largely take two years to establish a relationship or momentum than that in a pilot funding period might see, it could be evaluated to not be effective when that might not really be reflective [of the reality]. (P8)*

While community-based or place-based initiatives have been identified as effective in adapting services to meet the needs of local communities, funding bodies can inadvertently cause harm to the very community they are aiming to support. Disillusionment and

disappointment when funding is not continued can create an environment of distrust, making it more difficult for the next service provider when seeking to implement a new service.

*... that can be a lot of problems for services. They're only funded for X amount of time but as we know when you're looking in a community-based model, which is one that [name of organisation] uses... it just takes a long time. And unfortunately, services will often pull out as they're gaining momentum as well which leads to a disappointment too within an area. (P7)*

## **6.4 Workshop 3: Evaluate and Reflect**

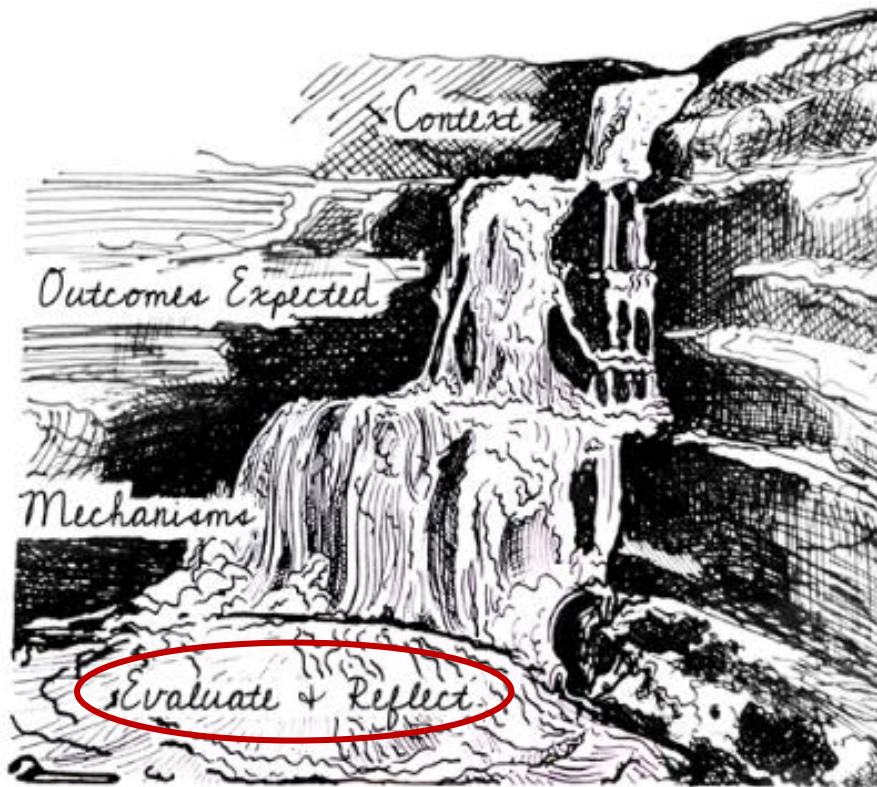
### **6.4.1 Pre-Workshop 3 e-questionnaire**

Participants were invited to complete an e-questionnaire prior to Workshop 3. The aim of the questionnaire was to validate the preliminary thematic analysis of the transcript from Workshop 2 which explored the fit of the model for the community context. In addition, the questionnaire invited the participants to consider a draft ‘problem statement’ and areas of focus for the action plan to be developed in Workshop 3.

The preliminary themes from the initial thematic analysis of Workshop 2 were provided to the participants in a PowerPoint presentation distributed via email together with the personalised link to the e-questionnaire. This was the first step in the final tier of ‘Evaluate and Reflect’ in the CASCADES Framework (see Figure 20 below) which was used to guide the PAR process. The workshop introductory slide presented this step in the process as follows:

*We're now reaching the bottom of the cascade.*

*It's time to reflect before we head down the "river", to plan the actions we will take to create change and improve the experiences and outcomes for children and their families in our community.*



*Figure 20: CASCADES Tier addressed in PAR 2 - Workshop 3: Evaluate and Reflect*

Of the participants, seven of the nine who remained engaged throughout the PAR cycle completed the questionnaire prior to Workshop 3 (78% completion rate). As part of the reflection on the discussions from earlier workshops, participants were asked to rate the extent to which they agreed or disagreed with a series of statements developed from the preliminary analysis of the Workshop 2 data (see Table 11 below).

Table 11: PAR 2 Participant validation of Workshop 2 preliminary thematic analysis

<b>Summary of Statements</b>	<b>Mean Score (n=7)</b>	<b>Rate of consensus (% scored 4 or 5)</b>
Groups play a key role in helping parents build connections and form a network of social support.	5.00	100%
Groups need to combine providing parenting information with building connections with other parents and professional supports.	4.71	100%
Groups need to be held in locations where parents feel comfortable and safe to participate.	4.86	100%
A regular schedule of groups is needed so parents and providers are aware of what is available.	4.57	100%
Mapping is needed to identify what groups are available and areas for potential collaboration.	4.43	86%
Flexibility is needed when providing individual or group support (i.e. flexible times, a range of modes of delivery).	4.29	71%
A mix of groups is needed, some with children in attendance and some just for parents.	4.43	86%
When groups are for parents only, childcare should be factored into the planning	4.14	71%
Targeted groups are needed for particular members of the community, i.e. families from refugee backgrounds or new migrants	4.57	100%
Even if new initiatives are slow to take off, service providers should hang in there as it can take time to start something new.	4.57	100%
We need to improve communication and awareness raising so parents know about the services available in their community and how to access these when needed	4.86	100%
We should ask parents what would work best for them (i.e. for improving access to information about services and the way groups are run)	4.86	100%

## 6.4.2 Developing the Action Plan for Cycle 2

A draft problem statement was provided to the PAR group for consideration in the e-questionnaire. Although 86% stated they agreed with the statement, Workshop 3 provided greater scope for refinement of the statement. Consensus was reached among all PAR group members that the focus of the next cycle of PAR would centre on the following problem statement:

"Parents can feel confused, anxious and isolated, not knowing what information to trust, how and where to access help and support when they need it, and how to make links with other parents"

The PAR group used the analogy of "recreating the village" to encapsulate their vision of creating a community of support for parents with young children. The action plan included two key recommendations from the PAR group members, consistent with the themes which emerged during the first workshop when the group explored the local community context (see Table 12 below).

Table 12: PAR Group 2 recommendations and action planning summary

Recommendation	Action Planning
1. Connecting Parents with Services: <u>Getting the Word Out</u>	a) Ask parents how best to raise awareness of services and programs – what will work best for them?  b) Develop strategies to help parents know and understand what services do, the support available and how to access services to enable early access and avoid escalation of distress / isolation.  c) Implement novel strategies to increase parents' awareness of services and how to access support
2. Connecting Parents with Each Other: <u>Groups</u>	a) Increase access to groups.  b) Identify alternate venues for groups, and other locations for targeted groups.  c) Consider a community parents group with an organised activity each week while children are cared for in a crèche – helping parents connect

The facilitation of the second PAR cycle, including refinement of the strategies to evaluate the outcomes of actions taken, was handed over to the manager of a local service, to whom the researcher committed to provide coaching and support in the use of the PAR approach in order to build local capacity. All PAR group members reaffirmed their commitment to remain engaged in the process moving into the second cycle. The participants also committed to considering other community stakeholders to invite to join the group relevant to contributing to addressing the problem statement and implementation of the action plan. A series of recommendations were developed by the PAR group following this PAR cycle, including recommendations for consideration by the Tresillian and LHD Joint Governance Committee.

#### **6.4.3 Wilder Collaboration Factors Inventory Findings**

The final step of reflection involved participants being asked to complete the Wilder Collaboration Factors Inventory (WCFI) following PAR Workshop 3, to enable comparison of responses from the participants at the commencement of the PAR cycle. While seven participants completed the initial round of WCFI data collection, the post Workshop 3 round was completed by five participants. As seen in Table 13, the responses to the 40-item questionnaire were analysed in terms of six categories of elements of collaboration: environment; membership characteristics; process and structure; communication; purpose; resources (Mattessich, Murray-Close & Monsey 2001).

Table 13: PAR 2 - WCFI pre and post scores comparison

WCFI Category	Mean Score Pre (n=7)	Mean Score Post (n=5)	Status
1. Environment	3.88	3.90	Borderline status maintained
2. Membership Characteristics	4.05	4.17	Strengths maintained
3. Process and Structure	3.97	4.15	Moved from Borderline to Strength
4. Communication	4.29	4.47	Strengths maintained
5. Purpose	4.09	4.20	Strengths maintained
6. Resources	3.61	3.80	Some improvement, but remained Borderline

With scores of 4.0 or higher indicating areas of strength within a group of collaborators, and scores of 3.0 – 3.9 indicating items which may require attention, average scores across all categories were either maintained or improved in the post-PAR cycle results. The scores demonstrated that, despite the COVID-19 pandemic, the limitation to meeting for workshops via video-conference and the interruptions resulting from flood disasters in the local community during the period of the PAR cycle, the group of participants had been able to maintain a shared sense of purpose and felt able to communicate openly within the group.

## 6.5 Conclusion

This chapter has described the findings of the thematic analysis of transcripts from a series of PAR workshops, and the subsequent action plan developed by the PAR group as they reflected upon their shared insights and recommendations for future implementation. The findings from this study can be summarised in four key points:

1. There is a need for proactive support for parents to build meaningful, responsive connections through a social and support network with other parents and with service providers, with the aim of making help easier to access and reduce the impacts of social isolation on parents and their young children. Such connections were identified as requiring flexibility to meet the unique and changing needs of families.
2. When implementing a new service model, the developing relationship between the community and service providers can be likened to a waltz, with the dance partners needing to first develop a strong understanding of one another; implementation being guided by the pace of the community and adapting as needed to the local community context.
3. Service providers, policy makers and funding bodies need to recognise that establishing a new service takes time. Time is needed to build a clear understanding of the local community context, to build trust with community and other service providers on which to base integrated collaborative service partnerships.
4. Service providers need to be prepared to balance the realities of resourcing and productivity requirements with the flexibility required to address local community needs. To do this, service providers must continue to reflect and check their understanding of their community periodically, including emerging priorities and of the currency of information regarding services provided by other agencies within the local service system network.

The PAR group were asked to reflect upon the use of the CASCADES Framework, to identify whether it had been helpful in guiding the process and to contribute feedback to inform further refinements to the Framework. The results of this feedback and subsequent refinements to the Framework are detailed in the following chapter (Chapter 7).

## Chapter 7

### The Development of the CASCADES Framework



*(Photo Credit: D Stockton)*

## 7. The Development of the CASCADES Framework

This chapter comprises a paper that has undergone peer review and has been published in the *Journal of Child Health Care*. The citation for this paper is: Stockton, D., Fowler, C., Debono, D., Travaglia, J. (2022). Development of a Framework for the Collaborative Adaptation of Service Models for Child and Family Health in Diverse Settings (CASCADES), *Journal of Child Health Care*.

The paper's primary author is the PhD Candidate, Deborah Stockton. Research design, planning and editing contributions were made by the doctoral supervisory panel of Prof J Travaglia, Prof C Fowler and Dr D Debono.

Figure 21 situates the development of the Framework as a key planned outcome, informed by the three studies reported in Chapters 4-6. The paper reports on the development of the CASCADES Framework, including participant feedback from the Framework pilot conducted with the second PAR group (Study 3).

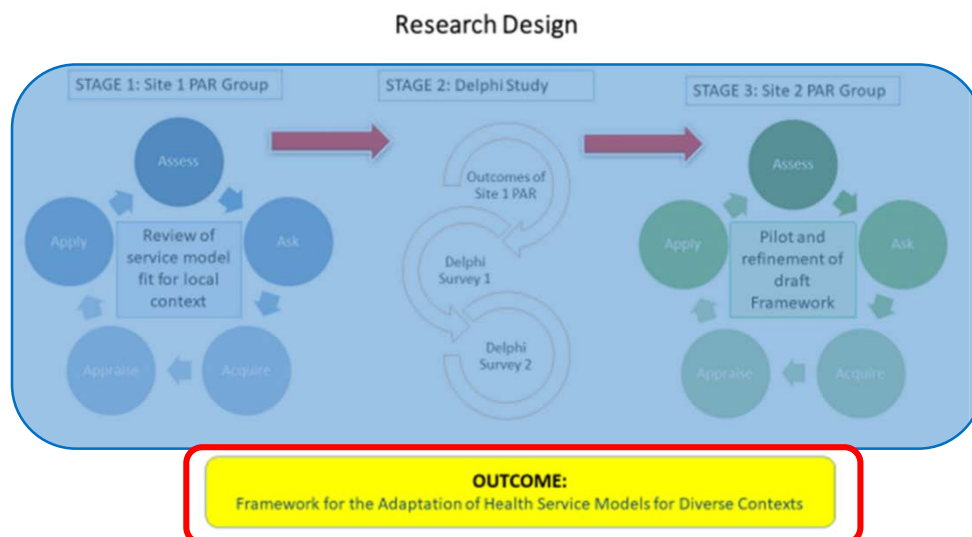


Figure 21: Situating the Development of the Framework within the Research Design.

## 7.1 Background

The inequities in health outcomes for populations living in less well-resourced communities have been well documented (Commission on Social Determinants of Health 2008; Humphreys et al. 2008; International Labour Office 2015; Nurse et al. 2016). The impact of social determinants of health, and in particular disparities including access to resources and services for those living in disadvantaged areas, has significant implications for society (Commission on Social Determinants of Health 2008). Higher levels of vulnerability and exposure to health risks and poorer health outcomes have ramifications for not only individuals, but also for their families and the broader community (Diderichsen, Evans & Whitehead 2001).

The importance of addressing inequities in health and social outcomes, while imperative across the lifespan, is never more critical than in the early years of a child's life (Moore et al. 2017). Research highlights the impact of such inequities on early brain development and the lifelong trajectory of the child into adulthood (Gerlach & Varcoe 2021; Jeong, Franchett & Yousafzai 2020). Risk factors, vulnerabilities and adverse events experienced in early childhood need to be considered in terms of this critical period of development (Burke Harris 2019; Commission on Social Determinants of Health 2008). They have a cumulative effect on the health and wellbeing of the individual across their life course, with implications for intergenerational risk for families, requiring effective support for families and communities to enhance protective factors to prevent or ameliorate such risks (Solar & Irwin 2010).

Specialist CFH services play a significant role in the provision of stepped-up care through short-term intensive help and support for families experiencing early parenting difficulties (NSW Ministry of Health 2019). These services build on universal service delivery through comprehensive assessment and service interventions to address complex physical and psychological aspects of wellbeing (Australian Health Minister's Advisory Council 2015b; Fowler & Stockton 2021). The services are provided by community-based teams of CFH nurses and allied health professionals, working in a model of partnership with parents to identify child and family-centred goals (Gerlach & Varcoe 2021), addressing early parenting

and psychosocial issues impacting child development, parental mental health and family functioning (Clerke et al. 2017; Fowler & Stockton 2021).

The World Health Organization (WHO) has highlighted that effective, evidence-based service models and interventions developed in well-resourced metropolitan settings require adaptation to ensure efficacy for other contextual settings such as rural communities (World Health Organization 2008). Health researchers and those implementing health service models in differing contexts from which they were developed, have identified the need for contextualisation to inform adaptations responsive to the multifaceted factors which define a local context (Damschroder et al. 2009; Monks 2016).

Frameworks are often used to support such implementation, as a guide to understanding the “why” and potential “how” of addressing a particular challenge. A framework can be defined as ‘... a graphical or narrative representation of the key factors, concepts or variables to explain the phenomenon of implementation, and ...include the steps or strategies for implementation’ (Moullin et al. 2015, p. 3). They also present an opportunity to enhance our understanding of factors and mechanisms while guiding implementation at a macro level such as policy-making (Solar & Irwin 2010); and at a micro or local implementation level.

Frameworks collate and enhance understandings of a variety of evidence and learnings at a conceptual level, including influences and factors to be considered when implementing interventions (Moullin et al. 2015). They can also provide guidance on how to assess the fidelity of adapted interventions (Pérez et al. 2015). Some frameworks take the form of toolkits to support practical implementation (Haggarty, Ryan-Nicholls & Jarva 2010) while others may focus on elements to guide implementation research and evaluation (Breimaier et al. 2015).

An integrative literature review to examine elements known to strengthen health service systems in rural and remote community-based health services identified the need for community participation in health planning and implementation (Stockton et al. 2021). The findings of the review recognised the opportunities this approach affords in terms of: choosing appropriate interventions for the context (Semansky et al. 2012) and developing

innovative contextually appropriate solutions to challenges (Smith et al. 2016). Such an approach can build community capacity and social capital (Chilenski et al. 2014; Smith et al. 2016). Further research is required to understand and guide implementation to enable effective community participation in service design and adaptation (Farmer & Nimegeer 2014), shifting the power differential to facilitate decision-making by those who best understand their local community (Kenny et al. 2015).

Despite advances in healthcare implementation and implementation science research, there is a lack of evidence-based frameworks to specifically guide the adaptation of service models and interventions for different contextual settings (Movsisyan et al. 2019). The need for such guidance has been identified by the WHO in documents calling for the adaptation of successful service models for implementation in less well-resourced settings (World Health Organization 2007, 2008). There is an identified need to develop evidence to provide guidance for effective collaboration in the early childhood field in order to improve systems, services and outcomes for children and families (Chien et al. 2013). This paper describes the development of a framework for the adaptation of community-based CFH service models for implementation in different contextual settings to address this identified need.

## **7.2 Aim**

The aim of this research was to develop a framework to guide the adaptation of specialist CFH service models for diverse settings. The iterative approach through three stages of the research sought to draw on established literature and the insights of consumers and health professionals, to develop a framework which would support the co-design of adaptations in collaboration with local community stakeholders.

## **7.3 Methods**

The framework development incorporated three studies (see Figure 22): (i) a PAR study in a rural setting in NSW, Australia, to review the fit of an established metropolitan CFH service model for the local context; (ii) a Modified e-Delphi Study to identify elements to be considered when adapting CFH service models for rural and other diverse community settings; and (iii) a second PAR study in a different rural community setting to pilot and

refine a framework for the adaptation of specialist CFH service models. The research was informed by an integrative review (Stockton et al. 2021) of rural and remote health service literature to identify examples and gaps in relation to the WHO building blocks for strengthening health services (World Health Organization 2007).

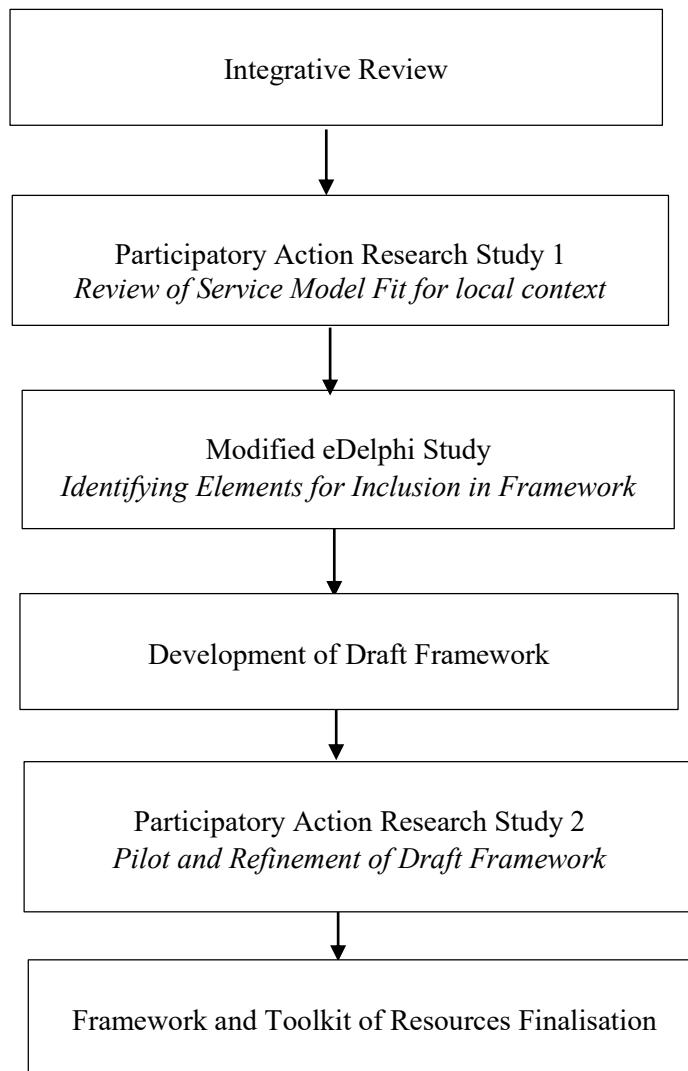


Figure 22: Flowchart depicting Framework development process

The research was informed by realist evaluation (Pawson & Tilley 1997), to provide a comprehensive exploration of contextual influences while seeking to understand mechanisms of complex programs, and why they are successful (or not) within particular settings and circumstances (Taylor et al. 2010). The research used to inform the framework development drew upon PAR techniques and a Delphi Study (Rowell et al. 2015).

PAR involves cycles consisting of ‘ask, acquire, appraise, apply and assess’ (Hughes 2013) to aid the identification of steps of an implementation process (Breimaier et al. 2015). Figure 23 depicts the PAR cycle implemented in Study 1 (centre of figure), noting the addition of the overlay of the draft framework tiers of Context – Outcomes Expected – Mechanism – Evaluation and Reflection (C-O-M-E) piloted with the second PAR group in Study 3. The three workshops conducted to evaluate the framework with the second PAR group were structured as: Workshop 1 – Context and Outcomes expected; Workshop 2 – Mechanisms; and Workshop 3 – Evaluate and Reflect. The final workshop included the development of an action plan for a subsequent PAR cycle led by a local health professional to improve access to services for families with young children. The PAR group worked together to identify areas of need and priorities in their community, reach consensus on the outcomes expected of service model implementation, review the proposed service model in light of this information, and develop an action plan which incorporated an evaluation strategy.

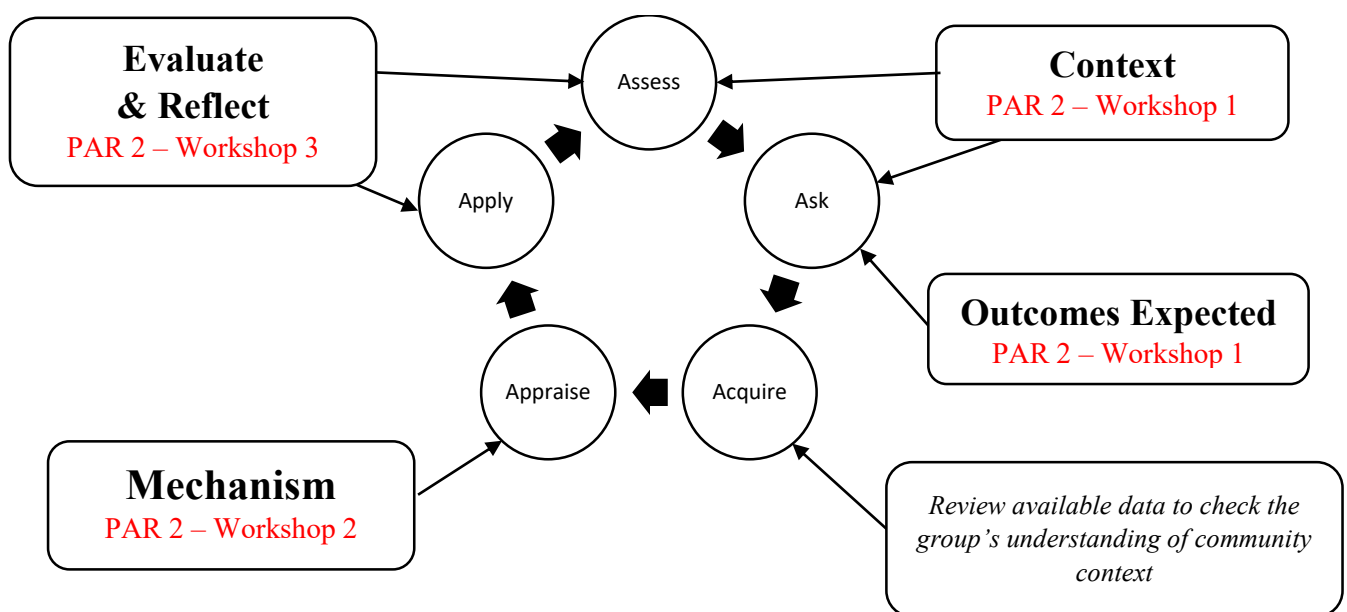


Figure 23: Overlay of draft Framework with PAR cycle (Study 3)

A Delphi study utilises rounds of questionnaires to classify a series of statements in terms of level of consensus among a group, known as an expert panel, who have knowledge and/or experience relevant to the study topic (Hsu & Sandford 2007). A Modified e-Delphi Study

uses two rounds of electronic questionnaires informed by previously obtained data or literature review, rather than three rounds undertaken in traditional Delphi studies (Bryar et al. 2013; Stewart et al. 2017). The definition of consensus used for the Modified e-Delphi Study was a mean score of  $\geq 4$  and frequency of scores 4 or 5 of  $\geq 80\%$  for each statement presented to the Expert Panel. A comprehensive description of the design and findings of Study 2 (Modified e-Delphi Study) has been reported in a paper which has been recently published (Stockton et al. 2022).

Both PAR and Delphi approaches seek to address power differentials and foster inclusivity (Fletcher & Marchildon 2014), with PAR participants situated as research partners. Similarly, the Delphi panel participants were from a broad cross section of backgrounds. The PAR groups and the Delphi Expert Panel consisted of consumers, health professionals, health service managers and non-government community-based workers with representation of rural and remote parents and First Nations peoples. This enabled a broad set of experiences and perspectives (Rowell et al. 2015) to generate the framework for application across a range of diverse contexts.

The iterative nature of the PAR cycles (Baum, MacDougall & Smith 2006) and Delphi rounds (Toma & Picioareanu 2016) were reflected throughout the framework process, with each research stage informing the next. The WHO building blocks for strengthening health service systems (World Health Organization 2007) were utilised as a frame for the PAR and Modified e-Delphi studies, providing a consistent lens through which to identify the key elements required for the adaptation of specialist CFH service models.

Thematic analysis (Braun & Clarke 2006) of the transcripts of the PAR studies was undertaken. The themes from the first PAR study were collated with the findings from the integrative review (Stockton et al. 2021) to produce a list of potential elements to be considered when adapting CFH services for different contextual settings. The list was formatted into statements and presented to the Delphi Expert Panel.

Analysis of the core set of elements identified in the Modified e-Delphi Study was undertaken drawing on the Context-Mechanism-Outcome (CMO) frame (Mitchell et al.

2013). Each element was categorised to inform the logical flow and structure of the framework to provide a robust platform. This approach is consistent with the understanding that CMO refinement can be utilised to “... contribute to further cycles of inquiry and, therefore, to ongoing theoretical development” (Salter & Kothari 2014).

The draft framework was tested through a second PAR study (Study 3) in a different location, moving from an inland community to a coastal area of NSW. The process provided an opportunity to pilot the framework in a real-life application, while further refining the structure, flow and supporting resources to facilitate utilisation of the framework in various geographic and socio-economic contextual settings.

## **7.4 Results**

The first PAR study (Study 1), undertaken with seven participants representing consumers and health professionals, identified six themes when considering the fit of a CFH service model for a specific community context. The themes were (i) ‘what parents want’ emphasising the need to consider expected outcomes early in the adaptation process; (ii) ‘breaking down barriers’ (to access); (iii) ‘being flexible and responsive’; (iv) ‘real life is messy’ highlighting the need for service models to be reflective of contextual realities; (v) ‘building capacity by working together’ including interagency collaboration and trust; and (vi) ‘service enablers’, including funding to support sustainable service implementation, evaluation and sustainability.

The findings from Study 1 and the integrative review were collated to develop a list of 107 potential elements for consideration when planning to adapt an established CFH service model for a different contextual setting. In the first round of the Modified e-Delphi Study (Study 2), the 12-member Expert Panel identified 80 elements for inclusion in the framework. In the second round, the participants were provided individualised information on the elements which had not reached consensus for inclusion. This included the score the panel member attributed each statement together with the aggregated results from the group. This review process identified an additional 17 elements to be retained, resulting in 97 elements

for inclusion in the draft framework with high rates of consensus reached across all retained elements (SD <1.0) (Stockton et al. 2022).

The four tiers of the draft Framework were presented to the second PAR group after the key elements identified through the Modified e-Delphi study had been categorised (see Appendix 10) to align with the CMO frame (Mitchell et al. 2013). The CMO frame has been utilised to underpin configurations specific to the focus of realist evaluation studies (Salter & Kothari 2014), while others have sought to elaborate on or consider reordering of the CMO terms in CMO configurations (de Souza 2013). The full list of elements configured within the tiers of the CASCADES Framework are provided in Appendix 11.

In the draft version of the CASCADES Framework, the ‘Outcome’ category was divided into two: (i) expected outcomes and (ii) evaluating outcomes. This approach was in response to a key finding in the first PAR study, which highlighted the need to consider from the outset the outcomes expected or hoped for before considering service model adaptations required for the local context. Specifically, the first PAR group recommended CFH service model implementation groups consider whose lives or experiences will be improved and whether the expected outcomes articulated in an established service model are meaningful for the target population. In light of this, the draft framework was structured to enable focused exploration of the expected outcomes from CFH service implementation once a shared understanding of the community context had been developed. The resulting configuration was represented as Context – Outcomes expected – Mechanism – Evaluating Outcomes (see Table 14).

Table 14: Draft Framework tiers and definitions of C-O-M-E categories

<b>Draft Framework Tiers</b> <b>C-O-M-E</b>	<b>Definitions used to Categorise Essential Elements</b>
1. <b>Context</b>	Elements relevant to consider and explore to understand contextual factors including structure, culture, agency, relations and the interplay between these.
2. <b>Outcomes</b> (Expected)	Elements relevant to be considered as potential expected outcomes associated with the implementation of specialist CFH services within a particular contextual setting/community
3. <b>Mechanisms</b>	Elements relevant to consider when planning the adaptation of a service model, i.e. mechanisms that are part of the service model such as practices, processes, resources, roles, positions, responsibilities.
4. <b>Evaluating Outcomes</b> (Evaluate and Reflect)	Elements relevant to consider when planning the measurement of outcomes, i.e. service model implementation evaluation.

A total of 13 participants provided consent to participate in the second PAR group which piloted the CASCADES Framework (Study 3). Of these, four withdrew or did not participate in the workshops due to competing professional and personal demands. The nine remaining participants represented stakeholder categories of local clinicians (n=3), health service manager (n=1), consumer (n=1), Aboriginal health worker (n=1), non-government organisation (NGO) community service workers (n=2) and non-health government department manager (n=1). Two of the participants (one NGO community service worker and one non-health government department representative) withdrew due to competing professional demands prior to the final workshop after having participated in Workshops 1 and 2.

All participants were residents of the target community. As such health professionals within the group were invited to contribute both their personal insights as a community member and consumer of local health services, and their professional perspectives of living and serving in the target community (Kilpatrick et al. 2009). Participants were asked to flag which perspective they were sharing when contributing information and insights. Quantitative and qualitative data were collected as to the “usefulness” of the CASCADES Framework. When asked to evaluate the draft CASCADES Framework in terms of helpfulness in assisting the review of the service model fit for their community (on a scale of 1-10), 72% of participants scored  $\geq 8$ , while 28% scored  $< 5$  (median score = 8.0).

Participants were asked to provide suggestions for improving the CASCADES Framework. Some responses suggested that no improvements were necessary, with participants stating:

*I loved that... that was neat actually. Yeah, I did [find the framework helpful], it was interesting to look at it like that. I liked that more than just a table. It certainly made it more interesting. (P1)*

*Yeah. I wasn't sure. I mean, I could have easily pushed that up to 10, it was so very effective, but I just didn't have any extra ideas (of what to add). I wasn't sure what was missing, if anything at all. (P2)*

Some participants commented on the visual representation of the waterfall as an analogy for the framework. Participants indicated the diagram had assisted their frame of reference as to the focus of discussions for each workshop.

*None [suggestions]. It is clear and I like the visual. (P1)*

*The visual works well ...and the mechanism broken into what works well and what needs to change is also helpful. (P3)*

*And because there was a picture, you were referring to it throughout the workshops. And so, we knew what you were talking about rather than those collection of words we can think of, the waterfall. (P2)*

Participants provided insights into how the framework had assisted their thinking throughout the PAR cycle. One participant identified flexibility in the framework and its application. Another recognised the framework as assisting in narrowing the focus of discussions from broad issues to targeted action.

*... It's a fluid way of looking at quality of change and service delivery. It's a working framework allowing for scope and change. (P4)*

*I thought it provided a good framework for our discussion, it started broad and narrowed down. Yeah. It's the same with the broad context and then now, I mean, to problems and actions. I like it and there's a visual representation. (P2)*

Most respondents indicated they had understood the labels of the tiers of Context-Outcomes Expected-Mechanisms-Evaluate and Reflect. One participant expressed some confusion with particular terms:

*I find the headings confusing. I do not get an immediate picture in my mind of what they represent. (P5)*

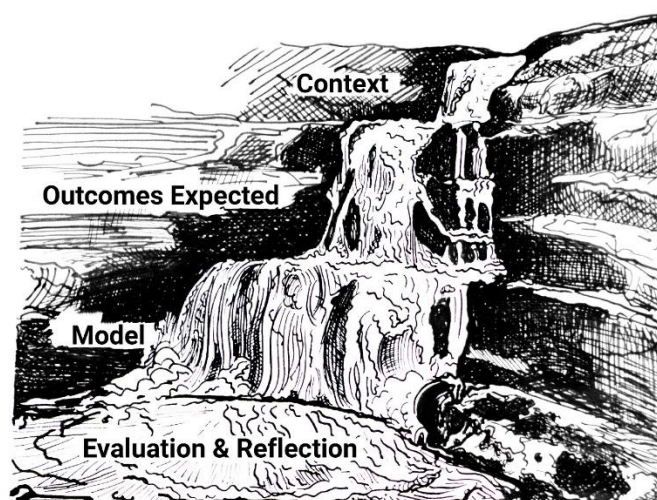
The participant elaborated that they had found the term “mechanism” difficult to relate to. Given the focus of the CASCADES Framework on the adaptation of service models, the term “mechanism” was replaced with “model”, to clearly delineate the third tier of the framework as an opportunity to review and assess a prospective service model in terms of its fit for the community context. The language used to describe the tiers in the final version of the framework therefore became: Context – Outcomes expected – Model – Evaluation and Reflection. The initials of the tiers of COME represent an invitation to community stakeholders and health professionals to “come” together as a collaborative group to share their insights, experiences and information to inform the identification and implementation of context appropriate CFH service models to meet the needs of children and their families.

## **7.5 Discussion**

The CASCADES Framework has been developed and piloted through the three phases of research as described. The framework provides both evidence-based guidance and tools to support community-based adaptation to CFH service models for local contextually appropriate implementation. The framework can be applied in conjunction with PAR, to facilitate the inclusive co-design approach required when working with communities. The

framework provides guidance for health professionals and service managers to build a comprehensive understanding of the target community in which a CFH service model is to be implemented. The process and resources included in the framework support planning and decision-making when identifying, adapting and evaluating interventions which are appropriate to the local context, in a manner acceptable and accessible for families.

The final version of the framework is structured in terms of the key tiers, each drawing on information from the one before to inform the next. The information and insights gained are represented by water flowing down a waterfall, spilling from one tier of a cascade to the one below (see Figure 24: *CASCADES* Framework illustration). The momentum from the tier before enables the information to flow in a similar fashion to the water flowing downstream, filling the next level and ultimately landing at the bottom of the cascade. In the same way that water slows when reaching the pool at the bottom of a cascade, community stakeholder groups are encouraged to take time to pause after finalising their action plan and evaluation strategy, to reflect on their experience of the collaborative process. Just as the water then moves on down the river, the group will work to implement the agreed service model or intervention, heading towards their end goals of improving outcomes for families in their community. In keeping with this analogy, the framework was named the *CASCADES* Framework, with *CASCADES* being an acronym for the Collaborative Adaptation of Service models for Child And family health in Diverse Settings.



*Illustration by R. Spooner*

*Figure 24: CASCADES Framework illustration*

The focus of the CASCADES Framework is aligned with the phase of “adoption/assimilation” in a ‘conceptual model for considering the determinants of diffusion, dissemination, and implementation of innovations in health service delivery and organization’ developed by Greenhalgh and colleagues (2004, p. 595). The aim is to promote dedicated time and attention on gathering information from multiple sources to develop a comprehensive understanding of the local community context in which a service model is to be implemented. This information then guides decision-making as to the appropriateness of a service model; adaptations which are needed to tailor the service model to the context; and to plan and prepare for implementation and evaluation. This process is similar to the concepts depicted by Moullin and colleagues (2015) in their description of two sub-stages of the “adoption/assimilation” phase, being: ‘... “exploration” (the innovation-decision process, whereby the end-user(s) appraise the innovation to decide whether to adopt) and “installation” (the course of preparation, prior to use)’ (Moullin et al. 2015, p. 3)

The CASCADES Framework draws on the pre-existing theoretical knowledge of implementation science through the lens of CFH service provision and service model adaptation. There are synergies between the CASCADES Framework and the five domains described in the Consolidated Framework for Implementation Research (CFIR): (i) intervention characteristics, (ii) outer setting, (iii) inner setting, (iv) characteristics of the individuals involved, and (v) the process of implementation (Damschroder et al. 2009). The aim of the CFIR is to ‘... guide formative evaluations and build the implementation knowledge base across multiple studies and settings’ (Damschroder et al. 2009, p. 1). The CASCADES Framework is aimed specifically at supporting health professionals and local stakeholders when adapting successful CFH service models in different community contexts.

CASCADES includes a guide to apply the framework, including establishing a working group. A key area of focus is consideration as to whether the collaborative working group is representative of all stakeholders with an interest or who will be impacted by the new service model. The group are asked to consider whether there are others who should be invited to participate to represent the views and voices of others in their community, including consumers and cultural representation, before proceeding. The framework then describes the four tiers of (i) Context, (ii) Outcomes expected, (iii) Model and (iv) Evaluation and

reflection in detail. A description is provided of the manner in which a PAR approach (Baum, MacDougall & Smith 2006; Hughes 2013) can be used when working through the CASCADES Framework, in a similar manner to the process utilised during the second PAR study which informed the framework itself (see Figure 23).

The framework includes the full list of the elements to be considered when adapting a CFH service model, aligned with each tier (see Appendix 11). Groups or facilitators may choose to review the list and identify the elements which are most meaningful and useful for their context. Alternatively, community-based groups may choose to utilise the range of optional tools and resources provided to support exploration and information gathering for each of the tiers. These include focus questions for Tiers One and Two (Context and Outcomes expected), and a checklist to support the review of a service model fit for community context for Tier Three (Model). Conversation starters are provided for Tier Four: Evaluation and Reflection, which is divided into two sections: (a) *establishing our evaluation strategy and action plan*, and (b) *reflections of our working together*. The resources for Tier Four provide options for guided facilitation, supporting the group to reflect on the information gathered; the connections made through the collaboration; and finalise the evaluation strategy for the implementation of service model and planned adaptations.

## **7.6 Study Limitations**

A limitation of the study is the small cohort in the community-based PAR group who participated in the framework pilot (Study 3). This is mitigated to some extent by the input of the participants of the first PAR study (Study 1) and the Delphi Expert Panel (Study 2), who combined to provide a broad range of knowledge, experience and perspectives in the development of the key elements and guiding principles of the framework. It is also acknowledged that the framework testing has been limited to an Australian rural community context, and is yet to be tested in international and other settings. Data will be gathered through feedback from those who request a copy of the framework, to build upon learnings from other situated research and collaborative community working groups to inform framework enhancements, continuing the iterative approach undertaken through all phases of the framework's development.

## 7.7 Implications for Practice

A recurring theme identified in the integrative review and both PAR studies was that of barriers to accessing specialist CFH services for families in rural (and less well-resourced) communities. In light of this, a key thread running through the framework is a focus on health service access: the contextual barriers and enablers at an individual level, the community level and broader policy level. Health service managers, policy makers and local service providers need to consider strategies to overcome service access barriers. These may range from a lack of community awareness of services or the stigma attached to help-seeking, the tyranny of distance and geographic isolation, to policy and health service structures impacting on resourcing and interagency collaboration.

The framework emphasises the need to take the necessary time to develop a thorough understanding of the local community context by drawing on multiple perspectives and sources (Fitzpatrick et al. 2017). Health service planners, managers and funding bodies need to provide sufficient funding to enable collaborative community co-design, including the time to build trust and engage with representative community stakeholders. The building of trust is a complex matter, influenced by a range of factors including fear or stigma which may be associated with speaking with those new to the community (Hastie 2021), emphasising the need to work with those who have strong, established relationships who understand the community context (Ridgway et al. 2021).

The guiding principles for the utilisation of the CASCADES Framework are centred on a collaborative group process. This is consistent with the relationship and strengths-based approaches which underpin contemporary CFH service delivery (Clerke et al. 2017; Ridgway et al. 2021), enabling CFH clinicians and parents to collaborate in the co-production of new knowledge and skills (Fowler et al. 2012). A strengths-based approach enables the group to value all contributions and build trust while gathering information as to not only the needs of the community, but also the strengths and resources they hold (Pelletier et al. 2020). This is based on the premise that the group aims to be inclusive of a broad range of community stakeholders who best understand their local context and can identify innovative solutions to current or anticipated challenges (Kenny et al. 2015). The additional gains of this approach include the strengthening of inter-service and community relationships, enabling

collaboration to address identified community priorities while building social capital through the collaborative consultation and design process (Chilenski et al. 2014).

## **7.8 Conclusion**

The CASCADES Framework has been developed following three phases of research, including pilot testing of the framework with a PAR group in a community setting. The CASCADES Framework was demonstrated to provide a useful structure for guiding stakeholder groups when seeking to adapt an established CFH service model in a different contextual setting. The analogy of the water flowing down and over the cascades of a waterfall, from one tier to the next was reported as being helpful for participants. The framework provides guidance through the steps of gaining a thorough understanding of the local community context and developing shared expected outcomes of the implementation of a service model. The insights gained then support the identification of the key components of the service model relevant to the needs of the local community while noting those requiring adaptation and taking the time to reflect and plan the evaluation strategy.

The themes of the vital role of community co-design and taking the necessary time to come to a comprehensive, collective understanding of the local context and the priority areas of need for children and their families in the community were identified throughout the four phases of the research. These have been embedded as underpinning principles within the Framework. The CASCADES Framework at its core seeks to support greater access to evidence-based specialist CFH services for families and communities in diverse and often less well-resourced settings. The Framework guides stakeholders to adapt CFH service models, to enable the delivery of services that are contextually relevant for local communities; providing effective support and interventions so children and families can reach their own aspirational goals and thrive.

## **Chapter 8**

### **Discussion**

## **8. Discussion**

### **8.1 Introduction**

This research has explored the extent to which an Australian metropolitan service model for specialist CFH services can be implemented in diverse settings such as rural and regional areas. The data collected were utilised to build a knowledge base which could be applied broadly through the development of a framework. The resultant framework is titled the *Collaborative Adaptation of Service Models for Child and Family Health in Diverse Settings* (CASCADES) Framework. While other frameworks have been developed during the period of this research, none have been identified specifically for the field of CFH services when working with communities to develop context-appropriate and effective service provision. The CASCADES Framework differs from other resources by providing both principles for implementation and a suite of resources in the form of a toolkit to support place-based *in-community* co-design of service model adaptations.

This chapter will discuss the findings of the three discrete studies (PAR Study 1, Modified Delphi Study, and PAR Study 2) in relation to the original research question and sub-questions. The findings will be considered within the context of the scoping and integrative literature reviews reported in Chapter 2, and other established frameworks including the WHO Building Blocks for Strengthening Health Service Systems (World Health Organization 2007). The chapter will then present a discussion of the implications of the findings for policy and practice, before reporting on examples of the implementation of practice changes resulting from these studies which have been enabled through the realist evaluation approach which informed this research.

### **8.2 Revisiting the Research Questions**

#### **8.2.1 To What Extent Could the Service Model be Implemented in Diverse Settings?**

A number of key findings were identified consistently across the three studies relevant to the extent to which an Australian metropolitan specialist CFH service model can be implemented

in diverse settings. The studies focused particularly on the adaptation of the service model from a metropolitan context to rural and regional settings.

Consistent with other studies, this research found that the utilisation of an established service model was helpful (Farmer & Nimegeer 2014) when implementing a specialist CFH service, however a number of caveats were identified. Key to successful implementation was the need for flexibility, consultation, collaboration and integration. As identified in established literature, funding requirements needed to allow for sufficient time to consult and build a strong understanding of the community context upon which to inform service implementation and adaptations (Pidgeon 2015; Semansky et al. 2012), and for flexibility to allow service delivery responsive to the community's needs.

Flexibility, while a common theme identified across the three studies, is not necessarily an easy concept to implement. When documenting a service model, authors often seek to provide guidance to the reader regarding content such as service scope, aims, practice or implementation guidelines. The service model which was the focus of the PAR and Delphi studies articulated the need for flexible, responsive service provision, however participants identified that the document could be interpreted in some sections as rigid with directives rather than a suite of options suitable for different contexts. This tension between documenting the essence of an effective service model and meeting organisational requirements, while providing scope for adaptation and innovation, requires close consideration for those seeking to share a service model.

This doctoral research highlighted the need for service models to reflect the real-life contexts in which they will be implemented. Authors of service models need recognise that available resources will differ in various settings. When developing a service model, the writer/s must consider the variety of factors that may impact on both consumers' and service providers' ability to access and deliver the described service model.

### **8.2.2 Stable and Flexible Elements of Service Model Adaptation**

This research sought to identify elements of the service model which needed to remain stable to ensure the service aims and objectives were met, and those elements which required

flexibility to adapt to specific community contexts. The findings of the studies identified a number of core concepts within the service model that were appropriate to remain **stable** (unchanged). These included the use of a strengths-based approach and the inclusion of sections on the role of the service in supporting parents through care coordination and navigation, working in collaboration with other services to provide integrated care.

The concept of ‘packages of care’ was identified as providing a useful frame for tailoring the available programs and service streams within the model to respond to needs identified through comprehensive family assessment while providing practical support to address early parenting challenges. A range of service options including modes of delivery were identified as important, including individual consultations with families, whether within a centre, via home-visiting or telehealth. Other elements to be retained included provision for an extended intervention for families requiring additional support for complex needs and group programs to assist parents to connect with each other and other services. The importance of remaining true to the aim and expected outcomes of the service model in improving the experiences and wellbeing of children and their families was also identified.

While authors such as Vanderpool et al (2011) have previously discussed identifying core components of interventions, and while consideration should be given to maintaining the stability of particular elements, this research identified that it is vital to review all elements of a service model for contextual relevance, including expected outcomes. The CASCADES Framework was therefore developed, inclusive of tools and guides to facilitate this process through community consultation. While expected outcomes should reflect the priorities of the local community, it was identified that the service model should not waver from remaining focused on improved outcomes for children. This is particularly important given that the child’s voice is heard least often (Stafford et al. 2021) and the need for adults involved in the process to keep the child in mind at all times and advocate on the child’s behalf.

Flexibility was noted as being important in relation to several elements of the service model. These included the referral process and pathways, modes of delivery, and the locations in which the service is provided. Greater access can be enabled through outreach, extended hours or even ‘one-stop-shops’ through the co-location of service providers. The number of

points of contact or length of engagement with the service was noted as needing to be flexible. This is in response to differences in levels of need and the complex nature of the often multifaceted challenges experienced by families at different points in time. When trying to balance fidelity of the service model (including scope and resources), with the needs of families in the community, participants identified that a local clinical manager could potentially make decisions to address competing demands. This role, sometimes referred to as hybrid given the dual clinical and managerial roles of the position (Bresnen et al. 2019), would have delegated authority to make adaptations, within a framework of supportive governance. This approach may help address the tension between service priorities set at an organisational level and decisions that need to be made locally to address contextual realities, assisting services to navigate or ‘straddle’ the balance between top-down and bottom-up decision making (Meyer Tucker 2017).

### **8.2.3 What Matters Most to Consumers and Stakeholders**

The themes identified in the two PAR studies and the elements from the Delphi Study used to develop the CASCADES Framework provide insights into the priorities and issues related to specialist CFH service models that matter to rural and regional consumers and stakeholders. These included equity of access, flexibility, and timely response to prevent challenges from escalating to crisis point. The study highlighted themes of assisting parents to overcome social isolation, building a peer network of parents and helping parents to navigate the service system to reduce the distress often experienced when not knowing where to turn for help. Parents wanted access to trusted information about what is normal, and how they can best support their child’s development.

Services working and communicating together were identified as critical in rural and regional areas. Integrated, seamless service delivery, whereby service providers work together as an interagency team, wrapping support around the family regardless of their official title or employer, was identified as optimal for improving outcomes in communities where resources can be scarce. This extends upon the concepts of integrated services and packages articulated by the WHO (2007), broadening the service delivery network beyond health professionals to others who support families to address the social determinants of health. Place-based initiatives (Fitzpatrick et al. 2017) with shared decision making about service adaptations and

implementation through a community co-design approach were identified as key to respecting the opinions and insights of community members while building social capital and trust (Chilenski et al. 2014; Moore 2021; Pesut et al. 2015; Smith et al. 2016).

#### **8.2.4 Enablers and Barriers to Implementation in Rural and Regional Areas**

An array of enablers and barriers to the implementation of a metropolitan CFH service model in rural and regional settings were identified through the three studies. Flexibility was seen as both an integral facet of the service model and an **enabler** of implementation. Not only must the service model be flexible but also the culture of the governing organisation or agency, the service providers themselves and the funding model (Fitzpatrick et al. 2017; Wakerman & Humphreys 2011), ensuring that the time required for effective consultation, collaboration, implementation and evaluation aligned with the pace required for community participation.

The strong connections, communication and collaboration between interagency service providers discussed above were likewise identified as a key enabling factor for successful implementation, community capacity building and sustainability. No service can be implemented without an available workforce with the required skill sets. Consistent with the WHO Building Blocks for Strengthening Health Service systems (World Health Organization 2007), enablers identified in this research extend to interprofessional workforce development opportunities (Building Block 2), drawing on the relationships which enable integrated service provision to support and build the capability of local health and family support professionals through shared professional development experiences (Brown & Dietsch 2013; Gaudet, Kelley & Williams 2014; Parker et al. 2013; Pesut et al. 2015). Beyond skills and knowledge, the personal attributes and attitudes of staff are integral to the implementation of innovative service adaptations. This finding aligns with a study by Hyde, Harris and Boaden (2013) which found that pro-social organisational behaviour (PSOB), including the willingness of healthcare workers to meet and go beyond organisational requirements, was linked to altruistic motivations and the alignment of personal values with organisational goals.

Consumer engagement and participation were identified as significant enablers, both in terms of adapting the service model to facilitate the building of trust. Such an approach demonstrates respect and being guided by community in relation to cultural safety and alignment (Rumsey et al. 2022; Smith et al. 2016), while also promoting awareness of the service amongst community members. Building upon rural health literature, this research contributed additional evidence to the benefits of community participatory co-design, with cycles of learning and evaluation, as an enabler (Farmer & Nimegeer 2014). Such an approach builds not only a shared understanding upon which to develop effective strategies for the local context (Quinn et al. 2013), but also a body of knowledge that can be shared more broadly (Smith et al. 2016; Vanderpool et al. 2011).

The **barriers** to service model adaptation and implementation can be considered in terms of intrinsic barriers (relating to the service or service model) and extrinsic barriers (external contextual factors). Intrinsic barriers include the language used to describe the service model which can be inadvertently construed as rigid or which does not resonate with the realities of the community in which the service model is to be implemented. This extends to how the service is communicated to consumers and stakeholders, hence the need to consult with local community to ensure language is understandable and relatable. Stringent referral requirements and limitations to the scope of the service model, including the hours of service delivery, which do not match the realities of the community or the families seeking to be supported, are also barriers to effective implementation.

Extrinsic barriers include barriers to access such as geographical distance, financial constraints (experienced by families and services), lack of resources, and lack of access to technology support. A key potential barrier to be considered within the context of small rural communities is the stigma associated with help-seeking (Allan, Ball & Alston 2008) and concerns that private information may be shared with other community members. A lack of understanding of the community cultural context can be a significant barrier to the adaptation and implementation of a service model. While this research did not identify whether uniforms were ‘right or wrong’, those implementing a new service would be wise to consider the inadvertent subliminal messages expressed through wearing particular clothing and factor this into planning through open dialogue with community members.

The challenge of ensuring local health service providers have the knowledge necessary to identify families requiring referral to the service is an area which needs to be considered as part of implementation planning and capacity building. The service system itself can become a barrier to effective implementation and access to services by families. The complexities of navigating service system networks (Parker et al. 2013) may be addressed through the community co-design process, enabling engagement by various stakeholders to facilitate a ‘no wrong door’ approach to families being supported to access the most appropriate service to address their needs in a timely manner.

A key barrier to service implementation was identified as the mistrust communities may have towards a new service provider due to experiences of services being withdrawn after short-term funding finished. The vital importance of taking the time to explore and build an understanding of the community (Farmer & Nimegeer 2014; Fitzpatrick et al. 2017; Pesut et al. 2015), including experiences whereby trust has been breached, cannot be under-estimated. Seeking to explicitly address any perceived power differential between service planners and community members (Taylor et al. 2010) includes spending time listening to community members. This demonstrates respect and commitment to work in true collaboration, as partners in improving the wellbeing of children and families in the community.

### **8.2.5 Engaging and Building Trust with the Community**

Findings from this research identified valuable insights for health service planners and providers to consider when seeking to engage with and build trust with a community. It is vital to demonstrate genuine commitment to hearing from community members, to understand not only the current community context but also past history (Parker et al. 2013; Wakerman 2009). Past experiences of interactions with service providers, trauma experienced by the population and previous initiatives, both successful and unsuccessful, are important to understand as the relationship between the community and the service develops (Tolson et al. 2007). This may be across a spectrum of recent experiences from breaches of confidential information to intergenerational trauma such as that experienced by Australian Aboriginal and Torres Strait Islander families impacted by the Stolen Generations (Vallesi et al. 2018).

A community-based approach to service model planning and adaptation provides opportunities for a broad cross section of local stakeholders to participate and have their voices heard. The engagement of local health and community professionals who are known and trusted by the community brings not only invaluable local knowledge, but can assist in establishing trust and authenticity of the new service partnerships (Aunger et al. 2021). Community members will feel more assured that the new service is reliable and worth investing time in if community leaders promote their belief in the value of the service. This commitment must be demonstrated by managers and workers of the new service at a local level, and at an organisational level, signifying an organisational culture which values listening to community, acknowledging community strengths and collaboration by enabling community participation in planning and decision making (Haggarty, Ryan-Nicholls & Jarva 2010; Parker et al. 2013; Pesut et al. 2015; Sullivan, Hegney & Francis 2013; Tolson et al. 2007; Wakerman 2009).

One way in which an organisation can demonstrate its commitment to the community is seeking to serve through active advocacy. With the permission of local community members, organisations have an opportunity to take the knowledge gained through community consultation and to use their networks to form a coalition, through which to advocate for resources to address community needs. Further, organisations can contribute to social capital by providing opportunities and support for local community members to participate in advocacy on behalf of their community.

Transparency is critical to building trust with consumers as well as established local service providers. Mutual expectations must be explored and clarified, including being open about the scope of the funding available for the new service and plans for sustainability. Taking the time to invest in building relationships with other service providers whether they be government, non-government or volunteer, assists in minimising fears of service duplication or competition which can lead to territorialism (Kenny et al. 2015). The relationships built on trust, enabled through joint planning and decision making, lay the platform of opportunities for collaboration and will enable smoother transitioning for the new service to be accepted as part of a local integrated service system network (Gaudet, Kelley & Williams 2014; Smith et al. 2016).

### **8.2.6 Local Presence versus Telehealth**

The research studies identified the importance of having a local presence in the community in order to understand the local community context within a dynamic environment. Like all relationships, the relationship between the community and the service needs to be nurtured and sustained through regular meaningful contact and communication.

By the service having a physical presence in the local community, both formal and ad hoc opportunities can be utilised to gather information, enable collaboration and ensure trust is built and maintained. Investment in having CFH professionals employed by the organisation based in the local community is another tangible demonstration of the organisation's commitment to respond to the unique needs of families in the region while supporting the economy and building local capacity in the area. This also enables innovative strategies to be implemented and evaluated when adapting the service model, providing learning to inform further refinement or adjustments when recalibrating to changing local community priorities (Farmer & Nimegeer 2014; Kenny et al. 2015; Semansky et al. 2012).

Consistent with previous research, telehealth was identified as an important adjunct to local physical 'on-the-ground' services rather than a replacement for them (Pidgeon 2015). While face-to-face services were described as 'ideal' and 'gold standard'; telehealth was described as a valuable mode of delivery to enable extended reach to families living in areas remote from the base service location. The research identified the ideal of providing families with a suite of modes of service delivery options, including telehealth. This allowed families to choose whether to travel to the service locations in person, or whether to engage via telehealth, noting that choice was often limited by financial and practical constraints associated with travelling long distances and the availability of reliable telecommunications connectivity.

The benefits of access to telehealth technology, and information communications technology (ICT) support, were identified for both direct service provision for families and clinical support for health professionals working in rural and remote areas (Semansky et al. 2012). The value of health professionals having access to professional development, clinical

supervision and secondary clinical consultancy when developing a plan of care for a family with complex needs, was identified as a further key area in which telehealth could be utilised.

### **8.3 Implications for Policy and Practice**

The key findings of this body of research provide important learnings for consideration by those developing policy, planning health services and evaluating CFH service model implementation; while identifying opportunities to build upon these studies through future research. The need for flexible, responsive service models to meet the needs of children and their families in diverse contexts was highlighted by consumers and clinicians alike in all phases of this research. Service planners and healthcare providers need to consider the fit of the service model with the realities of the community in which the service will be located. Likewise, policy makers, health service decision makers and funding bodies must provide the scope for local stakeholders to adapt to a myriad of local contextual factors, including the realities of available resources, and to enable creativity to overcome barriers to access.

Developers of service models need to carefully consider the wording used when articulating their model. Perceived rigidity can stifle innovation and lead to workarounds (Debono et al. 2013). Examples of rigidity can include specific referral pathway requirements which can inadvertently become obstacles to accessing service support when and where needed. It is therefore imperative that service model documents be reviewed by a broad cross section of end users representing a variety of contextual needs during the service model development and testing phase.

Services need to be proactive in their outreach and support for parents with young children, rather than waiting until need escalates to reach crisis point. In 1951 John Bowlby, a pioneer in the field of attachment theory, stated: "... if a community values its children, it must cherish their parents" (Bowlby 1951, p. 85). This research reminds us that this statement is just as true today. Given the impact of social isolation on the health and emotional wellbeing of parents and children (Brown & Munson 2020), programs that facilitate the building of connections between parents and other parents, and with local services, have been identified as a high priority and should be reflected in future CFH policies and service models.

Consistent with the Framework for Strengthening Health Systems (World Health Organization 2007) which emphasised the need for sustainable financing (Building Block 5), this research identified the importance of realistic funding models. The impact of short-term funding cycles was identified in terms of both the detrimental effect on service sustainability and on community trust when services withdraw. To effectively improve outcomes for children and their families, it was recommended that funding bodies provide the required resources to enable implementation of a 'gold standard' rather than short-term pilots. Such short-term approaches do not lend themselves to sustainability nor take into account the longer-term community capacity building benefits of community place-based initiatives.

While the review of draft policies through a lens of 'rurality' in an effort to 'rural proof' new initiatives is commended, policy makers must go further to allow scope for contextual implementation as rural communities are not homogenous (Fitzpatrick et al. 2017; Pesut et al. 2015). Policy implementation must include time and guidance for those implementing initiatives to consider the key aim, objectives and strategies for each specific community context. This research has informed the development of the CASCADES Framework as a tool to guide the process of collaborative community engagement, service planning, adaptation and evaluation when seeking to implement child and family health-focused initiatives.

Despite policy makers, health service planners and researchers acknowledging the benefits of consumer and community engagement, the concept is often referred to using various terms which can cause confusion in practice (Sarrami-Foroushani et al. 2014). This research has contributed to the body of knowledge regarding the practical application of community consultation and engagement (Farmer & Nimegeer 2014; Kenny et al. 2015; Sullivan, Hegney & Francis 2013). This research has also demonstrated examples of co-production through community participatory action research to enable a shared understanding of the challenges experienced by families and service providers in specific local community contexts and in the co-design of contextually relevant strategies to address community priorities. Consistent with the strengths-based approach accepted as best practice in CFH services, co-design enables community strengths to be harnessed to improve health outcomes

while providing a wrap-around of support so children and their families can thrive (McDonald, O'Byrne & Pritchard 2015; Moore 2021; Smith et al. 2016).

Collaboration across agencies is vital for integrated service provision (Chilenski et al. 2014; Crocker et al. 2020; Fitzpatrick et al. 2017) to address the multifaceted needs of families and communities, enabling the sharing of knowledge, the building of trust and potentially the pooling of resources (Humphreys 2009), all of which contribute to improved outcomes for children and their families. The phases of this research have repeatedly identified the need for policy makers, health service managers, and funding bodies to provide scope for the time required to effectively engage with community, and to co-design and build interagency relationships. Building trust takes time, and service providers need to ensure they are guided by the pace which the community finds acceptable as mutual understanding and relationships develop.

The CASCADES Framework developed through this research provides a roadmap for consumer and community engagement when considering the implementation of specialist CFH service models. The Framework provides a systematic approach to guide such implementation, including tools to support planning, engagement, identification of community priorities, adaptation of service models and evaluation. Frameworks are often pitched at high level health service planning, an example being the 'WHO Framework for strengthening and scaling-up of services for the management of invasive cervical cancer' which takes a health systems approach (World Health Organization 2020). What differentiates the CASCADES Framework is the presence of both a guiding framework and a set of resources to support place-based *in-community* co-design of service model adaptations and implementation.

Policy makers and health service managers must recognise that the process of reviewing the fit of service model for the community context is more than a one-off activity, but rather a dynamic process requiring regular review as communities change over time. Service providers must be prepared to periodically check their understandings of community needs and priorities. The tools in the CASCADES Framework can (and should) be revisited on a

periodic basis to ensure currency of understanding of the local community – not only in relation to needs and priorities, but also available resources and opportunities.

## 8.4 Realist Evaluation Enabling Real Time Change

The use of a realist evaluation approach (Pawson & Tilley 1997; Taylor et al. 2010) to deeply explore what mechanisms within CFH service models work (or not) in particular contexts through PAR resulted in tangible improvements implemented by participants and organisations. The findings and recommendations from the PAR cycles were provided by way of reports at organisational levels within Tresillian and the Local Health Districts in which the FCCs are located. An article describing the process and outcomes of the first PAR group was also published in the National Rural Health Alliance e-Newsletter, in order to highlight the benefits of such an approach (Stockton & Mills 2021). A commitment was kept to update the Delphi Expert Panel participants on progress since the conclusion of the Delphi rounds by way of a newsletter. The newsletter included details of how the results of the Modified Delphi Study had been used and links to articles relating to the research (see Appendix 12).

Box 1 (see below) provides illustrative examples of the way in which the PAR findings and recommendations have been implemented at the time of writing:

### *Box 1: Examples of implementation of PAR findings and recommendations*

- The recommendation for review and modification of the referral process to the Level 2 FCC was acted upon. A process enabling self-referral through a phone call to the Tresillian Parent’s Helpline (PHL) has reduced barriers to access, evidenced through the rate of self-referrals being received via the PHL and the overall referral rate data. This initiative proved timely during the COVID-19 pandemic which impacted communities world-wide from 2020, a period when access to primary level clinicians was at times limited due to pandemic lockdowns and travel restrictions, the redeployment of staff to COVID-19 pandemic responses and clinicians either contracting the virus or being required to take periods of furlough when identified as a close contact.

- A self-referral option was implemented in conjunction with a social media campaign to raise community awareness of the FCC (and other Tresillian services). This was timely given the high levels of anxiety reported by parents (Chen, Selix & Nosek 2021; Chivers et al. 2020) during the COVID-19 pandemic, providing reassurance and access to information to help and support parents who often felt isolated during this time.
- A greater awareness of the need to frame communication in a manner which resonates through understandable and relatable language for parents has led to a further ongoing review of Tresillian website material and brochure content. This has included using evidence-based frameworks and tools to inform the content review, and the development of organisational frameworks for consumer consultation and the promotion of health literacy. Recommendations for building a pool of audio-visual content to enhance access to information for consumers with lower levels of literacy is also being implemented at the time of writing.
- Telehealth access and utilisation have been increased throughout Tresillian services through the provision of additional hardware and software, and training and mentoring in the delivery of Level 2 CFH virtual consultations. While access to services via telehealth had previously been identified as an important mode of delivery to reach families across rural, regional and remote settings, the need to integrate the availability of telehealth across all services was highlighted during the COVID pandemic – providing access to services for families further isolated due to COVID travel restrictions and anxiety associated with the pandemic.
- The findings and recommendations from the second PAR study were presented to the Governance Committees of the partnering organisations who support the operations of the FCC and local CFH services. Recommendations have since been integrated into clinical services plans while also being utilised to support funding submissions for discrete pieces of work to address some of the challenges identified through this PAR.

- Connections were enhanced and new interagency relationships formed through the PAR groups. This led to visits between Health and NGO service providers, and the sharing of information enabling greater understanding between service providers, increased confidence in making referrals and reaching out to explore opportunities for collaboration and resource sharing.

The PAR groups are continuing their work, moving into further cycles driven by the local groups inclusive of consumer representation. The focus of the PAR cycles includes seeking input from consumers to enhance the language used to describe primary and Level 2 CFH services, to ensure the words used are understood and resonate with families. The role of coordinating and facilitating the PAR cycles has transitioned to the local service managers with my support, to build local capacity in facilitating PAR to address other local priorities and opportunities. The process has also contributed to community capacity building and strengthening of community and health service network connections, enabling collaboration and the pooling of workforce resources and expertise to address current and emerging rural health priorities.

## **8.5 Strengths, Limitations and Implications for Future Research**

The strengths of this research are reflected in the design which drew upon existing literature and implementation science frameworks, exploring the application and adaptation of these through participatory research methods for the context of specialist CFH service models. Internationally renowned frameworks including the WHO Framework for Strengthening Health Systems (World Health Organization 2007), the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al. 2009), and the Context-Mechanism-Outcome frame (Mitchell et al. 2013) were used to inform aspects of the research including the integrative review, areas of focus, and lens for analysis for the PAR and modified Delphi studies. This evidence-based approach enabled the harnessing of research findings to produce the CASCADES Framework – a novel framework filling the current void by providing guidance and support for the adaptation of CFH services for diverse settings utilising a collaborative community-based approach.

This research was further strengthened by remaining true to the underpinning philosophy of using emancipatory collaborative approaches, seeking social justice and equity through inclusion (Fletcher & Marchildon 2014; Kemmis 2013). By addressing the power differential between researcher and participants (Baum, MacDougall & Smith 2006; Hunt et al. 2012), the use of PAR and modified Delphi methods enabled voice to be given to the experience and perspectives of consumers, community members and clinicians. The approach provided the platform for the co-construction of new learnings, effectively co-producing (Fowler et al. 2012; Gergen & Gergen 2013) the key elements of the CASCADES Framework with consumers, health practitioners and other stakeholders. As reported in the results chapters (Chapters 4, 5 and 6) and reflected in the CASCADES Framework, these learnings support the implementation of effective and contextually sound CFH services in communities, while creating the space for local co-design to meet the unique needs of communities (Semansky et al. 2012) .

A limitation of this research is that while seeking to develop a framework to support the adaptation of CFH service models for diverse settings, the majority of this work was conducted within the context of Australian rural and regional communities. International perspectives were limited to existing literature identified through the scoping and integrative reviews, and a member of the Delphi Expert Panel. It should be noted, however, that other members of the panel included academics, health service managers and government officials with experience working in international contexts. While a number of participants identified as First Nations peoples, this research was unable to explore the specific perspectives and experiences of these participants as this was identified as out of scope during consultation with the Aboriginal Health and Medical Research Council. Further research is therefore required to test the CASCADES Framework which is yet to be tested in international and culturally specific contexts.

Further, while the PAR groups sought to be inclusive of community stakeholder groups (including consumers), the groups were only representative of specific localised communities. This limitation was sought to be ameliorated through the participation of the broader composition of Delphi Expert Panel members. It is acknowledged however, that the deep exploration of what works well where, for whom, how and why was undertaken with the smaller cohorts of PAR group participants.

To begin to address these issues, the CASCADES Framework will be made publicly available through a website, requiring those requesting access to the Framework and associated toolkit to provide details of the context in which they plan to use them. Those accessing the Framework documents will be invited to provide feedback, including case studies to share their experiences of using the Framework within their community context. The information provided will inform the continued refinement of the Framework and tools, continuing the participatory cycles underpinning this research.

The onset of the COVID-19 pandemic during this research had both negative and positive impacts. The negative impacts included longer timeframes between the completion of the Modified e-Delphi Study and the second PAR group, with delays due to requirements to seek ethics amendments to demonstrate that COVID-safe plans had been implemented and to enable participants to engage via alternate technologies. It is acknowledged that some potential participants may not have been available to participate in the study due to being redeployed to address pandemic response priorities. The positive impact, however, was that the use of video-conferencing enabled a larger and more diverse pool of participants in the second PAR group than may otherwise have been possible. The barrier to participation of distance and making time available to meet in person was no longer an issue, with stakeholder representation enabled across the local health district. A further strength is the reflections shared by participants of the impact of the COVID pandemic on families with young children, the communities and service providers – an unplanned aspect which nonetheless provided valuable insights that were therefore able to be harnessed in this research. These issues will be described in greater detail in the next reflective chapter.

## **8.6 Conclusion**

Equity of access to services supporting positive outcomes in the early years of a child's life is vital given the impact on health and social outcomes across the life course. This research has identified that the specialist CFH service models developed in well-resourced settings can be implemented in diverse contexts, however scope for adaptation must be built into such service models. Flexibility and time are required to effectively engage, consult with and co-

produce innovative and culturally safe service adaptations, drawing on community strengths while addressing local need. The benefits of community participatory co-design extend beyond the immediate service implementation to service sustainability, integration and community capacity building.

This research makes an important contribution, demonstrating the use of evidence-based implementation science frameworks in conjunction with inclusive participatory research approaches. The approach has enabled findings to be implemented at a local level to improve access to specialist service support for children and their families, while informing the development of the CASCADES Framework for broad contextual application. This novel framework provides guidance and tools to support collaborative community engagement in service planning, the co-design of contextually appropriate adaptations and evaluation strategies, when seeking to implement CFH initiatives. The collection of data from those who choose to use the Framework will be analysed progressively, to further refine the content and tools, mirroring the cycles of learning and evaluation undertaken in the studies which informed its development.

## **Chapter 9**

### **Reflections:**

#### **Conducting Participatory Research in a Pandemic**

## **9. Reflections: Conducting Participatory Research in a Pandemic**

### **9.1 Introduction**

The COVID-19 pandemic that swept the globe saw the declaration of a Public Health Emergency by the Australian Minister for Health in March 2020. What followed left an indelible imprint on this research, requiring adaptations to data collection methods, but more importantly in the insights gained into the impact of the pandemic (and associated public health measures) had on the provision of CFH services, clinicians and consumers.

When embarking on the design of the research studies which comprise this doctoral thesis, it became apparent early that participatory-based approaches would align with the underpinning philosophy of social justice, inclusion and agency which inform the work of so many in the field of child and family health. This was confirmed as I undertook the literature reviews, which identified the richness achieved when health professionals, consumers and other stakeholders living in local communities are enabled to engage through participatory methods in co-design. What was not apparent at the outset, was that in the second year of data collection the world would experience a pandemic the likes of which had not been seen in approximately 100 years.

In this chapter I share reflections on my PhD research journey; the Participatory Action Research (PAR) studies; and the unanticipated events of the COVID-19 pandemic. This chapter describes the challenges, learnings and unexpected benefits of having to be agile and to adapt to this new context.

### **9.2 Juggling Hats: Being a Researcher, Manager and Participant**

From the outset when preparing for the first PAR group, I was aware of the need to explicitly discuss my role with that group. I was known to some of the PAR group members in my professional position as a senior manager in the organisation which had partnered with a local health district to operate the Level 2 CFH service (FCC). I had also previously been the line manager of one of the participants and worked closely with some others in relation to the

establishment of the service. It was imperative that I acknowledged any potential or perceived conflict of interest and sought to provide a safe space in which all ideas and insights were welcomed and valued.

One of the first steps when establishing the groups was to have an open discussion about the roles of all members of the PAR group. Using Figure 25 (see below) as a graphic in the introductory slide pack to assist in establishing the group, the session commenced with an explicit discussion regarding our roles. I explained that I was not present in the capacity of my professional role, but rather as a research student and member of the PAR group, seeking to facilitate the process of the PAR cycle. It was also acknowledged that while the data collected in the form of transcripts would be used as part of my PhD research, the PAR cycle provided an opportunity for the PAR group members to identify key priorities to inform local service enhancements and improve outcomes for children and their families living in the local community.

#### My role – which hat...

Work Hat:  
Director Clinical Service Integration  
Tresillian



Researcher  
PhD Candidate, UTS



*Figure 25: Slide from PAR Workshop 1 Introductory Slide Pack*

In addition to the slide and discussion during the first PAR group meeting, I used other strategies to separate my participation in the PAR cycle from my professional role. These included removing my organisational name badge (which listed my role title) and replacing this with my UTS student identification card. As my doctoral studies were undertaken part-time while continuing to work as a senior manager, the removal of my organisational name badge also helped me to consciously disconnect from my daily professional role, assisting with intentional awareness of moving into role of research student and PAR group member.

I also ensured that whenever corresponding with participants from the two PAR groups and the Delphi Expert Panel, I used my university student email address. A similar discussion about my role occurred with the second PAR group. As no questions or concerns were raised during the discussion, and participants across all three studies appeared to freely share their insights, experiences and recommendations (including areas in which service provision could be improved), it is anticipated that these strategies were effective in ameliorating any potential perceived power imbalance or conflict of interest, laying a platform of equality for participant engagement.

I kept a journal to facilitate my reflections throughout my doctoral research. I also met with my supervisors to discuss and reflect on my experiences of conducting the various stages of the research on a regular basis. My journal entries during the first PAR study reflect concerns held at the time about how to ensure I stayed true to the fundamental premise of equality amongst the PAR group members, and the functions performed including facilitation and data collection. As I facilitated the workshops, I was concerned about inadvertent creep from my being seen as a co-participant to either being identified as the ‘leader’ or leading the conversations down a particular path.

*... being careful not to direct but as this is PAR, and therefore the researcher is a ‘participant’, then how much can I say or not say? Am I holding back too much for fear of stepping into ONM [acronym for professional role at the time] territory? How much can I say? (Journal entry: 25/7/19)*

Further entries in my journal discussed ensuring all contributions I made to the discussion (as a participant researcher) were couched as a suggestion for consideration by the group with an invitation to check my understandings with that of other participants. This approach facilitated further opportunities for clarification of interpretation and deeper exploration into issues and insights raised by participants.

*... perhaps reflecting back is the key, reflecting back what I’m hearing, summarising and using this as a tool to elicit further discussion, i.e. to facilitate further exploration of the ideas. (Journal entry: 25/7/19)*

As I listened to the recordings of the first PAR group session, I noticed my use of language when referring to the group. It again raised questions in my mind as to whether I was a ‘participant’ in the group given the intent of being inclusive and openly addressing any power differential between researcher and participant, or whether I was impinging on the ownership of the group.

*... I have been using the words ‘our’ and ‘we’ to be inclusive in PAR but should I be saying ‘you’ and ‘yours’ to give a sense of ownership and acknowledge ownership by the group? (Journal entry: 6/8/19)*

I discussed this dilemma at the next meeting with my supervisors. This provided an opportunity for me to further reflect on my understanding of PAR approaches. The reflections of other researchers in the literature further confirmed the role of the researcher as an active participant (Dickson & Green 2001; Sparre 2020). I was reassured that the use of words such as ‘our’ was in keeping with the inclusive, collaborative nature of this process.

My role as a senior manager within the organisation responsible for the FCC services, provided the opportunity to utilise findings in a progressive fashion as pertinent issues or opportunities arose. This was a key benefit of being a participant-researcher, with established connections through my professional role to decision makers within the lead agencies which govern the local Level 2 service, providing the opportunity to draw on the recommendations of the PAR groups during service planning discussions.

Opportunities arose throughout the period of research when it was pertinent to raise issues which had been identified through the studies, particularly the PAR. The PAR group participants had not only given permission for the sharing of such information, but they were eager for the issues raised through the PAR cycle to be used to advocate for change. An example is during a meeting of the Tresillian Clinical Operations Committee meeting when the planning of approaches and priorities for group programs was being discussed. The ability to share insights and emerging themes of the PAR study when planning was taking place enabled timely input into discussions which may have been missed without my embedded

connections within the organisation. An excerpt from my journal highlighted some of the insights shared to inform organisational decision making regarding the planning of group programs the organisation would facilitate. The information was shared with the Clinical Operations Committee prior to the final PAR workshop when recommendations would be finalised, by which time the opportunity to inform organisational planning for that year would have been missed.

*There have already been opportunities to draw on the themes in service planning discussions like the recent Clinical Ops meeting discussing groups, including (i) the importance of groups in helping parents connect and build social support networks, (ii) the importance of some groups being available with child in with parent / not just parents only, (iii) importance of offering groups across age ranges for parents with 2<sup>nd</sup> and subsequent children who can feel excluded from 'New Parents Groups'.*  
(Journal entry: 14/5/2021)

Further examples of the timely implementation of recommendations and findings from my doctoral research have been outlined in Chapter 8 of this thesis (Section 8.4 *Realist Evaluation enabling Real Time Change*). Reflection on ensuring the integrity of the research findings, including noting early insights as preliminary findings, were discussed with supervisors to ensure I remained within ethical boundaries when contributing information gathered through this research in organisational meetings and discussions. Importantly, the ability to provide feedback to research participants in both the PAR and Delphi Studies, ensured participants were provided with information as to the impact of their contributions and insights – that they had in fact influenced real and timely change to service provision for families and children.

My journal entries highlight that while seeing the impact of the research on service provision and planning was incredibly gratifying, I did feel a degree of (self-imposed) pressure to ensure I properly reflected the insights and wisdom so freely shared by participants – both in acknowledgement of the time and insights they had generously given, but also because of the richness of the information. The following extract describes my feelings prior to the final workshop with the second PAR group, noting the reference to the effect of my socialisation as a nurse (Rhynas 2005). The quote reflects on my unconscious reaction to perceived needs,

built over years of working within a health system with its own traditions and culture, contributing to my embodied state which Bourdieu (1990) describes as ‘habitus’. The commitment to regular reflection facilitated by the use of the reflective journal proved integral to the identification of unconscious drivers and their potential impact on my interaction with other PAR group members and interpretation of data (including recounts of experiences recounted by participants) which may otherwise have not been recognised.

*“I’ve noticed I’m feeling nervous [ahead of the third PAR workshop] and reflecting on why. I’m feeling pressure that there be an Action Plan delivered that will do justice to the work to date and input from everyone. I need to TRUST THE PROCESS. And be careful to contain ‘Debbie the Nurse’ (i.e. the fixer) and firmly keep my researcher hat on. Trust the process and the participants who have already shown how wise and insightful they are! (Journal entry: 31/5/2021)*

One of the many rewarding moments in this research journey was when I presented the action plan and recommendations developed by the PAR groups to the governing committees which oversee the operations of the relevant services. Such was the response to the recommendations from the first PAR group, the local health district representatives asked that the report be forwarded to the Board of Directors to share the findings and raise awareness of the effectiveness of PAR in identifying and addressing local community needs. Similarly, when presenting the preliminary findings and recommendations from the second PAR group to an organisational (Tresillian) clinical governance committee, committee members discussed the impact on them of hearing insights provided by parents and local clinicians. Committee members spoke of the way in which the research findings had provided an opportunity to ground themselves by reminding them of the underpinning aims of the work they do, taking this information to inspire and drive service improvements:

*The responses from the clin gov committee today surprised me. Not only was the presentation warmly received but committee members described the impact as they listened: “it’s very powerful”; “helps us to remember why we do what we do and why it is so important”; “it’s powerful hearing the voice of the parents and community members”; “the statement [problem] really resonated – makes us think about things from parents’ perspectives”; “there’s a lot we can do... we’ve started the journey but*

*more we can do... this can be a driver for us as an organisation”*. (Journal entry: 10/2/2022)

The outcome of the discussion was agreement to include the recommendations from the PAR group in the Clinical Service Plan. This enabled the recommendations to be highlighted within the organisational priorities for the following year. Likewise, the committee supported conducting a comprehensive review of the service model, drawing on findings of all three studies (two PAR and Delphi) to not only inform revisions to the service model, but also to draw on a community co-design approach to service model modifications.

### **9.3 The Dual Roles of Participants**

Participants of research bring their whole-of-life experience when contributing insights. The participants of both PAR studies and the Delphi Expert Panel were invited to draw on both their personal and professional experiences, enabling a richness and breadth of understandings that might not otherwise have been captured. Not only did participants come from a range of professional backgrounds (including health professionals and those working in community services and not-for-profit sectors), but most (76% across the three studies) lived in rural and regional areas. Participants who engaged in the research as a representative of their professional organisation drew on both their professional experiences and those as a member of a rural community, as a parent, and shared their knowledge of the experiences of their extended families living in rural and regional communities.

One of the consumer representatives was also a health professional in a field not directly related to the context of this research. As per above, although recruited to the research as a consumer representative, this participant drew on her broader knowledge of the local community health service context, including the needs of communities in smaller towns which surrounded the main regional centre.

Likewise, I found myself linking aspects of discussion to my personal experiences of being a mother living in a regional setting and therefore, not only a health service provider but a health service consumer. Reflection during my supervision sessions provided an avenue to

explore this further, enabling me to be cognisant of my own moves from objectivity to subjectivity, and shifts in my position: from nurse/manager to mother, to regional woman, to researcher. In an article describing the implications of Bourdieu's theory of practice for nursing research, Rhynas (2005, p. 184) describes the imperative delivered by Bourdieu for researchers to "... be reflexive about their own positions in the field"; the context which provides the focus for the research being undertaken. Further, the importance of reflection to consider my understandings and conceptualisations while acknowledging influences on my objectivity and subjectivity is consistent with Bourdieu's (1990, p. 25) call to "... move beyond the antagonism between these two modes of knowledge, while preserving the gains of each..., to make explicit the presuppositions that they have in common as theoretical modes of knowledge".

An unexpected influencing factor for both PAR groups was the presence of an infant. In the first PAR group, one of the consumers brought her baby to each of the workshop sessions. Although there were times when the participant had to excuse herself from conversation to attend to her baby's needs, these were brief and did not interfere with her participation. In fact, the presence of the baby was identified as having the positive effect of helping the group maintain focus on the reason for coming together – to improve the lives and experiences of young children and their families.

*... having the baby in the room helps to ground what this is all about. (Journal entry 4/8/19)*

While infants of participants in the second PAR group were not physically 'in the room', they were nonetheless present during the virtual workshops. The sound of the babies' voices was heard by the group, and the reference to the baby (including talking to the baby in first person) by the consumer-parent again resulted in the group participants being reminded that the reason for the group was to improve outcomes for infants and young children, those who rely on others for their very survival.

## 9.5 Community-based Research in a Pandemic

The outbreak of the COVID-19 pandemic coincided with preparations for the Delphi and second PAR group. The Delphi study had been planned using an e-Delphi approach, with electronic questionnaires for data collection; therefore, no change was required. The second PAR group, however, had been planned as a series of 'in-person' workshops, with the group to form as they came together in a physical space, aiming to build a space for participants to share and work together. The Government restrictions on meetings and gatherings during this stage of the pandemic required amendments to ethics approvals to use video-conferencing and telephone as a means to enable participation.

An entry in my reflective journal indicated my sense of disappointment and concern that the PAR experience would be different for this group who needed to rely on video-conferencing rather than being able to come together to form as a group face-to-face:

*... overall, a bit sad really that COVID has taken this opportunity from us as it was not the experience I'd hoped. It's so hard to make this truly participatory when it's via a screen! (Journal entry: 12/2/21)*

My concerns following the first workshop appeared to be unfounded. Reflections in my journal following the second PAR workshop indicated that the group had in fact formed and created a safe space for participants to share experiences and insights.

*A much better and more interactive workshop. The bulk of the time participants were doing the talking. It was still a bit difficult to have it free flowing as people tended to wait to be invited to speak... pretty exhausting trying to capture and track the issues/themes and link to participants' discussion points but well worth it. (Journal entry: 26/4/21)*

The use of video-conferencing for participation in this PAR group, although initially implemented due to COVID-19 pandemic restrictions on gatherings and the need for a COVID safe plan, became an enabler to participation. A broad cross-section of participants

was able to engage in the PAR from across a larger geographical area without the need for travel. This included consumer participation, avoiding the need to disturb the routine or sleep of young children as PAR workshops could be attended from their home via personal computer, laptop or smartphone.

This is not to say that facilitating PAR via virtual platform was without its challenges. Entries in my journal following the first virtual workshop via video-conference (VC), reflected some of the challenges and the energy required to remain present, facilitate an inclusive experience for all while also trouble-shooting technical difficulties.

*... it's hard work trying to facilitate PAR via VC!. First technical problems – only 4 of the 7 could get the VC to work, the other 3 were on the phone. I'm not sure whether the voice recording was able to pick up everyone as some were softer or cutting in and out, so I took lots of notes, especially when I suspected the sounds might not be recording well. (Journal entry: 12/2/21)*

Upon review of the transcripts, the recording did pick up the voices but the sense of urgency on the day of the workshop to capture as much information as possible through notes as a back-up added another layer of stress. Other entries in my journal note that the participant I had arranged to assist by monitoring the chat function to ensure all contributions and questions were acknowledged and explored, was unfortunately unable to attend the workshop. To address this, I asked participants to verbally highlight when they entered or saw a comment entered into the chat section. Further technical challenges included not being able to see participants when I was sharing slides on the screen. I was concerned that this might impede the forming stage of the group and sense of personal connection. In an effort to avoid participants feeling disconnected from the group, I utilised the strategy of deliberately limiting screen sharing of slides to a minimum.

*When I was sharing slides on the screen I could not see the participants so I turned 'share screen' off intermittently so I could see them and they could see me. (Journal entry: 12/2/21)*

Three participants engaged in the first workshop via phone as they were unable to log into the VC platform due to technical issues. This meant that I need to share the content of slides with the results of the pre-workshop questionnaire verbally. I was quite concerned that my voice was therefore prevalent in this first workshop. I attempted to counteract this by interspersing short sprints of sharing results with invitations for participants to comment on whether the results were consistent with their understanding and experience of the community context.

It was reassuring to listen to the recording of the workshop and hear the amount of information shared by participants. This extended not only to insights relevant to the focus of the workshop, but also providing information about other services in the community which some were not aware of. My reflective journal highlights my excitement as I realised the workshop had provided an opportunity for linkages to be made between providers, many of whom had worked in the community for quite some years but were unaware of particular initiatives.

*... [P8] informed other group members of an interagency group they were unaware of. This provided a forum for connection in action – the community capacity building discussed in literature. It's amazing to see the connections being made and the sharing of information after just the first workshop. (25/2/21)*

The group discussed and agreed to share information that may be of interest so this could be distributed to participants via my PAR group contacts list. Over the course of the PAR cycle, a range of material was circulated between the group members including opportunities for networking shared between workshop sessions. This included opportunities for advocacy inclusive of not only health and community professionals but consumers and community members.

The impact of the COVID-19 pandemic was evident in reflections from the participants. The pandemic had an impact on the accessibility of services for families with young children, particularly during periods of official lockdowns and restrictions on meeting face-to-face. The isolation described by participants, experienced by parents in their community, was further exacerbated by being unable to travel or receive help from family members who were

unable to cross state borders to provide support. The participants reflected upon the heightened anxiety they were observing in parents of young children related to the fear of contracting the virus and passing it on to family members, including their children.

In addition to the disruptions and anxiety experienced by parents and service providers during the pandemic, the local community had faced additional challenges during the period in which the second PAR cycle took place. Large sections of the region were impacted by devastating floods which effected individuals within the groups and the communities in which they lived and worked. The second PAR workshop was delayed due to the floods, with health and community service professionals needing to focus their attention on flood recovery efforts, including the impact on the mental health and wellbeing of many within their community. The impact of the pandemic and floods were acknowledged when the PAR group was able to commence, in both preparatory email messages and at the first workshop, with the experiences being reflected in the findings of the PAR as reported in Chapter 6.

## **9.6 Synergies of Research Experience with CASCADES Framework**

In closing this reflection chapter, it feels appropriate to reflect upon the synergies of the experience of undertaking this doctoral research journey and the CASCADES Framework which has been a key output of the research. While the Framework has been designed to guide collaborative community co-design when adapting CFH service models for diverse contexts, the journey of the water across the tiers of the waterfall cascades can also be used to reflect on other collaborative projects, such as the studies contained in this thesis. In the following section, I will relate the research experience to the four tiers of the Framework: (i) Context, (ii) Outcomes expected, (iii) Model, (iv) Evaluation and Reflection.

### **Tier 1: Context**

Consistent with the CASCADES Framework, it was vital to understand the context in which this doctoral research would be undertaken. In a similar manner to which community members are asked to explore their understanding of their community strengths, vulnerabilities and priorities, so too I needed to check my beliefs and assumptions against

data and to consult with others. The background chapter (Chapter 1) of this thesis also outlines information relevant to the context of this research, describing my professional and personal journey and the organisation's (Tresillian) service development journey which has been a focus of this research. To build the more comprehensive understanding of the context in which this research is situated, I undertook two literature reviews (a scoping review and an integrative review) as reported in Chapter 2. Macro contextual influences were considered, including World Health Organization frameworks and Government policies and plans. More detailed understanding of micro factors was built upon throughout the research – through the PAR and Delphi studies.

### **Tier 2: Outcomes expected**

When moving to the second tier of the Framework, community members will be invited to consider the difference they are hoping to make through the adaptation and implementation of a new CFH service model. They are asked to consider to whom these outcomes would be meaningful (i.e. families, services or both). Importantly, in this tier, prior to moving into consideration of service model adaptations, those involved in such initiatives are asked to consider the data they will need to collect in order to measure change. Again, there is alignment between this process and that of the development of the research design and choice of methods (Chapter 3). The research design process provided an opportunity to consider what outcomes would be meaningful to stakeholders; and the potential implications and application of this doctoral research. Once the research questions were formed, the use of a realist evaluation approach was chosen to enable the deep exploration required to address the questions. The literature reviews had importantly identified the vital role of inclusive participatory research approaches to most effectively address identified priorities by drawing on the knowledge and insights of those who understand the context best. In addition to findings addressing the research questions being outcomes expected from this research, the development of a framework to inform the adaptation of CFH service models for diverse contexts was also identified as a key expected output.

### **Tier 3: Model**

The review of the fit of a service model for a specific context, as described in the CASCADES Framework, has parallels with the development of the Framework itself. The

initial concepts included in the Framework were developed based on the findings of the literature reviews and the first PAR study (Chapter 4). The fit for the context of the adaptation of specialist CFH service models was explored and tested through the Modified e-Delphi Study (Chapter 5). This provided learnings to inform the full draft of the Framework which was then tested in the second PAR study (Chapter 6). Through this iterative process, data analysis informed the identification of the core set of elements for inclusion, in addition to a set of tools to support the practical application of the Framework (Chapter 7). Just as the guidance in the Framework invites health providers and community members to consider adaptations to suit their local context including current circumstances, the outbreak of the COVID-19 pandemic required that adaptations be made to engagement and data collection methods for the second PAR study. The insights gained through this experience informed further adaptations to the Framework, incorporating flexible approaches, including video-conferencing, to facilitate inclusivity regardless of distance and other barriers to participation such as financial circumstances or family caring responsibilities for the young and elderly.

#### **Tier 4: Evaluation and Reflection**

The CASCADES Framework describes the fourth tier of evaluation and reflection. It speaks of the importance of taking the time to reflect on the information gathered throughout the earlier tiers, using this evaluation phase to inform the next set of actions to be taken. Just as the water slows when it reaches a pool at the bottom of a waterfall, so too this phase of evaluation and reflection required time to fully immerse myself in the findings across the literature reviews and three discreet studies of which this research is comprised. The Discussion chapter (Chapter 8) of this thesis provides a synthesis of the findings in relation to the research question and sub-questions, while discussing the implications of findings for policy, practice and future research.

In the same way as this stage of reflection is used to inform the action plan and evaluation strategy for those utilising the CASCADES Framework to implement service model adaptations, so too I have considered and consulted on the next steps of dissemination and evaluation of the Framework itself. This will include plans to invite those who use the CASCADES Framework to contribute data and feedback to inform future refinements to the Framework.

## 9.7 Conclusion

The use of a reflective journal, and opportunities for facilitated reflection when meeting with my supervisors, has been a critical element to conducting my doctoral research. Being attentive to my own constructs, of the way I make sense of the world, and challenging myself to maintain this awareness to ensure that the integrity of the research findings are not impacted by my own assumptions, has been a rewarding and enlightening experience.

Insights into the manner in which I sought to manage the interplay between my professional role, that of participant-researcher, and a woman living in a regional community, were noted to be similar to the dual roles of many of the participants – contributing their insights as not only consumer or health professional, but as mother/father, daughter/son and rural community member. Likewise, synergies became apparent between the CASCADES Framework and the agile approach required in designing and conducting the research studies, particularly in relation to the need to adapt to the new context of the COVID-19 pandemic.

Importantly, this chapter has provided the opportunity to reflect on the research process and my experience, providing learnings to inform my continued development as a researcher. Just as the water continues its journey down river, so too my journey as a researcher, and that of the Framework and research findings, will continue – with the ultimate aim being to improve outcomes and experiences for children and their families.

*Start by doing what's necessary, then do what's possible; and suddenly you are doing the impossible*

Frances of Assisi



*“Stepping out” – Photo Credit: D Stockton*

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## Appendices

### Appendix 1: Table of Integrative Review Evidence

#### Summary of key findings for rural health service delivery by article in relation to WHO Building Blocks

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
Aljasir &Alghamdi (2010)	Mixed methods	Assess consumer satisfaction with mobile clinics in Al-Laith region of Saudi Arabia	Saudi Arabia 13 villages serviced by mobile service in remote rural areas covering 12 administrative emirates.	<b>BB1:</b> Mobile service model to improve equity and reach to those in high need.	<b>BB1:</b> Differences noted in different localities and geographical challenges. Need to provide more screening and prevention services and tailor to the needs of each community.
Chilenski et al (2014)	Mixed methods: longitudinal and randomized block design	Examine the impact of the PROSPER delivery system for evidence-based prevention programs on multiple indicators of social capital in a rural and semi-rural community sample.	USA 3137 individuals in 28 communities throughout Pennsylvania and Iowa, USA.	<b>BB1:</b> Results suggest community collaborative initiatives can build social capital. <b>BB6:</b> Governance led by health administrators of stakeholder groups enabling a community coalition of health, education, businesses and other community stakeholders	<b>BB1:</b> Future research needs to explore social capital outcomes in collaborative community health initiatives
Cornwell et al (2007)	Mixed Methods Program Implementation Evaluation	Evaluate adaptation and implementation of a coordinated school health program in a rural district.	USA (Rural county)	<b>BB1:</b> Broad professional and community stakeholder engagement from outset inclusive of program selection. <b>BB2:</b> Staff education to understand unique local health needs and assets. <b>BB3:</b> Data used to inform priority goal settings <b>BB5:</b> Sourcing of external grants <b>BB6:</b> Governance teams composed of local community stakeholders established for decision making.	<b>BB5:</b> Unclear if funding was ongoing.
Dooley et al (2009)	Mixed Methods: Program description and evaluation	To describe and evaluate an obstetric care program delivered to 28 remote Aboriginal communities	Canada (28 remote communities; 350 rural primarily	<b>BB1:</b> Collaborative service planning enabled creative solutions to improve access, and model of care which incorporated Aboriginal values and culturally sensitive care	<b>BB2:</b> Incentives are required to attract the next generation of clinicians <b>BB5:</b> Funding was needed for a range of service provision requirements including

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
		service by rural-based health care.	Aboriginal Sioux women)	<p><b>BB2:</b> A team approach with broad scope and multi-skilled clinicians</p> <p><b>BB4:</b> Telehealth consultations effectively reduced travel for obstetric assessments and access to clinician support from larger centres</p> <p><b>BB6:</b> Organisational culture of sustainable programs includes champions</p>	transport for transfer of care, mentoring and training to enable sustainability.
Farmer & Nimegeer (2014)	Community-based participatory action research	To explore how community participation can be used in designing rural primary healthcare services by describing a study of Scottish communities.	United Kingdom (Scotland): Four rural Scottish case study communities	<b>BB1:</b> Community-based participatory action research enabled identification of health priorities and customized, affordable healthcare models to address local community priorities. Standard service models can provide a basis for community participation discussions including adaptations and additions to meet local needs.	<b>BB1:</b> Greater clarity is required in regards to community participation in local service delivery.
Fitzpatrick et al (2017)	Case Study	To understand the dynamics of best practice integrated care for people with (severe and persistent mental illnesses) SPMI living in a small rural community in Australia.	Australia (NSW) A well-established integrated care service in rural NSW (Mudgee)	<p><b>BB1:</b> Incremental processes of integration can build on success and trust, paying attention to local contexts and responsive to the needs of patients and stakeholders. There is a strong case for place-based systems of care. Locally driven approaches are designed within local resource capacity, are financially and clinically sustainable and embody the values of local practitioners.</p> <p><b>BB2:</b> Close working relationships with GPs is critical.</p> <p><b>BB5:</b> The importance of bulk billing to safeguard patient access and efficient operations</p> <p><b>BB6:</b> Team culture and leadership play an integral role in service sustainability.</p>	<p><b>BB1:</b> Improvements are needed at the interface between primary and secondary services. Systems are required that reward collaborative practice to deliver truly integrated care.</p> <p><b>BB5:</b> Bulk billing options under threat due to undersupply of GPs and uncertain funding.</p> <p><b>BB6:</b> Policy makers need to recognize and support local solutions which meet systemic and community objectives.</p>
Gaudet et al (2014)	Qualitative study using naturalistic and ethnographic strategies.	To bridge the knowledge gap that exists with respect to rural (Interprofessional Collaboration (IPC), particularly in the context of developing rural palliative care	Canada Members of rural palliative care teams in 4 rural communities in north-western Ontario.	<p><b>BB1:</b> Interprofessional team included a broad range of providers across government and non-government service sectors, enabled an increased level of cooperation within their organizations, combining efforts to improve patient care. Informal relationships and networks increased confidence, supported collaborative practice and improved service provision.</p> <p><b>BB2:</b> The role of healthcare workers as advocates for patients and service system improvements.</p> <p><b>BB6:</b> Geographical distance from head office empowered satellite service providers.</p>	<b>BB2:</b> Decision makers should harness of knowledge of healthcare workers as advocates for patients, their communities and service system improvements.

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
Haggarty et al (2010)	Qualitative descriptive study	Synopsis of rural and isolated toolkit for Canadian Collaborative Mental Health Initiative (CCMHI)	Canada	<p><b>BB1:</b> Broad community stakeholder involvement can enable adaptation and 'local solutions' to address priorities for rural and isolated communities. Diverse strategies to communicate healthcare information and transport are integral to rural service provision.</p> <p><b>BB2:</b> Interprofessional teams supported by community advisory committees can work together to address emerging local health issues.</p> <p><b>BB3:</b> Local working groups collecting data to inform service planning.</p> <p><b>BB4:</b> Telehealth to overcome challenges associated with distance and isolations</p>	<p><b>BB1:</b> Research is needed to increase the evidence-base to enhance planning and overcome challenges. Ethical foundations embracing diversity and inclusion are required for community participation. New models are required to improve integration and collaboration, including links with urban specialists.</p> <p><b>BB2:</b> Core competencies for workers may assist effective support and capacity building.</p> <p><b>BB5:</b> Funding related challenges were identified. Financial incentives are required to attract health professionals and mandate collaborative care. Longer-term rather than short-term funding is required.</p> <p><b>BB6:</b> A greater focus on government policy development and planning for rural and isolated services. Lack of alignment between federal and provincial jurisdictions limits service delivery.</p>
Morgan et al (2009)	Mixed methods	Describe the development, operation and evaluation of an interdisciplinary memory clinic designed to improve access to diagnosis and management of early stage dementia for older persons living in rural and remote areas in Canadian province of Saskatchewan.	Canada (Sparsely populated Canadian province of Saskatchewan)	<p><b>BB1:</b> Use of combination of telehealth and clinics to increase access, harnessing an inter- and trans-disciplinary approach within the model of care. Early community consultation was critical to success.</p> <p><b>BB2:</b> Team members rotate delivery of professional development</p> <p><b>BB3:</b> Data reporting of travel distance saved through telehealth</p>	<p><b>BB2:</b> Improvement in physician involvement in (end of day) team teleconferences is needed.</p>
Ong et al (2012)	Mixed methods	To develop template for economic evaluations of health services to quantify the differences in intervention delivery between best practice PHC via Aboriginal Community	Australia Indigenous communities: staff from 5 different health services including urban Melbourne (7), rural Vic (1) and remote	<p><b>BB1:</b> Templates for economic evaluations, including the differences in the way interventions are delivered, can enable appropriate resource allocation for targeted health service models for disadvantaged groups.</p>	<p><b>BB3:</b> Context specific economics data is vital to assessing interventions for disadvantaged groups together with qualitative data to inform decision making.</p>

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
		Controlled Health Services and mainstream GPs	central Australia and NT (8).		
Parker et al (2013)	Realistic evaluation	Investigate the factors contributing to effective Interprofessional Practice (IPP) in rural contexts; to examine how IPP happens and to identify barriers and enablers.	Australia (33 participants: managers, policy makers and representative across rural health care settings)	<p><b>BB1:</b> IPP enables increase access to comprehensive care for patients. Enablers of collaboration included co-location and community connections. GPs play pivotal role in coordination</p> <p><b>BB2:</b> IPP facilitates learning and support for health professionals.</p> <p><b>BB5:</b> Funding models such as Medicare rebates can enable 'joined up care' (p.9)</p> <p><b>BB6:</b> Shared understanding can enable planning of integrated services</p>	<p><b>BB1:</b> Workload constraints and 'ways of working' constrained true IPP</p> <p><b>BB2:</b> Barriers include minimal numbers of some health disciplines and lack of understanding of the roles of others.</p> <p><b>BB6:</b> Requires a culture of open and critical engagement. Barriers including service fragmentation.</p>
Pesut et al (2015)	Community-based research using mixed methods approach	Test the feasibility and identify potential outcomes of implementing a rural palliative supportive service (RPaSS) for older adults living with life-limiting chronic illness and their family caregiver in the community.	Canada (Two co-located rural communities with populations approximately 10,000 with no specialized palliative services)	<p><b>BB1:</b> Community-based advisory committee to draw on local knowledge and expertise of local context for planning; enabling community engagement and capacity building. Nurse coordinators role as a care navigator. Holistic care models utilising a range of modes of delivery.</p> <p><b>BB2:</b> Multidisciplinary support team for nursing team.</p>	<p><b>BB1:</b> Need to allow time to build an understanding of local context and trust with local community.</p>
Pidgeon (2015)	Qualitative – observational design	Observation of similarities and differences in what occupational therapy 'does' and 'is' in four different, but similar, very remote contexts.	Australia (Northern Territory), USA and Canada	<p><b>BB1:</b> Flexible delivery models are needed to address costs of service provision in remote communities, e.g. fly/drive in service. Use of coaching frameworks by health professionals can increase families'/community skills and capacity.</p> <p><b>BB2:</b> Support can enable the extended scope of practice required for remote context.</p> <p><b>BB4:</b> Community visits can be supplemented with telehealth</p>	<p><b>BB1:</b> Best practice models should take into account local culture, beliefs, resources, environment and have flexibility to address unique family/community goals.</p> <p><b>BB2:</b> Vital to increase health professionals' understanding of cultural safety through respectful communication and empowering clients through inclusive decision making. Access to professional development needed to support required extended scope of practice for remote settings.</p> <p><b>BB4:</b> Telehealth requires reliable on the ground support to facilitate connectivity.</p>
Quinn et al (2013)	Mixed methods	To investigate the perceptions, acceptability and barriers and enablers	Australia (Far West NSW)	<p><b>BB1:</b> Enablers for service models for a remote context included funding and staff incentive programs, local access to professional development, accommodation for</p>	<p><b>BB2:</b> Retention of well-qualified health professionals in remote settings is a key challenge. Workforce shortages are felt more</p>

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
		to the delivery of non-medical primary maternity care models in Far West NSW, as an example of remote Australia	14 clinicians and/or policy makers	patients from remote communities in larger towns, collaboration and shared vision between staff and community <b>BB2:</b> Staff exchange programmes between metropolitan and remote health services to enable clinicians to maintain clinical competency.	acutely in rural and remote areas, also impacting on capacity for interprofessional collaboration. <b>BB5:</b> Lack of funding to enable the delivery of new models of care in remote settings. <b>BB6:</b> Professional registration requirement standards identified as a barrier to new models of care in remote areas.
Semansky et al (2012)	Mixed methods.	Illuminate potential problem areas for rural agencies under USA national health reform.	USA (Rural health agencies in New Mexico)	<b>BB1:</b> Funding of large scale demonstration pilot of a service model informed national reform. Input from local stakeholders is required as early as possible in the planning stages including implementation logistics. <b>BB2:</b> Web-based training and supervision to increase access to support for rural clinicians. <b>BB4:</b> Telemedicine can improve access to range of services including behavioural health care. <b>BB6:</b> Leadership by state agencies mandating the creation of a 'purchasing collaborative' of local stakeholders to maximize access, enhance quality, and improve use of public funds and consumer voice in operational planning (p. 844).	<b>BB1:</b> Significant modifications were needed to service models; targets and parameters need to be defined early. Transforming models requires tailoring to address additional changes and optimize opportunities. Additional support, sharing of resources and a long-term commitment is required to 'prevent disruptions in care' (p. 851) <b>BB2:</b> Recruitment and workforce support of specialist clinicians is required <b>BB3:</b> Clarity of measures and 'real-time' evaluation is required to enable 'mid-course corrections' during implementation (p.849) <b>BB4:</b> The use of telehealth has been constrained by technological requirements and insurance reimbursement limitations (p.847) <b>BB5:</b> A tech based billing system led to unanticipated problems. Insufficient compensation was provided for additional responsibilities and liabilities. Financial system constraints can hamper community input into design.
Smith et al (2010)	Case Study	To describe, from the analytic standpoint of community control and cultural comfort, the main features of the 'Family Model of Care' which	Australia (Northern Territory) Remote Aboriginal community in Central Australia	<b>BB1:</b> Model of care emphasising the centrality of the local traditional community worldview and values into service design for mainstream services. Community control and cultural comfort were fundamental to address social determinants of health and increase access. The 'Family Model of Care' integrates local social	

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
		underpins service operations and management processes		systems, capacity building and responsiveness without compromising cultural protocols (p.9) <b>BB6:</b> Mainstream services can function in a complementary and supportive manner, being accountable to a local management system inclusive of community tradition norms.	
Smith et al (2016)	A descriptive, qualitative analysis of extensive document reviews.	Explore how communities translate evidence-based and promising health practices to rural contexts	USA (70 grantees representing rural and frontier areas in 36 states of USA)	<b>BB1:</b> Conceptual models can support effective rapid implementation into community practice. Adaptations of models is required to overcome challenges in specific contexts, including content, models, settings and wrap around components. Locally developed evidence-based protocols can strengthen systems of care. <b>BB2:</b> Mentorship in implementation of evidence-based programs from experts or model communities assisted in overcoming implementation challenges.	<b>BB1:</b> Barriers to translation of evidence-based practices in rural settings include cultural misalignment, practical limitations, lack of commitment, insufficient capacity. The lack of evidence-based models developed in rural contexts impacts ability for translation in these settings. Need to prioritize local program evaluation (and skills) to build evidence-based for rural interventions. <b>BB5:</b> Short-term time-limited funding cycles for evidence-based or promising models does not enable sustainability either locally nor the ability to generate evidence-based models specifically for rural settings.
Sullivan et al (2013)	Action Research using mixed methods	To describe the action research approach taken to engage a multidisciplinary group of health professionals and managers from giver rural health services with government officers in redesigning their emergency care services and informing legislative change	Australia (Victoria) Multidisciplinary health professionals and managers from 5 rural health services with government officers	<b>BB1:</b> Collaborative practice model of multiple rural health services promoted by state government to test alternate model of service delivery. <b>BB6:</b> Action research shifted focus from technical to emancipatory approach, providing a safe approach to service system and legislative change (p. 12).	
Taylor et al (2010)	Qualitative Evaluation using Participatory Action Research - Realist Evaluation Approach	Evaluation of a consumer-driven rural mental health service (The Station Community Mental Health Centre): describe, analyse and promote the service	Australia (South Australia): Mental health service in rural South Australia	<b>BB1:</b> Active support of local health system and stakeholders shown to be important for service legitimacy and confidence (p.5). Contextual factors can support program mechanisms, e.g. governance arrangements, support at local and state level, key	

Authors	Design	Purpose	Setting	WHO Building Blocks Exemplars (BB = Building Block)	WHO Building Blocks Challenges (BB = Building Block)
		governance model at The Station and determine how the model works and for whom and its sustainability.		stakeholders and links to peak organisation to provide conduit between government and the service (p.6).	
Vanderpool et al (2011)	Qualitative – Case Studies	To examine the collective experience of 13 West Virginia community organizations implementing evidence-based cancer control interventions	USA (13 West Virginia community health organizations)	<p><b>BB1:</b> Adaptations required for successful implementation included modification of delivery methods, adjusting program timelines to suit funding period, creation of new or tailoring of materials for local context, adding activities or combining multiple programs, and evaluation design revisions. Intervention selection considered a range of factors including organisational capacity, target group socioeconomic demographics, literacy levels and intervention complexity.</p> <p><b>BB2:</b> Training to specifically prepare to implementation was provided.</p>	<p><b>BB1:</b> Further investigation is needed into the abilities of communities to identify core components of an interventions to maintain programmatic fidelity while adapting for the context to avoid mismatch. Few evidence-based interventions have originated in rural communities. Efficacious programs must be flexible to enable transportability to other settings. Researchers need to better understand the contextual realities. More focus is required on ‘how to select, adapt, implement and sustain evidence-based interventions while maintaining scientific fidelity’ (p.11).</p> <p><b>BB2:</b> Standardized training needs to be relevant to the context. More ‘train-the-trainer’ is required for sustainability.</p> <p><b>BB5:</b> Linking funding to specific programs or interventions can deter providers. Service want more time, flexibility, resources and training to implement contextually appropriate interventions for their rural community.</p>

## Appendix 2: Wilder Collaboration Factors Inventory

### The Wilder Collaboration Factors Inventory

Name of Collaboration Project \_\_\_\_\_

Date \_\_\_\_\_

#### Statements about Your Collaborative Group:

Factor	Statement	Strongly Disagree	Disagree	Neutral, No Opinion	Agree	Strongly Agree
History of collaboration or cooperation in the community	1. Agencies in our community have a history of working together	1	2	3	4	5
	2. Trying to solve problems through collaboration has been common in this community. It's been done a lot before.	1	2	3	4	5
Collaborative group seen as a legitimate leader in the community	3. Leaders in this community who are not part of our collaborative group seem hopeful about what we can accomplish.	1	2	3	4	5
	4. Others (in this community) who are not a part of this collaboration would generally agree that the organizations involved in this collaborative project are the "right" organizations to make this work.	1	2	3	4	5
Favourable political and social climate	5. The political and social climate seems to be "right" for starting a collaborative project like this one.	1	2	3	4	5
	6. The time is right for this collaborative project.	1	2	3	4	5
Mutual respect, understanding, and trust	7. People involved in our collaboration always trust one another.	1	2	3	4	5
	8. I have a lot of respect for the other people involved in this collaboration.	1	2	3	4	5
Appropriate cross section of members	9. The people involved in our collaboration represent a cross section of those who have a stake in what we are trying to accomplish.	1	2	3	4	5
	10. All the organizations that we need to be members of this collaborative group have become members of the group.	1	2	3	4	5
Members see collaboration as in their self-interest	11. My organization will benefit from being involved in this collaboration.	1	2	3	4	5
Ability to compromise	12. People involved in our collaboration are willing to compromise on important aspects of our project.	1	2	3	4	5
Members share a stake in both process and outcome	13. The organizations that belong to our collaborative group invest the right amount of time in our collaborative efforts.	1	2	3	4	5

<b>Factor</b>	<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral, No Opinion</b>	<b>Agree</b>	<b>Strongly Agree</b>
	14. Everyone who is a member of our collaborative group wants this project to succeed.	1	2	3	4	5
	15. The level of commitment among the collaboration participants is high.	1	2	3	4	5
Multiple layers of participation	16. When the collaborative group makes major decisions, there is always enough time for members to take information back to their organizations to confer with colleagues about what the decision should be.	1	2	3	4	5
	17. Each of the people who participate in decisions in this collaborative group can speak for the entire organization they represent, not just a part.	1	2	3	4	5
Flexibility	18. There is a lot of flexibility when decisions are made; people are open to discussing different options.	1	2	3	4	5
	19. People in this collaborative group are open to different approaches to how we can do our work. They are willing to consider different ways of working.	1	2	3	4	5
Development of clear roles and policy guidelines	20. People in this collaborative group have a clear sense of their roles and responsibilities.	1	2	3	4	5
	21. There is a clear process for making decisions among the partners in this collaboration.	1	2	3	4	5
Adaptability	22. This collaboration is able to adapt to changing conditions, such as fewer funds than expected, changing political climate, or change in leadership.	1	2	3	4	5
	23. This group has the ability to survive even if it had to make major changes in its plans or add some new members in order to reach its goals.	1	2	3	4	5
Appropriate pace of development	24. This collaborative group has tried to take on the right amount of work at the right pace.	1	2	3	4	5
	25. We are currently able to keep up with the work necessary to coordinate all the people, organizations, and activities related to this collaborative project.	1	2	3	4	5
Open and frequent communication	26. People in this collaboration communicate openly with one another.	1	2	3	4	5

<b>Factor</b>	<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral, No Opinion</b>	<b>Agree</b>	<b>Strongly Agree</b>
	27. I am informed as often as I should be about what goes on in the collaboration.	1	2	3	4	5
	28. The people who lead this collaborative group communicate well with the members.	1	2	3	4	5
Established informal relationships and communication links	29. Communication among the people in this collaborative group happens both at formal meetings and in informal ways.	1	2	3	4	5
	30. I personally have informal conversations about the project with others who are involved in this collaborative group.	1	2	3	4	5
Concrete, attainable goals and objectives	31. I have a clear understanding of what our collaboration is trying to accomplish.	1	2	3	4	5
	32. People in our collaborative group know and understand our goals.	1	2	3	4	5
	33. People in our collaborative group have established reasonable goals.	1	2	3	4	5
Shared vision	34. The people in this collaborative group are dedicated to the idea that we can make this project work.	1	2	3	4	5
	35. My ideas about what we want to accomplish with this collaboration seem to be the same as the ideas of others.	1	2	3	4	5
Unique purpose	36. What we are trying to accomplish with our collaborative project would be difficult for any single organization to accomplish by itself.	1	2	3	4	5
	37. No other organization in the community is trying to do exactly what we are trying to do.	1	2	3	4	5
Sufficient funds, staff, materials, and time	38. Our collaborative group had adequate funds to do what it wants to accomplish.	1	2	3	4	5
	39. Our collaborative group has adequate "people power" to do what it wants to accomplish.	1	2	3	4	5
Skilled leadership	40. The people in leadership positions for this collaboration have good skills for working with other people and organizations.	1	2	3	4	5

## **Appendix 3: PAR Site 1 Participant Information Sheet**

***An exploration of the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings***

### **INFORMATION FOR PARTICIPANTS**

#### **(Participatory Action Research Group 1)**

#### **Introduction**

You are invited to take part in a research study to explore the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings, with a particular focus on rural and regional settings. The objective is to work with consumers, clinicians and other key stakeholders through a Participatory Action Research (PAR) approach to identify changes that need to be made to a service model used in metropolitan areas to meet the needs of rural communities.

The outcomes of this research will inform local service improvements to enhance the ability of the Tresillian xxx Family Care Centre to meet the needs of families in your community. The learnings from this research will inform the development of a framework to guide other health service providers to adapt service models to suit different contexts and meet the needs of communities in diverse settings.

The study is being conducted by Deborah Stockton who is a PhD Candidate at UTS and the Operational Nurse Manager of Regional Services, Tresillian. The following academics from the UTS Faculty of Health form Deborah's supervision team and will also be involved in this research: Professor Cathrine Fowler and Dr. Deborah Debono.

The study is being supported by Tresillian Family Care Centres. Deborah Stockton is an employee of Tresillian and Prof. Cathrine Fowler holds the Tresillian Professorial Chair in Child and Family Health with UTS. Strategies have been included in the research design to ensure there is no bias towards Tresillian in the data collection, analysis and reporting of this research. The study is being supported by an Australian Government Research Training Program Scholarship.

#### **Study Procedures**

If you agree to participate in this study, you will be asked to sign the Participant Consent Form. You will then be asked to participate in the Participatory Action Research Group which will meet at the Tresillian xxx Family Care Centre in xxx *[located redacted for confidentiality]* or by a teleconference call.

You will be asked to complete a brief pre-workshop questionnaire regarding the needs of rural and regional families with young children and your experience of the

Tresillian Family Care Centre in your community. This questionnaire will take approximately 15 minutes to complete. You will then be asked to participate in three workshops, each for approximately 1-1.5 hours' duration. Workshops 1 and 2 will be conducted within one month of each other and Workshop 3 is anticipated to be held three months after Workshop 2.

Workshops 1 and 2 will consider elements of the Tresillian Standardised Service Model that need to be adapted/changed to suit the needs of your community and identify data to be collected to explore these recommendations.

Prior to Workshop 3 you will be asked to complete a 15-minute survey about the outcomes of the earlier workshops. During Workshop 3 you will be asked to help review and refine the findings and provide recommendations for the implementation of changes to the service model for the local Tresillian Family Care Centre. Following the workshop will also be asked to complete a questionnaire online (approx. 10 minutes) regarding your experience of participating in the participatory action research group.

### **Risks**

The risks of participating in this study are inconvenience (i.e. travel to the workshop site, time taken to complete questionnaires and attend workshops), discomfort of listening or sharing experiences in a group setting and the risk of confidentiality being broken by a member of the PAR group. These risks will be minimised by ensuring questionnaires are short and that the content of both questionnaires and the group meetings remain within the scope of the research. Group members will be reminded of the importance of confidentiality and only sharing information outside the group if all group members have agreed to this. If you suffer any distress as a result of this research project, you should contact the research team as soon as possible. You will be assisted with arranging appropriate help and support.

### **Benefits**

We cannot and do not guarantee or promise that you will receive any direct benefits from this study. The benefits of this research study include local benefits to your community through local service improvements to enhance the effectiveness of rural and regional health service provision tailored to the needs of your community. The benefits will extend beyond this research study, with opportunities to remain engaged in a continuous quality improvement program if you so desire. It is anticipated that participation in this research study will build the capacity and confidence of participants to utilise action research within professional and/or voluntary settings. It is intended that the benefits of this research will reach a broader audience by informing the development of a framework for the adaptation of service models for a wide range of diverse settings.

### **Costs**

Participation in this study will not cost you anything, nor will you be paid. Light refreshments such as morning or afternoon tea will be provided during participation in the workshops.

## **Voluntary Participation**

Participation in this study is entirely voluntary. You do not have to take part in it. If you do take part, you can withdraw at any time without having to give a reason. Whatever your decision, please be assured that it will not affect your treatment or your relationship with the staff who are caring for you (clients) or working with you (professionals) within any Tresillian service.

## **Confidentiality – What will happen to my data and the research findings?**

All the information collected from you for the study will be treated confidentially, and only the researchers named above will have access to it. It will be disclosed only with your permission, or as required by law.

The information collected through this research will be de-identified to protect your privacy and confidentiality. The data will be stored securely for a period of 7 years and then destroyed. Electronic data will also be encrypted to provide another layer of security. The study results will be reported in a PhD dissertation and may be presented at a conference or in a scientific publication, but individual participants (and the organisations they represent) will not be identifiable in any such a presentation or publication.

## **Further Information**

When you have read this information, *Deborah Stockton* will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact her on *0476 801 604*.

This information sheet is for you to keep.

## **Ethics Approval and Complaints**

This study has been approved by the Ethics Review Committee (RPAH Zone) of the Sydney Local Health District. Any person with concerns or complaints about the conduct of this study should contact the Executive Officer on 02 9515 6766 and quote protocol number X18-0358.

The conduct of this study at the Tresillian in Murrumbidgee Family Care Centre has been authorised by the xxxx Local Health District. Any person with concerns or complaints about the conduct of this study may also contact the Research Governance Officer [or other officer] on [telephone number] and quote protocol number X18-0358.

## **Appendix 4: Delphi Expert Panel Participant Information Sheet**

***An exploration of the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings***

### **INFORMATION FOR PARTICIPANTS**

#### **Expert Panel Delphi Study**

##### **Introduction**

You are invited to take part in a research study to explore the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings, with a particular focus on rural and regional settings. The objective is to work with consumers, clinicians and other key stakeholders to identify adaptations required to contextualise a service model to meet the needs of rural communities. The learnings from this research will inform the development of a framework to guide other health service providers to adapt service models to suit different contexts and meet the needs of communities in diverse settings.

The study is being conducted by Deborah Stockton who is a PhD Candidate at UTS and the Operational Nurse Manager of Regional Services, Tresillian. The following academics from the UTS Faculty of Health form Deborah's supervision team and will also be involved in this research: Professor Joanne Travaglia, Professor Cathrine Fowler and Dr. Deborah Debono.

The study is being supported by Tresillian Family Care Centres. Deborah Stockton is an employee of Tresillian and Prof. Cathrine Fowler holds the Tresillian Professorial Chair in Child and Family Health with UTS. Strategies have been included in the research design to ensure there is no bias towards Tresillian in the data collection, analysis and reporting of this research. The study is being supported by an Australian Government Research Training Program Scholarship.

##### **Study Procedures**

If you agree to participate in this study, you will be asked to sign the Participant Consent Form. You will then be asked to participate as an Expert Panel member in a Delphi Study, utilising two rounds of electronic surveys. Your total time commitment will be 1 hour and 20 minutes over a 26-week period consisting of reading one background paper and completion of two electronic surveys (e-surveys), each taking 20-30 minutes to complete.

The key aims of the Delphi study are to:

- draw on the expertise of the Expert Panel to review the findings from a Participatory Action Research group conducted at a Regional Family Care Centre to inform the development of a draft 'Framework for Adaptation of

### Service Model for Diverse Settings'

- identify the elements of standardised service models which need to remain flexible and those which need to remain stable.
- develop a set of strategies to inform health service leaders when adapting service models for different contexts, with a focus on rural and regional health settings.

You will be provided with background information as pre-reading (reading time approximately 20 minutes) and asked to complete an e-survey (Survey 1) including demographic information and questions exploring the adaptation of service models for diverse settings, with a focus on the needs of families with children 0-3 years. This questionnaire will take approximately 30 minutes to complete.

The results of this survey will be collated and provided to you in a second e-Survey (Survey 2) to confirm the accuracy of the feedback and refine the content to be included in the 'Framework for Adaptation of Service Models for Diverse Settings'. This second e-survey is anticipated to take approximately 20-30 minutes to complete.

### **Risks**

The risks of participating in this study are minimal with no travel required (e-surveys can be completed electronically at a time suitable to you within the requested timeframe (2 weeks will be given for each round)).

### **Benefits**

We cannot and do not guarantee or promise that you will receive any direct benefits from this study. It is intended that the benefits of this research will reach a broad audience by informing the development of a framework for the adaptation of service models for a wide range of diverse settings.

### **Costs**

Participation in this study will not cost you anything, nor will you be paid.

### **Voluntary Participation**

Participation in this study is entirely voluntary. You do not have to take part in it. If you do take part, you can withdraw at any time without having to give a reason. Whatever your decision, please be assured that it will not affect your treatment or your relationship with the staff who are caring for you (clients) or working with you (professionals) within any Tresillian service.

### **Confidentiality – What will happen to my data and the research findings?**

All the information collected from you for the study will be treated confidentially, and only the researchers named above will have access to it. It will be disclosed only with your permission, or as required by law.

The information collected through this research will be de-identified to protect your privacy and confidentiality. The data will be stored securely for a period of 7 years and then destroyed. The data will be stored in a secure research database licensed to the Faculty of Health, UTS and will only be available to the research team being the PhD student and doctoral supervisors listed on page 1 of this document. The study results will be reported in a PhD dissertation and may be presented at a conference or in a scientific publication, but individual participants (and the organisations they represent) will not be identifiable in any such a presentation or publication.

There are no foreseeable future activities for which this information/data collected will be shared or used for secondary purposes. However, if this were to arise then another ethics application would be submitted for the use of retrospective data. A 'Yes/No' box has been included on the Consent Form for you to indicate whether you give your permission for use of your data for future research purposes.

### **Further Information**

When you have read this information, Deborah Stockton will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact her on [*telephone number*].

This information sheet is for you to keep.

### **Ethics Approval and Complaints**

This study has been approved by the Ethics Review Committee (RPAH Zone) of the Sydney Local Health District. Any person with concerns or complaints about the conduct of this study should contact the Executive Officer on [*telephone number*] and quote protocol number X18-0385

## **Appendix 5: PAR Site 2 Participant Information Sheet (VC version)**

***An exploration of the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings***

### **INFORMATION FOR PARTICIPANTS**

**Tresillian xxx Family Care Centre  
Participatory Action Research Group**

#### **Introduction**

You are invited to take part in a research study to explore the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings, with a particular focus on rural and regional settings. The objective is to work with consumers, clinicians and other key stakeholders through a Participatory Action Research (PAR) approach to identify changes that need to be made to a service model used in metropolitan areas to meet the needs of rural communities.

The outcomes of this research will inform local service improvements to enhance the ability of the Tresillian xxxx Family Care Centre to meet the needs of families in your community. The learnings from this research will inform the development of a framework to guide other health service providers to adapt service models to suit different contexts and meet the needs of communities in diverse settings.

The study is being conducted by Deborah Stockton who is a PhD Candidate at UTS and the Operational Nurse Manager of Regional Services, Tresillian. The following academics from the UTS Faculty of Health form Deborah's supervision team and will also be involved in this research: Professor Joanne Travaglia, Professor Cathrine Fowler and Dr. Deborah Debono.

The study is being supported by Tresillian Family Care Centres. Deborah Stockton is an employee of Tresillian and Prof. Cathrine Fowler holds the Tresillian Professorial Chair in Child and Family Health with UTS. Strategies have been included in the research design to ensure there is no bias towards Tresillian in the data collection, analysis and reporting of this research. The study is being supported by an Australian Government Research Training Program Scholarship.

#### **Study Procedures**

If you agree to participate in this study, you will be asked to sign the Participant Consent Form. You will then be asked to participate in the Participatory Action Research Group which will meet at the Tresillian xxx Family Care Centre in xxxx [*location redacted to maintain confidentiality*] or participate by video-conference or teleconference. Your total time commitment will be 4 hours and 5 minutes over a 20-week period consisting of 3 short electronic surveys (each of 10-20 minutes' duration) and 3 workshops (one 3-hour workshop and two 2 hour workshops).

You will be asked to complete a brief pre-workshop questionnaire regarding the needs of rural and regional families with young children and your experience of the Tresillian Family Care Centre in your community. This questionnaire will take approximately 15 minutes to

complete. Workshops 1 and 2 will be conducted within one month of each other and Workshop 3 is anticipated to be held three months after Workshop 2.

Workshops 1 and 2 will consider elements of the Tresillian Standardised Service Model that need to be adapted/changed to suit the needs of your community and identify data to be collected to explore these recommendations. A draft Framework for Adaptation of Service Models (developed through earlier stages in this research project) will be piloted to assist the decision making of the group.

Prior to Workshop 3 you will be asked to complete an electronic survey (approximately 20 minutes) about the outcomes of the earlier workshops and the usefulness of the draft framework in guiding and supporting the decision-making process. During Workshop 3 you will be asked to help review and refine the findings, provide recommendations for the implementation of changes to the service model and provide any further feedback on the usefulness of the framework throughout this process. Following the workshop you will also be asked to complete a questionnaire online (approx. 10 minutes) regarding your experience of participating in the participatory action research group.

If you are unable to attend a workshop, you will be offered the opportunity to provide your feedback through a telephone call prior to the workshop, to facilitate input from all participants.

### **Risks**

The risks of participating in this study are inconvenience (i.e. travel to the workshop site, time taken to complete questionnaires and attend workshops), discomfort of listening or sharing experiences in a group setting and the risk of confidentiality being broken by a member of the PAR group. These risks will be minimised by ensuring questionnaires are short and that the content of both questionnaires and the group meetings remain within the scope of the research. Group members will be reminded of the importance of confidentiality and only sharing information outside the group if all group members have agreed to this. If you suffer any distress as a result of this research project, you should contact the research team as soon as possible. You will be assisted with arranging appropriate help and support.

### **Benefits**

We cannot and do not guarantee or promise that you will receive any direct benefits from this study. The benefits of this research study include local benefits to your community through local service improvements to enhance the effectiveness of rural and regional health service provision tailored to the needs of your community. The benefits will extend beyond this research study, with opportunities to remain engaged in a continuous quality improvement program if you so desire. It is anticipated that participation in this research study will build the capacity and confidence of participants to utilise action research within professional and/or voluntary settings. It is intended that the benefits of this research will reach a broader audience by informing the development of a framework for the adaptation of service models for a wide range of diverse settings.

### **Costs**

Participation in this study will not cost you anything, nor will you be paid. Light refreshments such as morning or afternoon tea will be provided during participation in the workshops.

### **Voluntary Participation**

Participation in this study is entirely voluntary. You do not have to take part in it. If you do take part, you can withdraw at any time without having to give a reason. Whatever your decision, please be assured that it will not affect your treatment or your relationship with the staff who are caring for you (clients) or working with you (professionals) within any Tresillian service.

### **Confidentiality – What will happen to my data and the research findings?**

All the information collected from you for the study will be treated confidentially, and only the researchers named above will have access to it. It will be disclosed only with your permission, or as required by law.

The information collected through this research will be de-identified to protect your privacy and confidentiality. The data will be stored securely for a period of 7 years and then destroyed. The data will be stored in a secure research database licensed to the Faculty of Health, UTS and will only be available to the research team being the PhD student and doctoral supervisors listed on page 1 of this document. The study results will be reported in a PhD dissertation and may be presented at a conference or in a scientific publication, but individual participants (and the organisations they represent) will not be identifiable in any such a presentation or publication.

There are no foreseeable future activities for which this information/data collected will be shared or used for secondary purposes. However, if this were to arise then another ethics application would be submitted for the use of retrospective data. A 'Yes/No' box has been included on the Consent Form for you to indicate whether you give your permission for use of your data for future research purposes.

### **Further Information**

When you have read this information, Deborah Stockton will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact her on [*telephone number*].

This information sheet is for you to keep.

### **Ethics Approval and Complaints**

This study has been approved by the Ethics Review Committee (RPAH Zone) of the Sydney Local Health District. Any person with concerns or complaints about the conduct of this study should contact the Executive Officer on 02 9515 6766 and quote protocol number X18-0358

The conduct of this study at the Tresillian xxx Family Care Centre has been authorised by the xxx Local Health District. Any person with concerns or complaints about the conduct of this study may also contact the xxx Local Health District Research Governance Officer on [*telephone number*] and quote protocol number X18-0358.

## Appendix 6: Consent Form for Participatory Action Research Studies

***An exploration of the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings***

### PARTICIPANT CONSENT FORM

#### Tresillian xxx Family Care Centre Participatory Action Research Group Participants

I, ..... [name]

Of.....  
[address]

have read and understood the Information for Participants on the abovenamed research study and have discussed the study with

.....

I have been made aware of the procedures involved in the study, including any known or expected inconvenience, risk, discomfort or potential side effect and of their implications as far as they are currently known by the researchers.

I understand that the **Participatory Action Research group** discussion will be audiotaped, and I agree to this.

I freely choose to participate in this study and understand that I can withdraw at any time.

I also understand that the research study is strictly confidential.

I hereby agree to participate in this research study.

I agree to the data collected from me through this study being made available for future research projects after appropriate ethics approval have been sought and granted: (please tick in the box next to YES or NO)

YES	NO
-----	----

**NAME:** .....

**SIGNATURE:** .....

**DATE:** .....

**NAME OF WITNESS:** .....

**SIGNATURE OF WITNESS:** .....

## Appendix 7: Consent Form for Delphi Expert Panel Participation

*An exploration of the extent to which existing metropolitan Level 2 child and family health service models can be implemented in diverse settings*

### PARTICIPANT CONSENT FORM

(Delphi Study Expert Panel)

I, .....  
[name]

Of .....  
[address]

have read and understood the Information for Participants on the abovenamed research study and have discussed the study with:

.....

I have been made aware of the procedures involved in the study, including any known or expected inconvenience, risk, discomfort or potential side effect and of their implications as far as they are currently known by the researchers.

I understand that I will be participating in an **Expert Panel**, completing surveys electronically and I agree to this.

I freely choose to participate in this study and understand that I can withdraw at any time.

I also understand that the research study is strictly confidential.

I hereby agree to participate in this research study.

I agree to the data collected from me through this study being made available for future research projects after appropriate ethics approval have been sought and granted:  
(please tick in the box next to YES or NO)

YES	NO
-----	----

**NAME:** .....

**SIGNATURE:** .....

**DATE:** .....

**NAME OF WITNESS:** .....

**SIGNATURE OF WITNESS:** .....

## Appendix 8: Round 1 e-Delphi results

### Potential elements grouped by WHO Building Blocks.

\* Elements were retained on the basis of consensus being defined as mean  $\geq 4$  and  $\geq 80\%$  of scores 4 or 5

Element items	Mean (out of 5)	SD	% scored 4 or 5	* Retained or Round 2 review
<b>1. Service Delivery</b>				
1. Flexibility in the service model to address different community contexts and needs	4.83	0.39	100	Retained
2. Flexible modes of delivery	4.50	0.52	100	Retained
3. Flexible pathways into the service	4.42	0.51	100	Retained
4. Maintaining a balance between flexibility and productivity	4.00	0.43	91.6	Retained
5. Identify service model elements that must remain stable and those with flexibility for the community context	4.42	0.67	91.6	Retained
6. Adapting the service model for the local context	4.83	0.39	100	Retained
7. Remove barriers to access to increase the availability of help and support for families	4.75	0.45	100	Retained
8. No wrong door access to the service	4.50	0.52	100	Retained
9. Normalising 'help-seeking' to gain access to the service	4.50	0.52	100	Retained
10. Care navigation support for families	4.17	0.58	91.6	Retained
11. Child and family health models that are proactive, rather than waiting for a family to be in crisis	4.42	0.51	100	Retained
12. Asking parents to assist in the formulation of language/communication strategy that is meaningful to them	4.33	0.49	100	Retained
13. A communication strategy to enhance interagency stakeholder understanding of the service model	4.00	0.67	83.3	Retained
14. A service model that reflects real life	4.08	0.51	91.6	Retained
15. A focus on interventions able to be tailored to the needs of the child, parent and family	4.50	0.67	91.6	Retained
16. A well-integrated service system network	4.25	0.62	91.6	Retained
17. Clarity in relation to service and clinician roles	4.08	0.51	91.6	Retained
18. Taking the time to understand the local health priorities and contextual factors	4.33	0.65	91.6	Retained

19. Sufficient time to identify a suitable model and consult locally to inform adaptation, implementation and evaluation	4.50	0.67	91.6	Retained
20. A systematic approach to planning, implementation, adaptation and evaluation	4.42	0.51	100	Retained
21. Best practice evidence-based service models	4.42	0.51	100	Retained
22. Service models which embrace diversity and community inclusion	4.50	0.67	91.6	Retained
23. Asking parents what they want / need and when	4.50	0.52	100	Retained
24. Consumer engagement in service design and implementation planning	4.25	0.62	91.6	Retained
25. Community-based participation to customise models and adapt to local community needs	4.00	0.67	83.3	Retained
26. Community stakeholder participation to identify innovative solutions to implementation challenges	4.42	0.51	100	Retained
27. Community stakeholder participation to ensure culturally sensitive care	4.67	0.49	100	Retained
28. Community stakeholder engagement to promote trust, shared vision and build social capital	4.42	0.67	91.6	Retained
29. Place-based systems of care	4.08	0.72	83.3	Retained
30. Collaborative cross sector integrated service models based on trust, respect and mutual expertise	4.25	0.75	83.3	Retained
31. Integrated service delivery including sharing of information regarding the needs and care of the family	4.08	0.67	83.3	Retained
32. Increase access to comprehensive care through collaborative service delivery	4.08	0.67	83.3	Retained
33. Innovative models of service delivery	3.67	0.65	66.6	Round 2 review
<b>2. Health Workforce</b>				
34. Recruitment and retention strategies to ensure appropriately skilled clinicians	4.58	0.51	100	Retained
35. Recruitment and retention strategies to secure multi-skilled clinicians to work across a broad scope of practice	4.42	0.67	91.6	Retained
36. Interprofessional team approach to address the diverse needs of communities	4.33	0.65	91.6	Retained
37. Interprofessional team approach to maximise workforce resources	3.92	0.67	75	Round 2 review
38. Interprofessional teams to build workforce capacity through sharing of knowledge and expertise	4.00	0.85	83.3	Retained
39. Flexible access to professional development including telehealth	4.33	0.89	75	Round 2 review

40. Clinician exchange programs (e.g. between metropolitan and rural services)	3.58	0.90	50	Round 2 review
41. Education of clinicians to support comprehensive understanding of the local health context	4.25	0.75	83.3	Retained
42. Mentorship of clinicians across communities	4.00	0.85	83.3	Retained
43. Training and mentorship by experts to overcome implementation challenges when establishing new services or programs	4.25	0.45	100	Retained
44. Train-the-trainer to build capacity to implement evidence-based service models and programs	3.83	0.72	66.6	Round 2 review
45. Collaborative workforce models across organisational boundaries	4.17	0.72	83.3	Retained
46. Key workers identified as care coordinators	4.08	0.90	66.6	Round 2 review
47. Key workers with a thorough understanding of local needs identified as advocates for their communities	4.33	0.65	91.6	Retained
48. Harness the knowledge of local healthcare workers to inform service improvements and policy decisions	4.25	0.75	83.3	Retained
49. Support and professional development, particularly for those working in extended scope of practice	4.00	0.74	75	Round 2 review
50. Workforce development to build capacity for culturally safe healthcare service delivery	4.42	0.79	83.3	Retained
51. Local capacity building opportunities for health professionals and the community	4.08	0.79	83.3	Retained
<b>3. Information</b>				
52. Ensure the evaluation strategy, including required data and measures, is incorporated into planning early	4.33	0.65	91.6	Retained
53. Access to all relevant data to inform planning and priority setting	4.25	0.62	91.6	Retained
54. Access to specific data to measure the impact of interventions	4.33	0.49	100	Retained
55. Contextually specific data in relation to disadvantaged populations	4.33	0.49	91.6	Retained
56. Health economics data to measure return on investment	3.83	0.72	83.3	Round 2 review
57. Formative evaluation approaches to enable progressive real-time changes	4.08	0.67	83.3	Retained
58. Community-based action research to understand and effectively address the needs of local communities	4.17	0.72	83.3	Retained
59. Ensure children's outcomes are central	4.42	0.51	100	Retained

60. Consider outcomes in terms of various stakeholders, e.g. children, parents, service, community	4.33	0.65	100	Retained
61. Draw on information captured through service delivery, e.g. data in electronic medical records systems	4.00	0.74	75	Round 2 review
62. Explore data available from multiple sources, including government, interagency, and local	4.17	0.58	91.6	Retained
63. Consider collecting baseline data prior to service model implementation	4.33	0.65	91.6	Retained
64. Seek out exemplars and learnings from other like communities	4.17	0.72	83.3	Retained
65. Learning from one another through collaborative community-based action research	4.08	0.79	75	Round 2 review
<b>4. Technologies</b>				
66. Telehealth to improve access, overcome barriers and improve health outcomes	4.42	0.79	83.3	Retained
67. Telehealth as an optional mode of delivery, not a last resort	3.92	0.67	75	Round 2 review
68. Telehealth as an adjunct, providing additional access to specialist services between face-to-face consultations	4.17	0.72	83.3	Retained
69. Clinical practice guidelines or protocols to support the use of telehealth as a mode of service delivery	4.17	0.58	91.6	Retained
70. Reliable internet, equipment and technological connectivity	4.58	0.67	91.6	Retained
71. Technology to facilitate information sharing between healthcare providers	4.08	0.51	91.6	Retained
72. Technology to facilitate interagency information sharing	3.92	0.51	83.3	Retained
73. Technology to support interprofessional and interagency meetings	3.67	0.65	75	Round 2 review
74. Technological support for clinicians	4.08	0.51	91.6	Retained
75. Flexible and creative solutions to overcome technological barriers	4.00	0.74	75	Round 2 review
76. Reporting parameters that recognise telehealth and other less traditional modes of service activity	4.00	0.74	75	Round 2 review
77. Funding and billing streams to support the use of telehealth and other technologically-based service delivery	4.33	0.78	83.3	Retained
78. Telehealth to increase access to clinical support and consultation for clinicians	4.17	0.72	83.3	Retained
79. Telehealth to increase clinician access to professional development and capacity building	3.92	0.79	66.6	Round 2 review

80. Harnessing technology for innovative solutions to local challenges	4.08	0.51	91.6	Retained
<b>5. Finance</b>				
81. External grants to enable piloting of service models	3.67	0.49	66.6	Round 2 review
82. External grants to enable evaluation studies to assess service model efficacy in various contexts	3.75	0.62	66.6	Round 2 review
83. Committed longer-term funding to support sustainable change rather than short-term funding cycles	4.67	0.65	91.6	Retained
84. Funding models with flexibility and breadth to address the realities of healthcare provision across different settings and contexts	4.58	0.51	100	Retained
85. Funding models that include the time and resources required to build trust, local coalitions and community engagement to effectively adapt service models for local context	4.67	0.49	100	Retained
86. Sufficient funding to enable time to consult locally to inform service model adaptation, implementation and evaluation	4.58	0.67	91.6	Retained
87. Incentive schemes for recruitment and retention in difficult-to-staff settings	4.25	0.75	83.3	Retained
88. Financial support for community participation in service planning and governance	4.00	0.85	66.6	Round 2 review
89. Bulk billing to address financial barriers to healthcare access	4.33	0.78	91.6	Retained
90. Medicare (Government) rebates to enable coordinated care in vulnerable communities	4.25	0.97	66.6	Round 2 review
91. Funding for the Gold Standard of service delivery	3.75	0.87	75	Round 2 review
92. Interagency pooling of both financial risk and funding	3.58	0.79	58.3	Round 2 review
93. Interagency commitment including the sharing of resources to optimise capacity	3.67	0.89	58.3	Round 2 review
<b>6. Leadership and Governance</b>				
94. Local stakeholder representation in healthcare systems leadership and governance	4.17	0.72	91.6	Retained
95. Local stakeholder representation in planning and decision making	4.42	0.51	100	Retained
96. Decision making inclusive of local culture and population groups, particularly minorities and those with the greatest need	4.33	0.65	91.6	Retained

97. Funding bodies (e.g. government) specify interagency collaboration as an essential requirement for funding	3.83	0.83	58.3	Round 2 review
98. Community-based governance to empower local providers to address local community needs	4.08	0.79	75	Round 2 review
99. Cross jurisdictional and sector collation building	3.75	0.75	58.3	Round 2 review
100. Organisational culture which embraces advocacy and champions who understand the needs of local communities	4.08	0.67	83.3	Retained
101. Organisational culture focused on improving outcomes for children and their families above all else	4.50	0.67	100	Retained
102. Organisational culture which exemplifies building relationships and trust within and across organisational boundaries	4.33	0.49	100	Retained
103. Organisational culture which mirrors a strengths-based approach from senior leadership to direct services for families	4.17	0.58	91.6	Retained
104. Collaborative governance across all levels, including macro (policy makers) and micro (local) level	4.00	0.60	83.3	Retained
105. Review of policy implications to avoid misalignment with service delivery realities in different contexts	4.25	0.62	91.6	Retained
106. Flexible approach to registration/professional requirements to enable new models of care	3.58	0.67	50	Round 2 review
107. Organisational culture that embraces negotiation with parents, community and other stakeholders	4.42	0.51	100	Retained

## Appendix 9: Round 2 e-Delphi results

### Elements that did not meet Round 1 consensus, grouped by WHO Building Blocks

\* Elements were retained on the basis of consensus being defined as mean  $\geq 4$  and  $\geq 80\%$  of scores 4 or 5

Element items	Mean	SD	% scored 4 or 5	* Retained or Discarded at Round 2
<b>1. Service Delivery</b>				
Item 33: Innovative models of service delivery	3.67	0.65	58.3	Discarded
<b>2. Health Workforce</b>				
Item 37: Interprofessional team approach to maximise workforce resources	4.25	0.45	100	Retained
Item 39: Flexible access to professional development including telehealth	4.25	0.45	100	Retained
Item 40: Clinician exchange programs (e.g. between metropolitan and rural services)	3.58	0.51	58.3	Discarded
Item 44: Train-the-trainer to build capacity to implement evidence-based service models and programs	3.83	0.58	75	Discarded
Item 46: Key workers identified as care coordinators	4.33	0.89	91.6	Retained
Item 49: Support and professional development, particularly for those working in extended scope of practice	4.33	0.49	100	Retained
<b>3. Information</b>				
Item 56: Health economics data to measure return on investment	4.08	0.51	91.6	Retained

<b>Element items</b>	<b>Mean</b>	<b>SD</b>	<b>% scored 4 or 5</b>	<b>* Retained or Discarded at Round 2</b>
Item 61: Draw on information captured through service delivery, e.g. data in electronic medical records systems	4.00	0.43	91.6	Retained
Item 65: Learning from one another through collaborative community-based action research	4.17	0.58	91.6	Retained
<b>4. Technologies</b>				
Item 67: Telehealth as an optional mode of delivery, not a last resort	4.08	0.51	91.6	Retained
Item 72: Technology to facilitate interagency information sharing	3.92	0.29	91.6	Discarded
Item 73: Technology to support interprofessional and interagency meetings	3.83	0.39	83.3	Discarded
Item 75: Flexible and creative solutions to overcome technological barriers	4.17	0.39	100	Retained
Item 76: Reporting parameters that recognise telehealth and other less traditional modes of service activity	4.17	0.72	83.3	Retained
Item 79: Telehealth to increase clinician access to professional development and capacity building	4.17	0.58	91.6	Retained
<b>5. Finance</b>				
Item 81: External grants to enable piloting of service models	4.08	0.29	100	Retained
Item 82: External grants to enable evaluation studies to assess service model efficacy in various contexts	4.25	0.45	100	Retained
Item 88: Financial support for community participation in service planning and governance	4.33	0.78	83.3	Retained

<b>Element items</b>	<b>Mean</b>	<b>SD</b>	<b>% scored 4 or 5</b>	<b>* Retained or Discarded at Round 2</b>
Item 90: Medicare (Government) rebates to enable coordinated care in vulnerable communities	4.42	0.67	91.6	Retained
Item 91: Funding for the Gold Standard of service delivery	3.83	0.58	75	Discarded
Item 92: Interagency pooling of both financial risk and funding	3.75	0.62	66.6	Discarded
Item 93: Interagency commitment including the sharing of resources to optimise capacity	4.00	0.60	83.3	Retained
<b>6. Leadership and Governance</b>				
Item 97: Funding bodies (e.g. government) specify interagency collaboration as an essential requirement for funding	3.83	0.83	75	Discarded
Item 98: Community-based governance to empower local providers to address local community needs	4.42	0.51	100	Retained
Item 99: Cross jurisdictional and sector collation building	3.83	0.72	66.6	Discarded
Item 106: Flexible approach to registration/professional requirements to enable new models of care	3.67	0.49	66.6	Discarded

## Appendix 10: C-M-O Analysis of Retained Framework Elements

<b>Context</b>	<b>Mechanism</b>	<b>Outcomes (Expected)</b>	<b>Outcomes (Evaluating)</b>
Adapting the service model for the local context	Flexibility in the service model to address different community contexts and needs	Ensure children's outcomes are central	Ensure the evaluation strategy, including required data and measures, is incorporated into planning early
Asking parents to assist in the formulation of language/communication strategy that is meaningful to them	Flexible modes of delivery	Consider outcomes in terms of various stakeholders, e.g. children, parents, service, community	Access to specific data to measure the impact of interventions
Taking the time to understand the local health priorities and contextual factors	Flexible pathways into the service	CFH models that are proactive, rather than waiting for a family to be in crisis	Health economics data to measure return on investment
Sufficient time to identify a suitable model and consult locally to inform adaptation, implementation and evaluation	Maintaining a balance between flexibility and productivity	A well-integrated service system network	Formative evaluation approaches to enable progressive real-time changes
A systematic approach to planning, implementation, adaptation and evaluation	Identify service model elements that must remain stable and those with flexibility for the community context	Clarity in relation to service and clinician roles	Community-based action research to understand and effectively address the needs of local communities
Consumer engagement in service design and implementation planning	No wrong door access to the service	Asking parents what they want / need and when	Draw on information captured through service delivery, e.g. data in electronic medical records systems
Community-based participation to customise models and adapt to local community needs	Care navigation support for families	Community stakeholder engagement to promote trust, shared vision and build social capital	Explore data available from multiple sources, including government, interagency and local
Community stakeholder participation to identify innovative solutions to implementation challenges	A communication strategy to enhance interagency stakeholder understanding of the service model	Increase access to comprehensive care through collaborative service delivery	Consider collecting baseline data prior to service model implementation
Community stakeholder participation to ensure culturally sensitive care	A service model that reflects real life	Local capacity building opportunities for health professionals and the community	Learning from one another through collaborative community-based action research
Education of clinicians to support comprehensive understanding of the local health context	A focus on interventions able to be tailored to the needs of the child, parent and family	Remove barriers to access to increase the availability of help and support for families	Reporting parameters that recognise telehealth and other less traditional modes of service activity

<b>Context</b>	<b>Mechanism</b>	<b>Outcomes (Expected)</b>	<b>Outcomes (Evaluating)</b>
Key workers with a thorough understanding of local needs identified as advocates for their communities	Best practice evidence-based service models	Normalising 'help-seeking' to gain access to the service	External grants to enable evaluation studies to assess service model efficacy in various contexts
Harness the knowledge of local healthcare workers to inform service improvements and policy decisions	Service models which embrace diversity and community inclusion	Flexible and creative solutions to overcome technological barriers	Sufficient funding to enable time to consult locally to inform service model adaptation, implementation and evaluation
Access to all relevant data to inform planning and priority setting	Place-based systems of care		
Contextually specific data in relation to disadvantaged populations	Collaborative cross sector integrated service models based on trust, respect and mutual expertise		
Seek out exemplars and learnings from other like communities	Integrated service delivery including sharing of information regarding the needs and care of the family		
Funding models with flexibility and breadth to address the realities of healthcare provision across different settings and contexts	Recruitment and retention strategies to ensure appropriately skilled clinicians		
Funding models that include the time and resources required to build trust, local coalitions and community engagement to effectively adapt service models for local context	Recruitment and retention strategies to secure multi-skilled clinicians to work across a broad scope of practice		
Financial support for community participation in service planning and governance	Interprofessional team approach to address the diverse needs of communities		
Interagency commitment including the sharing of resources to optimise capacity	Interprofessional team approach to maximise workforce resources		
Local stakeholder representation in healthcare systems leadership and governance.	Interprofessional teams to build workforce capacity through sharing of knowledge and expertise		
Local stakeholder representation in planning and decision making	Flexible access to professional development including telehealth		
Decision making inclusive of local culture and population groups, particularly minorities and those with the greatest need	Mentorship of clinicians across communities		

Context	Mechanism	Outcomes (Expected)	Outcomes (Evaluating)
Community-based governance to empower local providers to address local community needs	Training and mentorship by experts to overcome implementation challenges when establishing new services or programs		
Organisational culture which embraces advocacy and champions who understand the needs of local communities	Collaborative workforce models across organisational boundaries		
Organisational culture focused on improving outcomes for children and their families above all else	Key workers identified as care coordinators		
Organisational culture which exemplifies building relationships and trust within and across organisational boundaries	Support and professional development, particularly for those working in extended scope of practice		
Organisational culture which mirrors a strengths-based approach from senior leadership to direct services for families	Workforce development to build capacity for culturally safe healthcare service delivery		
Collaborative governance across all levels, including macro (policy makers) and micro (local) level	Telehealth to improve access, overcome barriers and improve health outcomes		
Review of policy implications to avoid misalignment with service delivery realities in different contexts	Telehealth as an optional mode of delivery, not a last resort		
Organisational culture that embraces negotiation with parents, community and other stakeholders	Telehealth as an adjunct, providing additional access to specialist services between face-to-face consultations		
	Clinical practice guidelines or protocols to support the use of telehealth as a mode of service delivery		
	Reliable internet, equipment and technological connectivity		
	Technology to facilitate information sharing between healthcare providers		
	Technological support for clinicians		
	Funding and billing streams to support the use of telehealth and other technologically-based service delivery		
	Telehealth to increase access to clinical support and consultation for clinicians		

Context	Mechanism	Outcomes (Expected)	Outcomes (Evaluating)
	Telehealth to increase clinician access to professional development and capacity building		
	Harnessing technology for innovative solutions to local challenges		
	External grants to enable piloting of service models		
	Committed longer-term funding to support sustainable change rather than short-term funding cycles		
	Incentive schemes for recruitment and retention in difficult-to-staff settings		
	Bulk billing to address financial barriers to healthcare access		
	Medicare (Government) rebates to enable coordinated care in vulnerable communities		

## Appendix 11: CASCADES Framework Elements by Tier

<b>Tier 1: Context</b>		
<i>Following review of each element, note Yes or No in the right-hand column to indicate relevance to explore and inform your project and goals.</i>		<b>Yes / No</b>
C1	Adapting the service model for the local context	
C2	Asking parents to assist in the formulation of language/communication strategy that is meaningful to them	
C3	Taking the time to understand the local health priorities and contextual factors	
C4	Sufficient time to identify a suitable model and consult locally to inform adaptation, implementation and evaluation	
C5	A systematic approach to planning, implementation, adaptation and evaluation	
C6	Consumer engagement in service design and implementation planning	
C7	Community-based participation to customise models and adapt to local community needs	
C8	Community stakeholder participation to identify innovative solutions to implementation challenges	
C9	Community stakeholder participation to ensure culturally sensitive care	
C10	Education of clinicians to support comprehensive understanding of the local health context	
C11	Key workers with a thorough understanding of local needs identified as advocates for their communities	
C12	Harness the knowledge of local healthcare workers to inform service improvements and policy decisions	
C13	Access to all relevant data to inform planning and priority setting	
C14	Contextually specific data in relation to disadvantaged populations	
C15	Seek out exemplars and learnings from other like communities	
C16	Funding models with flexibility and breadth to address the realities of healthcare provision across different settings and contexts	
C17	Funding models that include the time and resources required to build trust, local coalitions and community engagement to effectively adapt service models for local context	
C18	Financial support for community participation in service planning and governance	
C19	Interagency commitment including the sharing of resources to optimise capacity	

C20	Local stakeholder representation in healthcare systems leadership and governance.	
C21	Local stakeholder representation in planning and decision making	
C22	Decision making inclusive of local culture and population groups, particularly minorities and those with the greatest need	
C23	Community-based governance to empower local providers to address local community needs	
C24	Organisational culture which embraces advocacy and champions who understand the needs of local communities	
C25	Organisational culture focused on improving outcomes for children and their families above all else	
C26	Organisational culture which exemplifies building relationships and trust within and across organisational boundaries	
C27	Organisational culture which mirrors a strengths-based approach from senior leadership to direct services for families	
C28	Collaborative governance across all levels, including macro (policy makers) and micro (local) level	
C29	Review of policy implications to avoid misalignment with service delivery realities in different contexts	
C30	Organisational culture that embraces negotiation with parents, community and other stakeholders	

<b>Tier 2: Outcomes (Expected)</b>		
<i>Following review of each element, note Yes or No in the right-hand column to indicate relevance to explore and inform your project and goals.</i>		<b>Yes / No</b>
O1	Ensure children's outcomes are central	
O2	Consider outcomes in terms of various stakeholders, e.g. children, parents, service, community	
O3	CFH models that are proactive, rather than waiting for a family to be in crisis	
O4	A well-integrated service system network	
O5	Clarity in relation to service and clinician roles	
O6	Asking parents what they want / need and when	
O7	Community stakeholder engagement to promote trust, shared vision and build social capital	
O8	Increase access to comprehensive care through collaborative service delivery	
O9	Local capacity building opportunities for health professionals and the community	
O10	Remove barriers to access to increase the availability of help and support for families	

O11	Normalising 'help-seeking' to gain access to the service	
O12	Flexible and creative solutions to overcome technological barriers	

<b>Tier 3: Model</b>		
<i>Following review of each element, note Yes or No in the right-hand column to indicate relevance to explore and inform your project and goals.</i>		<b>Yes / No</b>
M1	Flexibility in the service model to address different community contexts and needs	
M2	Flexible modes of delivery	
M3	Flexible pathways into the service	
M4	Maintaining a balance between flexibility and productivity	
M5	Identify service model elements that must remain stable and those with flexibility for the community context	
M6	No wrong door access to the service	
M7	Care navigation support for families	
M8	A communication strategy to enhance interagency stakeholder understanding of the service model	
M9	A service model that reflects real life	
M10	A focus on interventions able to be tailored to the needs of the child, parent and family	
M11	Best practice evidence-based service models	
M12	Service models which embrace diversity and community inclusion	
M13	Place-based systems of care	
M14	Collaborative cross sector integrated service models based on trust, respect and mutual expertise	
M15	Integrated service delivery including sharing of information regarding the needs and care of the family	
M16	Recruitment and retention strategies to ensure appropriately skilled clinicians	
M17	Recruitment and retention strategies to secure multi-skilled clinicians to work across a broad scope of practice	
M18	Interprofessional team approach to address the diverse needs of communities	
M19	Interprofessional team approach to maximise workforce resources	

M20	Interprofessional teams to build workforce capacity through sharing of knowledge and expertise	
M21	Flexible access to professional development including telehealth	
M22	Mentorship of clinicians across communities	
M23	Training and mentorship by experts to overcome implementation challenges when establishing new services or programs	
M24	Collaborative workforce models across organisational boundaries	
M25	Key workers identified as care coordinators	
M26	Support and professional development, particularly for those working in extended scope of practice	
M27	Workforce development to build capacity for culturally safe healthcare service delivery	
M28	Telehealth to improve access, overcome barriers and improve health outcomes	
M29	Telehealth as an optional mode of delivery, not a last resort	
M30	Telehealth as an adjunct, providing additional access to specialist services between face-to-face consultations	
M31	Clinical practice guidelines or protocols to support the use of telehealth as a mode of service delivery	
M32	Reliable internet, equipment and technological connectivity	
M33	Technology to facilitate information sharing between healthcare providers	
M34	Technological support for clinicians	
M35	Funding and billing streams to support the use of telehealth and other technologically-based service delivery	
M36	Telehealth to increase access to clinical support and consultation for clinicians	
M37	Telehealth to increase clinician access to professional development and capacity building	
M38	Harnessing technology for innovative solutions to local challenges	
M39	External grants to enable piloting of service models	
M40	Committed longer-term funding to support sustainable change rather than short-term funding cycles	
M41	Incentive schemes for recruitment and retention in difficult to staff settings	
M42	Bulk billing to address financial barriers to healthcare access	
M43	Medicare (Government) rebates to enable coordinated care in vulnerable communities	

<b>Tier 4: Evaluation &amp; Reflection</b>		
<i>Following review of each element, note Yes or No in the right-hand column to indicate relevance to explore and inform your project and goals.</i>		<b>Yes / No</b>
E1	Ensure the evaluation strategy, including required data and measures, is incorporated into planning early	
E2	Access to specific data to measure the impact of interventions	
E3	Health economics data to measure return on investment	
E4	Formative evaluation approaches to enable progressive real-time changes	
E5	Community-based action research to understand and effectively address the needs of local communities	
E6	Draw on information captured through service delivery, e.g. data in electronic medical records systems	
E7	Explore data available from multiple sources, including government, interagency and local	
E8	Consider collecting baseline data prior to service model implementation	
E9	Learning from one another through collaborative community-based action research	
E10	Reporting parameters that recognise telehealth and other less traditional modes of service activity	
E11	External grants to enable evaluation studies to assess service model efficacy in various contexts	
E12	Sufficient funding to enable time to consult locally to inform service model adaptation, implementation and evaluation	

## Appendix 12: Delphi Panel Participants Newsletter

# Delphi Panel Participants' Newsletter

*Adaptation of Child and Family Health Service Models for Diverse Settings study*

*Research Team: D Stockton (PhD Candidate), Prof J Travaglia, Prof C Fowler & Dr. D Debono, UTS.*

*July 2021*

**Welcome** to this newsletter for participants of the e-Delphi study undertaken last year. You might remember that I had promised to send through an update on how the results of the Delphi study have been used and what has happened in relation to this research and outcomes to date.

This newsletter provides a brief overview on what has happened since the conclusion of the Delphi rounds, how the results have been used and links to some articles relating to this research.

### What were our aims?

One of the primary aims of the Delphi study was to identify a core set of elements essential to the adaptation of child and family health (CFH) service models for difference contexts. The full list of items presented to you to consider had been informed by an Integrative Review of literature and an initial Participatory Action Research (PAR) group (Group 1) undertaken with rural and regional health professionals, service managers and consumer representation.

The elements you and the rest of the panel members identified through the Delphi round process, were used to inform the development of a framework to guide health service providers when adapting service models to suit different contexts and meet the needs of communities in diverse settings. An example is adapting effective metropolitan CFH service models to suit different settings in rural, regional and remote areas, such as the Tresillian Standardised Service Model which was presented to you at the beginning of the Delphi Study.

### How have the Delphi results been used?

The draft **Framework** for the Adaptation of CFH Service Models for Diverse Settings was developed based on the elements you and your fellow panel members identified. With the title of the **Framework** being so long, it now has a more user friendly title which I'll be able to share with you in the next newsletter (once the **Framework** is published)!

The **Framework** was tested with a second Participatory Action Research (PAR) group in regional NSW. This PAR group consisted of representatives of health professionals, service managers, consumers, other government agencies and non-government organisations. The

PAR group used the **Framework** to guide each step of the action research in order to gain a shared understanding of their community context, the needs of families in their local area, identify aspects of the service model which were a good fit for their community, and develop an action plan to enable improvements as they move into a 2<sup>nd</sup> PAR cycle. Overwhelming, the feedback regarding the **Framework** was positive, with participants reporting how much it helped them to refer to as they stepped through the various phases of the process.

## What's the plan for the Framework?

A number of tools are being finalised that will accompany the **Framework**, to support its utility for implementation – enabling clinicians, service providers and planners, and community members to pick it up and ‘run with it’, using those aspects which are relevant to their needs. A paper is being written for submission to a peer review journal for publication and it is planned that the **Framework** will be presented at conferences and seminars. Once the Framework paper has been published, I will send through a Newsletter update to share the paper with you. You will also be able to contact me if you would like a presentation on the **Framework** to you and your colleagues.

## Communicating and Sharing this Research

Since we were last in touch at the conclusion of the Delphi study, in addition to a [paper currently being finalised for publication reporting on the outcomes of this Delphi study](#), there have been a number of opportunities to share with others the various stages of this research and the outcomes to-date.

### ▪ Integrative Review Paper

This year a paper was published in the journal of Health Science Reports titled *World Health Organisation building blocks in rural community health services: An integrative review* (Stockton, Fowler, Debono & Travaglia, 2021). The article reports on the findings of the integrative review, with a key finding being that collaborating with community and local stakeholders is essential to improving rural health services. A link to the full article is provided here: <https://onlinelibrary.wiley.com/doi/10.1002/hsr2.254>


A summary of the article published on the UTS website, “Lessons learned: rural healthcare” can be found at:

[https://www.uts.edu.au/about/faculty-health/news/lessons-learned-rural-healthcare?utm\\_source=facebook&utm\\_medium=social&utm\\_campaign=Health+Service+Management%2CResearch](https://www.uts.edu.au/about/faculty-health/news/lessons-learned-rural-healthcare?utm_source=facebook&utm_medium=social&utm_campaign=Health+Service+Management%2CResearch)

### ▪ Consumer Health Forum Summit 2021

An abstract was accepted enabling a presentation at the Consumer Health Forum Virtual Summit: Shifting Gears held in March 2021. The presentation was titled ‘*Community Co-design: Harnessing Participatory Action Research and Modified Delphi approaches for service adaptation and innovation*’ and reported on the first two phases of the doctoral research, being the first PAR group and the preliminary findings of the Delphi study. Key

take home messages in the presentation centred on the use of research methods such as PAR and Delphi to provide an inclusive appropriate, ensuring the voices of consumers and a broad range of stakeholders could be heard and inform the co-design of adaptations to service models for different community contexts.



**Community Co-Design: Harnessing Participatory Action Research and Modified Delphi Approaches for Service Adaptation and Innovation**  
Deborah Stockton, Tresillian

13:15 - 13:30

This presentation describes a study exploring the extent to which an Australian metropolitan service model for specialist child and family health services can be implemented in diverse settings including rural areas. Consumers and other key stakeholders were engaged through Participatory Action Research (PAR) and a Modified Delphi Study to ensure the voices of parents were heard and informed the co-design of adaptations to a metropolitan service model to enable contextualisation to meet the needs of local communities.

### ▪ **National Rural Health Association: Partyline**

In June 2021, an article was published in Partyline, an online magazine published by the National Rural Health Alliance, the peak body working towards healthy and sustainable rural, regional and remote communities. The article provided an overview of the continued rural and regional service development undertaken by Tresillian to increase access to specialist child and family health services during the critical early years of a child's life. The article provided a summary of the first PAR group including outcomes which have already provided tangible improvements to access to services for families. The link to the article is provided here:

<https://www.ruralhealth.org.au/partyline/article/tresillian-goes-rural-parents-and-children>

## THANK YOU!

I'd like to again *thank you* for your participation in this research. Without the generous contribution of your time, insights and sharing of your wisdom and perspectives, this research would not have been possible. I look forward to being in touch once the Delphi Study paper and the Framework paper is published and ready to be released.

Please don't hesitate to contact me for further information on any of the above content.

With thanks and kind regards

*Debbie*

Deborah Stockton, PhD Candidate,  
Health Services Management  
School of Public Health, Faculty of Health, UTS  
Email: [Deborah.A.Stockton@student.uts.edu.au](mailto:Deborah.A.Stockton@student.uts.edu.au)