BETTER TOGETHER: SUPPORTING PERINATAL AND INFANT MENTAL HEALTH SERVICES





PIMH in the City of Joondalup and the City of Wanneroo, WA March 2019

Supported by WA Primary Health Alliance

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An Australian Government Initiative

About Edith Cowan University

Edith Cowan University was established in 1991. The name of the university is derived from Edith Dircksey Cowan OBE, best known as the first Australian woman to serve as a member of parliament. As a social reformer Edith Cowan worked for the rights and welfare of women and children. Edith Cowan University is guided by values of integrity, respect, rational inquiry and personal excellence. The focus of the university is on teaching and research inspired by engagement and partnerships with those in the many communities it was established to serve. Research at ECU seeks to extend knowledge and improve the quality of life for Australians and people across the globe. ECU's research priorities focus on solving real world problems across social, economic, physical and environmental domains.

About ECU Transdisciplinary Child Research Collaboration

This collaboration developed in response to a growing awareness of the benefits of transdisciplinary research in the fields of Perinatal and Infant Mental Health. In particular students from diverse disciplines who came together to study in the Edith Cowan postgraduate programme of Infant Mental Health were required to complete a research project as part of their degree.

The ECU Transdisciplinary Child Research Collaboration comprise academics and clinicians from various branches of psychology, nursing and midwifery and early childhood education who have expertise and interest in applied research that supports the social and emotional wellbeing of infants, infants, young children and their families across a range of settings and continuum of care.

About the WA Primary Health Alliance

WA Primary Health Alliance is a federally funded commissioning organisation that oversees the state's three Primary Health Networks; Perth North, Perth South and Country WA. It works across the WA health system to improve the coordination of care for people who are at risk of poor health outcomes and to facilitate a more effective and efficient health system. To achieve this, WAPHA is focused on improving health equity and access, commissioning services in the areas of greatest need and developing person-centred models of care.

About Bankwest Curtin Economics Centre

The Bankwest Curtin Economics Centre is an independent economic and social research organisation located within the Curtin Business School at Curtin University. The centre was established in 2012 through the generous support of Bankwest (a division of the Commonwealth Bank of Australia), with a core mission to examine the key economic and social policy issues that contribute to the sustainability of Western Australia and the wellbeing of WA households.

The centre is able to capitalise on Curtin University's reputation for excellence in economic modelling, forecasting, public policy research, trade and industrial economics and spatial sciences. Centre researchers have specific expertise in economic forecasting, quantitative modelling, micro-data analysis and economic and social policy evaluation. The centre also derives great value from its close association with experts from the corporate, business, public and not-for-profit sectors.

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Foreword

As higher education strives to meet the challenges of UNESCO's Global University Network for Innovation's challenge to re-define its social responsibility, it increasingly is building partnerships with community that embrace collaborative inquiry, shared knowledge, and co-creative ingenuity in efforts to tackle and solve many of the world's most wicked problems. Wicked problems involve networks of interacting systems, and increasingly it is clear that theories and approaches of the past are insufficient to unravel or transform problems that are embedded in social, economic, political and racial inequalities.

As a result, new paradigmatic views have given rise to theories and methods that are anchored in relational developmental systems frameworks. One such framework, Perinatal Infant Mental Health (PIMH), has emerged from nearly 40 years of systematic trans-disciplinary research on the biopsychosocial organisation of the human being from conception through the first five postnatal years of life. No other period of human development has generated the level of research intensity from the aggregate developmental sciences during the last 50 years of the 20th century to the present.

The PIMH framework targets systems that currently focus on interventions and support services for individuals who experience adverse childhood experiences (ACES), beginning at conception and encompassing infancy and the very early childhood years. Emboldened by knowledge of the impact of epigenetic influences on gene expression, and the organisation of neurobiological and hormonal regulatory systems, PIMH rejects isolated impact approaches to prevention and intervention, in favour of dynamic systems models that better reflect the realities of human development.

Those realities of human development require a deeper understanding of the adverse experiences that negatively affect nearly 20 per cent of children in every world society surveyed thus far. When children experience four or more adverse childhood experiences, from conception to age five, they are primed for developmental pathways that can lead to difficult physical and mental health problems, poor cognitive development, poor interpersonal relationships and high risk for psychopathology. Parents, relatives, teachers, faith leaders, neighbours, elected officials and all members of society share responsibility for optimizing the quality of child development and working to eliminate adverse childhood experiences. The good news is that change is possible!

Simply put, Better Together is an effort to transform how human beings relate to one another. It is an effort to encourage cross system integration, organisational cooperation, community empowerment, and reasoned approaches to resource sharing that can provide opportunities for every child to succeed, be free of serious mental health issues, become educated, and apply her or his unique view of the world to efforts to solve relationship problems that separate people, rather than fuelling efforts to be Better Together.

Hiram E. Fitzgerald

Acknowledgements

Better Together: Supporting perinatal and infant mental health services was initiated after a professorial visit to Edith Cowan University (ECU) by Distinguished Professor Hiram Fitzgerald from Michigan State University (MSU). Distinguished Professor Fitzgerald provided the inspiration and vision of working to engage a whole community in the principles of Perinatal Infant Mental Health (PIMH) practice rather than the more restrictive approach of achieving change one dyad at a time. Transdisciplinarity was already part of the project team framework with the core research group representing nursing and midwifery, community psychology, clinical psychology and education. Edith Cowan University School of Arts and Humanities along with an anonymous and visionary philanthropist support the ECU Pregnancy to Parenthood clinic from which ideas for the project were conceived and from which the network of service providers and consumers developed.

The team of research assistants, Celeste Lauren, Olivia Marshall, Divyah Sreevardhanan and Jenna Thornton were unequivocally exceptional. Together, their professionalism, organisational skills and commitment to this project was outstanding and brought seamlessness to the complex organisation and data collection in the many concomitant arms of the project.

The contributions of stakeholders and consumers informed every stage of this project. Participation involved four reference group meetings as well as completion of lengthy questionnaires and contributions to focus group sessions. A testament to the importance of this topic and to the principles of community participation is that the collective group has voted to continue to meet beyond the life of the project.

The project would not have been possible without the financial support of the WA Primary Health Alliance (WAPHA), and their recognition of the importance of the PIMH field. Nor would it have been possible without collaboration with our project partner Bankwest Curtin Economic Centre and support of the Consumer and Community Health Research Network.

Finally, Better Together team and participants' and ECU respectfully acknowledge the Noongar people, both past present and future, the traditional owners of the land on which we work. We especially recognise and respect Aboriginal beliefs about pregnancy, birth and childrearing and affirm our commitment to strengthening relationships in order to provide culturally sensitive services for Aboriginal people.

Executive Summary

The well-being and social emotional development of infants, young children and their caregivers is critical to the future social fabric of society. To be effective the system of services supporting infants and young children in their families and communities must be integrated across levels of service delivery as well as across sectors. It must also be dynamic and responsive to the changing individual, family, community and environmental contexts. This project known as Better Together reports on research conducted on the System of Care for Perinatal Infant Mental Health (PIMH) in the Cities of Joondalup and Wanneroo in Western Australia and captures initial layers of information about this system.

Better Together mapped the population density of each of the cities with respect to where families with 0-4 age children resided. We also used GIS mapping to locate all of the System of Care agencies/organisations within each city. Training programs based on the Australian Association for Infant Mental Health West Australian Branch (AAIMHI WA) Competency Guidelines for culturally sensitive, Relationship Focused Practice Promoting Infant Mental Health® were conducted with agency/organisation personnel. A Social Network Analysis (SNA) was designed to assess a wide range of issues related to the degree to which the System of Care, in fact, operated as an integrated system with respect to services for infants, young children and their families. Focus group and interview approaches were used to assess community perspectives about the quality of care provide by the System. At the agency/organisation level, SNA was used to assess perinatal and infant mental health services that are provided, barriers to network success, expected benefits of an integrated service, proportion of funds focused on families (prenatal to age 3), the interconnections of agencies/organisations, their degree of trust and value of one another, and a wide variety of functions provided by the agencies/organisations. Personnel training and experience in relation to inter-agency/organisation connectivity was also assessed.

The findings from Better Together are the result of analyses of multiple sources of data from over 110 workers from 78 agencies/ organisations across a wide range of groups that provide services in these cities as well as from 53 consumers of those services (families with infants, young children 0-3 years who reside in the cities).

The key findings show that the System of Care collectively has 2,460 relationships and a low to moderate level of interconnectivity with only 44 per cent receiving service referrals. Relationships between agencies/ organisations are built mostly from referral pathways and educational programming (38%). Developing new initiatives, training needs and service delivery also underpin agency/organisation relationships (20-25%). Factors contributing to relationship development included, developing relationships with specific individuals (36%), practice efforts leading to connections with other individuals (31%), and participation in service related committee (48%). Social Network Analysis data indicated that the level of trust between agencies/ organisations was low to moderate, as was the degree to which they valued one-another. Data suggests many more connections are possible and there is room to improve system cohesiveness.

Agency/organisation personnel had very little knowledge of services provided by other services within the System of Care. There were sharp contrasts between perceptions of success and quality of service between service personnel and families, which was highlighted through consumer themes and subthemes in the focus groups. Parent concerns focused on the impersonal attitudes of agency/organisation personnel, lack of understanding what services are actually available to them, lack of assistance actually making a referral within the system, issues with culturally appropriate personnel, difficulties for vulnerable families to gain access to services, and differences they felt with respect to power relationships related to SES and vulnerability. These along with other key findings from the report are presented as follows.

Key findings

SOCIO-ECONOMIC PROFILE AND SERVICE MAPPING: A Tale of Two Cities

- The two cities of Wanneroo and Joondalup are both northern metropolitan cities of Perth in Western Australia and they each have 14 SA2 regions within their borders. In 2016, Joondalup had a total population of 155,000, and a land mass of 99 sq kms; Wanneroo had a population of 188,000, land mass 685 sq kms. The 0-4 age population of Joondalup is 5.7 per cent; whereas that of Wanneroo is 8.0 per cent.
- The two cities are vastly different in their demographics. Joondalup is geographically and social advantaged (SEIFA = 9; lowest individual locality SEIFA = 6) with a declining population (-1.5%). Wanneroo has high levels of disadvantage in many of its localities (SEIFA= 5; 3 localities SEIFA 1-3), with a rapidly growing population up 24 per cent from 2011 including of children aged 0-4 years (+16%) and young women of birthing age (+18.7%).
- The two cities have a higher percentage of migrants than is average for WA, mostly from Europe (66.1%; 54.4%), Asia (13.4%; 24.3%) and Africa (17.4%; 19.0%). In Joondalup most young migrant women of birthing age are English speaking whilst in Wanneroo there are three localities with large percentages (6-10%) of young women of birthing age who have no or poor spoken English.

NETWORK CHARACTERISTICS AND FUNCTIONING: Social Network Analysis, Survey and Focus groups

- Collectively, Service providers were mostly female (86%) and 81 per cent identified as Australian or European; 6 per cent as African and none as Asian. Consumers in the survey identified as European or Australian (91%) and were mostly university educated. Consumers in the focus groups were from more diverse backgrounds including representation from hard to reach families.
- The agencies/organisations surveyed indicated that over 30 per cent of their clients are from culturally and linguistically diverse backgrounds. However, most agencies/organisations (93.5%) did not have an ethnic advisor. Furthermore, 65 per cent of agencies/organisations surveyed did not have an Aboriginal and Torres Strait Islander Liaison Officer, while 30 per cent of those surveyed had between 1 and 5 Aboriginal and Torres Strait Islander Liaison Officers.
- Consumer representatives identified that more Aboriginal staff are needed within agencies/organisations and this was in line with some service providers highlighting a need for cultural sensitivity as an area for improvement. Gaps in services for Culturally and Linguistically Diverse (CaLD) communities were also identified.
- Within the network, half of the organisations relate to each other at a level of awareness only with a limited understanding of the services offered by each other (58%). Twenty three percent of agencies/organisations connect at a cooperative level, where they exchange information, attend meetings together and inform each other of available services. Coordinated activities between agencies/organisations, where planning occurs together, data is shared and trainings are collaborative occur in twelve percent of cases. Only 7 per cent of the network connect through integrated activities that include shared funding and joint program development, combine services and have shared accountability.
- Within the system the interconnectivity or density (percentage of ties in the network) is moderate (20%); the degree of centralization is 43 per cent indicating that relationships are dispersed across the network rather than held by a few agencies/organisations; and the level of trust i.e. where communication is open and respondents feel agencies/organisations are reliable and open to discussion is moderate (35%).
- 83 per cent of service providers identified their agencies/organisations as being 'successful' to 'completely successful' in supporting the needs of children aged 0-3 years and their families, whilst only 64 per cent of families reported such success from providers they accessed. The main difference was in the category of 'somewhat successful' with 15 per cent service providers reporting this level

of success and 34 per cent of consumers noting a 'somewhat successful' level for those agencies/organisations with whom they engage.

- While many consumers were positive about accessing services, those who reported difficulties named waitlists (25%), not having private health insurance (18%), financial constraints (15%), insufficient services (12%) and transport, quality and flexibility of service availability (10%) as barriers to access. In the focus groups consumers reported more negative experiences of accessing and using PIMH services, lacking knowledge and awareness of those available. One interesting finding from both survey and focus group data was that consumers had few expectations that services they accessed would communicate with each other.
- Agencies/organisations believed that exchanging knowledge, creating informal relationships and meeting regularly contributed to successful collaborations between them. Collective decision making was viewed by a few but not the majority as important in developing partnerships. This may be a new concept for agencies/organisations in WA.
- In surveys, focus groups and social network analysis data, consumers reported that when they had difficulty in pregnancy or the early years their first point of contact is typically the General Practitioner (GP).
- Consumers and service providers agreed that important community and informal supports for the social and emotional wellbeing of young families are Child Health Nurses, local library programmes and playgroups. Local day care and parenting workshops were also nominated as useful sources with the proviso that not all consumers could afford these or access them. Consumers also nominated pharmacies as sources of knowledge and support.
- With regards to the functioning of the System of Care the primary factor contributing to its success was seen to be the 'bringing together of diverse stakeholders', with 68 per cent of respondents pointing to this factor. More than half (52%) of respondents felt that staff turnover was the greatest barrier to network success. This emphasises the importance of relationships in building the success of the network, and related trust.
- The majority of respondents felt that were the network to become more cohesive, benefits would include improved health outcomes (26%), together with an improved understanding of mental health issues (26%).
- Referral pathways both informal and formal are poorly defined and system data and agency/organisation level data on referrals that are actioned is unclear, suggesting that the System of Care lacks a coordinated and systematic process for referrals.
- While the workforce is experienced in their professional discipline/category, 58 per cent of workforce respondents reported being in their current role for less than 4 years. This has implications for network development and sustainability.

FUNDING and CONTINUITY OF CARE

- The main source of funding reported by the agencies/organisations surveyed (74%) was public (government) and very little of this directly reaches the service to 0-3 year olds and their families. Only 16 per cent of agencies/organisations surveyed reported allocating over 90 per cent of their funding specifically to the services of 0-3 year old age groups; 37.5 per cent do not allocate any funding to this age group and 34 per cent allocate between 1-20 per cent of their funding to this age group. The lack of allocated funding specific to infant mental health was reflected in the most recent State Budget for mental health (WA Mental Health and Alcohol and Other Drugs budget 2017/2018), which revealed an emphasis on youth mental health as preventative care, rather than drilling down to the earliest possible point of entry (pregnancy and infancy).
- The reference group identified that PIMH services tend to have short life spans and this creates difficulties for consumers in terms of experiencing continuity of care, but also keeping track of what services are available to them. More home visiting for vulnerable families was an identified gap.
- Focus group participants reported disappointment when services were discontinued or changed due to funding cuts.

BUILDING WORKFORCE CAPACITY: Intervention and Training

- In primary care only 7.7 per cent of staff reported having access to IMH related training within their organisations, and almost 31 per cent reported having no access to training or were not aware of training opportunities. Those who received most training were in the fields of Education (73%), Health (65%), and Community (50%). The figures are similar for PIMH for the primary care sector (23%) but much less for those in Education (33%) and less too for health (50%) and the community sector (31%).
- With regards to training, providers expected that more PIMH and IMH specific training might lead to increased awareness of referral sources for agencies/organisations as well as earlier screening and detection of problems in the perinatal period. When training was conducted with GPs and with pharmacists, an increased awareness was evident. Specifically GPs demonstrated greater awareness of the implications of challenges in the perinatal period and the transition to motherhood, as well as a capacity to notice and consider different aspects of the parent-child relationship and activate more targeted referral pathways. Pharmacists demonstrated a greater acknowledgement and awareness of mental health challenges and a greater awareness of aspects of the child-parent relationship.
- The need for consumer training about what to expect from the agencies/organisations they deal with was highlighted by the finding from both survey and focus group data that consumers had few expectations that services they accessed would communicate with each other.
- Consumers (73%) turn to the agencies/organisations they are already connected to for information regarding parental wellbeing during pregnancy and the early stages of a newborn's life as well as social, emotional and/or behavioural concerns for their 0-3 year old suggesting that as they build trusting relationships with the staff of the service they turn to them for information. Many consumers (58%) said they would have liked further information about services they might turn too as well as more information on each of these topics.
- A community training workshop focussed on the following:
    - **Green public space:** Transforming existing physical spaces into places for infants, young children to play and explore nature, and for their caregivers to meet and rest.
    - **Mobility for families:** Making it possible for caregivers and infants, young children to walk and cycle to healthcare, childcare, a safe place to play and a place to get fresh food.
    - **Data-driven decision-making:** Collecting neighbourhood-level data on infants, young children and caregivers and using it to better target resources and facilitate coordination across sectors.
    - **Parent coaching:** Combining coaching on early childhood development for parents and other caregivers with services that meet families' basic needs.

Outcomes from this workshop included a collective vision of fostering a community in which children can thrive and feel safe, and promoted a deeper and broader understanding of the context in which the PIMH system exists within the two cities of Wanneroo and Joondalup. Actions that might be achievable in 100 days and 1,000 days were brainstormed and discussed.

Recommendations

Better Together has generated the most comprehensive analysis of system level factors influencing PIMH services in Western Australia and probably Australia that we are aware of. The information gathered to date can be used and extended to enhance integration of Systems of Care and to build stronger system knowledge about the importance of infant mental health relationships during the early years of development.

At the conclusion of this first year the system is well prepared to work towards meeting the following recommendations for next steps in Better Together and the wider West Australian community:

1. Continue engaging stakeholders and consumer representatives in capacity building opportunities to harness the established connections and to create innovative ways of funding engagement and capacity development across the PIMH System of Care.

2. Use the SNA data and build upon the existing Reference Group to identify key agencies/organisations and develop an implementation leadership team, that includes consumer representation, with newly agreed terms of reference underpinned by principles of collaborative enquiry, co-design and a relationship based framework.

3. The leadership implementation team continuously engage with the wider PIMH community to create a culture of learning and exploration of multiple perspectives that contribute to an authentic understanding of key leverage points, effective engagement strategies and barriers within the system.

4. Align SNA and service mapping data to determine the extent to which geographical location accounts of the degree of connectedness to other agencies/organisations within the System of Care and use this information to develop specific strategies targeting this potential barrier to system engagement.

5. Use the SNA data to identify and support agencies/organisations on the periphery to become more connected within the System of Care through membership in the implementation leadership team and participation in capacity building activities and system based interventions.

6. Explore the role technology can play in engaging stakeholders and consumers and increasing system cohesiveness through:

    a. Offering an on-line communication platform that requires less time and resources than face to face interaction.

    b. Pilot implementation and evaluation of the Person-Centred Network (PCN) App to link consumer families and service providers to appropriate services and supports (formal and informal) across the continuum of care in real time.

7. Explore multiple strands of enquiry to further develop more responsive referral pathways to ensure families access the appropriate care at the right time and in the most suitable locations. These include:

    a. Use of the SNA data and relationships built within the reference and leadership groups, consumers and the existing networks in the Cities of Wanneroo and Joondalup to research and learn more about case examples of clear and responsive referral pathways that lead to a stepped care approach across the continuum of care in the Cities of Wanneroo and Joondalup.

    b. Co-design and develop a whole System of Care approach to formalising referral pathways through building more in-depth analysis of current processes, piloting the ECSII and considering ways of utilising Health Pathways as part of this process.

c. Developing a shared database that incorporates outcome measures across agencies/organisations and the continuum of care to determine the effectiveness of clearer and more defined referral pathways across the System of Care.

8. Connect agencies/organisations within the System of Care around activities and interventions that increase trust and value among organisations which can lead to a more cohesive and integrated System. The following factors require consideration:

   a. What infrastructure is in place for agencies/organisations to work together?

   b. What understanding is there in agencies/organisations that working together will enhance creativity and innovation in design and delivery of services?

   c. What commitment is there to working together to achieve better outcomes for families with infants, young children and understanding that this likely to be more successful than working in isolation or in limited partnerships?

9. Deliver the PIMH Primary Health Care training package to a wider set of service providers, specifically, offer this to child health nurses, and a broader group of GPs and pharmacists. Further develop this package to contain multiple levels of learning for all service providers.

10. PIMH Primary Health Care training packages are integrated with other PIMH trainings and embedded in a capacity building strategy across the PIMH System of Care and aligned with the AAIMHI WA Competency Guidelines and Endorsement framework.

11. Consider ways of creating a more diverse workforce to meet the need of families from culturally and linguistically diverse backgrounds which is steadily growing.

12. Design and deliver better communications to inform the public about services for prenatal to antenatal and to age three years, and to assess the relationship between service agency/organisation location and population density with regards to access to services.

13. Plan future evaluation of the system that includes reassessment using SNA to measure the impact of interventions going forward and to analyse whether and how the system has been impacted and shifted in way it relates, functions.

14. The research design for Better Together may be used to understand the system of PIMH throughout other localities in Western Australia. This will build a comprehensive platform for rigorous understanding and evaluation of PIMH System of Care across the state.

Chapter 1:

Introduction

Introduction

'Better Together: Building Perinatal and Infant Mental Health Services' is an applied research project conducted in the Cities of Wanneroo and Joondalup in Perth, Western Australia over 2017-2018. In this document the project is referred to as 'Better Together'.

The purpose of Better Together was to map how services in the cities of Wanneroo/Joondalup interact to enhance the quality of prenatal and infant mental health services for the community. Collaborative inquiry or participatory action research method was used to draw multiple perspectives to bear on understanding the System of Care. Consumers and service providers were invited to work with the research team over 12 months to design, implement and evaluate the network of services that families with infants and infants, young children access. Together with community stakeholders, the research team planned to improve system responsiveness to the social wellbeing and mental health needs of families with infants and infants, young children, from both prevention and intervention perspectives. This was to be done by identifying three sets of factors that influence system functioning: (a) factors that help or hinder system networking, (b) factors related to workforce development, training pathways and resource availability, and (c) factors that could increase awareness of perinatal and infant mental health (PIMH) referral pathways, good practices, and interventions.

As the principles of collaborative inquiry and emergent design took hold, efforts to create and engage a more cohesive system took a different path to that originally planned and preconditions to meeting the aspirational goals were identified. These were:

1. The need to better understand the complexity of the current PIMH system
2. The need to have a deeper understanding of the factors that contribute to creating and sustaining problems within the system
3. The need to build the infrastructure necessary for producing meaningful and sustainable positive transformation of the PIMH system.

As the dynamic functioning of the system (through mapping, social network analysis, collecting extensive qualitative and quantitative data) became clearer, Better Together became well placed to understand the problems and the types of interventions needed to contribute to transformative change in the PIMH system.

At the conclusion of the first year we are now prepared to work toward specific objectives related to system change. The following objectives were generated from analysis of the data collected during Year 1, and comprise specific aims for any future work on Better Together:

1. Identify key agencies/organisations and develop an implementation leadership team with agreed terms of reference
2. Define and map the current service parameters for PIMH in the Wanneroo/Joondalup Region, including referral pathways, inclusion and exclusion criteria, existing collaborations, knowledge of PIMH principles and practice and identify gaps
3. Develop clear and responsive referral pathways with an aim to adopting a stepped care approach where (i) PIMH needs and risks are recognised and responded to in a timely manner and (ii) implementation factors which help and/or hinder the networked approach are identified
4. Create a robust local, across agency/organisation workforce development plan that identifies training for all relevant practitioners to increase awareness of PIMH, good practice and interventions
5. Develop a training package using existing resources and skills to build workforce competency in PIMH
6. Evaluate the effectiveness of implementation and practice outcomes in relation to specific training experiences noted above, designed to introduce perturbations to nudge system change.

Scientific Background

Infant Mental Health

Infant Mental Health (IMH) covers the healthy social and emotional development of a child from conception to age three years. It encompasses the developing capacity of the infant to experience, manage and express a full range of emotions, to form close and secure relationships, to explore the world and to learn (Zero To Three, 2012). The interdisciplinary field of IMH that has emerged over the past 41 years has at its core that the developing child is considered in the context of his/her System of Caregiving relationships and that understanding this context is important. The term was coined by Selma Fraiberg (1975) as she and her colleagues considered and intervened to address clinical disturbances in early parent-infant relationships.

The field of IMH has grown rapidly and is underpinned by theoretical frameworks that include developmental psychology, attachment theory, developmental neurobiology, psychoanalytic theory, and systems theory (Fitzgerald & Barton, 2000). Study of IMH has provided significant clinical and research contributions towards understanding social and emotional development in infancy and toddlerhood and the critical role this developmental stage plays in biopsychosocial development throughout the lifespan.

Advances in research on the developing brain have shown that infancy is a critical period that is 'experience-dependent' relying on sufficient and appropriate stimulation of the caregiving environment to ensure optimal development. Epigenetic research has identified that as early as the prenatal period; the intrauterine environment influences the foetal experience and can have both positive (e.g., good prenatal nutrition) and negative (e.g., maternal alcohol consumption) effects. Where the environmental context is toxic, the structural and functional organisation of the foetus can be compromised. To the extent that adverse childhood experiences (ACES) persist, their cumulative effects can lead to a lifetime of health and mental health issues, including drug and alcohol abuse, antisocial behaviour, depression, and suicide attempts. Clinical interventions have been designed to effectively target infant-caregiver relationships and caretaking systems, including marital conflict. More recently the works of economists have provided clear evidence of the cost benefit to society of investing in the social and emotional wellbeing of infants and toddlers, with estimates of returns on investments ranging from 7:1 to 20:1 (Elango, *et al*., 2015).In keeping with research and the principles of IMH the promotion of healthy social and emotional development, the prevention of mental health problems and treatment of problems in the infant and very young child are all best considered in the context of family, community, society and cultural relationships; in short, considered within a biopsychosocial systems perspective.

The first relationship between the infant and mother begins at conception. The PIMH systemic preventive-intervention framework is informed by the rapid advances in scientific understanding of experiential effects on gene expression (epigenetics). It provides a framework for prevention or intervention of adverse childhood experiences (ACES). Within this framework, attention to the parent-child relationship, the child, and parent require intensive and comprehensive treatment services that include attention to ACES, including child maltreatment and family dysfunction (including separation/divorce, family alcohol/drug problems, family mental illness, domestic violence, and parental incarceration). Additional indicators of risk, particularly when measured in childhood, have also been included, such as economic insecurity, homelessness, exposure to neighbourhood violence, racial discrimination, and parent loss through death. Moreover, PIMH interventions are design to reduce dosage effects so that infants and very young children exposed to ACES can be shifted to life-course pathways that enable generation of resilience through positive relationships with their parents and other carers (McKelvey *et al*., 2016, 2017). The PIMH framework infused into Western Australia's System of Care, provides an avenue to promote or intervene in relationship issues within a system of social and health support.

Systems Change

PIMH is designed within the context of relational developmental systems (RDS: (Overton, 2015). RDS systems are open systems, which simply mean that they change. A place-based service delivery system that is not dynamic becomes bounded, closed, and rigid, falling back on isolated impact approaches to service. Isolated impact approaches to service are based on the concept of changing one individual, one couple, or one family at a time. Prevalence rates of Adverse Childhood Experiences (ACES) reported to WHO by nearly every country in the world fall in the range of 17 – 21 percent of the population, with significant numbers of infants and young children exposed to 3 or more ACES (the cut point for predicting significant negative outcomes\ Felitti, Anda, *et al*., 1998). For Australia, this means roughly 5 million individuals with one type of ACES or another. The intervention work force necessary to provide isolated impact services cannot possibly exist or be sustained. The alternative is to change the system to maximize integration of services, cohesive preventive-intervention networks, and implementation of community engagement approaches to involve citizens more actively in efforts to enhance individual, family, and community well-being. Relational developmental systems change efforts, such as PIMH, strive to improve human service and community systems in order to create better and more equitable outcomes for consumers (Foster-Fishman, Nowell, & Yang, 2007). The strategies underlying PIMH are anchored by an extensive body of literature, which, in aggregate, indicates that changing a system has greater and more lasting impact than do efforts to "fix" one component of the system in isolation. Even so, creating and sustaining positive change in a system remains challenging, as Kania, Kramer & Senge (2018) illustrate with the following water analogy:

> *"A fish is swimming along one day when another fish comes up and says "Hey, how's the water?" The first fish stares back blankly at the second fish and then says "What's water?" (p.2)*

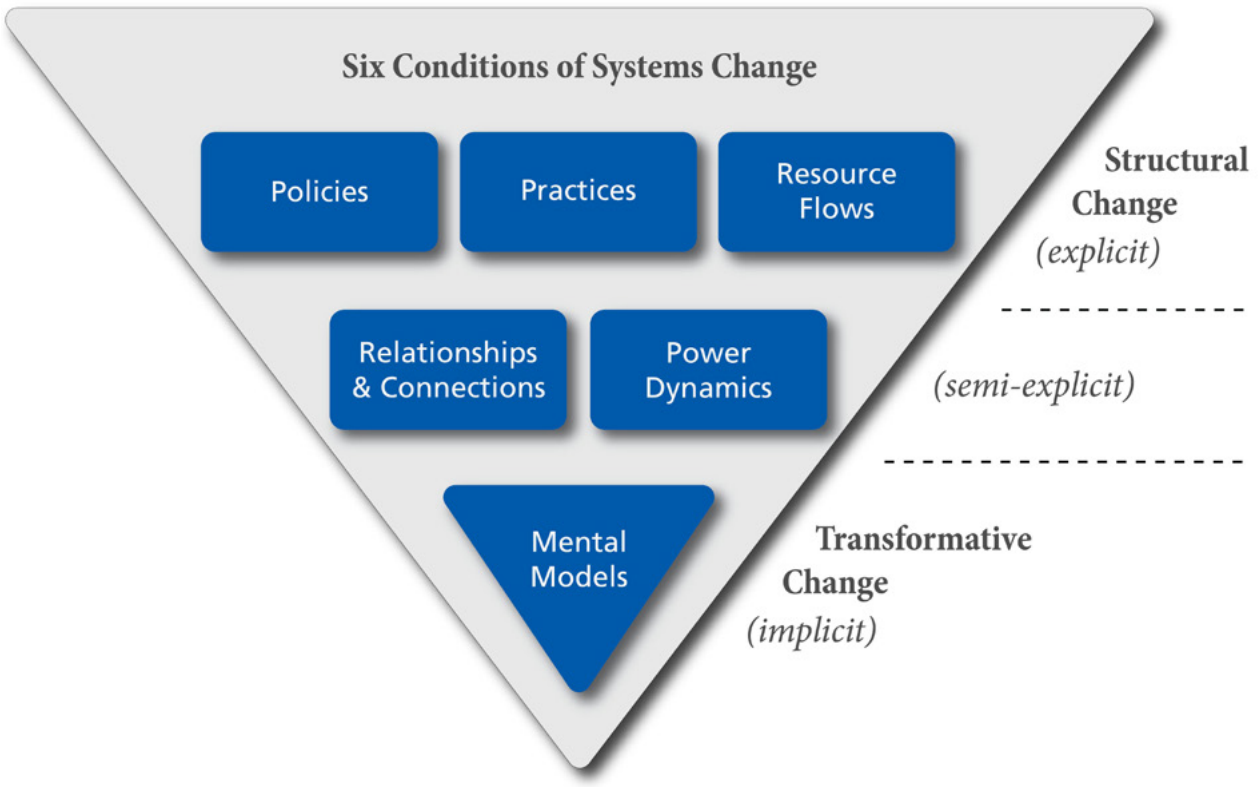
This metaphor is particularly apt for the field of PIMH where identifying the workforce and building collaborative networks can be a challenge (Matacz & Priddis, 2015). PIMH is comprised of people from diverse disciplines who are often fluid within organisations and who work within traditional siloed (boundaried, closed system) departments delivering specific mandated services. The Australian context is no exception with a Western Australian report highlighting gaps that exist in knowledge, skills and policy whilst recognising preliminary steps that have been taken to create awareness of the system and to build workforce competency (Matacz & Priddis, 2015).Until now, no systems lens has been applied to understand the forces at play that bind the Western Australian PIMH system within the status quo, promoting silos and isolated impact services.

Kania *et al* offer six interdependent conditions that impede or enable system change and which include both those that are explicit and implicit (Figure 1). Beginning at an explicit level of structural change, policies, practices and flow of resources provide insight into the structural factors that constrain collaborative systems networking. In an Australian context, an example of system intervention at this level was the recognition of mental health as a significant political issue in 2010. In Western Australia a Mental Health Commission was established to lead reforms of the mental health system throughout the state. In the first mental health strategy published by this office, pregnant women, infants and children were recognised for the first time as a population with specific needs (Mental Health Commission, 2012), giving hope to the PIMH community that systems change would follow. A planning group was established, an inquiry into the mental health and wellbeing of children and young people was completed and recommendations made to improve outcomes for infants and children (Commissioner for Children and Young People Western Australia, 2011), as did another important review of the health system (Stokes, 2012). A number of strategic projects to investigate the best service options and workforce strategies for perinatal, infants, children and their families were initiated. Policy change accompanied by resources for the PIMH field appeared possible.

In the Kania *et al.,* model, for systems change to be effective it also requires a second level of change which is semi-explicit. This involves consideration of the quality of relationships and connections as well as of power dynamics amongst both individuals and agencies/organisations involved. Key to achieving change is at the semi-explicit level or development of high levels of trust among system constituents, commitment to a common mission (ultimate goal), and shared resource to achieve community system change. In our example, the subsequent Mental Health plan (Western Australian Mental Health Commission, 2015) saw the term infants almost disappear. From a systems perspective it might be argued that new relationships needed to be forged, new alliances made and a shared vision created, but the mindset of bounded siloes prevailed.

The final level required for transformative change is implicit change. Implicit change refers to changes in the mindsets of individuals in the system; how they think, talk and act and their underlying beliefs. In the final analysis, individual relationships matter and system change is not possible unless all stakeholders can coalesce around a shared vision - that is, collectively working to enhance individual, family and community well-being. In the PIMH field there is growing awareness that "lifelong positive mental health begins in pregnancy and is crucial for the healthy development through early childhood, childhood and adolescence" (Commissioner for Children and Young People WA, 2015), however, considerable gaps in knowledge and understanding remain, both within the field and by consumers. Moreover, there is insufficient knowledge that individual well-being is always nested within broader systems (Figure 2).

Figure 1 Conditions of systems change

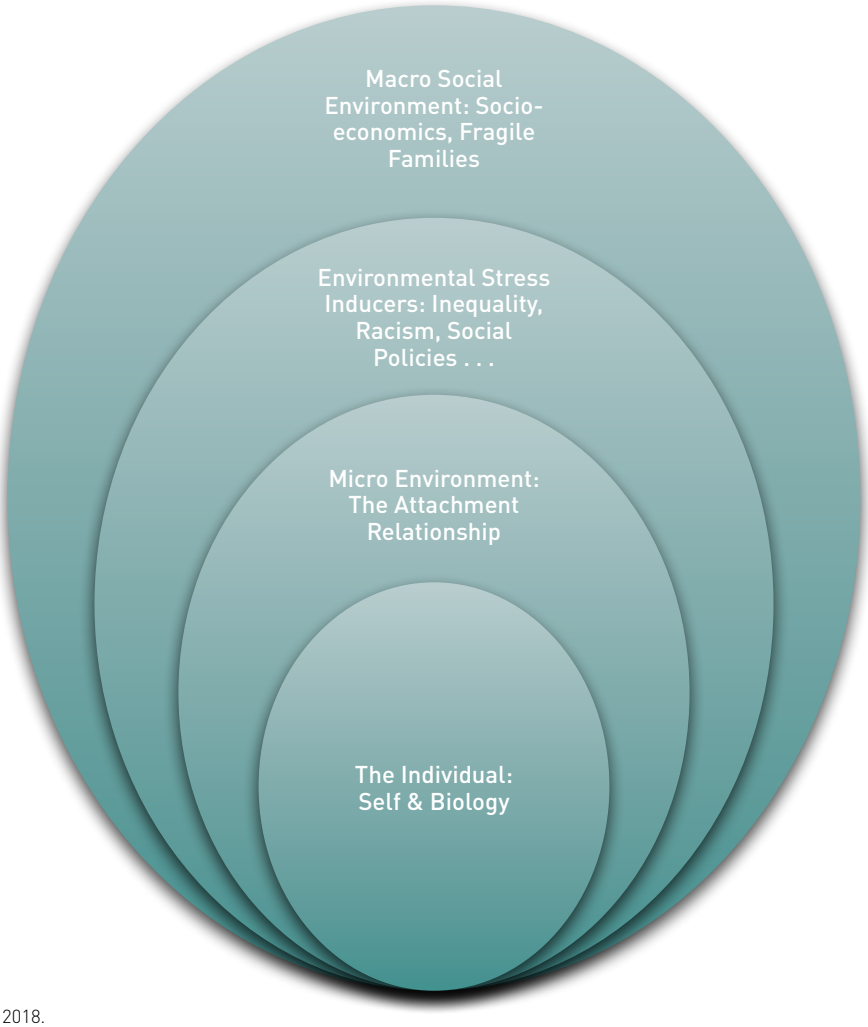


Source: Kania *et al.*, 2018.

For structural change to occur relationships between people, agencies/organisations, and groups working in the same space require connection in meaningful and collaborative relationships, and a common vision and shared strategy for positive and equitable change must be developed. Systems change models give us the tools to intentionally and methodically alter status quo closed systems to bring about improvements in outcomes for targeted populations, such as vulnerable families with infants and infants, young children.

In recent times communication scientists have contributed to transformative change at the level of changing mental models by translating and sharing scientific knowledge with the public in ways that the public understands. By investigating and researching the communication challenges of a particular issue and creating alternative ways that people might understand that issue, via media and education campaigns, policy makers, consumers and individuals are enabled to change their mindsets concerning the issue (Center on the Developing Child at Harvard University, 2014), and to envision innovative approaches to systems change.

Figure 2 The nested environments of Relational Developmental Systems



Source: H. E. Fitzgerald, 2018.

Conceptual Model

Better Together is underpinned by the evidence based practice framework of **community engagement scholarship (CES)**, which involves creating university and community partnerships in order to effect dynamic social systems change (Fitzgerald & Zientek, 2015; McNall, Barnes-Najor, Brown, Doberneck, & Fitzgerald, 2015). The boundary of the system identified for Better Together is the Perinatal and Infant Mental Health (PIMH) System of Care in the Cities of Wanneroo and Joondalup.

The key principles of CES are **systems thinking, collaborative inquiry, support for ongoing learning, emergent design, multiple strands of inquiry and action** and transdisciplinarity. Key aspects in CES to effecting transformative and lifelong sustainable change in a system are **co-creation of knowledge, data driven decision making**, and **collective impact metrics** that provide the evidence base for change.

1. Systems thinking (Place-based)

Systems change in Better Together refers to the idea that improvements for families with infants and infants, young children in the Cities of Wanneroo and Joondalup are most likely to come about by investigating "what worked for who?" in the broader system, rather than by investigating whether and how an individual project is working. It is place-based in that it aims to embed the PIMH relationship framework into all components of the System of Care available to families with infants and very young children, and to enhance referrals to integrate services across major components of the System of Care.

Members of the research team initially set out to collect outcome data for the newly established Edith Cowan University's (ECU) Pregnancy to Parenthood clinic. While ECU is located in the City of Joondalup, the ECU Pregnancy to Parenthood clinic is located in the City of Wanneroo. What we discovered was a system of complex interacting problems or "messes" (Ackoff, 1999) that had developed in the system over time. To evaluate outcomes for the isolated and single case of the ECU Pregnancy to Parenthood clinic and even to implement interventions in the place-based system that might effect change in one or two aspects of the system was to ignore the complexity of contextual factors that had perpetuated the problem. This first order approach was unlikely to result in any change for PIMH system in these two cities.

Taking a systemic approach we identified that our focus would be best placed on what systems dynamics refers to as second order change. That is, we aimed to create a paradigm shift in understanding what was required in the system to best support the social and emotional wellbeing of infants and infants, young children in the communities (Foster-Fishman *et al*., 2007). We would explore the system from multiple perspectives in order to better understand the degree to which the component parts of the System of Care were interrelated and interdependent. The extent to which system components were siloed and system integration was not in service of families, we planned to introduce the PIMH systems framework to break down silos and enhance referral communications among the component entities providing care.

Place-based systems thinking recognises that engagement is mutual and becomes possible as community institutions and agencies/organisations discover how to respond when families and neighbourhoods seek to engage them. Furthermore, it starts in the community where families who are active community change makers take the lead.

2. Collaborative Inquiry

With the aim of Better Together now focussed on change to the dynamic functioning system of PIMH in the Cities of Wanneroo and Joondalup then relationship based approaches to gathering data and generating strategies for change were required. Collaborative inquiry, participatory action research, and social networking approaches are all suited to engagement of the community which has have a stake in improving

the system and to levering change. These approaches share a commitment to involving the community in all phases of the project and to co-creating an understanding of the system that incorporates new and diverse perspectives.

Better Together intentionally put the community at the centre of the change process through inclusive involvement of a broad spectrum of system stakeholders in the PIMH field in a Reference Group, composed of diverse stakeholders (see appendix...). Early stages of the project were devoted to identifying and mapping the stakeholders in the two cities, a process that facilitated inclusion of individuals rarely engaged in decision processes related to government-sponsored service delivery, particularly at the local level. Careful thought and adoption of a transdisciplinary team approach at all levels and stages of the project led to the creation of opportunities to authentically engage the diverse group of stakeholders at each stage of the project.

Having the family voice heard was essential to Better Together. Consumers gave input on how to evaluate and understand the current working of the system around the needs and capacities of families with infants and infants, young children; what questions to ask the community; how to collect data and how and what to think about the findings. The project included a group of consumer representatives who remain part of the Reference Group and play a key role across multiple domains of the project.

In creating a broader constituency for change, Better Together had more possibility of accurately understanding the PIMH system and in disrupting or attempting to change the system where needed.

3. Support for Ongoing Learning

Systemic change using collaborative inquiry and participatory action research approaches involves an ongoing cycle of investigation, shared data gathering and subsequent use of data in decision making, a part of ongoing change to system connectivity related to practice.

Through Better Together the research team provided ongoing feedback and learning opportunities to stakeholders; the reference group meetings gave opportunities for stakeholders within the System of Care to use data driven decision making processes to inform changes to the system.

Opportunity to fully engage families, developed though capacity to pay for their time. To engage 'vulnerable' and 'hard to reach families' Better Together research team developed specific criteria to define these families and sourced representatives from this group of families to capture their experiences as part of the project.

Families informed Better Together team that pharmacists were often their first point of contact when they are having emotional difficulties related to adjustment to parenthood and/or concerns relating to their infant's distress or emotional experience. This information led to:

- Inclusion of pharmacists' in the Reference Group as a key stakeholder group
- Development and implementation of a pilot training model for pharmacists in PIMH.

4. Emergent Design

Better Together design was initially identified in broad and aspirational terms and then altered to incorporate new learning. In this way the design emerges from the cycles of the collaborative inquiry.

In Better Together input from consumers led to changes in questionnaire design, to changes to the Reference Group membership and to reference group activities as well as to specific training and evaluation of PIMH principles and practice.

Another example of emergent design in Better Together occurred when agencies/organisations in the Reference Group came together to co-fund and resource a workshop on translating the Bernard Van Leer organisation's Global Approach, called 'Urban 95,' presented to the broader community of those interested in PIMH.

A third example, involved the recognition by Better Together that not all services are in a position to make changes and so an evaluation of service readiness for implementation of change was piloted by Reference Group members.

5. Multiple strands of inquiry and action

In order to maximise effectiveness of change process, multiple strands of inquiry and action are used to address complex problems with different teams involved in considering different angles within the system. Within Better Together, teams were created to work on the different strands of the emergent design. For example, teams were created to consider and maximise the input and collaboration of vulnerable consumers, to focus on PIMH training programmes for primary health practitioners, to work on the global approach of the Bernard Van Leer foundation and to consider implementation strategies for agency/organisation change as well as the different strands of the research, such as the economic profile of the cities of Wanneroo and Joondalup and social networking.

6. Transdisciplinarity

According to McNall *et al.,* (2015) transdisciplinarity involves researchers working jointly on a common problem using a shared conceptual framework that draws from multiple disciplines and it is this approach that holds the greatest promise for addressing complex systems issues.

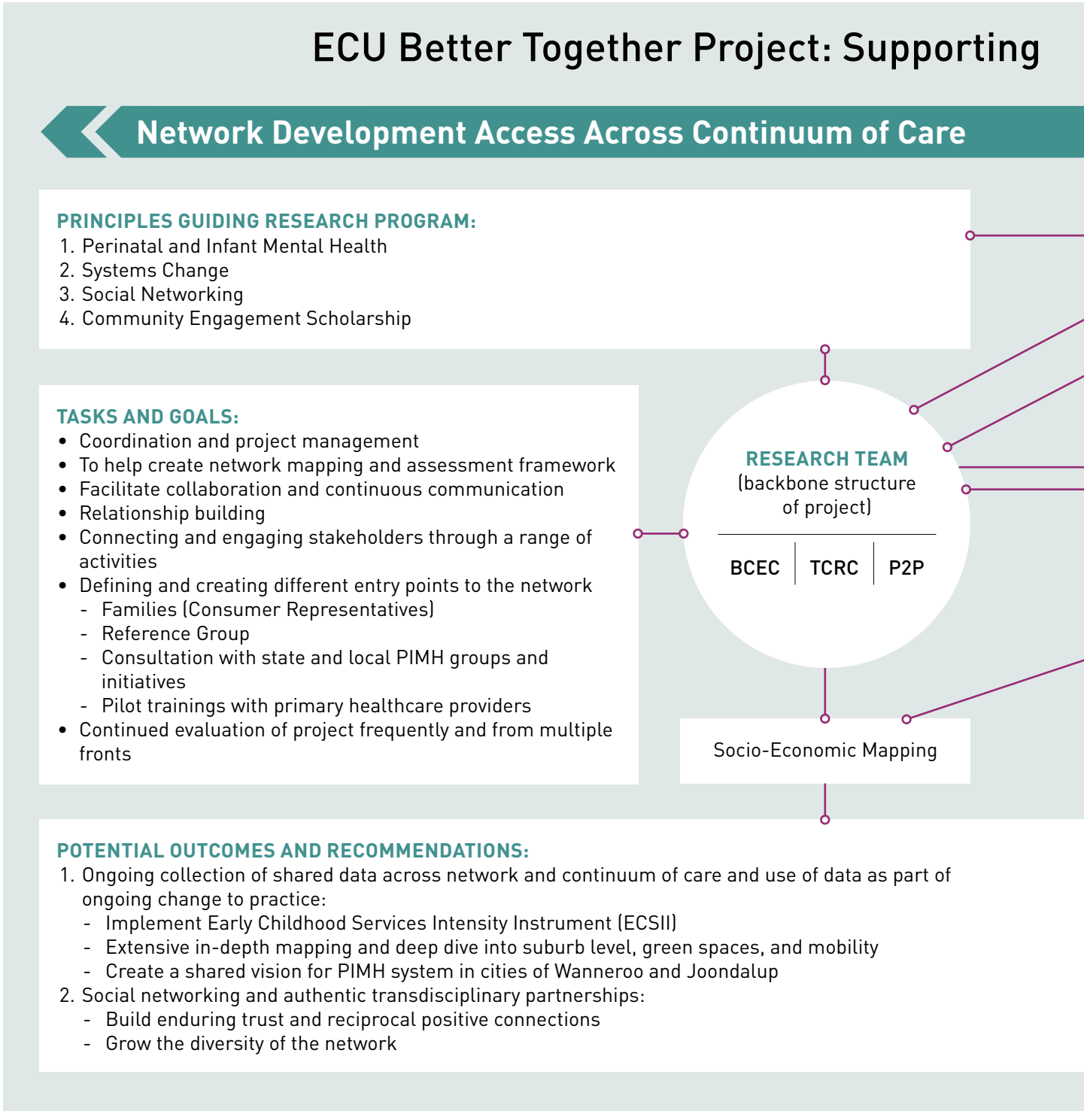
At ECU we began by creating a Transdisciplinary Child Research Consortium to build research in perinatal infant and early childhood mental health. This consortium consisted of the research team pictured in Figure 4. The focus of this group was to bring transdisciplinary perspectives on how to achieve infant early child social and emotional well-being. Better Together revolved around the ECU Pregnancy to Parenthood clinic which was establishing itself in the local community and which had a very clear PIMH identity. Table 1 illustrates the transdisciplinary nature of both the research team and reference group in by its inclusion of a diverse range of disciplines and agencies/organisations

The broad base of Better Together minimised the negative consequences of holding a narrowly framed agenda that only looks at one specific component of PIMH. Indeed the first step in the project was to define and identify the principles of PIMH.

Table 1 Transdisciplinary Team for Better Together

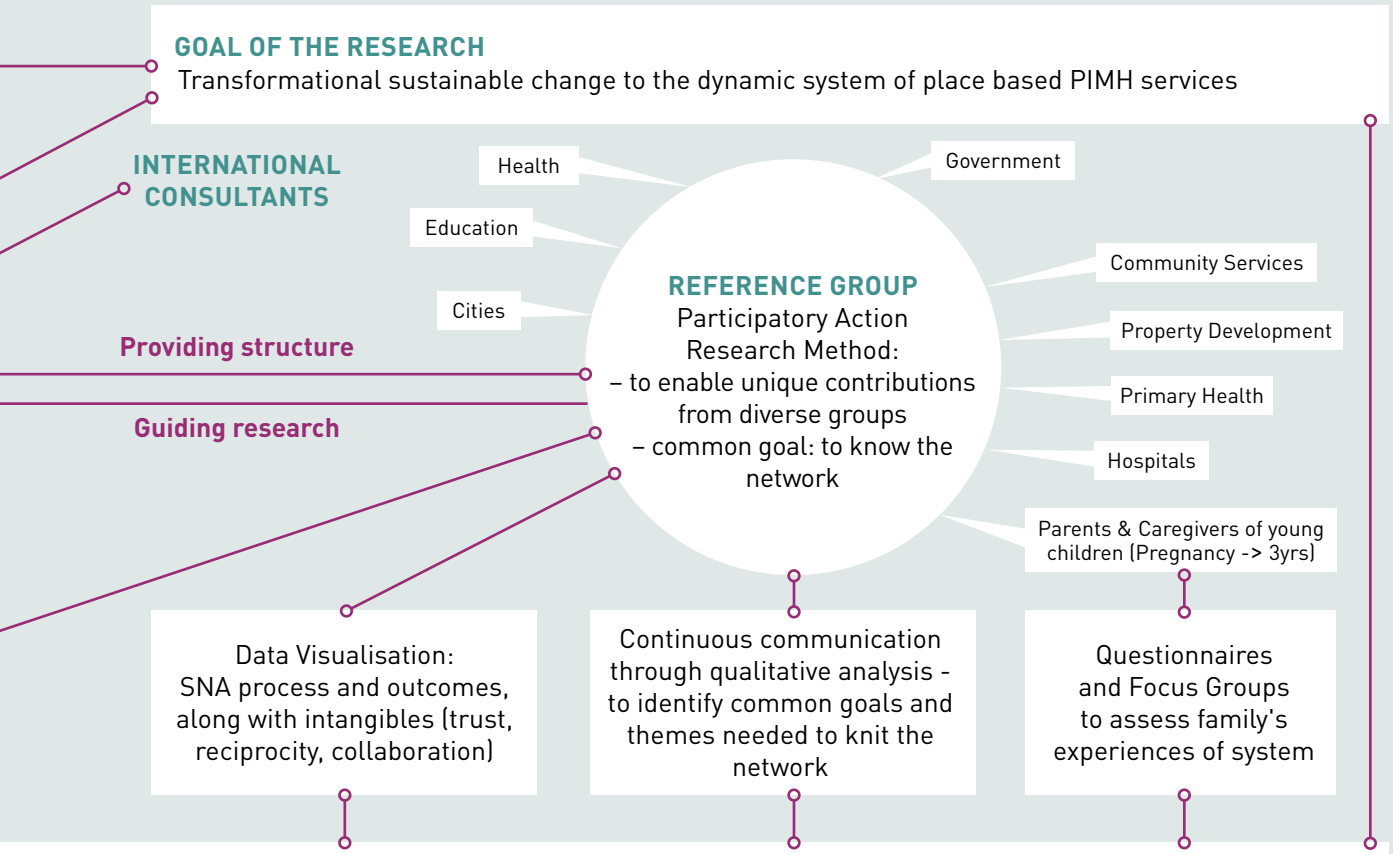
Research Team	Reference Group
Clinical Psychology	Mental Health
Community Psychology	Education
Nursing and Midwifery	Health
Education	Early Learning and Child Care
Economics	Community
Counselling Psychology	Consumer
Perinatal and Infant Mental Health	Non-government organisations

Figure 3 Conceptual model



Source: Matacz, Priddis and Lauren, 2018.

Perinatal and Infant Mental Health Services



3. Sustainable workforce development:
   - Develop and pilot PIMH training for primary health professionals
   - Implement PIMH training program across primary healthcare (GPs, Pharmacists and Child Health Nurses)
4. Collaborative inquiry and engagement design process to ensure continual evaluation of network dynamics and development, workforce training and consumer experiences of the system.

Research Team

The coordinating body of the Better Together project comprises the transdisciplinary ECU Child Research Team (Education, Community Psychology, Clinical Psychology, Infant Mental Health and Nursing and Midwifery), Bankwest Curtin Economic Research Centre (BCEC) and the ECU Pregnancy to Parenthood Clinic and Developmental Psychology consultants from Michigan State University.

The purpose of this group was to oversee the day to day work of the collaboration, guide the design and evaluation framework of the PIMH System of Care. The group guided the creation of a shared collective strategy which was driven by shared measurement and was dedicated to supporting the network in increasing levels of resources, responsibility and capacity.

Refer to the Appendix for a full list of the members of the Reference Group for Better Together.

Figure 4 Team Leads

Edith Cowan University

Associate Professor Lynn Priddis

Ms Rochelle Matacz

Associate Professor Sara Bayes

Professor Caroline Barratt-Pugh

Professor Julie Ann Pooley

Bankwest Curtin Economics Centre

Dr Daniel Kiely

Professor Alan Duncan

Dr Kenneth Leong

Michigan State University

Distinguished Professor Hiram Fitzgerald

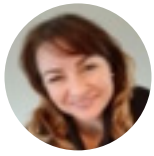
Dr Jessica Barnes Najor

Reference Group Chair

Ms Fiona Reid

Research Assistants

Jenna Thornton



Olivia Marshall

Celeste Lauren

Divya Sreevardhanan

Project Method

This project employed a mixed methods research design over a series of concurrent studies to investigate and implement change in the system of Perinatal and Infant Mental Health services in the cities of Joondalup and Wanneroo. Equal emphasis was given in the project to qualitative and quantitative methods making this a fully mixed concurrent equal status design using the Leech and Onwuegbuzie (2009) typology.

Qualitative data were collected from individual interviews, focus groups, training forums, reference group meetings and innovative workshops using a participatory action research model. Quantitative data were collected in the form of data from multiple versions of SNA questionnaires collected from consumers, hard to reach consumers, service providers and managers in education, health care, and community organisations. Data were also collated from publicly available data bases and sources.

Procedure

Ethics approvals were sought from Government Departments of Health and Communities, from King Edward Memorial Hospital, Edith Cowan University and from Joondalup Health Campus.

Reference Group

A snowball method was employed to invite a purposive sample of service providers and managers from the Cities of Wanneroo and Joondalup and from services that were seen as state wide and integral to the PIMH network to form the Better Together Reference Group.

This group continued to evolve over the life of the project and included representatives from over 40 agencies/ organisations across the continuum of care, cross cutting across multiple sectors (education, health, mental health, adult and child, community, government departments, clinicians, managers, administrators and policy makers).

The Better Together Reference Group met on four occasions at Edith Cowan University for two hour sessions. Terms of reference were established, and a chairperson was elected. The data collected was bi-directional in that data from this group was used to inform research activities and data from the activities in turn informed the research group.

Consumer Reference group

Three consumers were initially recruited through the WA Consumer and Community Health Research Network. Parents of children aged 0-3 years from the cities of Wanneroo and Joondalup were invited to participate on the reference group with the support of the Consumer Advocate. They agreed to attend meetings, to assist with designing resources including questionnaires and to support activities of the project as they evolved. Over the course of the project these three consumers recruited additional consumers to attend the reference group as consumer representatives. The final group of consumer representatives numbered eight and included two fathers. All signed confidentiality agreements and all were paid an honorarium for their participation.

The consumer representatives undertook the following tasks:

- Review of the questionnaire developed by the research team
- Recruited and administered the questionnaire to families in the catchment area to gain a more comprehensive understanding of families' experiences of the services and supports in PIMH in the Cities of Wanneroo and Joondalup
- Provided qualitative feedback through consumer reference focus group
- Participated in the larger Reference Group meetings
- Responsibility for recruitment and leading consumer focus groups.

Interview Data

As material emerged from the Collaborative Inquiry and Participatory Action Research process additional consultations and interviews were held with representatives from primary health care groups identified by the reference group. Specifically, interviews were held with representatives of government departments and with the peak bodies for general practitioners, pharmacies and community organisations.

Two focus groups were conducted with members of the consumer reference group and families from the Cities of Wanneroo and Joondalup.

Quantitative Survey Data

1. Social Network Analysis (SNA)
The project understands the importance of a robust learning and evaluation process and assessment on multiple fronts. The project adopted a 'shared measurement' approach as demonstrated by use of Social Network Analysis to process outcomes and 'intangibles' like trust, reciprocity and learning culture. Specifically, the project used SNA to answer the question: ***What are interactions among mental health, education, government organisations, community services and primary health involved in the delivery of PIMH services in the cities of Wanneroo and Joondalup?***

Collaboration with developmental psychologists at Michigan State University who were also expert in researching systems and in the use of SNA was vital for Better Together. With the support of this consultancy the team developed a series of questionnaires that were to be answered by service managers, service providers and consumers and that were suitable for analysis using SNA software and approaches. These questionnaires were relevant for agencies/organisations providing services across the continuum of care as well as across education, community, health, and mental health.

PARTNER is a SNA tool designed to measure and monitor collaboration among people and agencies/ organisations. Data demonstrates how members of a system are connected, how resources are leveraged and exchanged, the levels of trust among members, and how outcomes are linked to the process of collaboration.

Exploratory PARTNER analyses provided the first steps to develop a 'shared measurement' lens and a primary focus on improving responses to the complex issues within the PIMH system. It was anticipated that the network approach will tackle issues such as effective service delivery, service implementation, service coordination and action.

2. Economic and Social Mapping
Publically available data are used to develop a socio-economic profile of the two cities. The ABS Statistical Area Level 2 (SA2 region) level data is used, as this is designed to reflect functional areas that represent a community that interacts together socially and economically. This is also the smallest area for the release of many ABS statistics.

Chapter 2:

Economic and Social Context

Introduction

This chapter of the report provides an economic and social context for the City of Joondalup and the City of Wanneroo. Specifically, using Census data, we look at population demographics in 2016 and changes since 2011. We focus on key target groups such as 0-4 year olds, and females aged between 15 and 39. The incidence of lone parents is also presented. Key socio-economic indicators such as median income, unemployment rates, and level of education and levels of relative socio-economic disadvantage (SEIFA) are presented. Finally here, aspects of cultural diversity, including language and religion are addressed. We look at the immigrants as a proportion of the population, and immigrants by region of origin.

We draw primarily on Census of Population data, and draw comparisons between the Cities (SA3 level[1]) and their sub-areas (SA2 level[2]).

Together the two cities comprise almost 18 per cent of the Greater Perth population, and 14 per cent of the State's population.

1 Statistical Areas Level 3 (SA3) are geographical areas built from whole Statistical Areas Level 2 (SA2). They have been designed for the output of regional data, including 2016 Census data. SA3s create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. Whole SA3s aggregate to form Statistical Areas Level 4 (SA4) (ABS, 2018).

2 Statistical Areas Level 2 (SA2) are medium-sized general purpose areas built up from whole Statistical Areas Level 1. Their purpose is to represent a community that interacts together socially and economically.

Demographics

City of Joondalup

Table 2 reports on various demographic characteristics for all fourteen SA2 regions for the City of Joondalup. The City has a total population of 155,000 (Table 2), with a total land area of approximately 99 square kilometres[3]. Almost 6.3 per cent of WA's population live in the city, with close to 8 per cent of those living in Greater Perth. Of the 155,000, Duncraig has the largest share of the Cities' population with 9.9 per cent followed by Currambine - Kinross (8.9%), Joondalup - Edgewater (8.8%) and Greenwood-Warwick (8.6%). The smallest share of the population is in Ocean Reef (5.1%), followed by Padbury (5.3%).

Table 2 Population, Births and Fertility Rates, City of Joondalup, 2016

City of Joondalup	Demographics 2016										
	Total Population			0-4 Age Band			Births 2016		Fert-ility Rate	15-39 Age Band Females	
	No.	% of City Popul-ation	% Change on 2011	No.	% of City Popul-ation	% Change on 2011	No.	% of 0-4 Popul-ation	Rate	No.	% of Popul-ation
Craigie - Beldon	9,801	6.3	2.2	765	7.8	8.8	211	27.6	2.16	1,844	18.8
Currambine - Kinross	13,803	8.9	-1.0	806	5.8	-9.3	158	19.6	1.84	2,335	16.9
Duncraig	15,270	9.9	1.6	879	5.8	-11.4	153	17.4	1.76	1,970	12.9
Greenwood - Warwick	13,344	8.6	-0.6	859	6.4	-10.8	182	21.2	1.90	1,978	14.8
Heathridge - Connolly	10,304	6.7	-1.1	662	6.4	1.7	170	25.7	1.98	1,772	17.2
Hillarys	10,813	7.0	1.3	529	4.9	-12.6	99	18.7	1.71	1,500	13.9
Iluka - Burns Beach	8,640	5.6	40.1	464	5.4	34.1	61	13.1	1.62	1,274	14.7
Joondalup - Edgewater	13,596	8.8	-1.0	748	5.5	2.6	171	22.9	1.62	2,572	18.9
Kingsley	13,059	8.4	-1.2	732	5.6	-7.5	149	20.4	1.83	1,698	13.0
Mullaloo - Kallaroo	11,164	7.2	1.4	561	5.0	-11.8	113	20.1	1.64	1,580	14.2
Ocean Reef	7,846	5.1	-3.3	323	4.1	-13.9	53	16.4	1.41	1,094	13.9
Padbury	8,186	5.3	-2.1	630	7.7	-10.3	138	21.9	2.28	1,337	16.3
Sorrento - Marmion	9,619	6.2	0.9	431	4.5	-4.4	69	16.0	1.46	1,148	11.9
Woodvale	9,282	6.0	0.9	415	4.5	2.0	71	17.1	1.66	1,282	13.8
City of Joondalup	154,727	100.0	1.5	8,804	5.7	-4.7	1,798	20.4	1.78	23,384	15.1
Greater Perth	1,943,860		12.4	126,764	6.5	10.4	3,385	2.7	1.81	346,114	17.8
WA	2,474,414		10.5	161,728	6.5	6.9	6,612	4.1	1.89	424,613	17.2

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Compared to 2016, with the exception of Iluka - Burns Beach in the upper North-West of the City, all other SA2 regions saw a decline in population between 2011 and 2016. Iluka - Burns Beach saw a 40 per cent growth in population, which can be expected for a relatively new area of development. The overall decline in the Cities' population (-1.5%) compares to a growth in population of 10.5 per cent for WA and 12.4 per cent for Greater Perth over the same period.

0-4 year olds comprises 5.7 per cent of the Cities' population, compared to 6.5 per cent for WA and Greater Perth. For the City of Joondalup, this is a decline of 4.7 per cent compared to an increase in this age cohort of 10.4 per cent for the Greater Perth region. The related fertility rate of 1.78 is also lower than that of 1.89 for WA. Females aged between 15 and 39 years of age comprised 15.1 per cent of the population, with 17.2 per cent reported for WA and 17.8 per cent for Greater Perth.

3 City of Joondalup website, accessed on 01/02/2018 here http://www.joondalup.wa.gov.au/Welcome/AboutJoondalup.aspx

City of Wanneroo

Table 3 reports on various demographic characteristics for all fourteen SA2 regions for the City of Wanneroo. The City has a total population of 188,000, with a total land area of approximately 685 square kilometres[4].

Table 3 Population, Births and Fertility Rates, City of Wanneroo, 2016

City of Wanneroo	Demographics 2016										
	Total Population			0-4 Age Band			Births 2016		Fert-ility Rate	15-39 Age Band Females	
	No.	% of City Popul-ation	% Change on 2011	No.	% of City Popul-ation	% Change on 2011	No.	% of 0-4 Popul-ation	Rate	No.	% of Popul-ation
Alexander Heights - Koondoola	11,981	6.4	3.4	792	6.6	0.1	160	20.2	1.95	1,997	16.7
Butler - Merriwa - Ridgewood	23,441	12.5	21.9	2,071	8.8	8.5	425	20.5	2.15	4,577	19.5
Carramar	16,619	8.8	46.7	1,567	9.4	41.4	311	19.8	2.08	3,592	21.6
Clarkson	12,964	6.9	10.9	1,101	8.5	-7.3	270	24.5	2.05	2,831	21.8
Girrawheen	8,764	4.7	5.2	662	7.6	-4.1	136	20.5	2.34	1,564	17.8
Madeley - Darch - Landsdale	25,403	13.5	33.9	2,061	8.1	25.0	456	22.1	1.95	4,862	19.1
Marangaroo	10,588	5.6	0.7	670	6.3	-5.2	159	23.7	1.88	1,821	17.2
Mindarie - Quinns Rocks - Jindalee	18,782	10.0	7.3	1,017	5.4	-16.7	211	20.7	1.77	2,837	15.1
Tapping - Ashby - Sinagra	13,262	7.1	5.8	1,113	8.4	-13.7	207	18.6	2.05	2,348	17.7
Wanneroo	25,623	13.6	11.6	1,968	7.7	7.1	446	22.7	2.05	4,645	18.1
Alkimos - Eglinton	7,953	4.2	n/a	908	11.4	n/a	212	23.3	2.03	1,973	24.8
Carabooda - Pinjar	730	0.4	n/a	24	3.3	n/a	5	20.8	-	97	13.3
Two Rocks	2,990	1.6	n/a	206	6.9	n/a	52	25.2	2.44	443	14.8
Yanchep	8,857	4.7	18.9	810	9.1	58.8	162	20.0	2.45	1,579	17.8
City of Wanneroo	187,957	100.0	23.6	14,970	8.0	16.0	3,212	21.5	1.94	35,166	18.7
Greater Perth	1,943,860		12.4	126,764	6.5	10.4	6,264	4.9	1.81	346,114	17.8
WA	2,474,414		10.5	161,728	6.5	6.9	12,103	7.5	1.89	424,613	17.2

Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Almost 7.6 per cent of WA's population live in the City, with close to 9.7 per cent of those living in Greater Perth. Of the 188,000, Wanneroo has the largest share of the Cities' population with 13.6 per cent followed by Madeley - Darch - Landsdale (15.5%), Butler - Merriwa - Ridgewood (12.5%) and Carramar (8.8%). The smallest share of the population is in Carabooda - Pinjar (0.4%), followed by Two Rocks (1.6%).

A recurring theme throughout this chapter is the difference between the City of Joondalup and City of Wanneroo. For Joondalup we saw that only one SA2 region had a population growth between the 2011 and

4 City of Wanneroo website, accessed on 27/08/2018 here http://www.wanneroo.wa.gov.au/

2016 Census periods, with the overall population growing by 1.5 per cent. Meanwhile the City of Wanneroo had a population growth of almost 24 per cent between 2011 and 2016, with all SA2 regions displaying population growth - ranging from 0.7 per cent for Marangaroo to 46.7 per cent in Carramar. The population of the latter now stands at 16,620. Madeley - Darch - Landsdale's population grew by 34 per cent, with a population in 2016 of 25,400.

The 0-4 year old population contributed to 8.0 per cent of the Cities' population, compared to 5.7 per cent for Joondalup and 6.9 per cent for WA. For the City of Wanneroo, this is a 16.0 per cent increase compared to an increase in this age cohort of 10.4 per cent for the Greater Perth region. Yanchep saw a 58.8 per cent increase over the same period, with 41.4 per cent increase for Carramar.

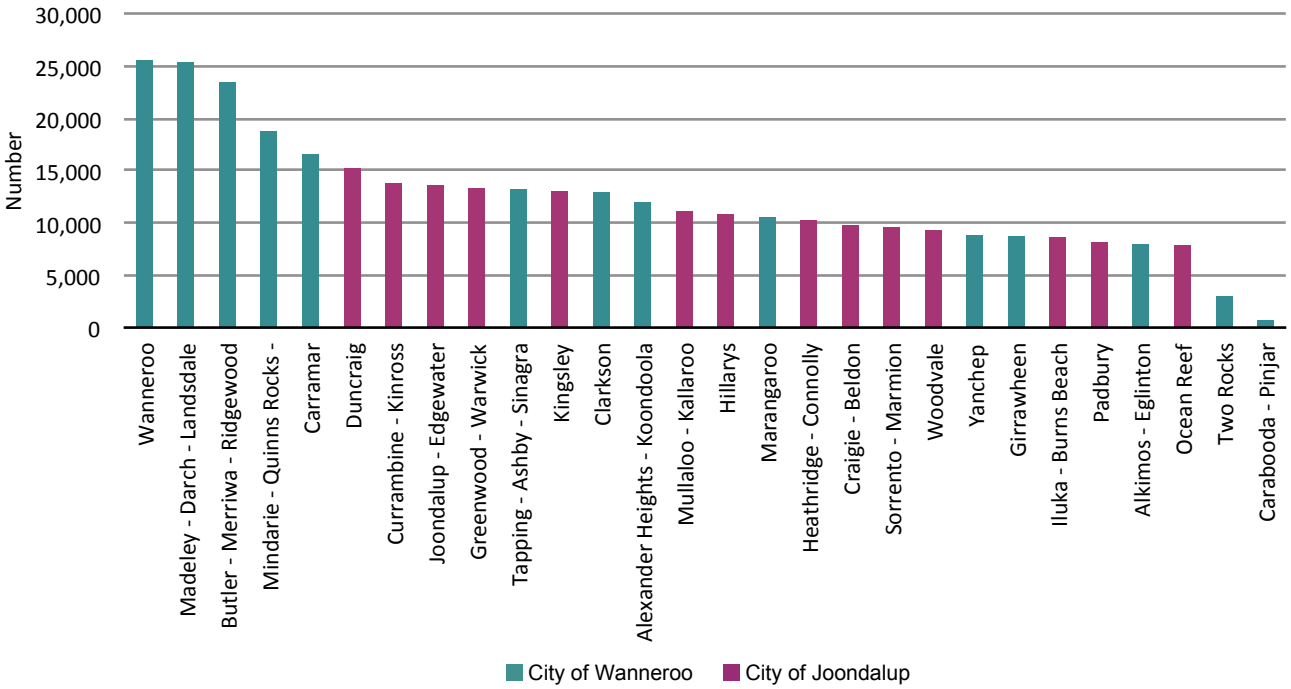
The related fertility rate of 1.94 is above the WA average of 1.89. Females aged between 15 and 39 years of age comprised 18.7 per cent of the population, also higher than that of Joondalup (13.8%) and Greater Perth (17.8%).

Such demographic changes over such a relatively short period of time has significant implications for service delivery – a point which will be returned to latter in this report. Further population growth is projected for the City of Wanneroo, with projected increases of almost 100 per cent by 2041[5].

A Tale of Two Cities – Part I: Population

Comparisons of the City populations by SA2 region are further highlighted in Figure 5. Across the two cities, five of the largest SA2 regions by population are in the City of Wanneroo. While the latter also has two of the smallest populations, Carabooda - Pinjar is for the most part a bushland area, and Two-Rocks is likely to grow further – sitting on the upper North West of the City boundary.

Figure 5 Total Population by SA2 region, City of Joondalup and City of Wanneroo, 2016

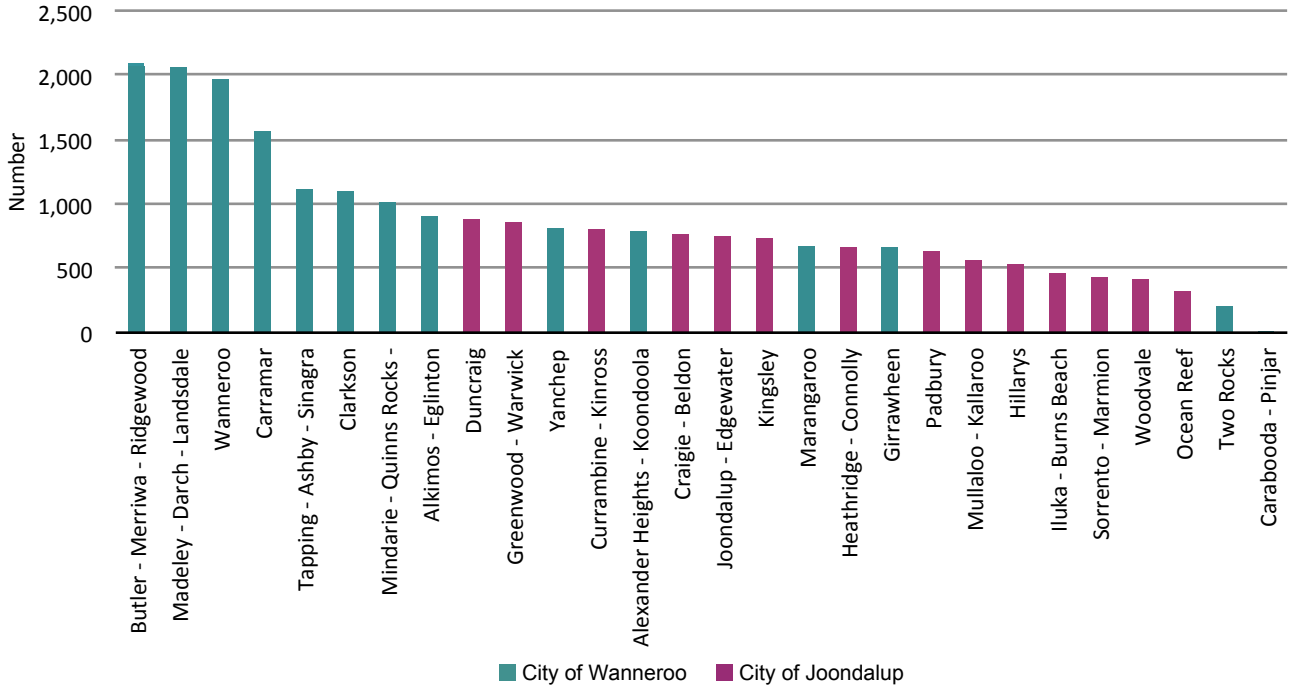


Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

5 See http://www.wanneroo.wa.gov.au/info/20003/council/18/city_of_wanneroo_statistics

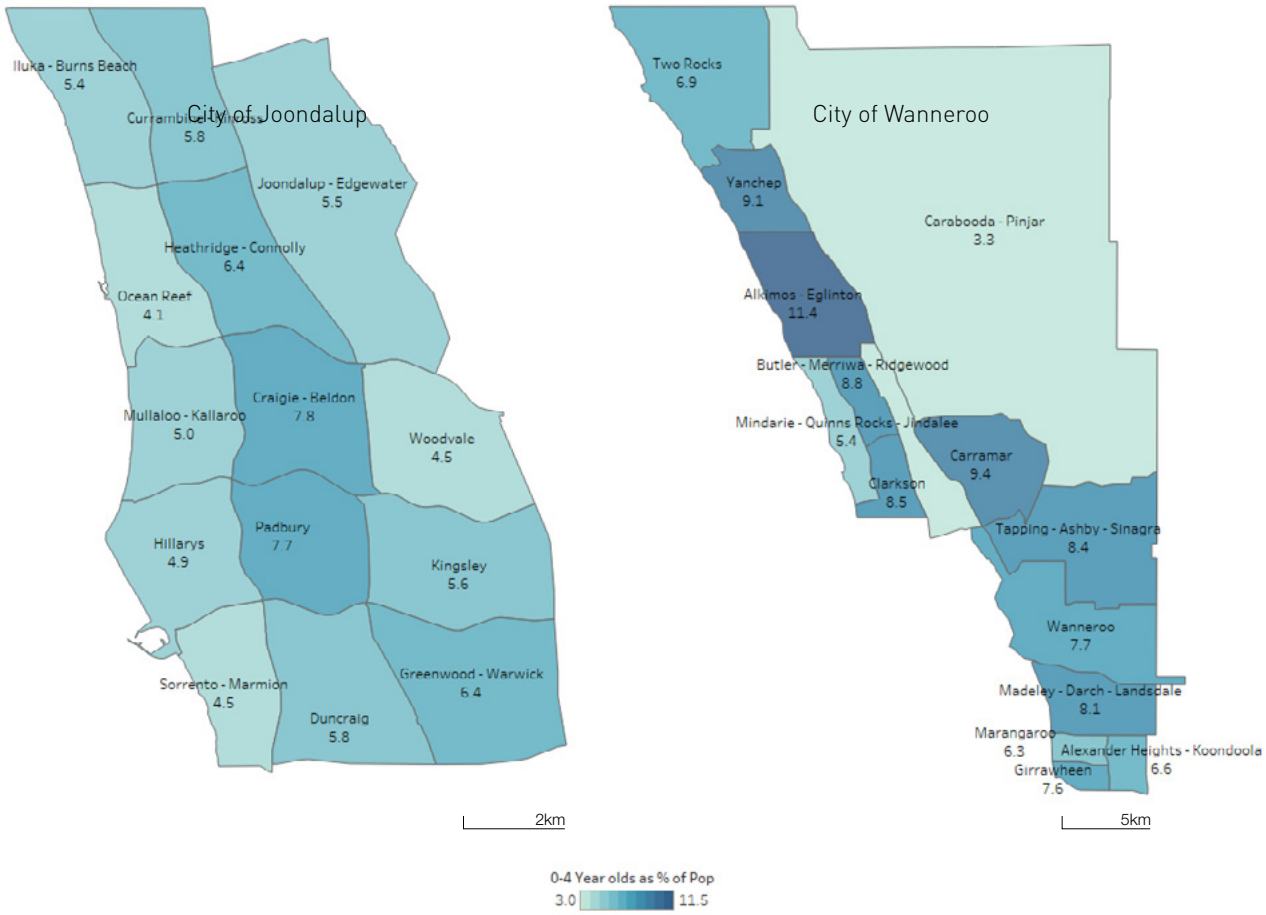
The City of Wanneroo also has the 8 largest SA2 regions in terms of 0-4 population, with the top three being over double that of the 0-4 year olds reported for Duncraig - the largest reported for the City of Joondalup. By this measure, the City of Joondalup's SA2 regions are very much skewed to the right, indicating much lower numbers of 0-4 year olds. These differences are also visible in the heat maps shown in Figure 7.

Figure 6 0-4 Year Old Population by SA2 region, City of Joondalup and City of Wanneroo, 2016



Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

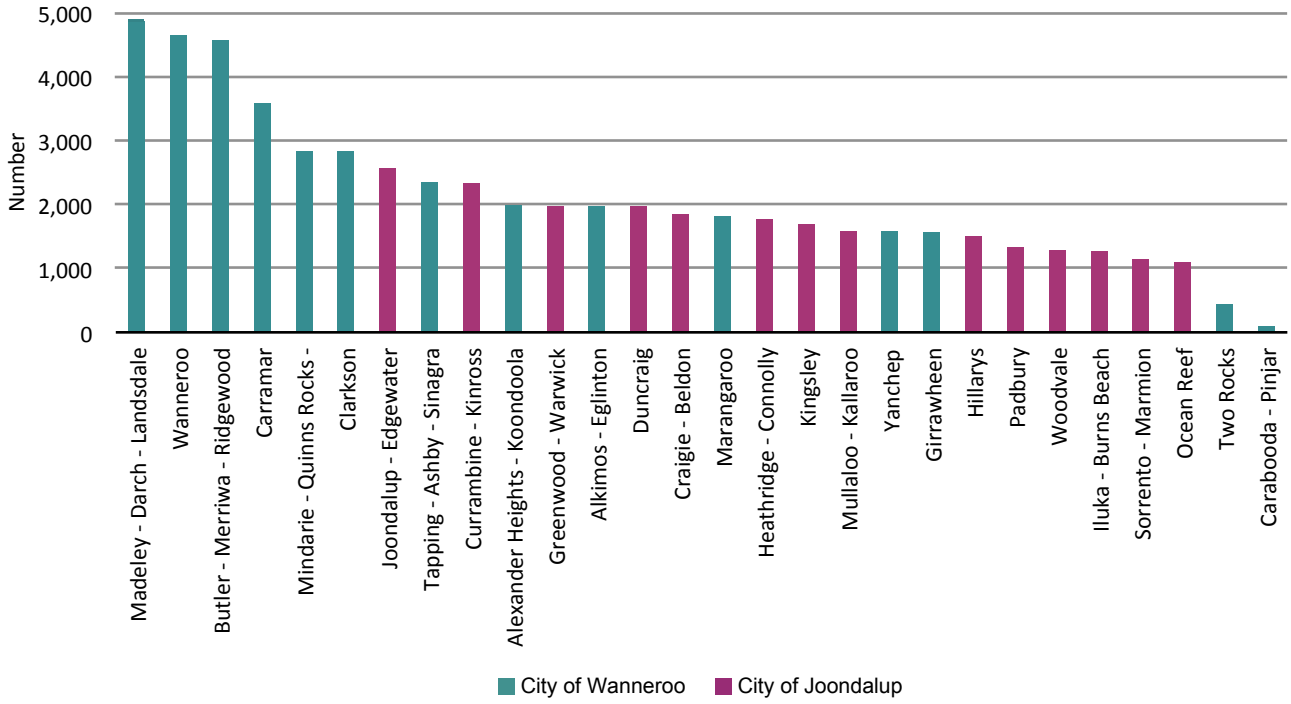
Figure 7 0-4 Year Olds as a percentage of total population, 2016



Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

In terms of the number of females aged 15-39 (those most likely to be of birthing age) six of the largest SA2 regions are also in the City of Wanneroo (Figure 8). Again here, the City of Joondalup is skewed to the right, indicating that, relative to the City of Wanneroo, natural population growth is likely to remain significantly lower for the City of Joondalup relative to the City of Wanneroo.

Figure 8 15-39 Year old Female Population by SA2 region, City of Joondalup and City of Wanneroo, 2016



Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Socio-economic Indicators

While the City of Wanneroo bounds the eastern and northern boundaries of the City of Joondalup, there are some striking differences in the socio-economic profile of the two cities. Some of this is to be expected, with for example, on average, house prices being much higher in the coastal suburbs and as one lives closer to Perth city. Many of the SA2 regions in the City of Wanneroo are new developments, with younger populations moving into these regions due with great housing access and affordability. Extensions to the Mitchell Freeway and train line have also opened up the northern corridor for further residential and economic development.

City of Joondalup

The median weekly income for the City of Joondalup was $2,230 in 2016 Table 4. This was $320 more than that reported for WA as a whole. The highest median income for the City was reported in Illuka - Burns Beach ($2,960) while the lowest was in Craigie - Beldon ($1,870). Eleven of the fourteen SA2 regions in the City of Joondalup had a median income above $2,000.

Table 4 Socio-economic Indicators, Education and Need for Assistance, City of Joondalup, 2016

City of Joondalup	Socio-Economic Indicators					Education				Assistance	
	Popul-ation	Median Weekly	Income	Unemp-loy Rate	SEIFA (2016)	Pre-School 4 Age Band		0 - Primary School 4 Age Band		0 - Needing Assistance 0-4 Age Band	
	No.	$	Rank	%.	Score	No.	%	No.	%	No.	% of Age Band
Craigie - Beldon	9,801	1,870	14	7.5	6	87	11.4	58	7.6	3	0.4
Currambine - Kinross	13,803	2,194	8	7.7	8	118	14.6	63	7.8	11	1.4
Duncraig	15,270	2,389	6	6.0	10	154	17.5	56	6.4	13	1.5
Greenwood - Warwick	13,344	1,906	13	6.9	8	129	15.0	54	6.3	3	0.3
Heathridge - Connolly	10,304	2,044	10	7.0	8	85	12.8	49	7.4	-	n/a
Hillarys	10,813	2,563	3	6.4	10	93	17.6	39	7.4	4	0.8
Iluka - Burns Beach	8,640	2,961	1	6.3	10	88	19.0	42	9.1	8	1.7
Joondalup - Edgewater	13,596	1,976	12	9.0	7	112	15.0	53	7.1	4	0.5
Kingsley	13,059	2,188	9	6.1	9	114	15.6	49	6.7	4	0.5
Mullaloo - Kallaroo	11,164	2,262	7	6.2	10	96	17.1	41	7.3	8	1.4
Ocean Reef	7,846	2,419	4	6.9	10	57	17.6	38	11.8	5	1.5
Padbury	8,186	2,024	11	6.6	8	88	14.0	54	8.6	5	0.8
Sorrento - Marmion	9,619	2,662	2	5.8	10	74	17.2	41	9.5	5	1.2
Woodvale	9,282	2,393	5	6.3	10	58	14.0	51	12.3	9	2.2
City of Joondalup	154,727	2,229		6.9	9	1,353	15.4	688	7.8	82	0.9
Greater Perth	1,943,860	1,955		8.1	n/a	16,379	12.9	8,435	6.7	1,247	1.0
WA	2,474,414	1,910		7.8	n/a	20,461	12.7	10,524	6.5	1,551	1.0

Notes: Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The Index of Relative Socio-Economic Disadvantage (IRSD) is used. Needing assistance refers to the number of people with a profound or severe disability.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

The City of Joondalup has an overall SEIFA score of decile 9 (Table 4). SEIFA is a measure of relative socio-economic disadvantage. SA2 regions falling into decile 1 have the highest level of relative socio-economic disadvantage (compared to other SA2 regions within the State), with those in decile 10 reporting the lowest level of socio-economic disadvantage (compared to other SA2 regions within the State).

Outside of Craigie-Beldon (SEIFA 6) and Joondalup-Edgewater (SEIFA 7), the remaining twelve SA2 regions in the City of Joondalup have a SEIFA score of 8 or above. In fact, seven of the fourteen SA2 regions have a SEIFA score of 10.

15.4 per cent of 0-4 year olds in the City of Joondalup attend Pre-school, with that number as high as 19 per cent in Illuka - Burns Beach, and a low of 11.4 per cent in Craigie - Beldon. It is interesting that the latter has the lowest median income in the City, while the former has the highest median income. This indicates, as expected, that affordability issues affect Pre-school attendance. Of course other factors are at play, such as family choice, culture, availability of family supports and access, amongst others.

Less than 1.0 per cent of 0-4 year olds are reported as needing assistance (having a profound or severe disability)[6] in the City of Joondalup, with the highest in Woodvale, standing at 2.2 per cent.

Previous research has shown that single parents have additional financial difficulties, and are more likely to suffer from financial distress than couples (for example, for WA see (Duncan, Leong, Ong, Salazar, & Twomey, 2017) and (Bond-Smith, Duncan, Kiely, & Salazar, 2018). This is turn may make it more difficult for single parents to access health services, both for themselves and their children.

Almost 11 per cent of parents reported as being single parents in the City of Joondalup (Table 5). This figure was highest in Craigie - Beldon, standing at almost 18 per cent, and lowest in Illuka - Burns Beach. The association with median income is again striking for these two SA2 regions. While expected, and in line with trends in other developed economies, it is worth pointing out that there are more single parent males than single parent females across all SA2 regions.

Table 5 Lone Parents by Gender, City of Joondalup, 2016

City of Joondalup	Lone Parents (15-39 Age Group)					
	Male		Female		Total	
	No.	% of Age Band	No.	% of Age Band	No.	% of Age Band
Craigie - Beldon	16	0.8	120	6.5	136	3.6
Currambine - Kinross	13	0.6	119	5.1	132	2.8
Duncraig	4	0.2	49	2.5	53	1.3
Greenwood - Warwick	15	0.7	91	4.6	106	2.6
Heathridge - Connolly	5	0.3	80	4.5	85	2.3
Hillarys	7	0.5	36	2.4	43	1.4
Iluka - Burns Beach	9	0.8	23	1.8	32	1.3
Joondalup - Edgewater	13	0.5	111	4.3	124	2.3
Kingsley	6	0.3	76	4.5	82	2.3
Mullaloo - Kallaroo	7	0.5	59	3.7	66	2.1
Ocean Reef	9	0.8	24	2.2	33	1.5
Padbury	15	1.1	67	5.0	82	3.0
Sorrento - Marmion	-	0.0	28	2.4	28	1.2
Woodvale	6	0.4	41	3.2	47	1.8
City of Joondalup	125	0.5	924	4.0	1,049	2.2

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

6 The 2006 Census was the first Census to include the variable Core Activity Need for Assistance. The Core Activity Need for Assistance variable has been developed to measure the number of people with a profound or severe disability. As with the ABS Surveys of Disability, Ageing and Carers, the Census of Population and Housing defines the profound or severe disability population as: 'Those people needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a long-term health condition (lasting six months or more), a disability (lasting six months or more), or old age'.

City of Wanneroo

The median weekly income for the City of Wanneroo is $1,874 in 2016 Table 6. This is $36 lower than that reported for WA as a whole, but is $355 lower than that reported for the City of Joondalup. The highest median income for the City was reported in Mindarie-Quinns Rocks-Jindalee ($2,220), which is $750 lower than that reported for Illuka-Burns Beach ($2,960) in the City of Joondalup.

For the City of Wanneroo, the lowest median income in 2016 was in Girrawheen ($1,210), $670 lower than the lowest reported in the City of Joondalup (Craigie - Beldon, $1,870). Only four of the fourteen SA2 regions in the City of Wanneroo had a median income above $2,000, compared to eleven for the City of Joondalup.

Table 6 Socio-economic Indicators, Education and Need for Assistance, City of Wanneroo, 2016

City of Joondalup	Socio-Economic Indicators					Education				Assistance	
	Popul-ation	Median Weekly	Income	Unemp-loy Rate	SEIFA (2016)	Pre-School 4 Age Band		0 - Primary School 4 Age Band		0 - Needing Assistance 0-4 Age Band	
	No.	$	Rank	%.	Score	No.	%	No.	%	No.	% of Age Band
Alexander Heights - Koondoola	11,981	1,475	13	10.6	2	118	14.9	55	6.9	8	1.0
Butler - Merriwa - Ridgewood	23,441	1,617	10	10.3	3	224	10.8	136	6.6	33	1.6
Carramar	16,619	2,012	5	8.0	7	171	10.9	130	8.3	20	1.3
Clarkson	12,964	1,762	8	10.1	5	128	11.6	72	6.5	12	1.1
Girrawheen	8,764	1,208	14	12.7	1	76	11.5	48	7.3	-	n/a
Madeley - Darch - Landsdale	25,403	2,180	2	6.6	9	286	13.9	129	6.3	15	0.7
Marangaroo	10,588	1,534	11	9.6	2	73	10.9	34	5.1	9	1.3
Mindarie - Quinns Rocks - Jindalee	18,782	2,220	1	8.5	8	184	18.1	84	8.3	10	1.0
Tapping - Ashby - Sinagra	13,262	2,131	3	6.7	8	158	14.2	95	8.5	16	1.4
Wanneroo	25,623	1,949	7	7.3	7	224	11.4	125	6.4	21	1.1
Alkimos - Eglinton	7,953	2,105	4	6.3	8	85	9.4	49	5.4	10	1.1
Carabooda - Pinjar	730	1,965		7.3	6	-	n/a	-	n/a	-	n/a
Two Rocks	2,990	1,509	12	11.3	3	37	18.0	16	7.8	-	n/a
Yanchep	8,857	1,728	9	9.3	5	119	14.7	56	6.9	12	1.5
City of Wanneroo	187,957	1,874		8.5	5	1,883	12.6	1,029	6.9	166	1.1
Greater Perth	1,943,860	1,955		8.1	n/a	16,379	12.9	8,435	6.7	1,247	1.0
WA	2,474,414	1,910		7.8	n/a	20,461	12.7	10,524	6.5	1,551	1.0

Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only. Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The Index of Relative Socio-Economic Disadvantage (IRSD) is used.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

The City of Wanneroo has an overall SEIFA score of decile 5, compared to 9 for Joondalup. Half of the SA2 regions in the City of Wanneroo have a SEIFA score of 5 or below – denoting very high levels of relative socio-economic disadvantage. Girrawheen has a SEIFA score of 1, followed by Marangaroo and Alexander Heights - Koondoola (both with a SEIFA score of 2), and Butler - Merriwa - Ridgewood and Two Rocks (both with a SEIFA score of 3). This again shows the strong variation between the two Cities – with the lowest SEIFA score in the City of Joondalup being in Craigie-Beldon (SEIFA 6).

Pre-school attendance in the City of Wanneroo is 2.8PPts lower than the City of Joondalup, but only slightly lower than that reported for WA as a whole. Keeping in mind that the absolute numbers are higher in the City of Joondalup, there were also a larger proportion of children aged 0-4 requiring assistance (1.1%; 166 children) in the City of Wanneroo, relative to Joondalup (0.9%; 82 children).

Compared to the 11 per cent reported for the City of Joondalup, over 18 per cent of parents in the City of Wanneroo are single parents (Table 7). In Butler-Merriwa-Ridgewood as many as 30 per cent of parents are single parents, with a low of 10 per cent in Madeley - Darch - Landsdale. While no SA2 region in the City of Joondalup reported more than 18 per cent of parents being single parents, eight of the fourteen SA2 regions in the City of Wanneroo have single parent rates of 20 per cent and above. As per the City of Joondalup case, single parents are dominated by females.

Table 7 Lone Parents by Gender, City of Wanneroo, 2016

City of Wanneroo	Lone Parents (15-39 Age Group)					
	Male		Female		Total	
	No.	% of Age Band	No.	% of Age Band	No.	% of Age Band
Alexander Heights - Koondoola	22	1.0	144	7.2	166	4.0
Butler - Merriwa - Ridgewood	46	1.1	471	10.3	517	5.9
Carramar	19	0.6	241	6.7	260	3.7
Clarkson	25	0.9	233	8.2	258	4.6
Girrawheen	7	0.4	137	8.8	144	4.4
Madeley - Darch - Landsdale	20	0.4	192	3.9	212	2.2
Marangaroo	13	0.7	99	5.4	112	3.0
Mindarie - Quinns Rocks - Jindalee	17	0.6	161	5.7	178	3.1
Tapping - Ashby - Sinagra	13	0.6	111	4.7	124	2.7
Wanneroo	31	0.7	234	5.0	265	2.9
Alkimos - Eglinton	9	0.5	134	6.8	143	3.7
Two Rocks	-	0.0	46	10.4	46	5.3
Yanchep	9	0.6	137	8.7	146	4.9
City of Wanneroo	231	0.7	2,340	6.7	2,571	3.7

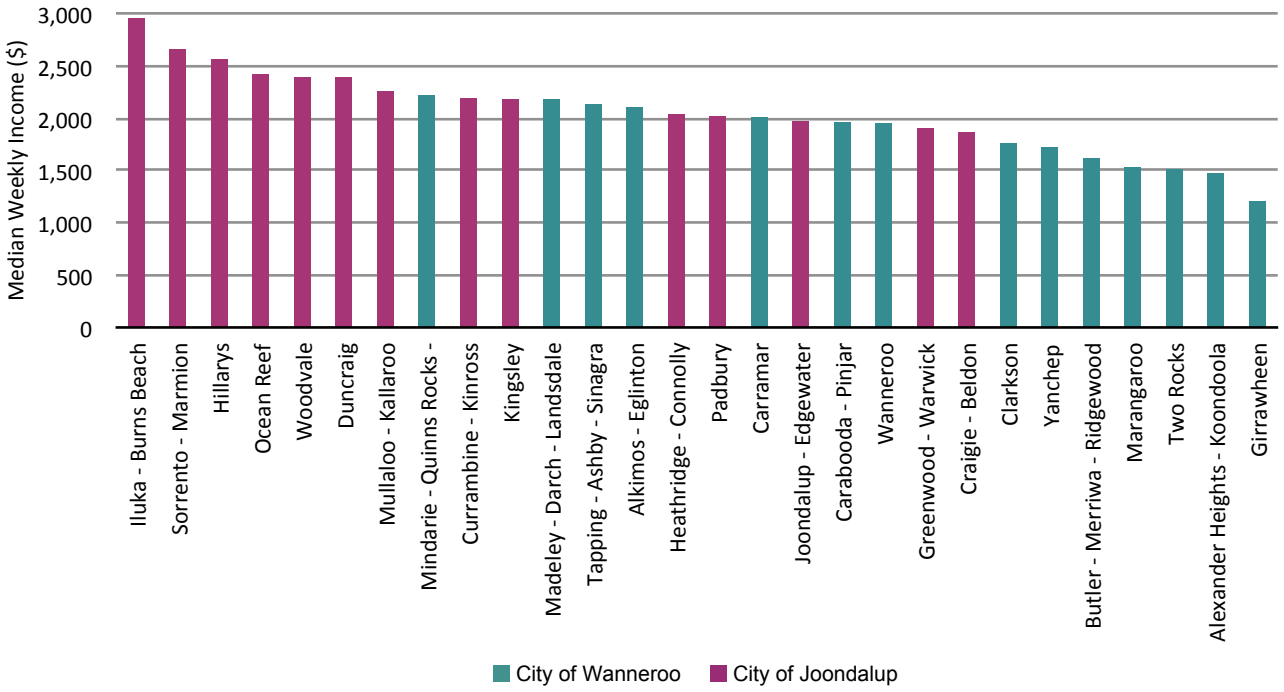
Notes: Excludes SA2 regions Neerabup National Park and Carabooda - Pinjar due to low population size.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

A Tale of Two Cities – Part 2: Socio-economic Profile

Returning to the 'Tale of Two Cities', seven of the highest median incomes by SA2 region are in the City of Joondalup, while the lowest seven are in the City of Wanneroo Figure 9. The difference between the highest and lowest median incomes are also striking, with the median income of Girrawheen being 41 per cent of that of Illuka - Burns Beach (a $1,750 difference).

Figure 9 Median Weekly Income by SA2 region, City of Joondalup and City of Wanneroo, 2016

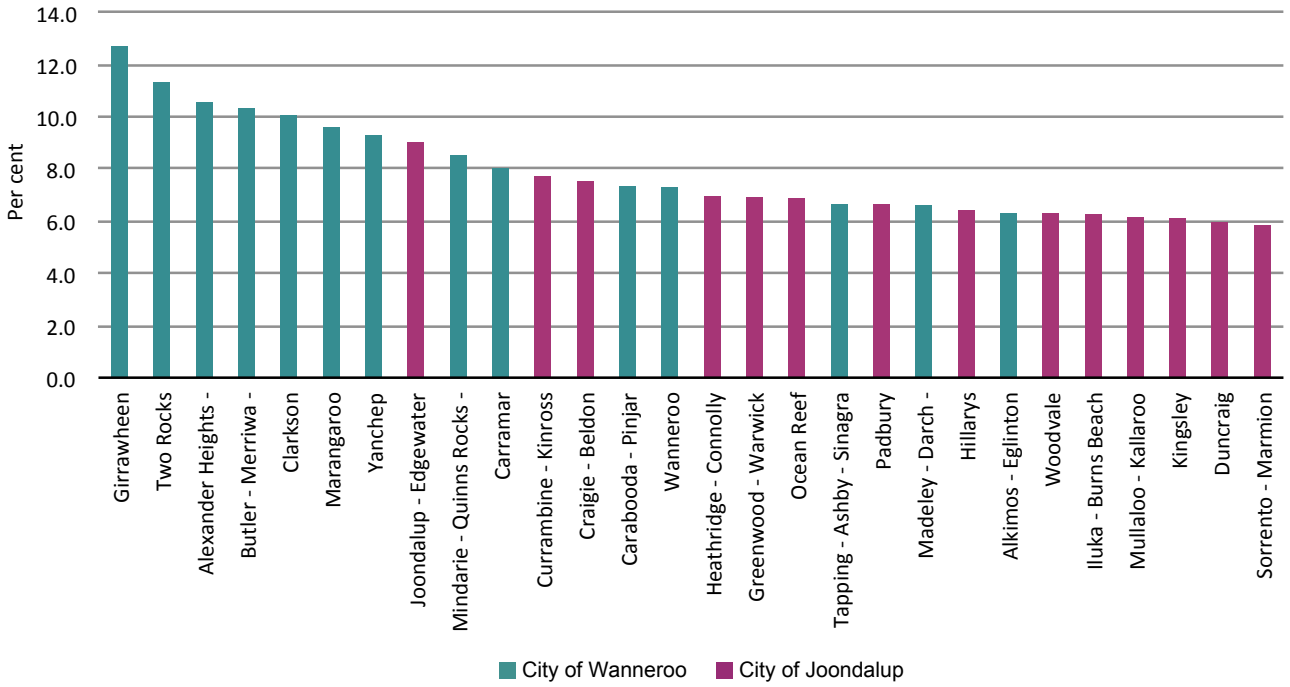


Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Girrawheen also reports the highest unemployment rate (12.7%), with seven of the highest unemployment rates by SA2 region reported for the City of Wanneroo (Figure 10). The highest unemployment rate for the City of Joondalup was in Joondalup - Edgewater (9%), with the City of Joondalup also reporting six of the lowest unemployment rates by SA2 region.

Figure 10 Unemployment rates by SA2 region, City of Joondalup and City of Wanneroo, 2016



Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Culture, Language and Religion

City of Joondalup

This section compares the City of Joondalup and the City of Wanneroo in terms of cultural, linguistic and religious diversity. These aspects are important in terms of ensuring that services are delivered in a culturally appropriate manner, and that parents and their babies have adequate language capabilities that allows them to access information about services and to access such services. Religion is another aspect which requires attention from a health service delivery perspective, but is also be a potential aspect of the support system for the families in the community.

For the City of Joondalup (Table 8), only 1.4 per cent of the 0-4 age group identify as being Indigenous, compared to 5.2 per cent across WA. A similarly low Indigenous population is reported amongst the 15-39 year old female group, with 0.8 per cent identifying as Indigenous in the City of Joondalup relative to 3.4 per cent for WA. By SA2, Craigie Beldon has the highest proportion of Indigenous people across both of these cohorts.

Almost four out of every ten people in the City of Joondalup are migrants (Table 8), higher than the 32 per cent reported across the state, as presented in Table 9. Of those migrants, 66 per cent are from the more traditional European source countries, with 17.4 per cent African, 13.4 per cent Asian and 3.1 per cent from the Americas.

Joondalup-Edgewater has the lowest proportion of Europeans (58.7%) in the City of Joondalup, and the highest Asian population (20%). Illuka - Burns Beach has the highest African population as a proportion of its overall population (22.7%).

Table 8 Culture, Language and Religion, City of Joondalup, 2016

City of Joondalup	Culture							Language - No English		Religion		
	Popul-ation	Indigenous 0-4 Age Band		Female Indigenous 15-39 Age Band		Migrants		15-39 Females Age Band		Christ-ian	Other	None/ Not Stated
	No.	No.	% of 0-4 Popul-ation	No.	% of 15-39 Popul-ation	No.	% of Popul-ation	No.	% of 15-39 Females	% of Popul-ation	% of Popul-ation	% of Popul-ation
Craigie - Beldon	9,801	26	3.4	28	1.5	3,111	31.7	7	0.4	47.6	3.1	49.3
Currambine - Kinross	13,803	6	0.7	16	0.7	6,682	48.4	12	0.5	55.5	3.7	40.8
Duncraig	15,270	5	0.6	18	0.9	5,051	33.1	5	0.3	56.3	2.8	40.9
Greenwood - Warwick	13,344	19	2.2	27	1.4	3,969	29.7	16	0.8	54.9	3.7	41.4
Heathridge - Connolly	10,304	12	1.8	17	1.0	4,121	40.0	17	1.0	51.6	3.6	44.8
Hillarys	10,813	-	0.0	3	0.2	3,838	35.5	-	0.0	61.7	3.6	34.7
Iluka - Burns Beach	8,640	4	0.9	4	0.3	4,523	52.3	4	0.3	64.0	3.8	32.2
Joondalup - Edgewater	13,596	22	2.9	26	1.0	6,311	46.4	67	2.6	49.2	6.2	44.6
Kingsley	13,059	3	0.4	4	0.2	4,131	31.6	3	0.2	58.8	2.5	38.7
Mullaloo - Kallaroo	11,164	3	0.5	9	0.6	4,268	38.2	-	0.0	56.7	2.2	41.1
Ocean Reef	7,846	3	0.9	4	0.4	3,526	44.9	7	0.6	59.0	3.3	37.8
Padbury	8,186	11	1.7	10	0.7	2,679	32.7	-	0.0	49.9	3.5	46.6
Sorrento - Marmion	9,619	3	0.7	3	0.3	2,743	28.5	-	0.0	62.4	2.4	35.2
Woodvale	9,282	4	1.0	9	0.7	3,525	38.0	-	0.0	58.8	3.0	38.2
City of Joondalup	154,727	121	1.4	178	0.8	58,478	37.8	138	0.6	56.0	3.4	40.6
Greater Perth	1,943,860	3,499	2.8	5,936	1.7	701,368	36.1	7,525	2.2	49.7	8.1	42.2
WA	2,474,414	8,407	5.2	14,543	3.4	796,334	32.2	8,528	2.0	49.8	6.9	43.3

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Returning to Table 8, English language proficiency is not a major concern for the City of Joondalup, with 0.6 per cent of females aged 15-39 stating that they do not speak English well or not at all. It is however, something of note in some SA2 regions, with for example 2.6 per cent of those in Joondalup - Edgewater reporting poor or no English language.

In terms of religion, 56 per cent of people in the City of Joondalup identify as being Christian, with 41 per cent having no religion (or not stated), with only 3 per cent identifying with Other religions. This is much lower than the 7 per cent reported for WA.

Table 9 Immigrant Population by Region of Origin, City of Joondalup, 2016

City of Joondalup	Total	Migrants		Migrant Region of Origin			
	Population	All regions		Europe	Asia	Americas	Africa
	No.	No.	% of Population	% of migrants	% of migrants	% of migrants	% of migrants
Craigie - Beldon	9,801	3,111	31.7	69.2	14.1	4.3	12.4
Currambine - Kinross	13,803	6,682	48.4	66.4	11.6	2.1	19.8
Duncraig	15,270	5,051	33.1	61.4	13.9	4.8	20.0
Greenwood - Warwick	13,344	3,969	29.7	60.2	22.3	4.4	13.1
Heathridge - Connolly	10,304	4,121	40.0	72.0	10.4	3.0	14.6
Hillarys	10,813	3,838	35.5	64.1	11.8	4.4	19.7
Iluka - Burns Beach	8,640	4,523	52.3	66.6	8.7	2.0	22.7
Joondalup - Edgewater	13,596	6,311	46.4	58.7	20.0	2.4	18.9
Kingsley	13,059	4,131	31.6	67.4	14.1	3.1	15.4
Mullaloo - Kallaroo	11,164	4,268	38.2	74.2	8.6	2.8	14.3
Ocean Reef	7,846	3,526	44.9	67.1	10.9	3.0	19.1
Padbury	8,186	2,679	32.7	67.6	15.4	3.3	13.8
Sorrento - Marmion	9,619	2,743	28.5	65.4	12.7	4.4	17.6
Woodvale	9,282	3,525	38.0	70.5	12.2	1.8	15.5
City of Joondalup	154,727	58,478	37.8	66.1	13.4	3.1	17.4

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

City of Wanneroo

For both the 0-4 age group and the 15-39 age groups (Table 10), the Indigenous population in the City of Wanneroo (2.5% and 1.5%, respectively) is higher than that reported in the City of Joondalup (1.4% and 0.8%, respectively). While the proportion of Indigenous people in the City of Wanneroo for the reported groups is below the WA average, for Girrawheen, they are higher for both 0-4 year olds and females aged 15-39 years.

Table 10 Culture, Language and Religion, City of Wanneroo, 2016

City of Wanneroo	Culture							Language - No English		Religion		
	Popul-ation	Indigenous 0-4 Age Band		Female Indigenous 15-39 Age Band		Migrants		15-39 Females Age Band		Christ-ian	Other	None/ Not Stated
	No.	No.	% of 0-4 Popul-ation	No.	% of 15-39 Popul-ation	No.	% of Popul-ation	No.	% of 15-39 Females	% of Popul-ation	% of Popul-ation	% of Popul-ation
Alexander Heights - Koondoola	11,981	29	3.7	57	2.9	4,971	41.5	204	10.2	51.8	16.9	31.3
Butler - Merriwa - Ridgewood	23,441	69	3.3	101	2.2	9,325	39.8	51	1.1	49.4	4.0	46.6
Carramar	16,619	34	2.2	41	1.1	7,358	44.3	53	1.5	50.1	6.5	43.3
Clarkson	12,964	40	3.6	53	1.9	5,656	43.6	40	1.4	45.3	7.9	46.8
Girrawheen	8,764	35	5.3	62	4.0	3,703	42.3	144	9.2	50.3	14.6	35.1
Madeley - Darch - Landsdale	25,403	24	1.2	19	0.4	9,754	38.4	100	2.1	54.2	15.1	30.7
Marangaroo	10,588	15	2.2	31	1.7	4,089	38.6	126	6.9	51.8	13.5	34.7
Mindarie - Quinns Rocks - Jindalee	18,782	24	2.4	35	1.2	8,957	47.7	11	0.4	55.4	2.3	42.3
Tapping - Ashby - Sinagra	13,262	9	0.8	12	0.5	5,819	43.9	23	1.0	52.6	6.1	41.3
Wanneroo	25,623	37	1.9	47	1.0	9,282	36.2	107	2.3	52.9	5.7	41.4
Alkimos - Eglinton	7,953	12	1.3	20	1.0	3,616	45.5	14	0.7	46.8	3.3	49.8
Carabooda - Pinjar	730	3	12.5	-	0.0	198	27.1	-	0.0	53.1	4.5	42.4
Two Rocks	2,990	10	4.9	9	2.0	823	27.5	3	0.7	44.5	2.3	53.1
Yanchep	8,857	34	4.2	39	2.5	3,334	37.6	10	0.6	46.0	1.6	52.4
City of Wanneroo	187,957	375	2.5	526	1.5	76,885	40.9	886	2.5	51.1	7.9	41.0
Greater Perth	1,943,860	3,499	2.8	5,936	1.7	701,368	36.1	7,525	2.2	49.7	8.1	42.2
WA	2,474,414	8,407	5.2	14,543	3.4	796,334	32.2	8,528	2.0	49.8	6.9	43.3

Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

The proportion of immigrants is higher in the City of Wanneroo (41%) is only slightly higher than that of the City of Joondalup (38%). However, there is greater variation by source region, with lower proportions from the traditional European source countries and more from Africa and particularly the Asian region (Table 11). While some of the more northerly coastal regions in the City of Wanneroo, such as Two Rocks (79% European) and Mindarie (73%) have large cohorts of their immigrant population from Europe, Girrawheen (26% European), Alexander Heights - Koondoola (30% European), and Madeley - Darch - Landsdale (37% European) and Marangaroo (37% European) have a much lower proportion of immigrants from the more traditional economies. This in turn implies a higher proportion of immigrants from the more culturally and linguistically diverse regions of Africa and Asia. For example, in Girrawheen, 55 per cent of immigrants are Asian, and 18 per cent African.

Returning to Table 10, the latter results are strongly associated with English language competency. Over 10 per cent of females aged 15-39 years have poor or no English language capability in Alexander Heights - Koondoola. It is similarly high for Girrawheen (9.2%) and Marangaroo (6.9%). This raises some important considerations for the delivery of health services for women and their families in these locations, and highlights the importance of 'place based' service design and delivery.

The City of Wanneroo also have great religious diversity, with a lower proportion identifying as Christian relative to the City of Joondalup, and a great proportion of those identifying with Other religions, which includes Buddhism, Hinduism and Islam.

Table 11 Immigrant Population by Region of Origin, City of Wanneroo, 2016

City of Wanneroo	Total	Migrants		Migrant Region of Origin			
	Population	All regions		Europe	Asia	Americas	Africa
	No.	No.	% of Population	% of migrants	% of migrants	% of migrants	% of migrants
Alexander Heights - Koondoola	11,981	4,971	41.5	30.1	52.0	1.7	16.1
Butler - Merriwa - Ridgewood	23,441	9,325	39.8	62.8	13.0	2.7	21.4
Carramar	16,619	7,358	44.3	57.1	20.8	1.7	20.4
Clarkson	12,964	5,656	43.6	51.2	25.5	3.5	19.9
Girrawheen	8,764	3,703	42.3	25.9	54.7	1.5	17.9
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Marangaroo	10,588	4,089	38.6	37.1	47.5	2.4	13.1
Mindarie - Quinns Rocks - Jindalee	18,782	8,957	47.7	72.8	5.7	2.4	19.1
Tapping - Ashby - Sinagra	13,262	5,819	43.9	63.2	15.8	1.5	19.5
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Alkimos - Eglinton	7,953	3,616	45.5	67.6	11.0	2.9	18.5
Carabooda - Pinjar	730	198	27.1	68.3	25.7	2.4	3.6
Two Rocks	2,990	823	27.5	79.4	9.2	2.3	9.2
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City of Wanneroo	187,957	76,885	40.9	54.4	24.3	2.3	19.0

Notes: Excludes SA2 region Neerabup National Park due to population size of three persons only.

Source: Authors' calculations from Census of Population 2016 and 2011. Data extracted using TableBuilder.

Chapter 3:

Service Mapping

Introduction

This chapter presents geographical maps of key services available towards supporting families and children in the City of Joondalup and City of Wanneroo. With 0-4 year old children as the primary target group, using a collection of spatial coordinates, these services are mapped upon a heat map of the number of 0-4 year olds by SA2 region in each city. It is worth repeating here that, as reported in Table 2 and Table 3, there were 8,800 children in the City of Joondalup on Census night 2016 (down 5% on 2011), representing 5.7 per cent of the City's population, compared to almost 15,000 in the City of Wanneroo (up 16% on 2011), making up 8 per cent of the City's population.

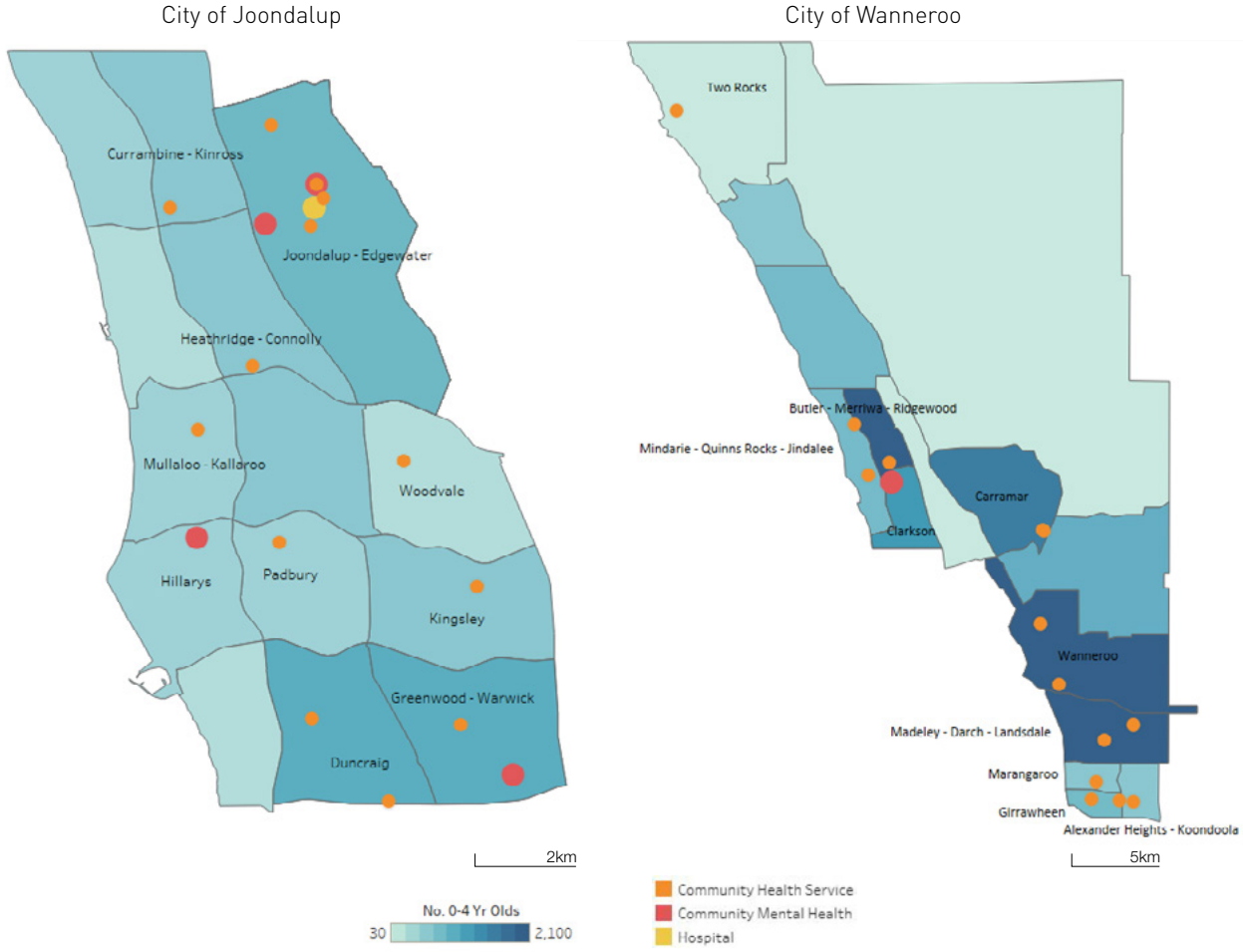
Maps are presented according to three main themes, namely: Government Health and Mental Health Services; Early Childhood Education and Care, Community Services and Libraries; and Universal Services. Every effort was made by the authors to include all services known to the authors at the time of publication.

Government Health and Mental Health Services

Figure 11 maps the Government Health and Mental Health Services across the two cities. There is one (1) major hospital across the two cities, located in the City of Joondalup. There are thirteen (13) Community Health Services in the City of Joondalup and fifteen (15) in the City of Wanneroo, with four (4) Community Mental Health services in Joondalup and two in the City of Wanneroo. Therefore, based on the larger number of 0-4 year olds in the City of Wanneroo, there are, by this metric, and relative to the City of Joondalup, a lack of services in the City of Wanneroo. Visually, in relation to the density of 0-4 year olds, a lack of such services is particularly evident in the SA2 regions of Wanneroo, Madeley - Darch - Landsdale and Caramar, with gaps also evident in the newer growth areas to the north west of the City of Wanneroo (Yanchep and Alkimos – south of Two Rocks). It is important that services keep pace with the growth in population in these regions.

By its very nature, there is a natural clustering of services around the Joondalup hospital and Joondalup Health Campus. While the Joondalup health campus is reasonably close to the City of Wanneroo, consumers have noted that access to transport and related affordability constraints are barriers to accessing such services. Lake Joondalup, and Yellagonga Regional Park mean that there are additional challenges for many living in the City of Wanneroo toward accessing such services. This is something to consider from a policy perspective.

Figure 11 Government Health and Mental Health Services, 2018



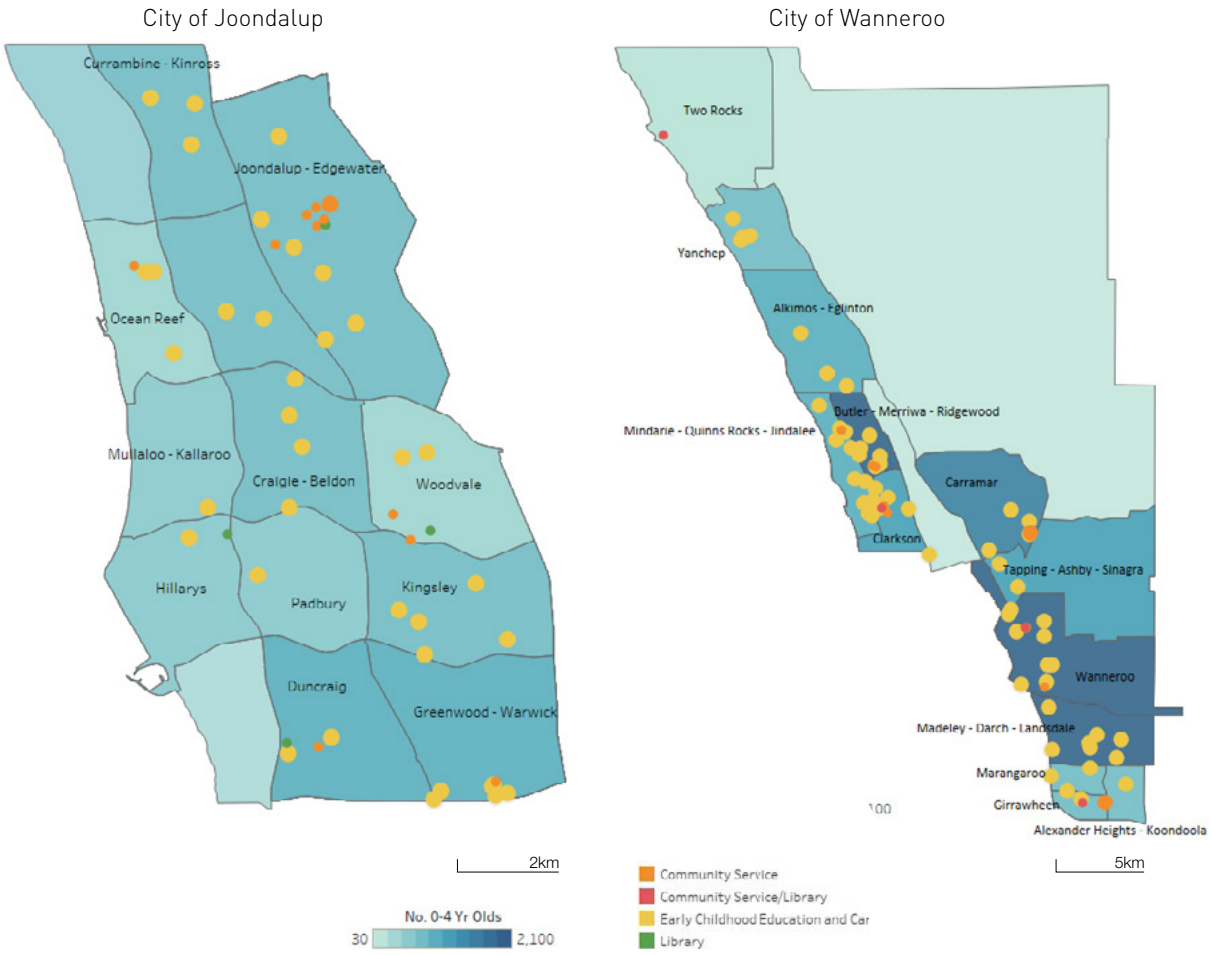
Source: Authors' calculations from Census of Population 2016 and 2011; WA Primary Health Alliance, Primary Health Care Data Collection 2018; ECU Better Together Service Provision Database

Early Childhood Education and Care, Community Services and Libraries

Figure 12 maps Early Childhood Education and Care (ECEC) services together with Community Services and Library service. In many cases, libraries are co-located with Community Services, with those stand-alone libraries categorised differently for mapping purposes.

There are thirty eight (38) ECEC's in the City of Joondalup, with fifty eight (58) in the City of Wanneroo. Both cities have sixteen (16) Community Services, with both also displaying four (4) stand-alone libraries. By these metrics the City of Wanneroo presents relatively well. The volume of ECEC services is the City of Wanneroo is particularly noteworthy, especially given that the vast majority of such services are privately operated.

Figure 12 Early Childhood Education and Care, Community Services and Libraries, 2018

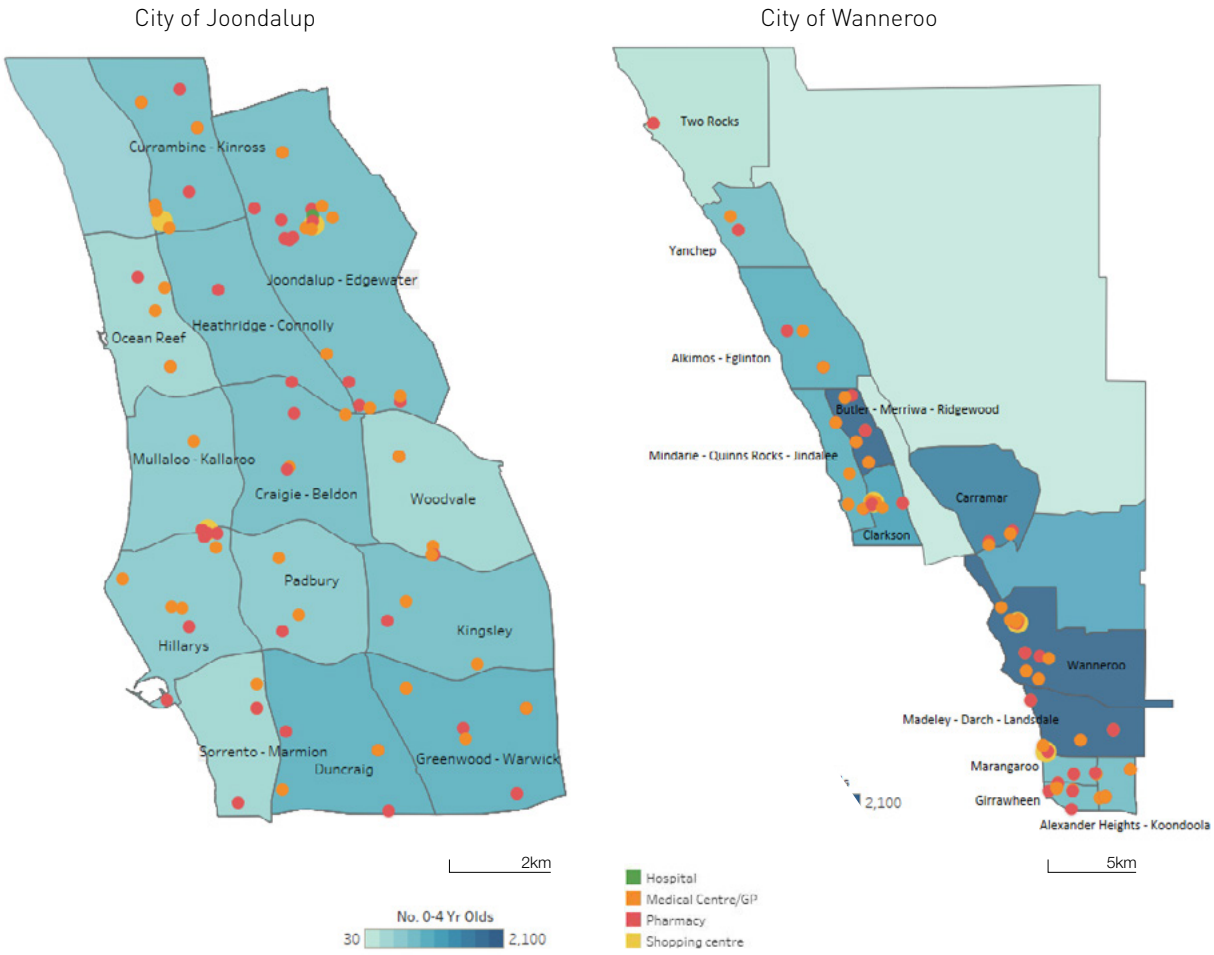


Source: Authors' calculations from Census of Population 2016 and 2011; WA Primary Health Alliance, Primary Health Care Data Collection 2018; ECU Better Together Service Provision Database

Universal Services

Figure 13 maps Universal Service – Hospital, Medical Centre/GP Practices and Pharmacies. It also plots the major shopping centres in the two cities. The clustering of such services is to be expected and is particularly evident in the more densely populated areas such as Joondalup-Edgewater, with clusters also near the major shopping centres – such as at Whitfords and Wanneroo. The latter emphasises the role of shopping centres as important hubs for families and infants, young children.

Figure 13 Universal Services, 2018



Source: Authors' calculations from Census of Population 2016 and 2011; WA Primary Health Alliance, Primary Health Care Data Collection 2018; ECU Better Together Service Provision Database

General Practitioners play a critical role for parents, infants and young children, and are for many (along with pharmacists – a point developed latter in this report), a critical first point of contact for any health or mental health related issues.

Therefore, Figure 14 looks at the number of General Practitioner Services (GPS[7]), mapping the number of GPS per 1,000 of the population of 0-4 year olds. On this metric, there are 4.5 GPS per 1,000 of the population of 0-4 year olds in the City of Joondalup. This compares to only 2.8 GPS per 1,000 of the population in the City of Wanneroo.

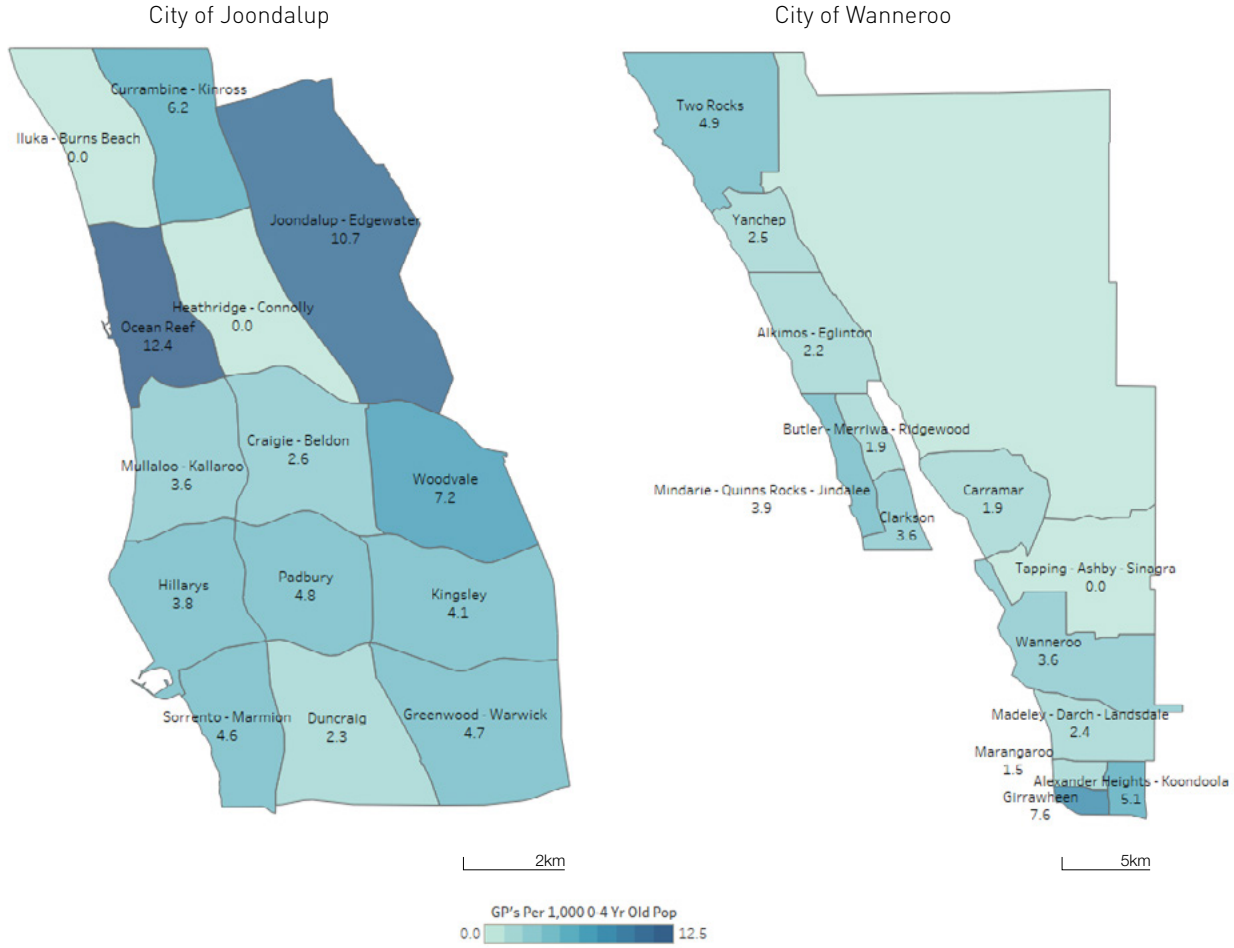
7 This is the number of GP Services (GPS) only and not a headcount of General Practitioners (GPs) or a Functional Service Equivalent (FSE).

Of course, GPS cover all population cohorts, but in terms of the target group under consideration in this report (0-4 year olds and their parents/families), there is an apparent lack of GPS in the City of Wanneroo[8] relative to the City of Joondalup. This is particularly evident in areas such as Marangaroo (1.5), Carramar (1.9), and Butler (1.9), and again in the new growth areas of Yanchep (2.5) and Alkimos (2.2). More striking is the absence of GPS in Tapping - Ashby - Sinagra, which as previously shown, also had a high proportion of 0-4 year olds and a high migrant population.

However, some areas in the City of Wanneroo report quite well, with for example, Girrawheen reporting 7.6 GPS per 1,000 of the 0-4 year old population, followed by Alexander-Heights (5.1) and Two Rocks (4.9).

For the City of Joondalup, Ocean Reef (12.4), Joondalup-Edgewater (10.7) and Woodvale (7.4) report a high density of GPS, with none reported in Iluka - Burns Beach or Heathridge - Connolly, albeit with both neighbouring those SA2 regions with high densities.

Figure 14 General Practitioner Services per 1,000 of the Population of 0-4 Year olds, City of Joondalup and City of Wanneroo



Source: Authors' calculations from Census of Population 2016 and 2011; WA Primary Health Alliance, Primary Health Care Data Collection 2018; ECU Better Together Service Provision Database

8 This assumes a similar number of General Practitioners (FSE), for which the authors of this report did not have data at the time of writing this report.

Chapter 4:

Provider Survey Results

Introduction and Characteristics of Survey Respondents

This chapter provides an overview of the participants in the Better Together survey data. Demographics including gender, age, education and countries of birth are collated. The chapter also provides analysis of the type of service respondents work in and characteristics of those services including perceptions of success, training in PIMH, client characteristics and referral pathways.

There were 111 respondents to the survey from organisations, (Managers = 39; Providers = 72). Managers had additional questions that applied to managerial roles, i.e. funding and staffing matters.

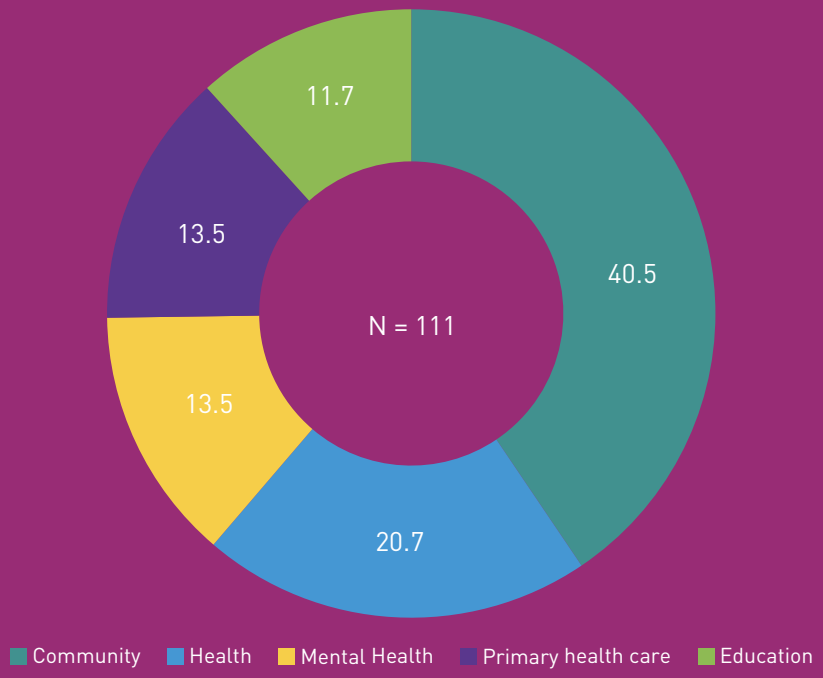
Amongst the providers and managers that responded to the survey, 86 per cent were female, with 14 per cent male. The majority of respondents were in the 25-64 age category; with specifically, 15 per cent aged 25-34; 32 per cent aged 35-44; 33 per cent aged 45-54; and 17 per cent aged 55-64. Two per cent were over the age of 65 with 1 per cent aged 18-24.

Fifty percent of respondents were born in Australia or New Zealand, 28 per cent in the UK and Ireland, 8.5 per cent in South Africa, with 6 per cent in other European countries and 6 per cent in other countries. By ethnicity, 57 per cent identified as being Australia; 24 per cent European; 6 per cent African; 5 per cent Middle East; with 8 per cent from other ethnic backgrounds.

Forty-eight percent of respondents had a postgraduate degree or higher, 30 per cent had a bachelor degree, with 22 per cent having a certificate or diploma. Only 1 per cent had a qualification of Year 12 or below.

The proportion of respondents by service category are displayed in Figure 15 below. Forty percent of respondents were from Community agencies/organisations; 21 per cent from health; 13.5 per cent from Mental Health; 13.5 per cent from Primary health care with the remaining 12 per cent from Education.

Figure 15 Proportion of Respondents by Service Category



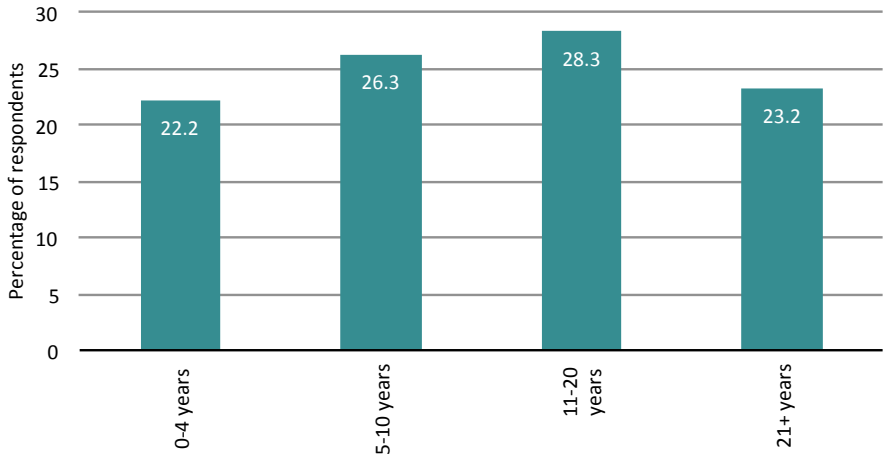
Notes: N = 111.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Twenty-three percent of respondents have worked in their selected category for over 21 years, 28 per cent between 11 and 20 years, 26 per cent between 5 and 10 years, with 22 per cent between 0 and 4 years (Figure 16). Overall, this indicates that respondents have had significant experience in their relevant field.

For the latter, individuals do move within their category however, with over 9 per cent of respondents working in their current role position for 10 years or more, 32 per cent between 5 and 10 years, 34 per cent between 1 and 4 years, with 24 per cent less than one year.

Figure 16 Length of Time Working in Current Category

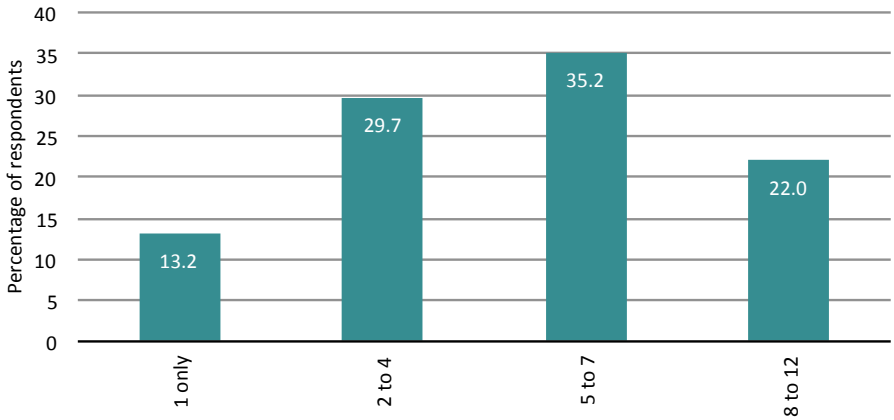


Notes: N = 99

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Thirteen percent of the agencies/organisations represented offered only one service (Figure 17). Thirty percent offered between 2 and 4 services, with 35 per cent offering between 5 and 7 services. Twenty-two percent of agencies/organisations offered between 8 and 12 services.

Figure 17 Number of services or programs provided by the Agency/organisation



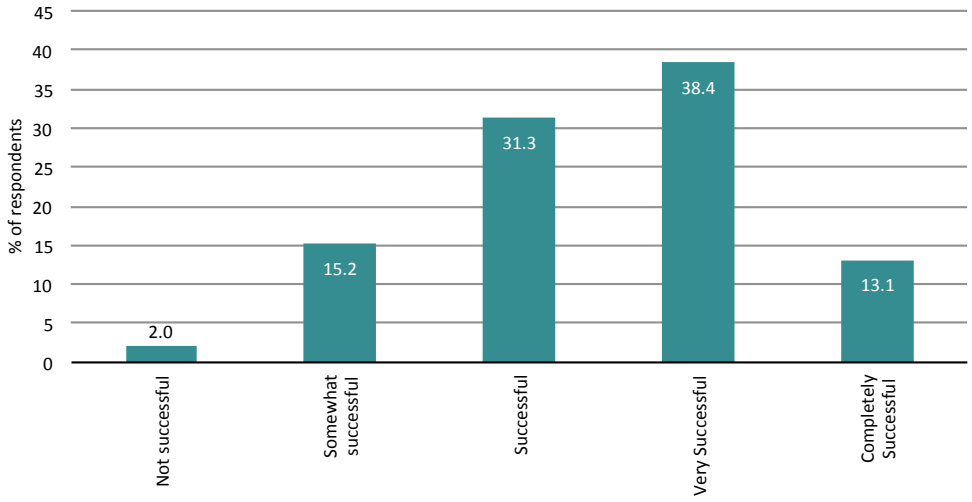
Notes: N = 91

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Agency/organisation Success

When asked to report on the perceived success of the agency/organisation in supporting the needs of children aged 0-3 years and their families, 13 per cent of respondents believed they were completely successful, 38 per cent very successful, and 31 per cent successful. Of the remaining 17 per cent, 15 per cent felt that they were somewhat successful, with 2 per cent not successful.

Figure 18 Self-reported Agency/organisation Success in supporting the needs of children aged 0-3 and their families

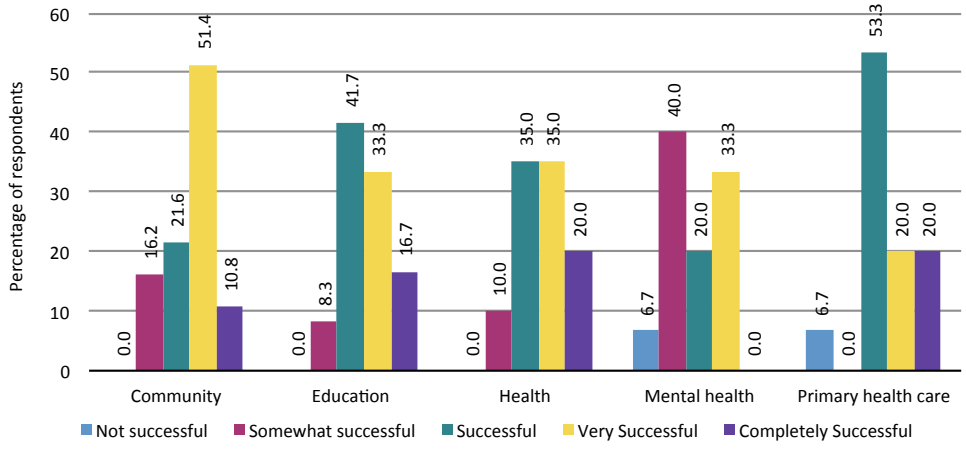


Notes: N = 99

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Breaking this down by service category shows that 93 per cent of those in Primary health care believe they are successful or better, with a similar figure for Health (90%), and Education (92%). This figure for community organisations was somewhat lower at 84 per cent. Most striking is that only 53 per cent of those working in the mental health category felt that their agency/organisation success was successful or better, with 47 per cent feeling that they were only somewhat successful or not successful. Perceptions of success from providers and managers requires further investigation.

Figure 19 Self-reported Agency/organisation Success in supporting the needs of children aged 0-3 and their families, by Service Category

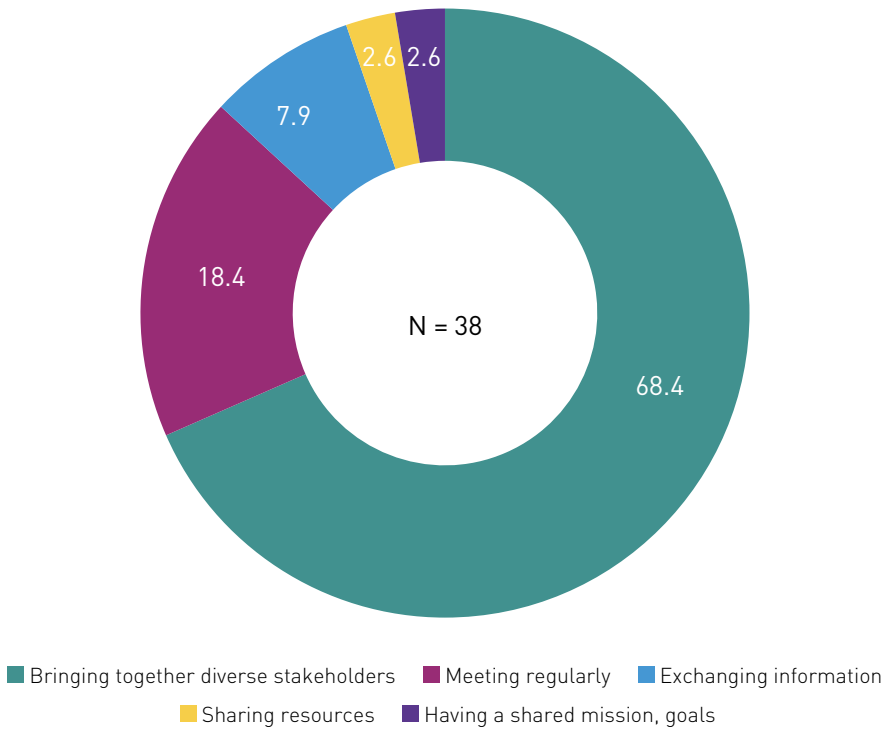


Notes: N = 99. Community (37); Education (12); Health (20); Mental Health (15); Primary health care (15).

Source: Authors' calculations from ECU Better Together Workforce Survey data.

The primary factor contributing to the success of the Network was seen to be the 'bringing together of diverse stakeholders', with 68 per cent of respondents pointing to this factor (Figure 20). A further 18 per cent noted a similar factor – meeting regularly, with the exchange of information (8%), sharing of resources (2.6%) and having a shared vision/goal (2.6%) given less significance.

Figure 20 Aspects of Network Contributing to Agency/organisation Success

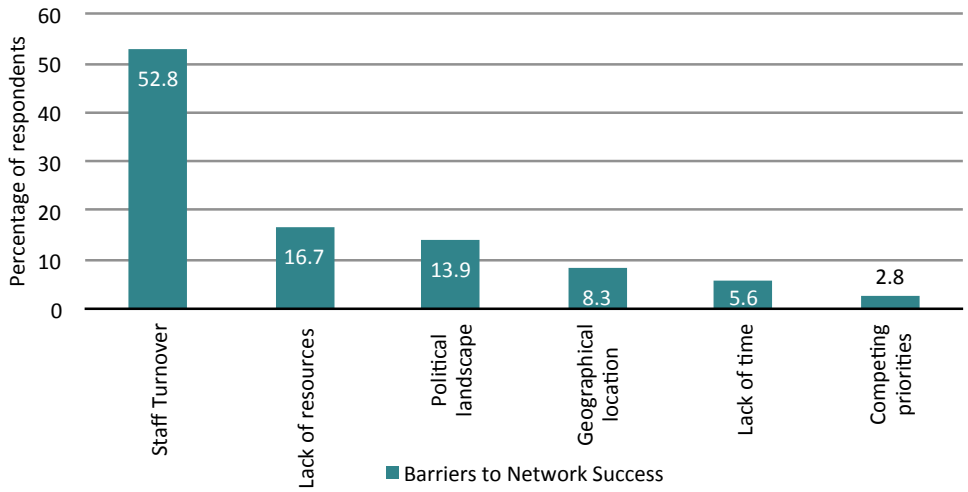


Notes: N = 38

Source: Authors' calculations from ECU Better Together Workforce Survey data.

More than half (52%) of respondents felt that staff turnover was the greatest barrier to network success (Figure 21). This emphasises the importance of relationships in building the success of the Network, and related trust. Lack of resources (17%) was the second largest barrier identified, followed by the political landscape (14%), and geographic location/distance (8%). Lack of time (5.6%) and competing priorities (2.8%) were seen as lesser barriers to the success of the Network.

Figure 21 Barriers to Network Success

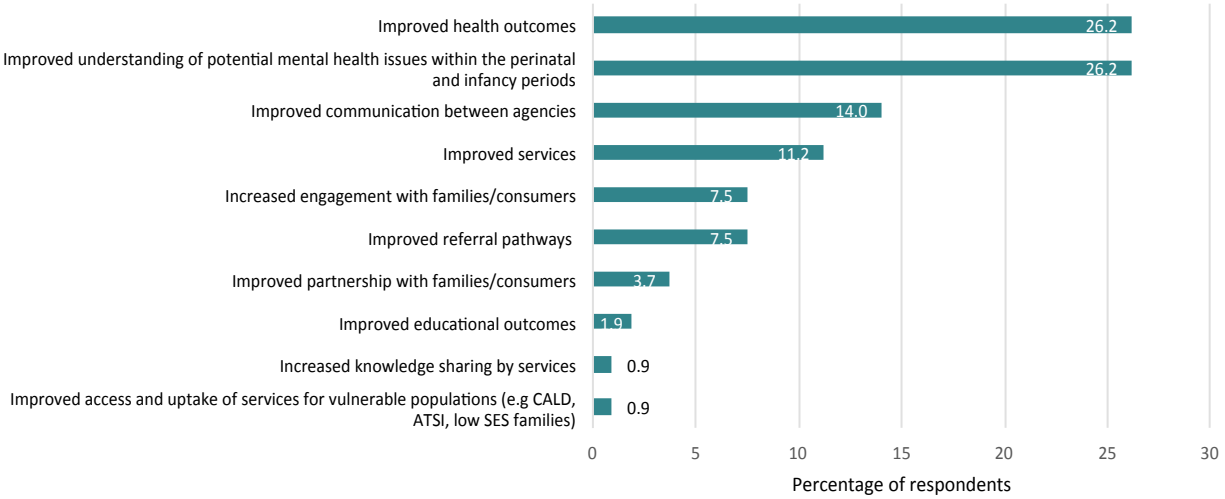


Notes: N = 36

Source: Authors' calculations from ECU Better Together Workforce Survey data.

In regards to the expected benefits of greater cohesion of services, 26 per cent of respondents felt that improved health outcomes would be the greatest benefit, together with an improved understanding of mental health issues (26%). These are followed by improved communication between agencies/organisations (14%) and improved services (11%). 7.5 per cent of respondents felt that greater cohesion would lead to better engagement with families/consumers and improved referral pathways.

Figure 22 Expected benefits if greater cohesion of services existed



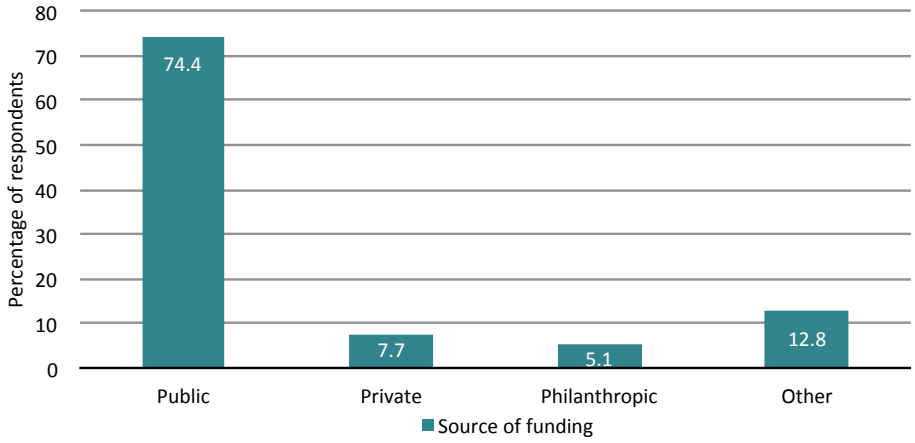
Notes: N = 107

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Agency/organisation Source of Funding and Staffing Resources

Seventy-four percent of agencies/organisations surveyed noted that their main source of funding was public (government) funding, with 8 per cent mainly funded privately (Figure 23). Five percent had philanthropic funding as their main source, with 13 per cent noting 'other unspecified' funding sources. Forty-eight and one-half percent of respondents received funding based on both service use and client outcomes; 6.5 per cent received funding based on client outcome only, with 22 per cent receiving funding based on service use only. Only 43 per cent of respondents had ongoing funding and 57 per cent had funding over a specific time period. The impact of such funding arrangements on the Network, on trust and level of cooperation and collaboration requires further investigation.

Figure 23 Main source of funding

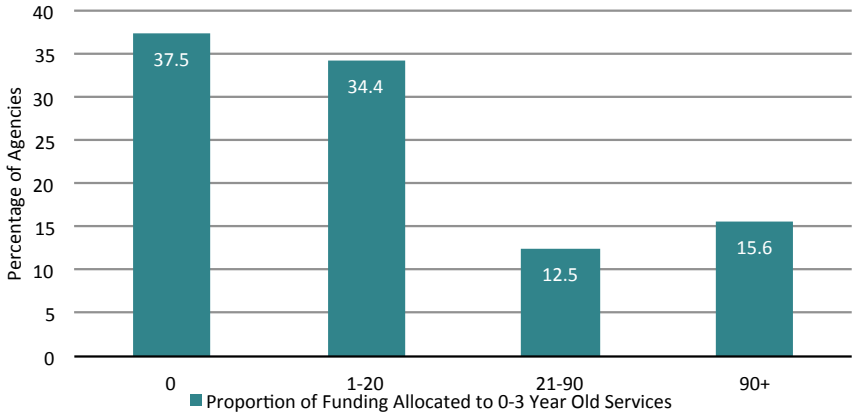


Notes: N = 39

Source: Authors' calculations from ECU Better Together Workforce Survey data.

As shown in Figure 24, 37.5 per cent of agencies/organisations surveyed do not allocate funding directly to the services of children aged 0-3 years. Thirty-four percent allocated between 1 and 20 per cent of their overall funding to 0-3 year old services. Almost 16 per cent of agencies/organisations survey allocate over 90 per cent of their funding specifically to the services of 0-3 year old age groups. Although funding to organisations may not be directly allocated to this age group, some organisations agencies/organisations do distribute a percentage of total resources such as staff time and/or funding to the PIMH period.

Figure 24 Proportion of Agency/Organisation funding allocated to services for children aged 0-3 years

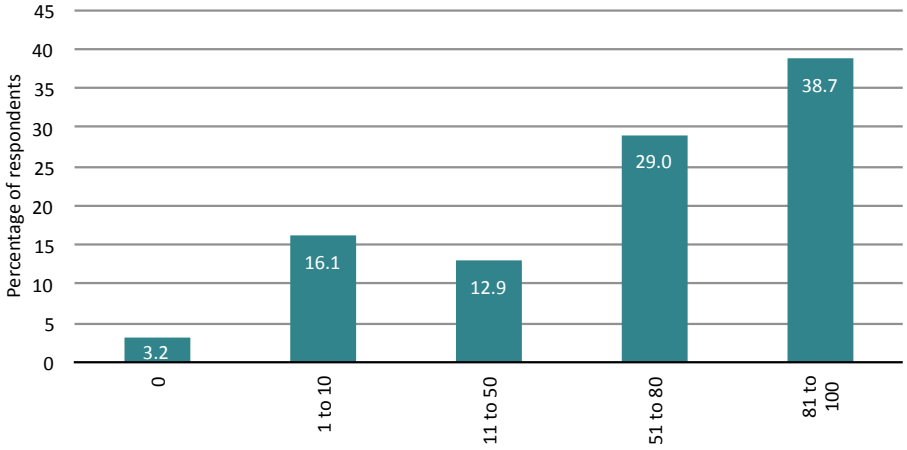


Notes: N = 32. Based on an estimate provided by respondents.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

In terms of the allocation of funding to serving 0-3 year olds and their families, only 15 per cent of agencies/organisations have over 90 per cent of their budget specifically allocated to this age group. Many (37.5%) operate in the space without any specific funding.

Figure 25 Proportion of Agency/Organisation staff providing services to 0-3 year olds



Notes: N = 31. Based on an estimate provided by respondents.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Sixty-five percent of agencies/organisations surveyed did not have an Aboriginal or Torres Strait Islander Liaison Officer, while 30 per cent of agencies/organisations surveyed had between one and five Aboriginal and Torres Strait Islander Liaison Officers.

Ninety-three and one-half percent of agencies/organisations did not have an ethnic assistant. The latter is somewhat concerning in the context of the socio-economic indicators provided earlier, and as our Cities become increasingly diverse. Furthermore, the agencies/organisations surveyed indicated that over 30 per cent of their clients are from culturally and linguistically diverse backgrounds. Ensuring that service delivery is culturally and linguistically appropriate is an important consideration moving forward.

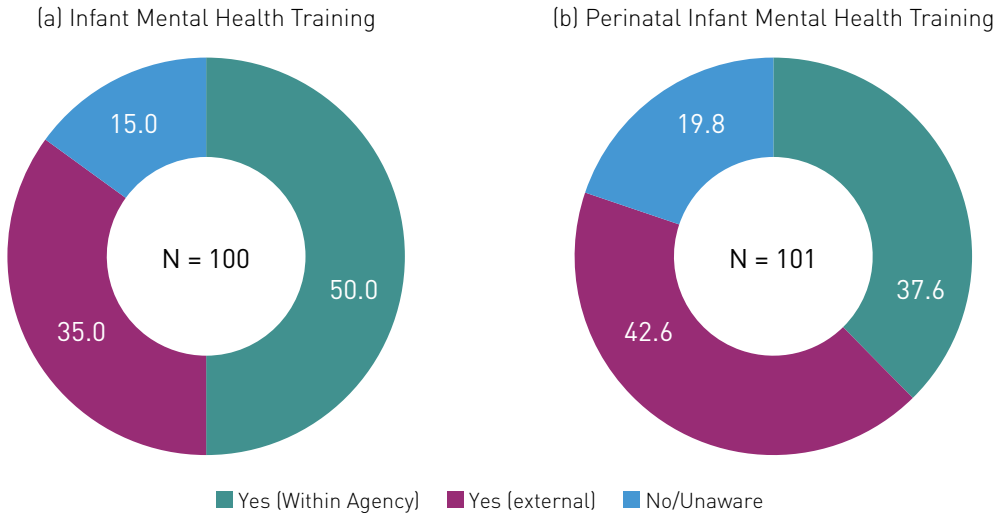
Training – Agency/organisation Respondents

Previously in this report, the importance of staff to the Network and the negative impact of staff turnover was highlighted. Figure 26 presents another important dimension of staff in the Network – that of training availability in Infant mental Health (IMH) and Perinatal Infant Mental Health (PIMH). For IMH, panel (a), 50 per cent of Agency/organisation staff reported having access to IMH related training within their workplace, with 35 per cent having access to such training outside of their workplace. Fifteen per cent said that they did not have access to or were unaware of access to IMH training.

Turning to PIMH, 37.6 per cent of respondents reported having access to PIMH related training within their agency/organisation, with almost 43 per cent having access to such training externally. Almost 20 per cent of respondents said that they did not have access to or were unaware of such training opportunities.

Despite the increased awareness and availability of PIMH training for professionals and practitioners in child and family serving disciplines, there remains a significant proportion of the workforce who are unaware or do not access this. Building workforce capacity in PIMH is imperative for building of effective services across the continuum of care. Staff who have specific training in PIMH and confidence in the models and frameworks that underpin this are more likely to recognise and respond appropriately to PIMH needs in families who access services in the System of Care. It is essential that all staff working in these fields have awareness of the training available, and access such training to ensure that they are aware of best practice in the field. Shared training models have the potential to increase the level of awareness of others in the System of Care, and lead to a greater establishment of trust (Australian Association for Infant Mental Health WA Branch, 2016; Priddis, Matacz, & Weatherston, 2015; Zeanah, 2019).

Figure 26 Availability of Training in IMH and PIMH for Agency/organisation Staff



Notes: N = 100 for IMH and N=101 for PIMH. Percentage of respondents.

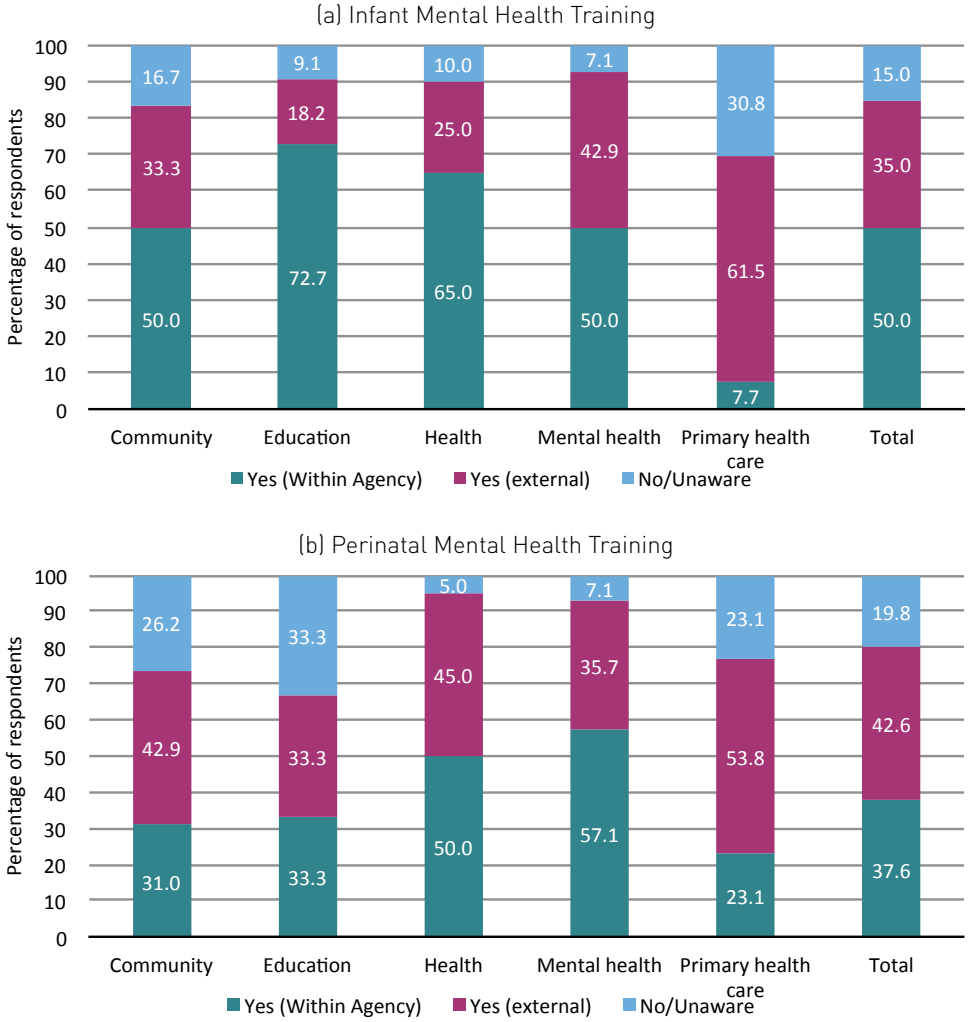
Source: Authors' calculations from ECU Better Together Workforce Survey data.

By agency/organisation category, in terms of the availability of training in IMH (Figure 27, Panel a), IMH training within the organisation was highest in Education (73%), followed by Health (65%). It is likely that early childhood trained educators have a focus on some of the principles of PIMH such as child development and behavioural health. PIMH trained practitioners have a more specific focus on the relational aspects that are the fundamental building blocks for early social and emotional development (Weatherston, 2005).

Panel a of Figure 28 shows that only 7.7.5 of staff in primary health care have access to IMH related training within the organisation; almost 31 per cent reported not having any access to training or that they were not aware of such training opportunities. The latter is high relative to only 7 per cent reporting similarly in the perinatal mental health field (in panel B), and compared to an average of 15 per cent across all categories (the total reported). This may be accounted for by heightened awareness of perinatal mental health issues in the medical and primary health care settings as well as awareness of pharmacological and other interventions for post-natal depression.

Panel b of Figure 27 reports on the availability of training in Perinatal Mental Health (PMH). Within organisation training is highest in Mental health (57%), followed by Health (50%). The low levels of access (or awareness) to training within the organisation is again high for the primary health care sector (23%), although higher rates are reported for Education (33%) and Community (26%).

Figure 27 Availability of Training in IMH and PMH for Staff, by Agency/organisation Category



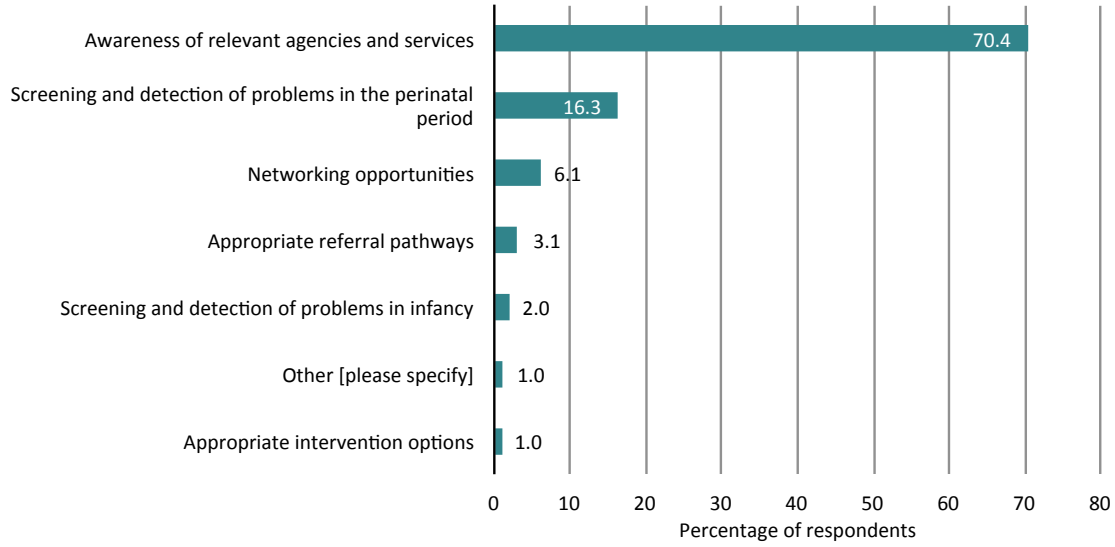
Notes: N = 100 and 101.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

The importance of training from the perspective of agency/organisation respondents is further highlighted in Figure 28, where they report that the primary benefit of additional training would be in improving awareness of relevant agencies/organisations and services. In fact, over 70 per cent of respondents placed this as the main benefit. Awareness of complementary agencies/organisations, services and programs and developing connections with individuals with these services are critical first steps towards a better functioning Network, and is something that requires urgent action.

Respondents noted earlier screening and detection of problems in the perinatal period as another benefit of further training. This again is a critical factor in ensuring better outcomes for 0-3 year olds and their families. This result suggests that practitioners are aware of the importance of early intervention for parental mental health, but not all feel adequate skill levels to screen and detect problems or identify clinical symptoms in an infant presentation. This may relate to the lack of referrals for PIMH concerns being made within the System of Care (Figure 50).

Figure 28 Areas where agency/organisation would benefit from further training



Notes: N = 98.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Client Characteristics

In terms of the characteristics of Agency/organisation clients (as reported by the respondents), across all agencies/organisations, on average, 57 per cent of clients are of low socio-economic status (SES), with 34 per cent from medium SES status and 9 per cent from high SES.

Across all agencies/organisations, on average, 61 per cent of clients are reported as identifying of English speaking background; 9 per cent are Aboriginal and Torres Strait Islanders, with 30 per cent being from culturally and linguistically diverse backgrounds. Based on our earlier analysis of the socio-economic characteristics of the City of Joondalup and Wanneroo, the latter would suggest that many of the most vulnerable groups are well represented in the system.

Referral Pathways

In terms of referral pathways 4.2 per cent of agencies/organisations noted that of all referrals received all services were actioned i.e. the client referred took up the service that was offered. Forty-two per cent said that between 90-99 per cent of referrals were actioned, with 46 per cent reported that that between 60-88 per cent of referrals were actioned. Eight percent said that between zero and 59 per cent of referrals were actioned. These shows there are a large proportion of families not availing themselves of services offered.

This requires further investigation. Focus group data suggest that socioeconomic factors, lack of flexible and whole family approach to services may impede families attending appointments. (See Chapter six of this report).

In terms of referral pathways, 16 per cent of respondents said that they do not make formal referrals (that is, using a referral form or writing a referral letter), while 9.7 per cent said that all of their referrals are informal (that is, the agency/organisation suggests to the client to access a particular service). This suggests that the System of Care does not yet have a coordinated and systematic process of referring young families who present with PIMH issues.

Conclusion

The findings from this chapter reveal that providers of PIMH services across the continuum of care value 'bringing together a number of diverse stakeholders' (68%) and that they perceive this as contributing to their agency/organisation's success in providing services to families. The value placed on collaboration gives impetus for creating new ways of working together that involve a shift in thinking from individual service providers working in relative isolation to more collective working together in order to improve the well-being of families from pregnancy through to three years. Although for the most part service providers view themselves as very successful (38%) or successful (31%) in supporting the need of families with infants and infants, young children, individual agency/organisation outcomes are unlikely to lead to better outcomes for an entire community. Committing to a focus on how agencies/organisations work together through sharing information, meeting regularly and sharing resources can create new possibilities and innovative ways of engaging in collective action towards improving well-being of families. Continual long term investment into supporting how organisations work together will promote long term system level changes, address broader complex social issues such as poverty and social inequity and improve population mental health across the Cities of Wanneroo and Joondalup.

With regards to specific training in PIMH principles, the provider survey data identified that the workforce recognises the importance of PIMH training and education in relation to building skills and expertise in screening and detection of PIMH problems. Furthermore, they recognised and reported that PIMH training can act as a vehicle for improving organisations awareness of other organisations and PIMH services available for families.

The results indicate that staff turnover (52%) is a significant barrier for building a successful network across multiple organisations within the PIMH System of Care. High staff turnover may be connected to government funding structures by which over half of the organisations (57%) that provide PIMH services receive time limited funding. The lack of continuous funding for services has a direct negative impact on how families experience services. The focus group data supported this finding as families reported valuable services coming to an abrupt ending due to funding cycles ending and not been renewed.

Investigation of the funding allocation to WA Mental Health and Alcohol and Other Drugs reveals that only 21 million dollars of the 914-million-dollar budget for 2017-2018 was allocated to prevention across the lifespan and accounted for the lowest percentage of growth (2%) in the State Budget. Interestingly investment in preventative services was directed to two youth mental health programs. The State Budget for mental health reveals an emphasis on youth mental health as preventative care, rather than drilling down to the earliest possible point of entry (pregnancy and infancy). Considering this, at a policy level there is an urgent need for advocacy, education and training of PIMH principles, services and the role early social and emotional health and wellbeing plays in determining mental health across the lifespan. Increased understanding of PIMH at a policy level may result in considering different funding allocations for mental health services and supports and prioritising PIMH as a preventative strategy. Furthermore, it may shift more emphasis towards building the level of connectedness between organisations within the PIMH System of Care as a way of developing more structured referral pathways for families, increased cohesion across the continuum of care and better access to vulnerable groups within the two cities.

Chapter 5:

Consumer Survey Results

Introduction and Characteristics of Survey Respondents

This chapter provides an analysis of the consumers surveyed as part of this report. Fifty-three individuals responded to the consumer survey. Of these, 12 (23%) were from the City of Joondalup (representing five suburbs), with 41 (77%) from the City of Wanneroo (representing 13 suburbs). Fifty (96%) of the 52 respondents were mothers, with one response completed by a mother and father. Sixty percent of respondents were married, with 29 per cent in defacto relationships. 11 per cent were either single or divorced. Sixty-seven percent of respondents were the owner-occupier of their place of residence, with 33 per cent renting.

Of the total respondents, 58 per cent reported having one child between the age of 0 and 5, with 40 per cent having 2 children in this age range, and one respondent having three children. Thirteen per cent (7) of the respondents reported being pregnant at the time the survey was conducted.

Fifty-seven percent (30) of respondents were aged 25-34, with 38 per cent (20) being between 35-44, and 5 per cent (3) between 18 and 24 years of age.

Thirteen percent identified being from a cultural and linguistically diverse background. Sixty-eight percent (36) of respondents identified as being of Australian ethnicity, with 23 per cent (12) identifying as European, and 12 per cent (6) identifying with other ethnic backgrounds.

In terms of level of education, 29 per cent of respondents had a Bachelor degree, with 17 per cent having an Advanced Diploma. Almost 20 per cent had a Graduate certificate or Postgraduate degree. Seventeen per cent reporting having a Year 12 level of education, with almost 8 per cent having Year 11 or below.

Fifty-eight percent of respondents are currently employed, with 42 per cent not working. Of those employed, 40 per cent were employed on a full-time basis, 43 per cent part-time, and the remaining 15 per cent being casual or self-employed.

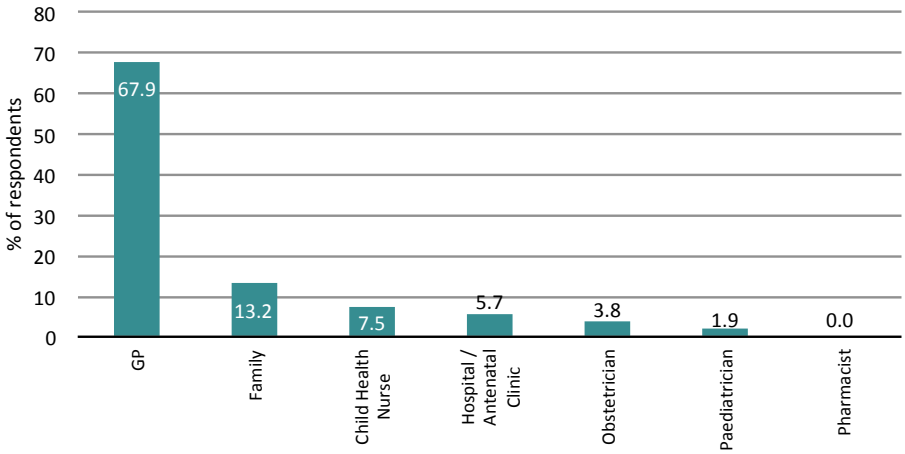
Thirty-one percent of respondents relied on some Centrelink payments as a source of income, of which over a third relied entirely on this form of income. Sixty-nine per cent of respondents noted employment as the households' sole source of income.

Fifty percent of respondents had an annual household income of over $100,000. Seventeen percent earned between $80,000 to $100,000, 16 per cent between $60,000 and $80,000, and 10 per cent between $20,000 and $40,000. Almost 8 per cent of respondents reported having less than $20,000 in annual household income.

Point of Contact

In cases where the respondents had difficulty during pregnancy or in the early years (0-3 year old) of raising their child, 68 per cent reported that their first point of contact or support would be their General Practitioner (GP) (Figure 29). This highlights the critical role of GPs in the Network. Their centrality means that raising GP awareness of the overall system, the appropriate referral pathways and support systems in place is essential, and of urgent importance. Although the Better Together project was creative and energetic in attempts to engage GPs form the System of Care in this project, it proved to be very difficult, with many not responding to invitations to participate. The factors behind this need to be better understood, and any barriers to engagement addressed, given the critical role of GPs in the community and network.

Figure 29 First point of contact if difficulty during pregnancy or raising 0-3 year old child, 2018



Notes: N = 53.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Awareness of Agencies/Organisations, Services and Programs

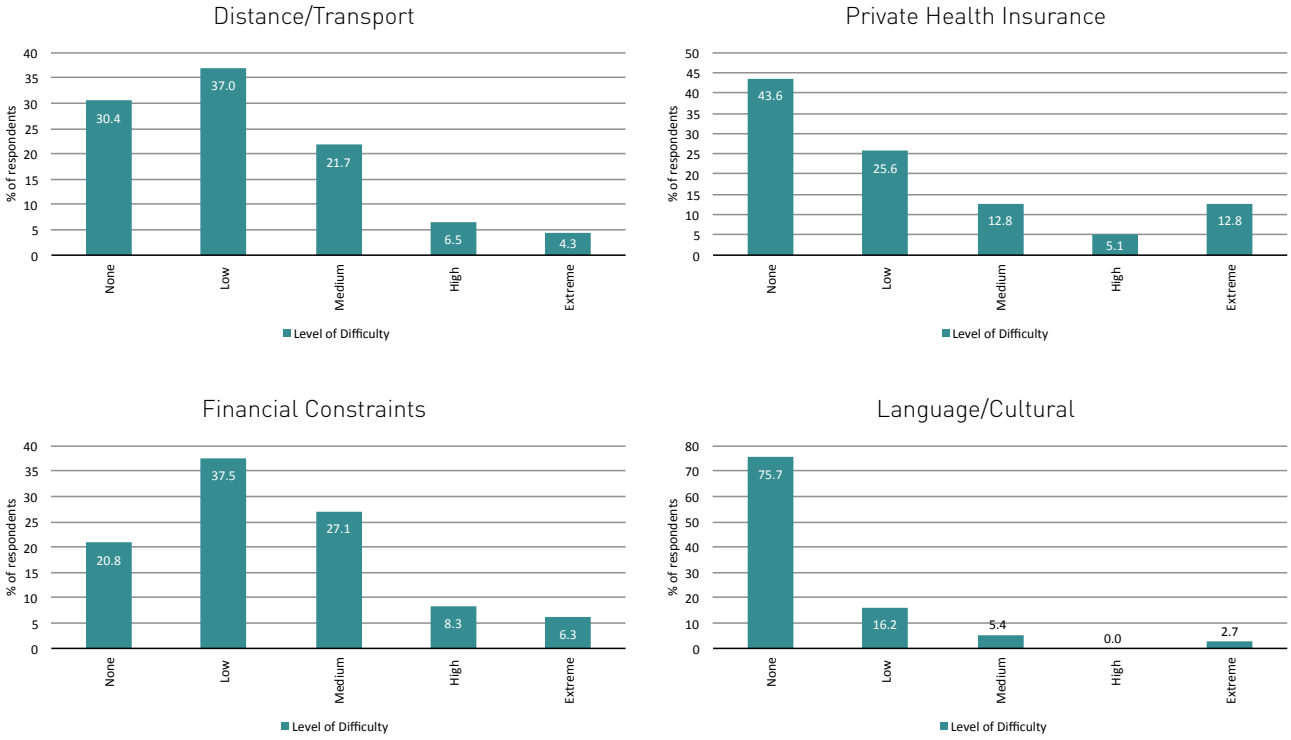
Of the above services, all respondents were aware of their local child health centres, and their local GP. However, 10 per cent of respondents were not aware of the Joondalup Health Campus Antenatal clinic, and 4 per cent were not aware of the Joondalup Health Campus Maternity Ward.

Level of Difficulty in Accessing Services

Consumers were asked to identify various difficulties they encountered in accessing services within organisations. The ten difficulties presented to respondents are reported in Figure 30. Responses are categorised on a scale of 0 to 10, with 0 denoting no difficulty of access, 1-3 low level of difficulty, 4-6 medium difficulty, 7-9 high difficulty and 10 extreme level of difficulty.

Across all categories, a large proportion of respondents reported having no or very low levels of difficulty in accessing services. Of those who reported difficulties over 25 per cent of all respondents noted that Waitlists provided an extreme level of difficulty towards accessing services. This was followed by Private health insurance (18%), financial constraints (15%), and insufficient service (12%); with 10 per cent of respondents noting that transport, quality of service, and flexibility of service availability were sources of extreme difficulty in accessing services. These findings are consistent with the themes reported across the two consumer focus groups.

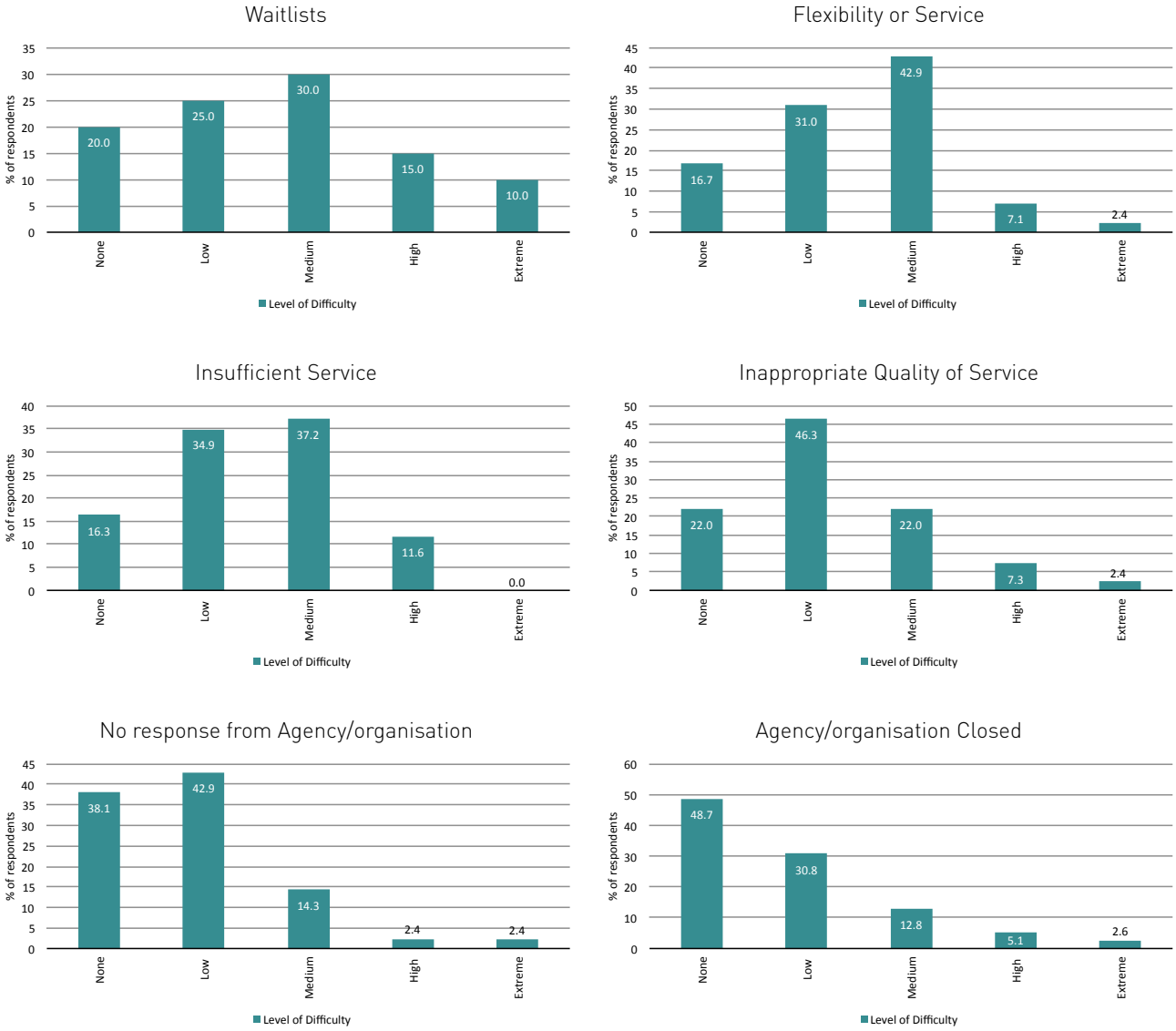
Figure 30 Source of Difficulty in Accessing Services, 2018



Notes: N = between 37 and 46. Responses are categorised on a scale of 0 to 10, with 0 denoting no difficulty, 1-3 low level of difficulty, 4-6 medium difficulty, 7-9 high difficulty and 10 extreme level of difficulty.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Figure 30 Source of Difficulty in Accessing Services, 2018 (continued)



Notes: N = between 37 and 46. Responses are categorised on a scale of 0 to 10, with 0 denoting no difficulty, 1-3 low level of difficulty, 4-6 medium difficulty, 7-9 high difficulty and 10 extreme level of difficulty.

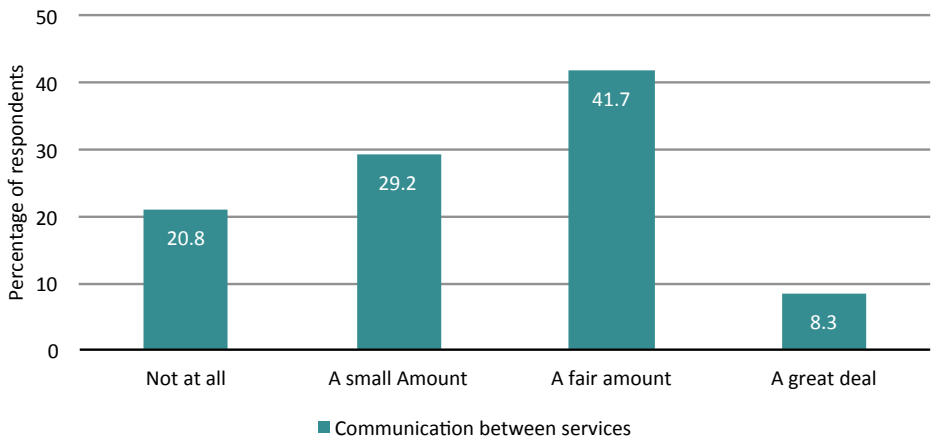
Source: Authors' calculations from ECU Better Together Workforce Survey data.

Communication

Consumers have provided mixed perceptions in relation to the level of communication/coordination between services when they had accessed two or more services. Twenty-one percent of respondents said that such services had not communicated with each other, with 29 per cent having a small amount of communication (Figure 31). Forty-two percent felt that such services/agencies/organisations had communicated 'a fair amount', with 8 per cent communicating a great deal.

The SNA illustrated that few organisations (7%) work in an integrated way with each other and most operate at a level of awareness only (58%). This finding was also reflected in the consumer focus groups with comments such as *"yeah they don't connect. I can't think of any experience where I've had any two services connect that I haven't had to connect the dots myself."*

Figure 31 Communication between services when two or more services/agencies/organisations accessed by the client, 2018



Notes: N = 24. If you have accessed two or more agencies/organisations/services/programs at once, did they communicate with each other when you needed them to (or would have liked them to)?

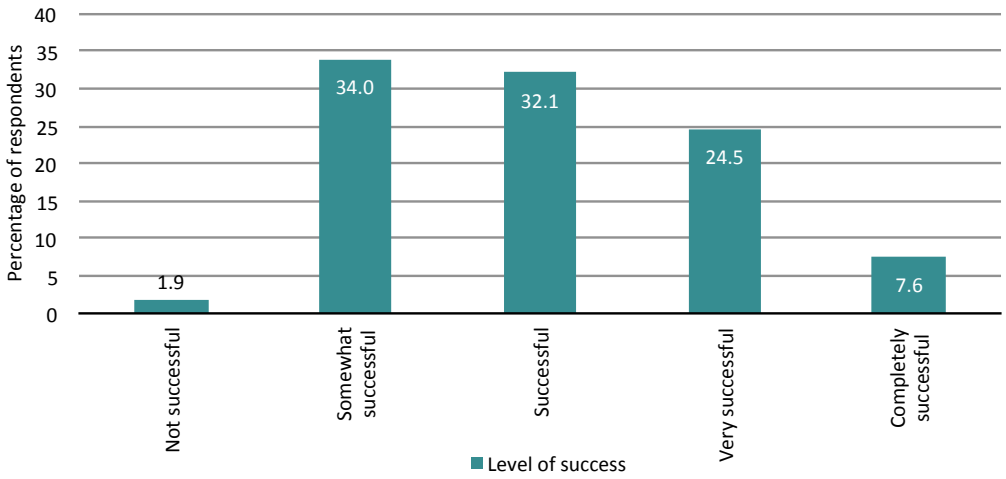
Source: Authors' calculations from ECU Better Together Workforce Survey data.

Success of Agencies/organisations, Support Systems and Sources of Information

Thirty-two percent of consumers felt that, for those agencies/organisations they had engaged with, they were either very successful or completely successful in supporting the needs of children aged 0-3 and their families (Figure 32). A further 32 per cent felt that such agencies/organisations were successful, with 34 per cent noting that they were somewhat successful. Only 2 per cent felt that such services were not successful.

Focus group data suggests these result are variable and that many inequities remain, with consumers confused as to the process of access and how family's needs are prioritised.

Figure 32 Success of Agencies/Organisations in supporting the needs of children aged 0-3 and their families, 2018

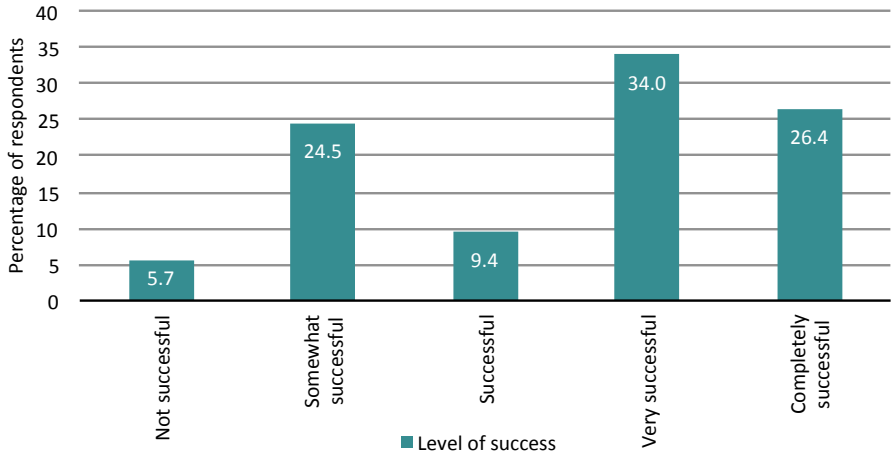


Notes: N = 53.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

As for consumers informal supports towards meeting the social and emotional wellbeing of their 0-3 year olds, 60 per cent felt that such supports were very successful or completely successful, with a further 9 per cent saying successful (Figure 33). Twenty-four percent felt that such supports were only somewhat successful, with almost 6 per cent felling that informal supports were not successful. The latter is likely linked to aspects such as geographic distance from family and friends, with some denoting this as a barrier to various services and supports.

Figure 33 Success of Informal Supports towards emotional and social needs of 0-3 year old children

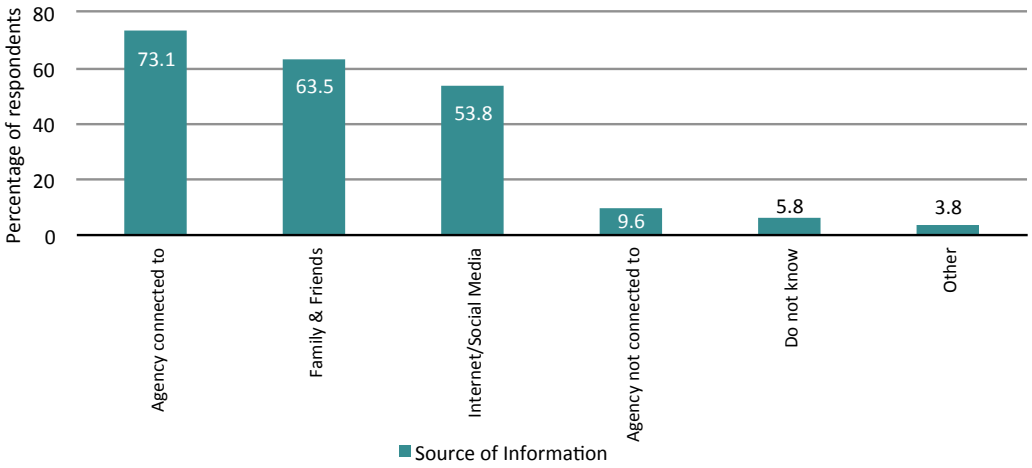


Notes: N = 53.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

The primary source of information for parents regarding parental wellbeing during pregnancy and the early stages of a newborns life (Figure 34) is the agencies/organisations with whom the parents are already connected to (with 73% of respondents noting this as a source of information). This was followed by family and friends (63%), and internet and social media (54%). Almost 6 per cent said that they would not know where to turn to for such information.

Figure 34 Source of Information regarding Parental well-being during pregnancy and after baby is born

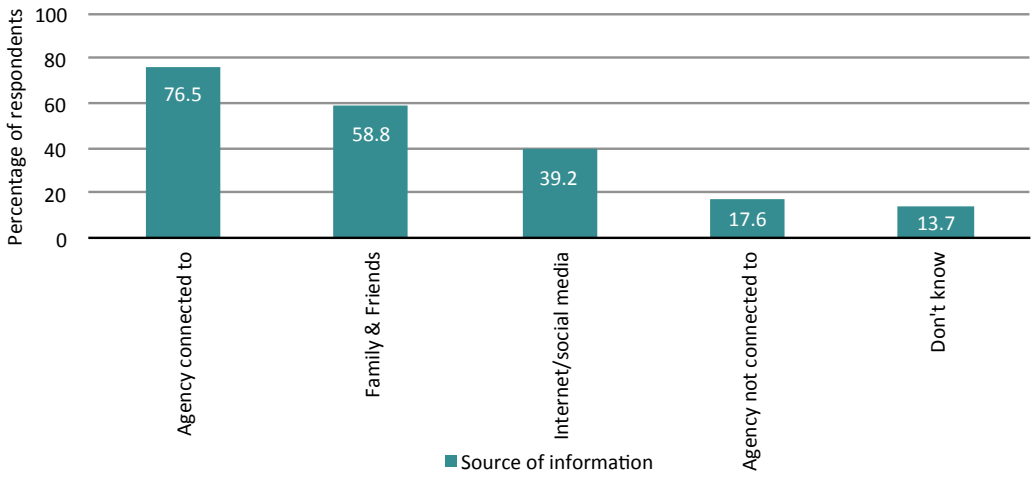


Notes: N = 52. Multiple responses were allowed, meaning the results do not sum to 100 per cent.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

A similar trend is presented for those sourcing information regarding social, emotional and/or behavioural concerns for their 0-3 year old, with a higher rate reported for agencies/organisations with which one is not connected. It seems that if a family are isolated and not connected to an agency/organisation then the internet is their main source of information. Focus group data identified that their relationships with service providers that are sustained over time are most important sources of information and support.

Figure 35 Source of Information regarding social, emotional and/or behavioural concerns in 0-3 Year old

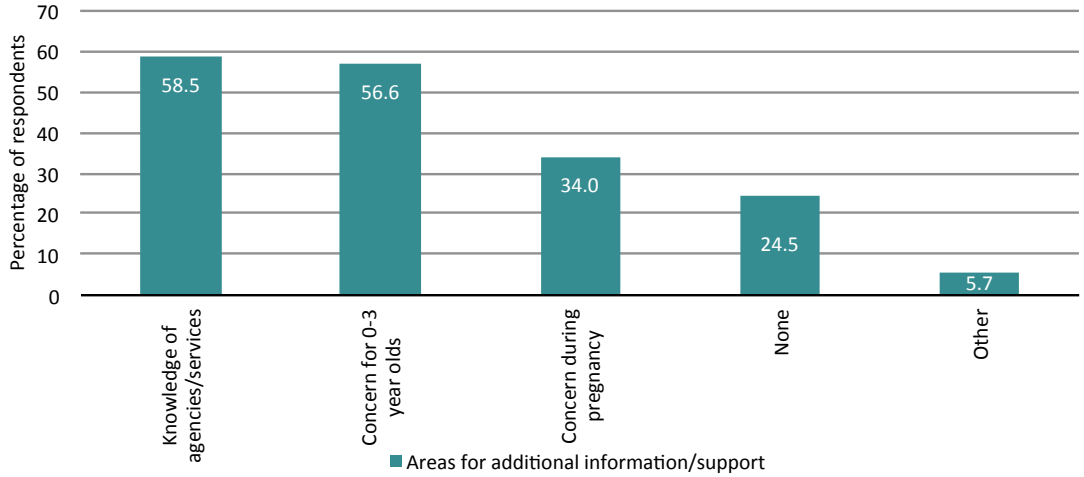


Notes: N = 51. Multiple responses were allowed, meaning the results do not sum to 100 per cent.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

In regards to gaining additional information during pregnancy and the early years of their newborn, 58 per cent of consumers felt that they would have liked additional information on the agencies/organisations and services available for support during these periods (Figure 36). Fifty-seven percent felt that additional information relating to issues of concern relating to their 0-3 year olds would have been valuable, with 34 per cent noting that additional information towards issues of concern during pregnancy would have been beneficial.

Figure 36 Areas where additional information would have benefitted during pregnancy and early years



Notes: N = 53. Multiple responses were allowed, meaning the results do not sum to 100 per cent.

Source: Authors' calculations from ECU Better Together Workforce Survey data.

Conclusion

Findings from the consumer data reveal that majority of respondents identified as Australian, aged between 25 to 35 years with nearly half having a university degree level of education. Respondents also reported a high rate of employment (58%) and at least half of the households had an annual income over $100,000. The characteristics of the survey respondents are an important consideration when interpreting the findings given the likelihood that vulnerable groups are not well represented in this sample of families in the City and Wanneroo and Joondalup. The results revealed that a large proportion of families identify the GP as their first point of contact for PIMH concerns, which is a consistent finding across this project. It further highlights the urgent need to create ways of engaging GPs with the broader PIMH network. Findings from the survey data and focus groups can be the foundation for investigating ways to utilise the family's experiences and to mobilise families to advocate for increased engagement of GPs within the PIMH System of Care.

In line with findings from the focus groups, the survey data revealed that families value the connection they have with an agency/organisation and will source additional information pertaining to PIMH from those agencies/organisations they are already engaged with. This finding emphasises the significance of the intangible factors that families value such as trust and having an authentic relationship with service providers. Attention can be directed towards improving the capacity of agencies/organisations within the PIMH System of Care to work within a relationship based framework with families and focus on building this approach across the system. This has commenced through the multiple intervention strands conducted through the Better Together Project (Reference Group, GP and Pharmacy Training, Urban95 Workshop). Moving forward there is a drive to continue building and connecting organisations across the PIMH System of Care and develop a network that places families and their experiences at the centre. Engaging families as Better Together continues its capacity building efforts is a crucial element of successfully working towards achieving a longstanding social change in the complex system of PIMH.

Chapter 6:

Participatory Action Research Findings

Introduction

This chapter reports on the outcomes of four reference group meetings which were held at ECU. The Reference Group provided important steer throughout the research process and ensured that key stakeholders were engaged at all stages of the research process.

This chapter also explores families experiences of current PIMH services available within the cities of Wanneroo and Joondalup and based on these findings, consideration is given to ways to further investigate and to improve current service delivery models and develop more client centred services that focus on 'whole family' needs.

Summary of Reference Group Meetings

The number of attendees and meeting activities for the four Reference Group meetings are summarised in Table 12, with further details on each meeting detailed after that.

Table 12 Summary of Better Together Reference Group Meetings

	Attendees	Meeting activities	Meeting outcomes
Meeting 1	23 attendees	Introductions Defining PIMH and this project Reference Group TOR Discussion questions	Consumers and service providers Identified: Important components of the PIMH system Sources of support Challenges for young families Service accessibility Leverage as change agents
Meeting 2	32 attendees	Feedback of activities Case study Create current network Using a provided case study - how the system might presently meet this consumer's needs Create ideal network Using the same case study, map out how needs might be best met by the system SNA overview	Activity board construction of system: As it currently is As might be in ideal world Gaps in services
Meeting 3	35 attendees	SNA survey questions and update Demographic data update Small and large group discussions	Discussion on: Priorities for the PIMH system Action to be taken to achieve Results of inaction Agency/organisation priorities Hopes for current project outcomes
Meeting 4	12 attendees	SNA results How these matched reference group experiences? Snapshot of report in PowerPoint	Discussion on: SNA results with input and commentary from Distinguished Professor Hiram Fitzgerald Consensus SNA was representative.

Reference Group 1

A questionnaire comprising seven questions was provided to all reference group attendees and subsequently to consumer members and other service providers who wished to complete the questions but were unable to attend the first meeting. A summary of these responses was provided at the second reference group meeting, held 20th November 2017. Questions and summaries of answers provided are as follows:

Question 1: *From your perspective, what in the community is helping to support the emotional and social wellbeing of infants and infants, young children when all is going well in a family?*

- Consumers and service providers agreed Child Health Nurses were an important contact when things are going well in the family
- Playgroups were also identified by both group as being important (including Dad's playgroup)
- A range of other services were also identified, with some differences between service providers and consumers.
    - Those identified by service providers were:
        - Child parent centres; Recreational facilities/community activities/festivals & family days, library programs, daycare (when affordable), Medical services; GP; Informal supports; mother's group; Transport – when available; Parenting programs; access to parenting information; hospitals; Early Learning & Care Centres; Ngala; Govt support; Employment flexibility; Child health centres
    - Consumers identified:
        - Maggie Dent workshops (parenting workshops); Library based programs (It's All About Play; It's All About Rhymes; Local daycare workshops; Baby Expo and play based activities/parks

Question 2: *From your perspective, what in the community is helping to support the emotional and social wellbeing of infants and infants, young children when concerns are identified?*

- Similar responses between both consumers and service providers – Child Health Nurses identified as being important and most likely first point of contact
- Consumers identified informal support as being an important source when concerns are identified
- Service providers also identified agencies/organisations such as:
    - Ngala, Child Parent Centres, Enhanced home visiting, Best Beginnings Plus; Early Learning & Child Centres; Child Health Centres; Non-Government Organisations (general)
- Consumers identified
    - Child Health Centres; Child Development Centres; Ngala; Breastfeeding WA; Daycare; Joondalup MH Team; Maggie Dent; mother's groups, Clarkson CAMHS, Workshops (behavioural, speech, toilet training); Baby Expo; Beyond Blue; Health Direct; informal support including a local Facebook mother's support page

Question 3: *What do you think are the biggest challenges facing families in pregnancy, infancy and early childhood?*

- Consumer and service providers held some consensus on challenges facing families, with both groups noting that social isolation and lack of transport was most common response. Financial problems were also highlighted, as well as lack of awareness of which services are available and consumers not knowing how to access them
- Mental health and FIFO were also common responses across both groups

- Other responses from service providers included:
  - Lack of village mindset (not knowing neighbours); Families with complex needs, including parental MH/AOD issues, family violence; Accessing services for special needs; parenting education for Dads; cultural issues – lack of cultural appropriateness; cultural differences in parenting styles/knowledge; single parenting & support for post-separation parenting; Lack of cohesive policy/planning; rapid growth & inability of services to keep pace; geographical service coverage; lack of resources; poor information; lack of access; waitlists; language barriers
- Responses from consumers included:
  - Birthing and postpartum education; Lack of knowledge/understanding re: systems (e.g. education, health); Finding a good GP; Expensive daycare; lack of breastfeeding support.

Question 4: *To what extent are quality, accessible services & supports in place to meet the needs of infants, infants, young children & their families who present with social and emotional difficulties?*

- A range of agencies/organisations were reported positively by Service Providers, including: Ngala, Child Health Nurses
- An issue pointed out by one service provider is that CH nurses provide a great service but are too heavily relied upon
- Consumers provided positive feedback regarding access to services, although noted a decrease in CH Nurse visits
- However, responses by consumers also suggested a lack of knowledge regarding services available which is likely to be prohibiting access

Question 5: *Which organisations and/or specific people provide high quality services in Wanneroo and Joondalup for families with emotional and social difficulties in pregnancy, infancy & early childhood?*

- Most common response by service providers regarding high quality service provision was Child Health Nurses
- Other services commonly identified were P2P, Women's Health, Hospitals and Social Workers
- Consumers identified a range of services, including Child Development Services, CH Nurses, Ngala, Libraries, CAMHS
- Pharmacies (with one in particular) were identified as providing high quality services
- Dads WA identified as being an important support, especially for first time Dads with limited supports in the area

Question 6: *Which organisations/stakeholders have the most leverage to be change agents in the system of PIMH care in Wanneroo/Joondalup?*

- Government was mainly identified by both consumers and service providers – Federal, State, Local as being primary agents for change
- Researchers were also identified
- A range of not for profit organisations including Kidsmatter; Nursery Room Staff (Child Care Centres); Parents; GPs; Nurses; Social Workers; Ngala; Therapy Focus; WACOSS; COLAB; Mirrabooka Family Support Network; Early Years Networks; Early Childhood Youth Support; P2P; Community Development workers.
- Parents (mummy bloggers) and childhood educators such as Maggie Dent were identified by consumers as being change agents

Question 7: *General comments:*

- Aboriginal families are in great need due to isolation and socio-economic issues. It was also identified by a consumer representative that more Indigenous staff are needed within agencies/organisations and this was in line with some service providers highlighting need for cultural sensitivity as an area for improvement
- More home visiting is needed
- Services have short life spans and this creates difficulties for consumers in terms of having continuity of care, but also keeping track of what services are available to them
- Better coordination among services is needed
- CaLD communities need greater support and more tailored services for their specific needs

Reference Group 2: Network Mapping Exercise

The second Reference Group Meeting for Better Together was held on 20th November 2017. It was attended by 23 service providers and two consumer representatives. Attendees were invited to participate in an activity, comprised of six small groups. They were provided with a vignette involving a family with perinatal and infant mental health needs. Each group was asked to create two boards to map service provision relating to the vignette; the first indicating actual current networks, and the second board reflecting an 'ideal' network. One group consisted mainly of consumers, whereas the remaining five groups were comprised of service providers. Health services were colour coded on the boards to reflect primary health, secondary health, mental health, education and community services. A post-activity discussion was held following the activity.

The following responses were collated from the respective groups, noting that the first group included the two attending consumer representatives and therefore responses were formulated from the consumer perspective.

Summary of Board Contents

Actual

- It appeared that some groups were familiar with their own agencies/organisations and connections and had limited knowledge beyond that.
- On face value, current pathways seem complex and convoluted – which gives some indication of the difficulties consumers may have in accessing services. Consumers clearly displayed in their boards that they had no knowledge of referral pathways.
- There appeared to be a lack of awareness and considered decision making around pathways – choices among groups seemed almost random based on which services individual clinicians were aware of

Ideal

- Five of six groups (including consumers) suggested either a hub or central contact person would be ideal to service families such as that in the vignette provided
- The 'Hub' was often primary health/health rather than community based
- E.g. often said GP, CH Nurse, Midwife, Health Nurse should be referring on to other more specialised services

- A range of other community and primary health services were mentioned by consumers on their board, however, no connections were made between these services. Notably consumers commented during the activity that they were not aware of how or which services connect with one another. They added they would like to be more aware, so they might have a better understanding of these pathways.
- Furthermore, consumers suggested that "trust and rapport" were the most important aspects in terms of who they would connect with; they would then hope services they had developed such relationships with would advocate for them and link them in with appropriate services.

Identified current gaps in services:

- Care coordination and a resource for care coordination
- Lack of formal care, communication and agreement between agencies/organisations
- Lack of/patchy service level knowledge
- Sustainable/consistent relationships (impact of high staff turnover)
- Lack of centralised services
- Lack of forward planning
- Accessibility/public transport/distance
- Long waitlists
- Funding changes leading to service cuts
- Language issues and lack of culturally appropriate services (CaLD and ATSI)
- Lack of early intervention programs
- Connecting to appropriate service
- Lack of after-hours services
- Need for services for whole family (childcare – siblings)
- Child friendly environments

Post Activity Discussion

Discussion was oriented around the questions:

What are the gaps between the 'actual' and 'ideal' network maps?

What do you consider are action steps that can minimise the gaps identified in Question 1?

Main points of discussion:

- Consumer group spokesperson: Most important factors are consistency of services and trust in relationship with provider. However, the ideal network would be services localised to a 'one-stop-shop' in which 'everything we need' would be located, for example: GP, social services, postnatal physio, café, playground, exercise class, etc.
- Service Provider group spokesperson: Headspace is a good example of a 'one-stop-shop'. Most important factor is coordination and connection of services so that people don't fall through the cracks (i.e., 'no wrong door' policy). If people are psychologically distressed it can be difficult to source help, especially when the system doesn't make it easy. A 'one-stop-shop', which might be virtual (I.e., online).
- Need to think about frontline services and how we get this information to consumers. Need to consider that people are often only given help for their presenting problem at frontline services.

- Consider how to reach ''hard-to-reach' (vulnerable) families
- The information should be easy to access in a non-judgmental environment, with the opportunity to build rapport/trust and return to re-consult if needed
- A web-based list of services could be used – central, kept up-to-date with those no longer running, consumer-driven, utilise social media, available to those who don't use social media
- Libraries could be a good base but need to be better supported by local government.

Reference Group 3: Discussion Questions – Looking Forward

Reference group attendees were provided with four questions to consider prior to attending the meeting held on Monday 26th February 2018. Small random groups were then selected at the meeting to discuss these questions with a chairperson from each group nominated to feed back the responses to the larger group. An overall summary of the responses is provided below:

Question 1: *For the cities of Wanneroo and Joondalup, what priorities around families (conception to 3 years) would you like to see embraced? How would you know this is happening?*

- Two groups responded by suggesting that CALD groups need support; one group elaborated by suggesting culturally appropriate and sensitive staff are needed to understand cultural issues such as differences in disciplinary approaches and problems with alienating families who are not able to adjust in accordance with Australian values/legislation
- Two groups responded by noting that vulnerable mums or hard to reach families need to be considered and measures taken to ensure services are provided to this population
- Early intervention was mentioned by one group
- Cohesion of services and networks between consumers/peers/services identified
- Prioritisation of 0-3 from governmental level and more training for first points of contact – such as GP training
- Funding flexibility and continuity of programs (group 8 – not recorded in minutes)

Question 2: *If the priorities you've identified were actioned/implemented what would this look like?*

NB Answers not necessarily corresponding with question, however, points summarised as follows:

- Referrals – GPs need to know what's available to refer people accordingly
- Early intervention paramount – including planning ahead with development; one stop shop emphasised as being ideal and having antenatal services locally accessible
- Greater frequency of CHN visits
- Service cohesion and collaboration

Question 3: *What are the priorities of your agency/organisation/service?*

NB Answers not necessarily corresponding with question, however, points summarised as follows:

- New parents need list of services – provided by first point of contact (eg CHN) (raising awareness for families and ensuring services are integrated)
- Educators need training in PIMH as they can often be first point of contact for developmental concerns
- Face to face rather than phone support and linguistically diverse options

- Opportunity/space for families to share information/ successes
- Importance of service integration

Question 4: *What outcomes would you like to see from the current research project?*

- Improvement in service provision and formalisation of agency/organisation networks; longitudinal tracking (through educational progress?) or through service engagement – evaluation?
- More services for Dads
- Improvement in transport (mobility)/access to facilities (pram-friendly)

Reference Group 4: Presentation of findings and group discussion

Attendance at the fourth Reference Group meeting was outside the funding term of the project and was planned due to unanimous agreement in Reference Group Three to continue to meet and grow this network by:

1. Working towards creating a shared vision for the well-being of families from pregnancy to three years which represents families voices and the diverse range of stakeholders in the Cities of Wanneroo and Joondalup.

2. Work together to develop some kind of shared measurement between services for families with multiple needs. The tool suggested to pilot at the meeting was the Early Childhood Service Intensity Instrument (ECSII). This is a tool based on a concept of service intensity rather than level of care and is designed for service providers to determine the intensity of services needed for infants, toddlers, and children from ages 0-5 years across the continuum of care and range of agencies/organisations involved (American Academy of Child and Adolescent Psychiatry). Members were given a description of this tool and asked to familiarise themselves with the measure. In addition an on-line version of the Checklist to Assess Organisational Readiness for Implementation (CARI) of the ECSII was planned to guide how the group moved forward together and to inform understanding of the barriers and the potential opportunities.

3. Shared hosting of the Reference Group by members.

The meeting was scheduled to be held in early September and due to some confusion regarding who was hosting it and where it was to be held it was postponed to include the thoughts and feedback about reporting of the data from Distinguished Professor Hiram Fitzgerald from Michigan State University.

Twelve attendees attended this meeting; there were 11 apologies mostly due to the change of day and several queries about what their roles would be as the group continued as well as new requests to join the group. A snapshot of the report was presented to the group with input and commentary from Distinguished Professor Hiram Fitzgerald. Engaged discussion was held and the consensus was that the snapshot captured the existing network very well.

Summary and Recommendations

Creating the Better Together Reference Group membership (see Appendix) was and remains a dynamic process. The project team aimed to be as inclusive as possible in order to have a strong foundation for ongoing development of the network and from the outset worked hard to develop relationships with both key stakeholders as well as those on the peripheries of the system. The Reference Group meetings typically included practitioners and manager representatives from a diverse range of services, professional bodies, organisations, and agencies/organisations in the PIMH System of Care in Wanneroo and Joondalup as well as consumer representatives. That new members were inquiring about participation up to the and including the last meeting is testament to stakeholder interest in building a better system in PIMH in the two cities. Key stakeholders were keen to participate and in the main managed to navigate their own systems to bring appropriate permissions and good will to the table.

Reference Group meetings were chaired by an elected member from the network; participants were expected and encouraged to be active in the meetings and to have a voice in guiding the agendas. The Better Together project team provided a backbone structure for all meetings. Clear agendas were sent out ahead of time and included new concepts and material for members to consider and to discuss in situ as well as pre and post meetings. There are many possibilities as to why attendance fell in the last group including the ending of the funding period, a need for more consolidation of what was achieved before moving into new territory as well as simple physical issues such as changing the day and time of the meeting. In general, the level of active and engaged participation in the Better Together Reference Group meetings revealed energy from both consumers and those working within the System of Care for improving system efficiency and for ongoing development.

Consumer Focus Group Findings

Better Together has a strong commitment to overall system evaluation and improvement and considers gaining feedback from families as integral to the development of a more cohesive, and integrated PIMH System of Care. This section of the Better Together report aims to explore families experiences of current PIMH services available within the cities of Wanneroo and Joondalup and based on these findings will consider ways to further investigate and to improve current service delivery models and develop more client centred services that focus on 'whole family' needs. It will outline findings from a qualitative investigation of families' experiences of the Wanneroo and Joondalup PIMH System of Care and explore how families navigate their way through services across the continuum of care. The experiences and perspectives of families was examined by conducting two semi structured flexible focus group with families from the Cities of Wanneroo and Joondalup who were either in pregnancy and/or had infants and infants, young children in their care. A qualitative inductive approach was adopted to capture the participants' account of the experiences of accessing PIMH services across the continuum of care.

Procedure

An invitation to participate was sent to families who were members of the consumer reference group and through a snowball method local families were recruited. In the first focus group there were seven participants and in the second focus group there were eight participants. Across the two groups there was representation from mothers, fathers and single parents. There was also representation from 'hard to reach' families as defined by Better Together across both focus groups. Hard-to-reach participants were recruited based on the definition of Cortis, Katz & Patulny (2009) which requires one of the following family characteristics:

- No father: no father present in the household
- Jobless household: mother is unemployed or not in the labour force and father not working or not present
- Poor parents: parental income is less than $500 per week
- Low education: maternal education is Year 10 or less
- Indigenous
- At least one parent born overseas who speaks English as a second language

Persons who meet any of these criteria were identified as hard-to-reach.

The semi structured focus groups were conducted by two research assistants and interview questions included:

- Tell us about your experiences in accessing services to support you and your family's social and emotional well-being in pregnancy and the infancy and early childhood period?
- Did the services meet your needs?
- What kind of services do you need as a parent, a mum and a dad?

Information was sent to participants prior to setting up the group time. Consent to participate and for the data to be included in the project was obtained at time of the focus groups. With participant consent the focus groups were audio recorded and pseudonyms have been used in the reporting of the results.

Analysis

The interviews were transcribed in their entirety and coding was the first step in interpreting the data. Transcripts were read by four researchers with the purpose of capturing words or phrases that represented important content for understanding the overall experience of participants. As data was read and reread and coded the researchers gained insight into what constituted salient information.

Results

Analysis of focus groups data resulted in one overall theme and several subthemes which will be listed and then further explained below.

Theme

A desire for the PIMH System of Care to have a unique, flexible and tailored approach to meet needs of the whole family, specifically to include father's in practice.

Subthemes

- Limited awareness and knowledge by consumers of services available to them; issues of timing and availability of services
- Long waiting lists
- Negative experiences by consumers including perceptions of judgement and dismissive attitudes from service provider staff
- Importance of relationships and role of those in primary healthcare as supports for consumers
- Isolation
- Lack of integrated services across the continuum of care

There was consensus that most people have had significant variation in the experience of different services. Participants reflected on services being inconsistently responsive to people in different circumstances. There was a feeling that although families can receive highly responsive and excellent services, this is random-same service, different experiences, for no apparent reasons. There was some speculation about the causes of this inconsistency and seemingly preferential treatment of some clients. However, there was the overall feeling of being a consumer within a rigid system that is not built around the consumer's actual needs (but the agency/ organisation's needs). Participants also described a stressed system that cannot meet community needs or expectations. Illustrative quotes by consumers about service provision:

- *It's a business*
- *it's a lack of continuity (continuing) of care*
- *I think a lot of services need to be made bigger now because Perth's a very fast growing place, and the hospitals are full everywhere, and they are not keeping up with the times, so people are on waiting lists too much for everything in Perth.*

In addition, participants identified limited times that services are available as a major barrier to accessing services across the continuum of care. They also described how the large geographical areas in both cities were a barrier since consumers needed a car to access nearly everything.

Service flexibility was one characteristic that participants identified as important. Participants unanimously reported the need for a 'whole family approach' and more father inclusive practice. One participant illustrates how a 'whole family approach' made such a significant impact to how they experienced the service:

> *The best thing for me was when Sue (clinician) said ok we'll find someone to look after the kids. Because you have got more than one and even when you've got three or two even...finding someone to look after all of them at the same time can be tricky, that's where you go, oh look it's too hard.*

Participants also identified the need to offer more flexible appointment times to ensure fathers can attend and there was an acknowledgement that fathers may need a different kind of service that it traditionally offered to mothers. They reported concern for the lack of support available for father's coupled with a realisation that fathers can also experience post-natal depression and struggle to form a positive attachment relationship with their infant:

- *....he works Monday to Friday and generally those appointments (child health nurse) are 12 o'clock at lunchtime, so he can't make a lot of the appointments...so even making it on a weekend or afternoon or something like that to get them (fathers) more involved. Because he just was not involved whatsoever. And I think he found it really hard to bond with Sally in the beginning there. He really struggled too...he says I missed all this. He missed so much with her because he was so depressed.*
- *It was the family that needed help. It wasn't just me that needed help.*

Fathers in the focus groups expressed concern about their experiences with services as a father. The main issues they identified in regards to accessing services centred was around feeling excluded. There was a discussion about needing a general culture change to include fathers. Male participants reported that men do feel 'the odd one out' which fathers may find very difficult. Several participants acknowledged there were changes towards inclusivity however it was still a major service gap. This is illustrated in the statement below:

- *Yeah, I think dads will be a lot more heard probably in the future, get a lot more help than we're probably getting now. But you do it on your own, really.*

Subthemes

1. Awareness, accessing services and timing

A common experience discussed by participants was not knowing there were services available to support families when they developed perinatal and/or infant mental health concerns. This was highlighted by a participant sharing her experience of needing help during pregnancy:

> *I just didn't know where to go. Especially at the start, I wasn't telling my parents, so I was really lost and scared. And my now ex was not helpful at all. And to be honest I googled pregnancy help.*

Other illustrative quotes related to lack of awareness of services:

- *And because Jill was my first I didn't know where to start looking. I just got handed this purple book and was like, here you go, you've got a child health appointment. So yeah it was very, I didn't even know, I don't know what people did before Google.*
- *The only one I really knew about what the child health nurse.*

Participants raised challenges in the process of officially being able to obtain a referral followed by then accessing a service. Participants reported that once organisations accepted a referral, typically the service or program provided was brief and rarely met the needs of the family. Participants also reported disappointment in services and programs they found extremely helpful suddenly ceasing due to lack of recurrent funding. One participant described her young son receiving help but due to the structure of the service, it was only offered for a three-month period:

> *If he needs help again re-refer yourself. There's no seeing him until he is sorted, its of their timeline... I want to come every week and they are like well I haven't got time sorry.*

Other illustrative quotes by consumers in relation to accessing services:

- *With the difficult of accessing services...they kind of rush you out the door type of thing. That's a big thing*
- *Yeah they just go, well sorry we're on a deadline to get in and out with our clients*
- *Even when you have a baby, they want you to get out of the hospital as soon as you can. Six hours isn't it? They would get you out in six minutes if they could.*
- *Because Jacinta was born in November and it was Christmas...so they said to me it would be after Christmas. And no one ever rang and I never followed up. Because I thought they had forgotten about me.*

2. Long waiting lists

Participants noted that waiting times to access services were too long. They described needing services immediately following identification of a PIMH concern, however, participants experiences were that they usually had to wait a long period of time before a service was available. They expressed a desire to have no waiting time for services. This is illustrated by one participant, who accessed PIMH services and described the experience of waiting:

> *I think, hiccough for us is that by the time I got to the point where I needed help, having to wait just made it difficult.*

Participants also reported that once a referral had been accepted it was difficult to access actual interventions and that there was a lack of formal follow up after accessing services. Jane illustrated this point as she described receiving intervention services for her young son:

> *They said 'Oh yeah, we'll see him again in three months, maybe six months, but we'll send you an appointment*

One participant recounted her experiences of having a child with multiple needs and commented that connected services resulted in quicker responsiveness to complex needs for infants, young children:

> *One thing I have noticed you get referred for speech, they notice something else needs to happen, so they noticed with my son he needs physio, they referred and that process was so, he got seen within a couple of weeks instead of if he was referred through the GP for the Physio it would have then been a 6-12 month wait.*

3. Consumer perceptions of judgement and dismissive attitude by service providers

Participants described often feeling judged by professionals and experienced disrespect and a lack of compassion when interacting with service providers. Subsequently many participants felt unable to trust service providers and did not fully disclose their struggles with mental health, adjustment to parenthood and/or building a positive attachment with their baby. At times participants felt service providers lacked authenticity.

An illustrative quote describing a routine screening check for the mother's mental health:

> *She gave me this questionnaire and I was like, yeah I am feeling 'fabulous' and I just filled it all out and even went back when I had my second, when I had Judy and I said to her, I said remember when I sat here with Max (first child) and I faked the whole thing. I really needed somebody to say are you alright? I needed someone to say it, but I just faked it because I didn't really know you.*

4. Importance of relationships and role of those in primary healthcare as supports for consumers.

Many participants described having a trusted relationship that is sustainable over time as fundamental to engaging and accessing PIMH services. Participants reported hesitancy in engaging in services when they did not feel they had established a trusting relationship with a service provider. Participants explained that the safety of a relationship sustained over time provided a safe space to open up about challenges and emotional difficulties they were experiencing. Some illustrative quotes from participants related to the importance of relationships:

- *If I don't have a relationship with that person, I am not going to then go yes yes yes yes help me.*
- *I was seeing a different person every time you go to the clinic. Then they were telling me different things. You're just like I don't know who to trust.*
- *My primary health care provider wasn't terrible, but I think because I didn't feel 100 per cent comfortable with telling her the truth of how I was parenting, which I was 100 per cent comfortable with. I didn't feel comfortable to say, hey, I might be needing help here. You know those things you just tick off when you are with the primary health care provider.*

Specifically, a number of participants mentioned primary health care providers as an important source of support for PIMH concerns and the transition to parenthood. Many highlighted that either a general medical practitioner (GP) or Child Health Nurse would be their first point of call if they had a PIMH concern. They also reported variability in the quality of service and type of relationship established with primary health care providers:

- *..like for health and along the lines of a good understanding GP, longstanding, and not one you have a year and they leave, and then you've got to find another one. Like a good family doctor that listens and respects your opinion. That is something I want.*
- *And the other thing about child health nurses was they obviously must be limited in what they are allowed to say, so you are better off going to a computer and putting in a question and then going a yes or a no, because that is exactly what the child health nurses do. So they must be limited in what they can feed back to you, are their answers are very uniformed.*
- *For someone to check in on you, that you have a relationship with. So you trust, and the child health nurse is good if you get a good one.*

5. Importance of informal supports

Most participants stressed the importance of accessing informal supports and parenting support services that emphasis peer support and shared experiences with other parents. Some participants highlighted this as a particularly important local resource and source of support for families who have emigrated from other countries and are socially isolated. In addition, fathers in the group reported the crucial role informal supports play in supporting fathers during the transition to parenthood.

Some illustrative quotes from participants regarding the importance of informal supports:

- *And you walk out of there having amazing friends, because you have spent two years going through your highs and lows, like you can walk in there and lay it on the table and no one of them will go...oh god not you*
- *Yeah there is no judgement, none whatsoever, and even when there is disagreeing personalities with mums and things.*
- *I think if there was some kind of support whereby you knew other people who were in the same boat and you were able to connect..it would be quite good.*

6. Isolation

From the experience of participants, social isolation was common, especially in relation to people who have just moved to Western Australia from other states or countries. This appears multidimensional and includes culturally diverse groups, language barriers, being away from family, conflict with family and being physically isolated.

Some illustrative quotes from participants in regards to isolation:

- *I think another thing as well, we didn't have, we've got nobody here. So there is just the three of us (mother, father and baby). Which is a bit hard as we've got nobody here, we just kind of got on with it.*
- *I think services just assume because you have family, that they are available. I've got family but they are not available. So we are basically on our own. It would be good to access help that is outside our family and friends.*

7. Lack of integrated services across the continuum of care

Many of the participants reported that services often did not communicate with each other. They expressed surprise that services are supposed to talk to each other, as this is outside participants experience and expectations. Participants reported a lack of continuity of care across levels of service and two participants described a feeling of 'being dumped' by services immediately following childbirth. The lack of continuity of care during pregnancy and after birth was highlighted as a concern by participants who expressed a wish to connect with one midwife through pregnancy and post birth.

Some illustrative quotes from participants regarding their experience of how services don't connect with each other:

- *Referring to the importance of having one midwife, 'Mary stated 'they shouldn't be doing that (series of four different midwives during pregnancy)...from the moment you walk through the maternity centre, you know the prenatal, all the way up to post birth'.*
- *They are more like, they use you. They go, you need to go and call that person or you need to source an ENT or you need to go and do that.*
- *I even find with my own health they will say, I'll just print these referrals and you can go home and scan them...well not everyone has a scanner or a fax.*
- *Yeah they don't connect, I can't think of anything in any experience where you've had two services connect that I haven't had to connect the dots myself.*

Implications and Recommendations

This part of the project investigated the PIMH System of Care from the perspective of the families living in the Cities of Wanneroo and Joondalup. The findings indicate that overall families have had a negative experience of accessing and using PIMH services. Findings revealed the families interviewed lacked knowledge and awareness of available services. It also became evident that these families from the cities of Wanneroo and Joondalup experience multiple dimensions of social isolation. Families describe a System of Care that is inflexible and not integrated and when accessed for PIMH concerns often the families feel judged and dismissed by organisations. The lack of integration that participants experienced is a consistent finding across many components of Better Together. The SNA revealed that organisations do not tend to connect with each other in an integrative or coordinated way.

Negative experiences identified by consumers including perceptions of judgement and dismissive attitudes from service providers is supported in the low levels of trust between organisations that was identified in the SNA across the System of Care. For participants, developing a trusting relationship that is sustained over time with one service provider is a critical component required to ensure families feel safe to engage with and access services within the PIMH System of Care. Participants expressed a desire to have a PIMH System of Care that responds to the whole family and creates unique, flexible and tailored approaches to meet the needs of caregivers and their infants and infants, young children. Participants also expressed a need to develop more father inclusive practices across the continuum of care in addition to families having the opportunity to access a range of informal support systems that are outside family and friends.

The current findings increase our understanding of how families experience PIMH services within the cities of Wanneroo and Joondalup. It has provided further evidence for the importance of creating strategies that focus on: (1) ensuring the PIMH System of Care is client centred and (2) includes a way of actively incorporating and using client feedback to inform the way services are developed and how the overall System of Care functions. It is recommended that:

1. The network consider how to develop ways that families (and in particular vulnerable families) who access PIMH services across the continuum of care are provided with a consistent service provider who is available across the perinatal and infant-early childhood period. It maybe that the consistent service provider is identified within the current services that offer primary health care (GP and Child Health Nurses).
2. Families are supported to take an active role as they navigate their way through the PIMH System of Care. The Early Childhood Service Intensity Instrument (ECSII) is one tool that might be used as a pilot to develop collaboration and shared communication with families across and within services.
3. Families continue to engage directly with organisations within the PIMH System of Care and the Better Together network and specifically have direct involvement in dialogue with government to influence policy and practice. We recommend there is a continued emphasis on shared dialogue with families to facilitate collaboration across government, consumers and other peak bodies in PIMH. Regular dialogue will ensure families are directly involved in the implementation of PIMH initiatives and innovations to improve outcomes for themselves and their infants and infants, young children.

Chapter 7:

Interventions

Introduction

This Chapter describes the background to and nature of training offered to two groups of primary health care providers: General Medical Practioners (GPs) and Pharmacists. For both trainings evaluations are also described, analysed and discussed. It also includes an overview of a unique community based training facilitated by Mr Yigit Aksagoglu from the Bernard van Leer Foundation on taking a global approach to creating collective impact in the PIMH field.

Primary Health Training and Evaluation: General Practitioners (GP)

Community health care consultations at the commencement of the project identified the need for training for General Practitioners (GPs) relating to Perinatal and Infant Mental Health (PIMH), with a GP noting that he was not familiar with this area and as such he felt most GPs "won't know what that is". This was supported by data from a second community consultation which identified that (regular) GPs do not have time to provide any additional care beyond standard antenatal services. If social and emotional issues were identified, it was identified that (regular) GPs do not have time to provide any additional care beyond standard antenatal services. If social and emotional issues were identified, referrals might be made to a paediatric consultant, since other referral options were unknown, in addition knowledge and interest of GPs was described as "hit and miss", and there was no sharing of information. Both consultations recommended GP training with opportunity for CPD points as a means of engaging GPs in PIMH training. It was also suggested the training should be started from ground level, assuming GPs know nothing about PIMH and that as many take away tools as possible for assessing PIMH should be provided.

Participants

Twenty-two GPs attended the GP training, 8 GPs completed the pre-post case study. In addition, several community-based nurses contacted the research team directly requesting to attend the training in their own time; however, these additional attendees did not participate in the data collection. Several staff and volunteers from a multidisciplinary workforce contributed to delivery of the training presentations.

Procedure

A Two PowerPoint presentations was prepared and delivered over dinner at a function centre after office hours. The content of the presentation was tailored to meet the needs of the workforce, keeping in mind their specific roles in the community. In addition, in order to enhance engagement of stakeholders in the training, Continuing Professional Development (CPD) accreditation for the training event was approved by both the Royal Australian College of General Practitioners (RACGP).

GP Training

The following themes were incorporated into the GP training and were delivered by two Clinical Psychologists, two Perinatal Psychiatrists, a Social Worker and a GP:

- Definitions and practice of perinatal and infant mental health across the continuum of care.
- Utilising tools and clinical observation to increase capacity for recognising, assessing and responding to perinatal and infant mental health concerns.
- Perinatal Psychiatry.
- An overview of a zero to five's PIMH service available to families in the local area.
- An introduction to the Health Pathways online portal (designed to support GPs to make referrals).

All participants were asked to complete a pilot pre and post case study by reading a brief vignette and then documenting how they would respond if this family presented at the GP clinic where they worked.

GP Training – qualitative themes pre training

Analysis of themes from the pre-case studies identified that they cluster around four main themes: the GP role, systemic factors and social support, maternal physical and emotional health and baby's physical and emotional health (see appendix 5). Overall GPs indicated a comprehensive approach to their assessment and exploration of the presenting concerns, yet across the group there was no explicit mention of the parent-child relationship and in addition there were no clear referral pathways identified. One participant did mention the parent child relationship and the Circle of Security intervention; however, as this was not common across the group the codes from this participant's response were not included in the thematic analysis

GP Training – qualitative themes post training

Analysis of the themes from the post-case studies identified that they cluster around six main themes: the GP role, systemic factors and social support, maternal mental health, perinatal assessment, parent-child relationship and targeted referral pathways. There was a clear shift in participants' responses to incorporate aspects of the parent-child relationship as well as more explicit referral options.

Summary

Qualitative analysis at pre-test revealed broad ranging consideration of systemic factors, as well as maternal and child physical and mental health. Yet, there was a tendency for GPs to consider the needs of the parent and child in discrete categories. At post-test GPs appeared to demonstrate greater awareness of the implications of challenges in the perinatal period and the transition to motherhood, as well as a capacity to notice and consider different aspects of the parent-child relationship and activate more targeted referral pathways.

Primary Health Training and Evaluation: Pharmacists

Pharmacies were identified by consumers as amongst their first port of call when concerned about their infants and infants, young children's wellbeing.

Participants

Eleven pharmacists indicated they would attend the training, 7 community-based pharmacists then attended the training and completed the pre-post case study. Several staff and volunteers from a multidisciplinary workforce contributed to delivery of the training presentations.

Procedure

A two hour PowerPoint presentation was prepared and was delivered at the Edith Cowan University Clinic after office hours. The content of the presentations was tailored to meet the needs of the workforce. In addition, in order to enhance engagement of stakeholders in the training, Continuing Professional Development (CPD) accreditation approved by the Australian College of Pharmacy (ACP)

Pharmacy Training

The following themes were incorporated into the training and were delivered by two clinical psychologists, two representatives of Wanneroo city council, a pharmacist from a tertiary service with specialised knowledge of perinatal and infancy:

- Definitions and practice of perinatal and infant mental health across the continuum of care.
- Utilising tools and clinical observation to increase capacity for recognising, assessing and responding to perinatal and infant mental health concerns.
- Pharmacology in Pregnancy and lactation Perinatal Psychiatry.
- An overview of a zero to fives PIMH service available to families in the local area.

Pharmacy Training – qualitative themes pre training

Analysis of the themes from the pre-case studies identified that they cluster around three main themes: the pharmacist's role, focus on physical needs and no focus on the parent-child relationship. Overall the data indicated that pharmacists view it as their role to build an empathic relationship with the mother to explore the presenting issues, however, the pharmacists' curiosity and exploration of the presenting issues typically focussed on the physical or emotional needs of the mother, the physical needs of the baby and then activating a medical referral to the GP.

Pharmacy Training – qualitative themes pre training

Analysis of the codes and themes from the post-case studies identified that they cluster around three main themes: the pharmacist's role, a holistic view of health and wellbeing that includes the mother and baby and focus on the parent-child relationship (see appendix 8). Overall the data indicated a greater curiosity to explore the presenting concerns and finding ways to support the mother to access a referral to a GP, community or psychological service. The data also demonstrated a focus on the physical and emotional needs of the mother and baby and explicit reference to the parent-child relationship.

Summary

Qualitative analysis revealed that at post-test there was greater acknowledgement and awareness of mental health challenges and a greater awareness of aspects of the child-parent relationship. Whilst there was some indication at post-test that pharmacists better understood services available to families experiencing challenges related to PIMH (and targeted referral pathways were more explicitly articulated), the emphasis on a referral to a GP was still prominent.

Overall the findings from both the GP and pharmacy training highlight the benefits of training in PIMH for GPs and Pharmacists working in primary care in enhancing their awareness of and capacity to notice aspects of the parent-child relationship.

PIMH Community Training

Translating a Global Approach to create a collective impact for the wellbeing of Western Australian young families (Bernard Van Leer Urban 95 Workshop).

Background History

The ECU Better Together Project in collaboration with Centre for Parenting Excellence Bernard Van Leer Foundation and City of Wanneroo hosted the Bernard Van Leer – Urban95 Workshop on June 18th, 2018. The workshop was attended by 59 participants and included practitioners across all levels of care, representatives' from local and state government, policy and administration across health, education, community, housing and child protection.

It was facilitated by Yigit Aksakoglu, Turkish representative of the Bernard Van Leer Strategy 'Urban95'. As a collective, the diverse and broad group of professionals and consumers considered how the Urban95 global and international perspective might inform local community responses so that families with infants, young children have a positive experience of living in Western Australia.

Guided by a participatory action response method, agencies/organisations represented in the Reference Group came together to co-fund and resource this workshop (City of Wanneroo, Centre of Parenting Excellence and ECU in collaboration with Bernard Van Leer Foundation), with the aim of increasing knowledge and awareness of how broader issues of mobility and greenspaces (that were identified in the Reference Group and Consumer Reference Focus Group) are connected to the emotional and social well-being of infants, infants, young children and their families.

The workshop was an opportunity to expand and reinforce a more cohesive system working towards a common shared vision for infants, infants, young children and their families in the Cities of Wanneroo and Joondalup. It was specifically designed to foster cross sector collaboration and communication and to offer an opportunity for agencies/organisations in the City of Wanneroo and Joondalup to consider how they would initiate action for social change on a larger scale.

The workshop

Part 1: Understanding Urban95

Urban95 is the global strategy of the Bernard van Leer Foundation, invited city leaders, designers and planners to look at cities from 95cm, the average height of a healthy 3-year-old. Urban95 focusses the lens on the needs of children and provides a unifying theme across all sectors of the community. Yigit Aksakoglu demonstrated how place-based environments are an important factor for improving developmental outcomes. He provided an overview of the four key domains of Urban95; Data Driven Decision Making (mapping); Greenspaces; Parent Coaching and Mobility. A brief description of each domain is provided below:

- **Green public space:** Transforming existing physical spaces into places for infants, young children to play and explore nature, and for their caregivers to meet and rest.
- **Mobility for families:** Making it possible for caregivers and infants, young children to walk and cycle to healthcare, childcare, a safe place to play and a place to get fresh food.
- **Data-driven decision-making:** Collecting neighbourhood-level data on infants, young children and caregivers and using it to better target resources and facilitate coordination across sectors.
- **Parent coaching:** Combining coaching on early childhood development for parents and other caregivers with services that meet families' basic needs.

Part II: Panel Discussion with representatives from Western Australia

Each panellist was provided a specific question and invited to offer a brief response. Following this, a panel discussion took place in which audience members were invited to pose questions and comments. Below is a list of panellists and what questions they are asked to respond to.

Panel Member	Question
Mr Jarred Collins Acting Director Market Innovation and Partnership, Housing, Department of Communities	What are the short term and long term strategies in housing that address the needs of low income, vulnerable families with infants, young children?
Colin Pettit Commissioner for Children and Young People	What are the available resources and services that can be leveraged to support a broader systemic approach to improving the experience of families living in Western Australia
Mrs Sara Dale Mother of two infants, young children	What is you and your children's experience of living in your community in relation to access and availability of: Services and support; playgrounds and greenspaces and transport and local resources
Emma Forde ARUP, independent firm of designers, engineers, architects and planners	What can engineer and design companies like ARUP do to improve the lives of families with infants, young children
Rosemary Cahill Director, Office of Early Childhood Development and Learning Department of Education, Western Australia	What is the role of education in infancy and the early years and how can we create ways to support vulnerable and hard to reach families?

The panel discussion with members of the audience highlighted the importance of ensuring that children and families have a voice that needs to be heard, acknowledged and responded to. This was one of the main messages from the Commissioner for Children and Young People's presentation, which was re-emphasised by Ms Sara Dale's recount of her experiences of accessing services for her young son. Feedback from the audience reaffirmed this important message and the role that families play formed a central theme of the day.

Part III: Urban95 Workshop

A series of small group activities were facilitated by Yigit Aksakoglu focussing on building a local collective response to improving the well-being of infants, infants, young children and their families across the domains identified in the morning session. The random allocation of members to groups was designed to consider how we can improve the way in which the complex array of stakeholders intersect and come together to build a healthy thriving community for families in Western Australia.

The audience was randomly assigned in a group of approximately 6 to 8 members. In their groups members were asked to work on the following questions and use the Urban95 Tool Kit to guide responses.

1. Identify a vision for change
2. What would you do to work towards your vision for the:
   a. First 100 days
   b. 1000 days

Evaluation and Outcomes

This project recognises the need to build a foundation within this Reference Group and the wider community that is centred on promoting a culture of learning. The workshop supported a learning process that introduced the group to innovative and international perspectives that were not common practice in Western Australia. This is viewed as an important component to building the conditions necessary to support and grow a strong successful network that has capacity to address complexities connected to establishing clear referral pathways and processes (ie. Inclusion and exclusion criteria) and reducing fragmentation within the PIMH system.

Thirty-nine respondents completed the Urban95 evaluation form.

One of the main findings from the workshop was identification of a collective vision across the different groups. The focus of each group's vision centred on fostering a *community in which children can thrive and feel safe*. All groups created innovative ideas of how to engage in activities that promote change across 100 and 1000 days. Sharing these ideas as a larger group prompted a shift in energy and momentum in how they could effect change in their local community and this was also reflected in the formal evaluation forms. There appeared to be a shift in thinking as individual participants and/or agencies/organisations to thinking more like a network and collective group.

The ideas that developed from the small group discussions included:

100 days: consulting with the community, research and mapping existing resources and map where families are going and how do they get there, activities to promote 'getting to know your community' (street gatherings, champions), measure and benchmark connection and engagement, activate parks, connecting parents with antenatal and child health services via the GP.

1000 days: safe breastfeeding spaces, improve local parks and 'streets for the people' (closing down streets for gatherings), footpaths connecting parks, street planting and using social media to inform community, promote neighbourhoods facilitating support to local families, develop localised grants to address specific gaps, mobilize services to be place-based, monitor traffic speeds and create calming devices, trial 'street play, creating 'hubs' (one stop shops).

On asking participants their views on the benefits and key take homes of participating in the workshop, the following themes were identified:

- **Learning about Urban95 and using this international model as a way of conceptualising how to work in a cohesive way to improve lives of infants, infants, young children and families**

  'broad visioning and love all the Urban95 ideas and tool kit gives great options'

  'Global ideas and creating local solutions'

  'finding out about Urban95 and how that translates to improving outcomes for our children, families and broader community'
- **Prioritising the voice and experience of infants, infants, young children and their families:**

  'Ask your children what is important'

  'Remembering not to assume what a child needs or wants….always ask the child'
- **Building quality engagement through all aspects of the workshop (diverse range of attendees, discussions that arose from the panel discussion and the practical ideas generated from listening to each other)**

  'I enjoyed meeting people across the different areas and finding how our experiences and aspirations intersected'

  'Thought provoking intersectorial collaboration'

  'Really practical ideas and taking money out of the equation'
- **Possibility of simple solutions to the complex problem of creating a community in which all children can thrive.**

  'I have 20 asterixed ideas in my notes! all directly actionable by myself and others in current projects'

  'small ideas can make a big change'

- **Importance of collaboration in moving forwards. The workshop promoted ideas about how to foster more collaboration and community engagement in current workplaces.**
  'importance placed on relationships and how broad and complex this area of work is'
  'collaborating with more agencies/organisations'
  'Invite more ideas from communities and consumers'
  'importance of constant messaging and engaging with community'
  'will go back and have discussions with other leaders'

- **A broader, more diverse community perspective and a deeper appreciation of the cross sectorial nature of the field.**
  'Helpful to have broad visioning'
  'Combining the physical and social factors'
  'Usefulness of tool kit to stimulate ideas for working towards improvement for families'
  'How to translate the information we have to improving outcomes for children and families'

Summary and Recommendations

Representatives across early childhood and parenting services, local government, architecture and urban design community, housing, transport systems, universities and economists collaborated in this workshop to build a broader understanding of the factors that influence the social and emotional well-being of infants, infants, young children and their families. It was a learning opportunity for the Reference Group and wider City of Joondalup and Wanneroo community that promoted a deeper and broader understanding of the context in which the PIMH system exists within. This resulted in:

1. Identification of key agencies/organisations and individuals within the Reference Group that had capacity and motivation to invest funding and resources into this innovative engagement and learning opportunity.
2. Development of a vision that was shared across the group and engagement in activities that successfully linked individuals and agencies/organisations within the network to explore possibilities for collective action (identifying key leverage point between key organisations).
3. A deeper form of engagement that shifted the group members' perspective moving from sharing to linking-an important component of working towards an effective system change over time.
4. This capacity building workshop built upon existing collaborations and created tangible, simple and practical ideas that individuals, organisations and larger network groups can implement and continue to build upon over time.

Recommendations based on evaluation of the Urban95 workshop:

1. Continue to engage in regular capacity building sessions to strengthen the capacity of the Reference Group and wider community. The intensive sharing and linking component of the project has established the foundations for a process of trying to align around a common vision. This step is necessary to develop long term sustainable clear and responsive pathways across perinatal and infant mental health services and a more cohesive PIMH model of care.
2. Continue to leverage the relationships built within the Reference Group and the existing networks in the City of Wanneroo and Joondalup to learn in more detail what is effective in producing positive outcomes for families. To enhance, improve, create value and build upon what each service is doing and where successful collaborations across services have resulted in positive outcomes for families, services and the overall system.

Chapter 8:

Social Network Analysis

Introduction

"A major challenge facing organisations today is how to partner with other organisations, and groups to collaboratively address social and political goals while effectively maximising resource sharing of the partners involved"
http://partnertool.net/tools-and-training/partner-tool/

To address the complex nature of how the PIMH System of Care functions in the Cities of Wanneroo and Joondalup, the Better Together Project implemented a social network analysis (SNA) tool called PARTNER (Program to Analyse, Record, and Track Networks to Enhance Relationships). SNA is a quantitative methodology that focuses on relationships between and among organisations, measuring and mapping relationships and flows between organisations. PARTNER was used in this project to collect data and assess the ways in which organisations within the system currently connect with one another and with families within the two communities.

The SNA was designed and implemented to:

1. Understand and assess the processes of engagement and the extent to which stakeholders in the PIMH System of Care are interconnected
2. Identify facilitators and barriers within the system, as perceived collectively by stakeholders and consumers
3. Establish baseline data that can be used to assess whether future interventions, activities, and community and stakeholder engagement results in positive change to the overall system and how it functions
4. Use the findings to develop innovative initiatives designed to create a more cohesive and integrated PIMH System of Care.

Method

The SNA survey was designed for stakeholders and consumers in Wanneroo and Joondalup so they could identify agencies/organisations with which they are related for service delivery through the PIMH System of Care. Questions were also asked related to the interactions among these organisations, the degree of inter-organisation trust (operationalised as reliability and open communication), the degree of inter-organisational value (defined as operationalised as power/influence, resource contributions, and time commitments), and the degree of intra-organisational perceived success. The PARTNER tool questionnaire was adapted for use in Western Australia and a number of questions were added for the purposes of the Better Together Project. Dr Jessica Barnes Najor from Michigan State University provided guidance at every stage of the survey development.

The survey was administered during May and July 2018. The survey was completed by 78 agencies/organisations (implying a 68% response rate) and families (representing 14 suburbs) within the PIMH network. For the 78 organisations, some agencies/organisations had multiple respondents, leading to over 100 survey respondents. For organisations with multiple respondents, medians were applied, to ensure that each organisation was only represented once in the SNA Partner analysis.

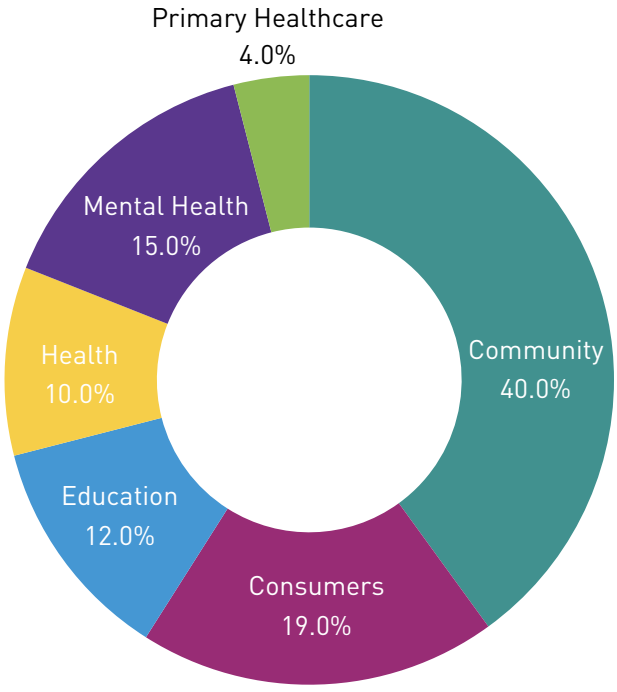
For families the snowball sampling method was used. This sampling method involved the consumer reference group members identifying other potential families to complete the survey. 55 families completed the survey.

Amongst the agencies/organisations and families that responded, collectively, there were 2,460 partnerships. On average, each organisation had 31.54 partnerships (that is, out of a possible 77, n-1).

SNA Survey Participants

Figure 37 shows the composition of the agenices/organisations that participated in the survey; Community 40 per cent; Consumers 19 per cent; Mental Health 15 per cent; Education 12 per cent; Health 10 per cent and Primary Healthcare 4 per cent.

Figure 37 Types of Agency/Organisation that participated in the SNA survey

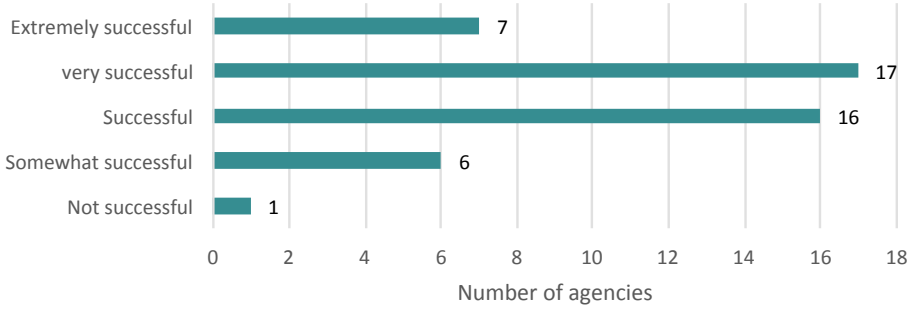


Source: ECU Better Together based on PARTNER Report September 2018.

Perceptions of Success

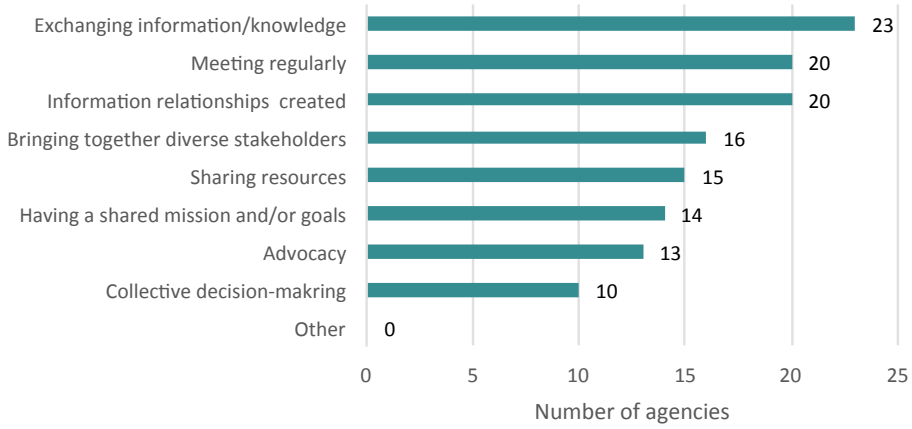
Findings revealed that the majority of respondents (36%) viewed their agency/organisation as 'Very Successful' at achieving their goals, with only 2 per cent perceiving their organisation as 'Not Successful' (Figure 38). The three highest aspects of collaboration that contributed to an organisation's success were: (i) Exchanging information/knowledge; (ii) Informal relationship created and (iii) Meeting regularly (see Figure 39).

Figure 38 Perceptions of Success



Notes: Question: How successful would you say your agency is in supporting the needs of children aged 0-3 years and their families in the community?
Source: ECU Better Together PARTNER Report September 2018.

Figure 39 Contributing Aspects of Collaboration Success



Notes: What aspects of collaboration contribute to this success? (Choose all that apply)
Source: ECU Better Together PARTNER Report September 2018.

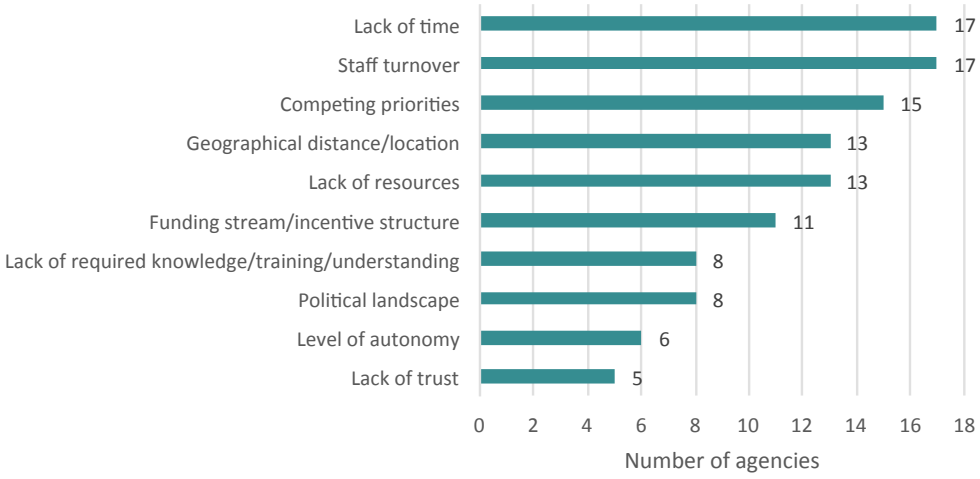
These findings suggest that the majority of agencies/organisations in the network view themselves as successful in supporting the needs of families with infants and infants, young children and that there are varying perspectives on how the collaboration across the system contributes to this success. To develop this concept further the next stage of the Project will assess issues related to what criteria actually define success at each agency/organisation, and how these criteria may vary across the system.

Interestingly, there was a low number of respondents that identified 'collective decision making' as a factor contributing to success. This may suggest that collaborating across agencies/organisations is not viewed as a crucial factor in determining successful outcomes for families in City of Wanneroo and Joondalup. If so, it may be a potential barrier when working toward improving system integration and creating better outcomes for families based on cross agency/organisation collaboration. On the other hand, it could also mean that at face value, agencies/organisations viewed other factors as contributing more to their success than collective decision making. In that case, interventions most likely should focus on strengthening the strongest perceptions of success, rather than viewing collective decision making as a deficit.

Perception of Barriers

When asked to identify the main barriers to the PIMH System of Care's success the highest three responses were lack of time, staff turnover and competing priorities (see Figure 40). Staff turnover may be connected to the restructuring of departments and funding allocations that resulted from changes in government policies/practices. These changes have directly impacted the provision of perinatal and infant-early childhood services. They might also account for the significant variation in time individuals have been in their positions within particular organisations. When asked 'How long have you been in this position (in months)?', respondents indicated an average of 4.54 years, with a range of 2 months to 19 years.

Figure 40 Barriers to Success



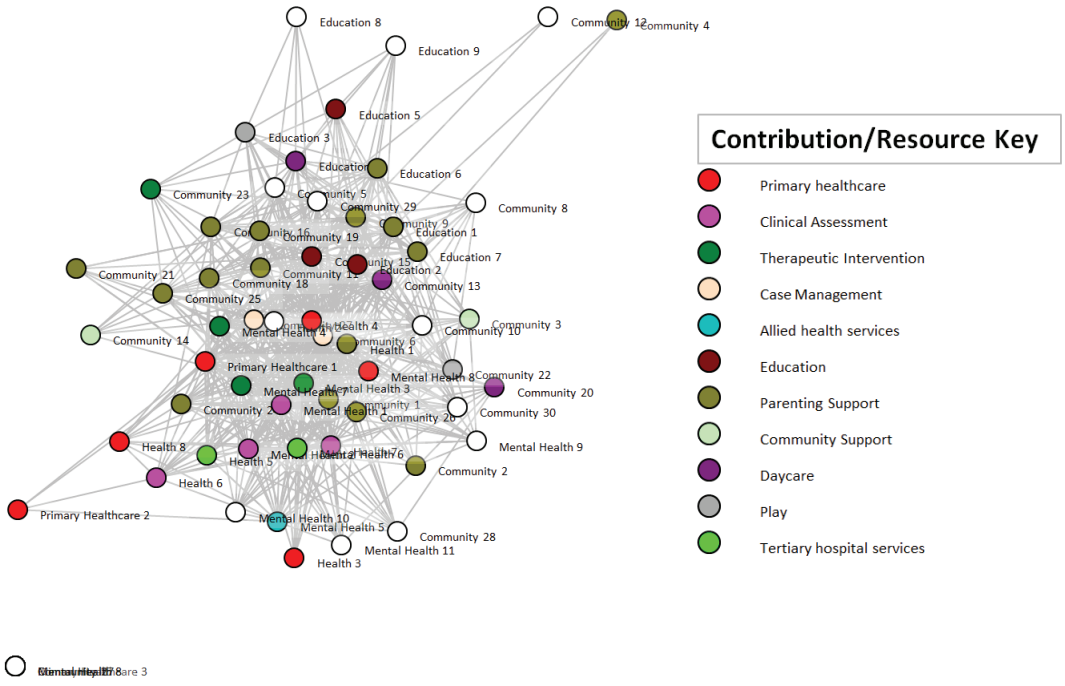
Notes: What would you say are the barriers to its success? (Select all that apply)

Source: ECU Better Together PARTNER Report September 2018.

Contribution of Agencies/ Organisations to Network

The highest seven services provided by agencies/organisations are (i) Advocacy, (ii) Parenting Support, (iii) Community Support, (iv) Education, (v) Counselling, (vi) Clinical Assessment and (vii) Therapeutic Intervention. These contributions relate to the type of services offered by community, health, mental health and education organisations. The network map reveals that agencies/organisations that identified as providing 'Other' services (that were not cited in the survey) are less connected to other organisations in the SNA, with the exception of one community organisation (Community 27) (see Figure 41). Visually the network map presented in Figure 41 also reveals a cluster of agencies/organisations providing Parenting Support (community and education organisations) that are more closely connected with each other than organisations providing other kinds of PIMH services. In SNA mapping agencies/organisations are represented by circles and the lines between these represent connections; the greater the density of the lines the greater the number of connections.

Figure 41 Agencies/organisations Most Important Contribution to the Network



Source: ECU Better Together based on PARTNER Report September 2018.

Density, Degree of Centralisation, and Dimensions of Trust

Table 13 summarises the density, degree of centralisation, and dimensions of trust that characterise the agencies/organisations participating in the PIMH. The density score is a measure of the percentage of ties or relationships present in the network in relation to the total number of possible ties in the entire network. Although 20 per cent indicates many relationships currently exist within the PIMH network of organisations, it also suggests that many more connections are possible.

The centralization score of 43 per cent represents the degree to which the network is "centralized" around a few nodes. A high centralisation score would indicate that nearly all service agencies/organisations were connected with one centralise agency/organisation, but relatively few would be connected collaboratively with one another. The lower the centralization score, the more similar the members are in terms of their number of connections to others (e.g. more decentralised), which generally is linked to provision of a more integrated System of Care available to consumers. In addition, a more decentralised network is more resilient, to any changes that may affect single system component because interconnections between each other are more evenly distributed and less hierarchical.

On dimensions of Trust, respondents rated relationships low to moderate with respect to Reliability and Openness to Discussion, with neither dimension reaching levels considered to be in an optimal range. The current levels of trust indicate that organisations within the network do not have a high degree of trust between each other, and that they need to increase opportunities to engage in clear and open communication to enhance partnership reliability and ultimately, trust in system effectiveness

At a network level the results reveal a high density, where agencies/organisations are connected with each other and relationships are dispersed across the network (decentralised). Despite the inter-connectivity of the agencies/organisations within the system, the small to moderate degree of trust between them is a concern. These findings identify the need for an engagement strategy that has a specific focus on interventions that build trust, concentrating on establishing open and clear communication, developing mutual respect and working towards a shared vision and set of goals. The lower centralisation score may also be a protective mechanism going forwards in relation to high staff turn-over, (an identified barrier to success of the network) and changes that may occur across the system over time (change of government, funding allocation models, department and agency/organisational restructures).

Table 13 Network Scores: Density, Centrality and Dimensions of Trust

Network Measure	Network Score	Definition of Network Measure
Density	20 per cent	**Density:** Percentage of ties present in the network in relation to the total number of possible ties in the entire network.
Degree Centralisation	43 per cent	**Degree Centralization:** The lower the centralization score, the more similar the members are in terms of their number of connections to others (e.g. more decentralised).
Dimensions of Trust	Moderate	**Trust:** The higher the trust score, the more that component parts of the system believe that system collaborations are trustworthy, reliable, and that communication is open.

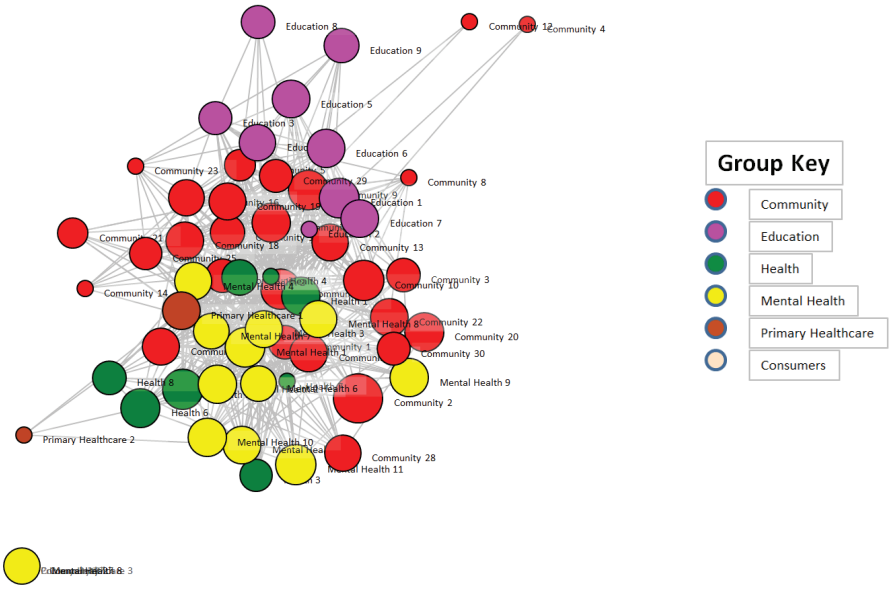
Source: ECU Better Together based on PARTNER Report September 2018.

Overall Value and Trust Measure

Building on the previous section, this next component of the SNA investigates overall value and trust dimensions and includes visual mapping of these two measures. The overall value score is an average of the three value measures of power/influence, level of involvement, and resource contributions. Measuring value is important for an effective network to ensure that one is leveraging all members' value within the network adequately. There are two dimensions of trust which are measures of reliability and open to discussion. Measuring trust is important for capacity-building within the network and is fundamental for network effectiveness.

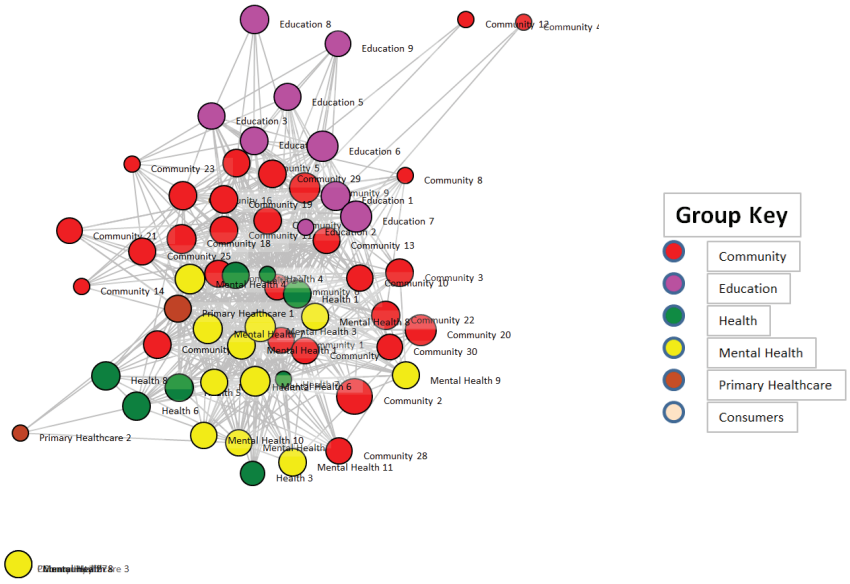
Figure 42 and Figure 43 show the relative value and trust of agencies/organisations within the network. The larger nodes have more perceived overall value and trust among other organisations within the network than do the smaller nodes. For more details on perceptions of value and trust, see "Network Scores-All Members" in the next section.

Figure 42 The Relative Value of Organisations



Source: ECU Better Together based on PARTNER Report September 2018.

Figure 43 The Relative Trust of Organisations



Source: ECU Better Together based on PARTNER Report September 2018.

Figure 42 and Figure 43 offer a visual representation of the overall value and dimensions of trust within the network. There are similar patterns across the value and trust network maps in relation to where agencies/organisations are positioned, suggesting those which are considered valuable are also trusted and vice versa. There are a small number of community agencies/organisations (community 4, 8, 12, 14 & 23) and a primary health care organisation (primary health care 2) that are have less perceived value and trust from other organisations (depicted by smaller size node) in the network. These organisations are also positioned on the periphery and have noticeably less connections with other organisations on both maps.

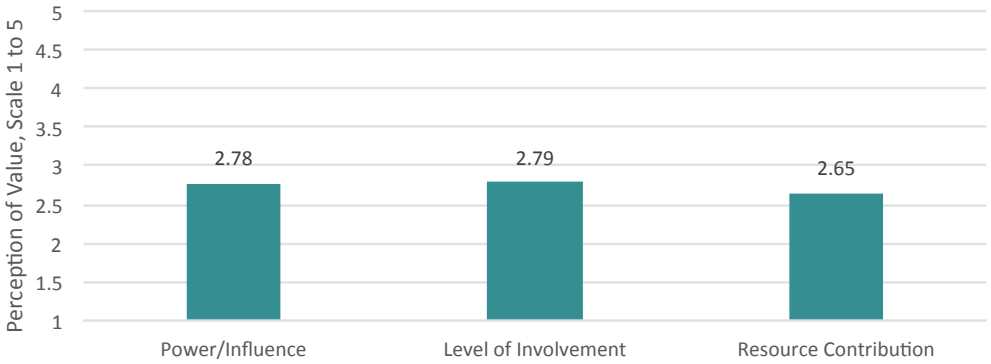
There is a noticeable difference across the two maps in relation to density towards the centre of the network with the 'Overall Value' map including a higher density of organisations positioned towards the centre. The 'Overall Trust' map has less density towards the centre. There also appears to be several organisations across the different groups that are highly valued (organisations with larger nodes and positioned towards the centre of the map) in comparison to the 'Overall Trust' map in which organisations are more dispersed and not as well connected.

Moving forward, these findings build on results from the previous section and highlight the need to develop ways to strengthen trust within the network. The visual mapping offers an opportunity to identify and support organisations that are on the periphery to become more connected within the system. Furthermore, as a next stage it will be important to align information contained in the SNA, with information in the service mapping to determine whether geographical location accounts of the degree of connectedness to other organisations within the system.

Value Measures

Value measures include power/influence, level of involvement, and resource contributions. Measuring value is important for an effective network to ensure one is leveraging all participants' value within the network adequately. Organisations do not supply value in the same way, some use their power and influence, some donate their time through based on their level of involvement, and some are able to contribute specific resources that the network needs to function. Figure 44 shows the all organisations' averaged perceptions along the three dimensions of value.

Figure 44 Perceptions of Value



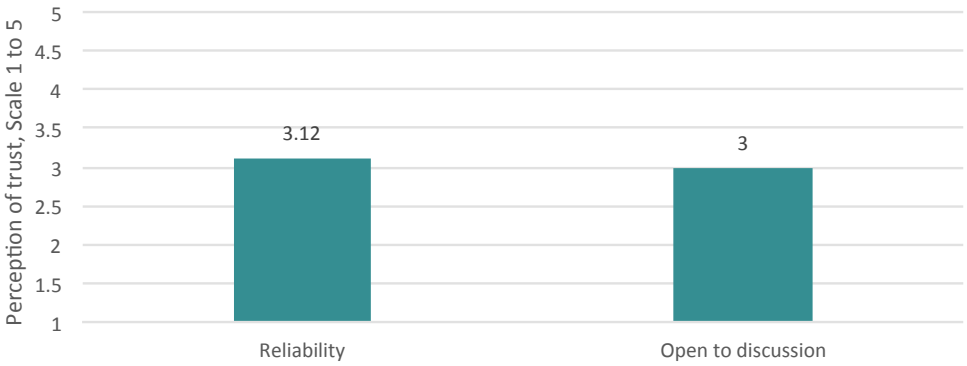
Notes: 1 = Not at all; 2 = A Small Amount; 3 = A Fair Amount; 4 = A Great Deal. Scores above 3 are considered good. All members.

Source: ECU Better Together based on PARTNER Report September 2018.

Dimensions of Trust Measure

Dimensions of trust measure included reliability and open to discussion. Measuring trust is fundamental for an effective network, including having strong participants who work well together, establishing clear and open communication, developing mutual respect and trust, and working toward a shared mission and goals. Figure 45 shows the all organisations' averaged perceptions along the two dimensions of trust.

Figure 45 Dimensions of Trust



Notes: 1 = Not at all; 2 = A Small Amount; 3 = A Fair Amount; 4 = A Great Deal. Scores above 3 are considered good. All members.

Source: ECU Better Together based on PARTNER Report September 2018.

Partnership Intensity

Partnerships are increasingly recognised as an important common element of government and non-government initiatives aimed at solving complex social problems in society. This is evidenced by new state and federal funding structures in which (i) initiatives are funded across multiple organisations and (ii) partnerships across agencies/organisations is an outcome requirement for funding. This highlights the importance of evaluating partnerships and incorporating an assessment of the complex relationships between organisations within a System of Care.

In the Better Together Project, a baseline measurement of partnership intensity between organisations within the network was assessed. This was conducted to understand how effective current relationships are within the system and how they can potentially enhance outcomes for infants, children and young families. The social network analysis assessed the extent to which organisations were connected with each other through; awareness only, cooperative only, coordination only and/or integrated activities, which are defined in the Table 14.

Table 14 Definitions of Partnership Intensity

Levels of Partnership Intensity	Definition
Awareness only	Understanding of services offered, resources available, mission/goals.
Cooperative Activities	Involves exchanging information, attending meetings together, informing others of available services [Example: your org understands how to coordinate services/how to access services from this organisation].
Coordinated Activities	Includes cooperative activities in addition to exchange of resources/service delivery; coordinated planning to implement things such as Referrals, Data Sharing, Training Together [Example: your organisation has coordinated services in the community with this organisation].
Integrated Activities	In addition to cooperative and coordinated activities, this includes shared funding, joint program development, combined services, shared accountability, and or shared decision making (Example: a formal agreement with shared funding exists between your org and this organisation).

Source: ECU Better Together based on PARTNER Report September 2018.

Figure 46 to Figure 49 visually depict the different levels of partnership intensity and each coloured circle represents one member of the network. The black lines demonstrate when respondents indicated that they had a relationship with another member of the network. A high number of lines indicate that a large number of partners indicated relationships to that organisation.

Findings revealed a large number of partnerships across the network (N=1877), however further analysis indicates that 58 per cent of the organisations are connected through 'none/awareness only' (Figure 46). This finding reveals that organisations are mainly working with each other through understanding what each organisation provides in the network, rather than actively engaging in activities together. It appears that collaboration between organisations is characterised by sharing information and that there are several organisations that are not connected within the network (mental health agency/organisation 8, community 4,

community 12, primary health care 2), which is visually represented across Figure 46, Figure 47, Figure 48 and Figure 49. Consistent with findings in the other network maps it appears that the network of organisations is relatively decentralised with reference to the type of activities organisations engage in with each other.

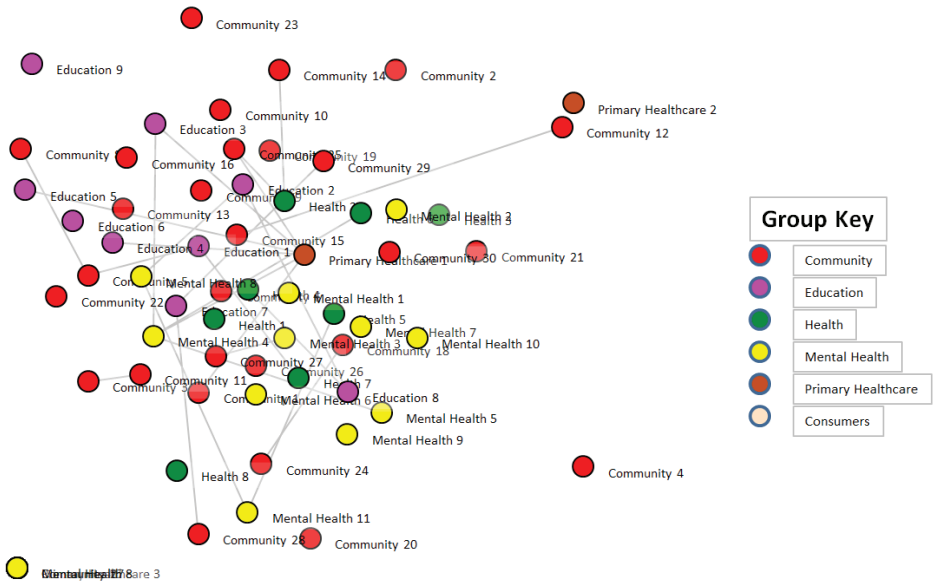
Figure 47 revealed that there are only 23 per cent of organisations that engage in cooperative activities, which is the second highest form of partnership engagement within the network. This finding reveals that a small proportion of organisations are actively engaging with each other through information sharing and attending meetings. Organisations within the network identified more relationships with each other through engaging in cooperative activities, evidence in Figure 47 by the high number of lines between the nodes. This suggests that there is a higher level of interconnectedness between those organisations that are engaged in cooperative activities, when compared to other types of activities (awareness only, coordinated and integrated).

Figure 48 and Figure 49 indicate that only 12 per cent of organisations are coordinated (Figure 48) and 7 per cent of organisations are integrated with each other. This is an important finding when considering the current functioning of the network. It seems that the nature of the relationships between organisations in the network may be one potential barrier to building a more integrated and cohesive PIMH System of Care in the Cities of Wanneroo and Joondalup. The very small proportion of organisations that are engaged in coordinated and integrated activities indicate that in practice within the PIMH System of Care, majority of organisations are not working together to jointly plan and deliver services or combine delivering services to families. It also suggests there is minimal shared accountability, which is in line with current funding models that typically fund individual organisations rather than a collective of agencies/organisations and subsequently have individual organisation outcome goals.

Findings from the partnership intensity network maps have provided detailed information about the practical processes that occur between organisations and an accurate understanding of intangible aspects of partnerships within the network. In developing a more cohesive and integrated PIMH System of Care an in depth understanding of the kind of relationships that exists between organisations is crucial. Baseline data collected has provided an understanding of how organisations are connected with each other across the network, which is characterised by some relatedness across organisations in knowing who each other is and a small amount of information sharing. In light of these findings, it is recommended that the next stage of the Better Together Project considers ways of connecting organisations within the system around activities that promote coordination and integration of services.

These activities need to be designed to build stronger relationships between organisations that aim to build a more integrated approach across the PIMH System of Care. Important factors to consider when creating these opportunities are; (i) is there appropriate infrastructure in place for organisations to work together, (ii) an understanding among organisations that working together will enhance creativity and innovation in design and delivery of services; and (iii) a commitment that together organisations can achieve better outcomes for families with infants, young children than they could on their own.

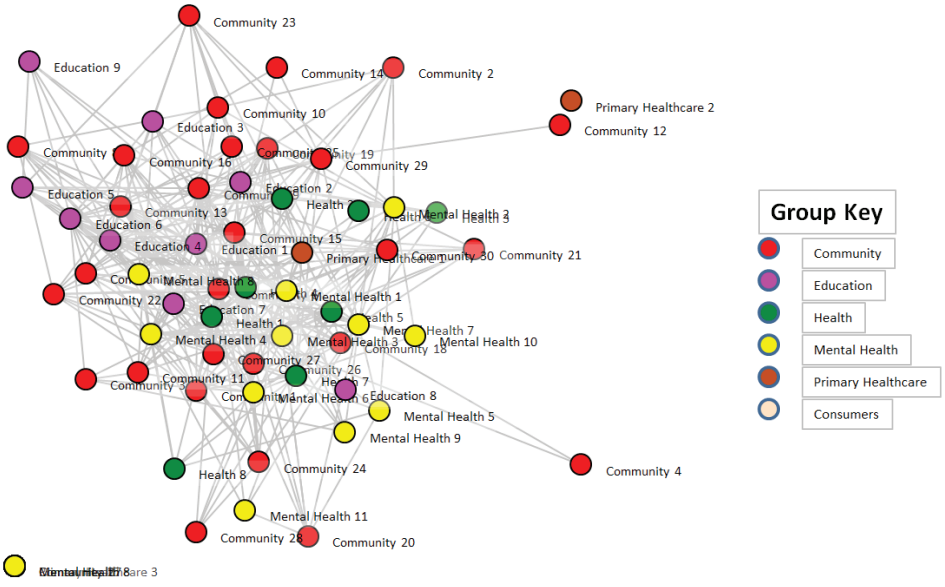
Figure 46 Partnership Intensity: None/Awareness only



Notes: N = 1,081 (58 per cent of respondents)

Source: ECU Better Together based on PARTNER Report September 2018.

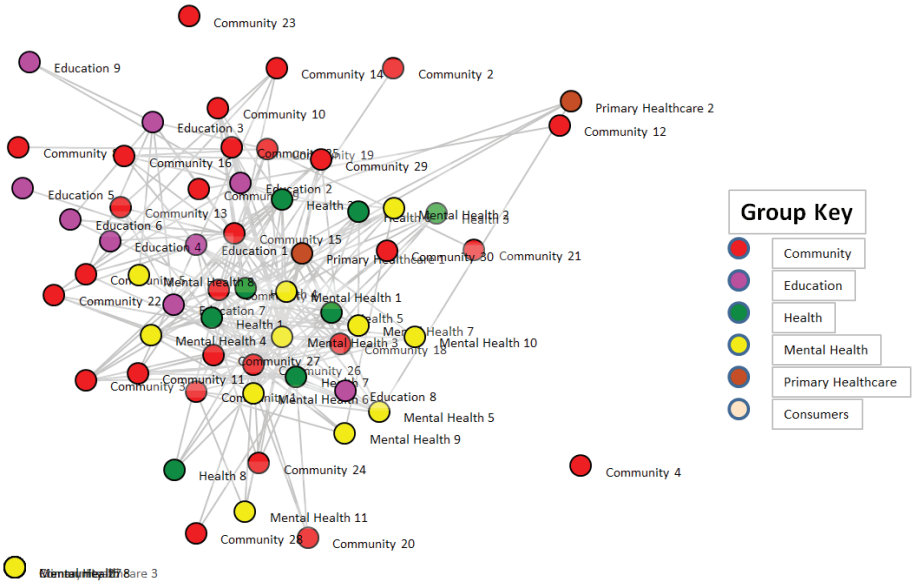
Figure 47 Partnership Intensity: Cooperative Only



Notes: N = 436 (23 per cent of respondents)

Source: ECU Better Together based on PARTNER Report September 2018.

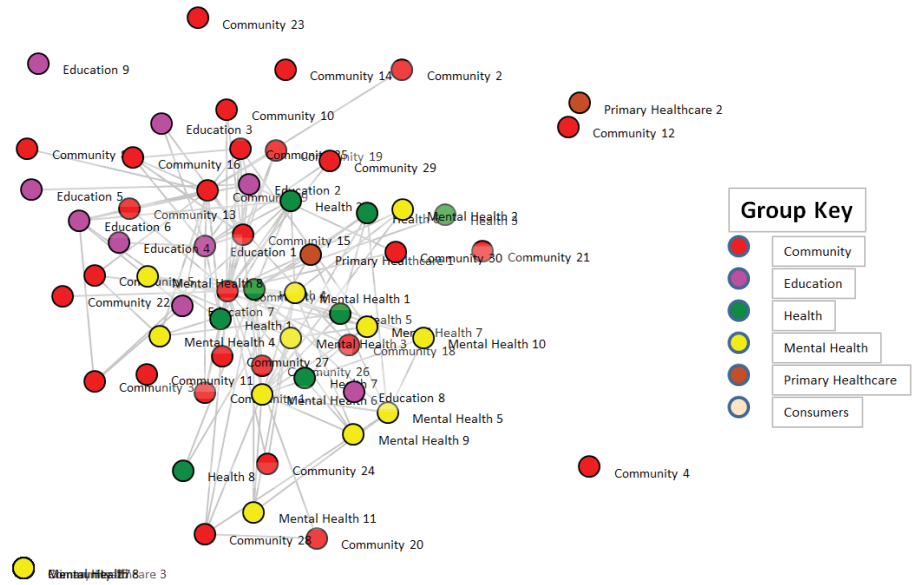
Figure 48 Partnership Intensity: Coordinated Only



Notes: N = 226 (12 per cent of respondents)

Source: ECU Better Together based on PARTNER Report September 2018.

Figure 49 Partnership Intensity: Integrated Only



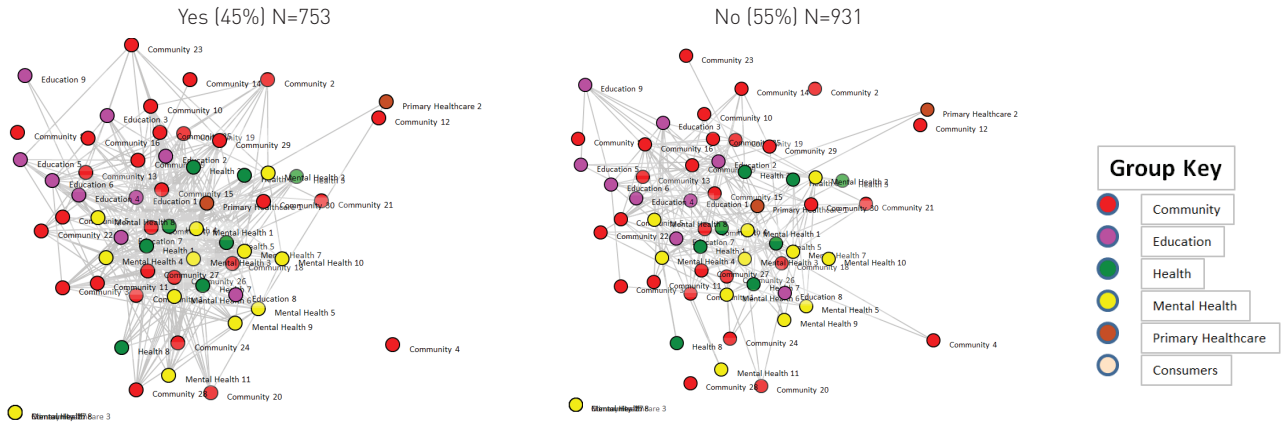
Notes: N = 134 (7 per cent of respondents)

Source: ECU Better Together based on PARTNER Report September 2018.

Referred Clients

Respondents were asked to identify those agencies/organisations to which their service had referred clients to in the past either formerly or informally. Findings revealed that 45 per cent of organisations have referred to other organisations and 55 per cent have not referred to other organisations within the network (Figure 50). The two maps in Figure 50 show that organisations referring to each other are more connected, as indicated by the high number of lines and increased density. In comparison, organisations that do not refer to each other have fewer relationships and are less connected. On closer examination of the Referral Network Maps it is evident that Community and Education organisations are not as connected to other organisations when considering referral of families to other agencies/organisations.

Figure 50 Referred Clients



Source: ECU Better Together based on PARTNER Report September 2018.

These findings raise important questions about referral pathways and the role that referring to other organisations may play in developing a more cohesive and integrated PIMH Model of Care. In the Cities of Wanneroo and Joondalup there are less than half of the organisations referring to each other, revealing that organisations within the network are not cohesively connected to each other across the continuum of care when making referrals to other agencies/organisations. Community and Education are the most disconnected organisations within the network and interestingly Mental Health organisations are on the periphery of connectivity.

Although there are more relationships between organisations if they are referring families to each other the network maps revealed there was no systematic pattern in how this is carried out. The absence of any consistent patterns between Community, Health, Mental Health, Community, Primary Health and Education organisations within the network maps may be explained by the absence of any established formal referral pathways in the PIMH System of Care in the Cities of Wanneroo and Joondalup. There is no systematic care plan for families presenting with perinatal and/or infant-early childhood mental health concerns, which may in part explain the lack of connectivity between organisations. When practitioners within organisations are required to refer a family to another service based on PIMH needs it will be dependent on the knowledge, skill and awareness of individual practitioners rather than a defined process based on standardised screening and assessment across the System of Care.

Further analysis revealed that relationships between agencies/organisations are built mostly from referral pathways and educational programming (38%). Developing new initiatives, training needs and service delivery also underpin agency/organisation relationships (20-25%). The factors contributing to relationship development included, developing relationships with specific individuals (36%), practice efforts leading to connections with other individuals (31%), and participation in service related committee (48%).

Based on the findings from this series of network maps it can be recommended that the network consider ways in which more formal referral pathways might be established and how a stepped care approach can be implemented focussing on family needs (perinatal, infant early childhood mental health, family supports) and enhancing family strengths. Piloting the implementation of the ECSII may help establish pathways for families who present with complex needs and systematic way of triaging based on family's individual needs. Developing a more comprehensive model of routine screening and early detection for both perinatal and infant mental health concerns with primary health care practitioners may also be another strategy for increasing a more systematic and cohesive referral process. A possible priority for the network group might be to begin to develop a PIMH stepped care model that incorporates building on existing network engagement, prioritising PIMH training for primary health care providers, screening and early detection and family support and therapeutic interventions and treatment.

Implications and Recommendations

The Social Network Analysis reveals that some agencies/organisations within the PIMH System of Care are only loosely connected to each other, through awareness and through some co-operative activities. A more complete and well-functioning network requires building partnerships that centre on coordinated and integrated activities and that foster more connectivity with those agencies/organisations that are consistently on the periphery of the network. It is also important to consider the role that dimensions of trust and value play in building a more cohesive and integrated network. The low trust and value scores suggest that the overall network needs to consider strategies to strengthen and build trusted relationships among organisations within the network in which each is valued for its unique contribution to the System of Care.

Further investigation is needed to determine if there is a relationship between organisations that are positioned on the periphery of the network (with fewer relationships with other organisations) and their geographical location. Furthermore, to establish whether organisations positioned in the centre of the network map and connected with many other organisations are geographically located where there are larger proportions of families with higher levels of vulnerability.

In considering future directions, the Better Together project recommends:

1. Investigating ways to enhancing cohesion and integration in the System of Care using technology.
    a. One suggested step is to pilot the implementation of the 'Person Centered Network App (PCN App) to continue capturing families' experiences in the PIMH System of Care and track which agencies/organisations within the network they access when a PIMH presenting concern emerges. The Person-Centered Network (PCN App) is a tool for use by a provider or family to first screen a person to assess their gaps and strengths in their personal support systems and then, based on the results, link them to available community resources. The basic PCN App allows a user to collect data on a person's personal network, identifying who they are connected to and how well connected (or not) those network members are to one another. It also assesses the content, strength, and importance of those connections. An additional feature to the App is an automated link to available community resources (https://partnertool.net/tools-and-training/pcn-app/).
2. Building innovative ways of increasing the connectivity between agencies/organisations and between families and organisations across the PIMH System of Care in the Cities of Wanneroo and Joondalup. Engaging in activities that builds trust and value in the network will result in a more cohesive and integrative PIMH System of Care.
    a. The Early Childhood Service Intensity Instrument (ECSII) is one way of establishing a system and structure that provides a coordinated and integrated care pathway for families with complex needs. It is proposed that Better Together pilot this tool as an innovative intervention aimed at increasing cohesiveness within the PIMH System of Care. The ECSII is a standardized aid to service planning and monitoring of progress for infants, toddlers, and children from ages 0-5 years by determining needed intensity of service. The ECSII is a tool for providers and others involved in the care of infants, young children with emotional, behavioural, and/or developmental needs, and their families, including those children who are experiencing environmental stressors that may put them at risk for such problems.
    b. Continue offering innovative workshops that broaden and mobilise agencies/organisations within the PIMH System of Care. To continue a partnership with the Bernard Van Leer Foundation and explore contemporary ways of viewing the importance of early childhood through different lenses such as town planning, architecture, housing and transport.

Chapter 9:

Summary and Discussion

Summary and Discussion

This report provides a comprehensive insight into the PIMH System of Care in the Cities of Joondalup and Wanneroo. Through collaborative inquiry and participatory action research, the Better Together project engaged key stakeholders in the community and actively including families who live in the two cities at every stage of the project. The project used multiple strands of inquiry including collation of survey data from service providers and families, qualitative data from the reference group meetings and focus groups, implementation of a Social Network Analysis and multiple interventions targeting specific components of the system. This multifaceted approach enabled Better Together to develop a deep understanding of the capacity, current functioning and degree of connectedness of agencies/organisations within this system and how families experience PIMH services across the continuum of care.

While City of Wanneroo and City of Joondalup are in close geographic proximity, from a socio-economic and demographic perspective they are quite diverse. The City of Wanneroo has a rapidly growing population compared to a declining population in the City of Joondalup, with the former also having a greater level of population diversity, by region of origin. The City of Wanneroo also has a higher proportion of 0-4 year olds relative to the City of Joondalup. Furthermore, the City of Wanneroo has a significantly higher level of socio-economic disadvantage, with lower median incomes, higher unemployment rates and a greater level of females aged 18-39 having no English. Overall therefore, the City of Wanneroo has a higher level of vulnerability, with a likely higher demand for services and greater need to support families and their children.

Through the mapping of services this report shows that, by SA2 regional level, there are some striking differences both within and between cities in relation to the services available to support 0-4 year olds and their families. In general, there is a lower availability of such services in the City of Wanneroo. This was particularly noteworthy in relation to GP services, with only 2.8 GPs per 1,000 of the 0-4 year old population in the City of Wanneroo relative to 4.5 GPs per 1,000 of the 0-4 year old population for the City of Joondalup. As discussed elsewhere in the report, GPs, along with pharmacies are often the first ports of call for vulnerable children and their families.

The process of creating a Better Together Reference Group that included a broad range of stakeholders including families from the community contributed to establishing the preconditions necessary for embarking on a successful system level change to the PIMH System of Care. The Better Together Reference Group was an essential step towards creating a network with strength in trust, establishing strong foundations to understand what is required in the System to best support the social and emotional wellbeing of families from pregnancy through to three years. Through establishing a relationship based framework and collaborative inquiry approach to all reference group meetings and activities members' co created a culture of learning and exploration of multiple perspectives that contributed to a more complete and authentic understanding of key leverage points, effective engagement strategies and barriers within the system. Findings revealed that stakeholders value the need to exchanging knowledge, create informal relationships and meet regularly with each other. Often these ways of connecting and building relationships are not prioritised or valued by agencies/organisations and the challenge is compounded by time requirements needed to build meaningful engagement across the system. While not a replacement for face-to-face interaction, going forward, technology can play a key role in engaging stakeholders and can offer a platform of communication that requires less time and resources, from the provider, client and broader stakeholder perspective.

Moving forward this established network of agencies/organisations (reference group) across the continuum of care has the potential to support capacity building that strengthens the system, explore emerging threats and opportunities and engagement in on going activities that connect people and services within the PIMH System of Care. Government and funding bodies need to consider the impact of funding cycles and related funding discontinuities on initiatives such as Better Together. This will ensure there is capacity to have a centralised infrastructure, dedicated staff and a structured process that leads to developing a shared vision, shared measurement, continuous learning and evaluation and mutually reinforcing activities among all within the PIMH System of Care. Change at a system level takes time and Better Together has created an opportunity for ongoing collective action that has the potential to achieve a long lasting change to the System, towards providing a better means to how we support the social and emotional well-being of families with infants and infants, young children.

Although there are some examples of positive experiences of PIMH services in the Cities of Wanneroo and Joondalup, overall qualitative and quantitative data analysis revealed a lack of cohesion and integration within the PIMH System of Care. In particular, both service providers and families highlighted the need for services to be designed and delivered in a more culturally sensitive manner and to build more father inclusive practice across the continuum of care. This is in line with demographic data that reveals a steady growth in population of families that includes non-English speaking migrants, which is not in alignment with the profile of service providers (predominantly female and Australian). This finding requires an urgent need to grow and support a

more diverse workforce to meet the needs of a changing population and develop a diversity informed training program to fully meet the needs of culturally and linguistically diverse families.

Training needs for primary health care providers was also identified as a priority area that required an immediate response by the Better Together project. A pilot training intervention offered to general practitioners and pharmacists showed promising results. Findings revealed that specific PIMH training leads to increased knowledge and skills in early detection and screening of both perinatal and infant mental health and increased awareness of referral pathways when PIMH problems have been detected. This training package provided has the potential to be rolled out to a wide variety of primary health care professionals. It is recommended that this training be embedded in a capacity building strategy across the PIMH System of Care so that primary health care providers can become more engaged in the system and there is more opportunity for a larger scale change and stronger relationships across the continuum of care.

Families shared the multiple challenges they face when accessing services such as waiting lists, minimal communication between services and perceived judgement and dismissive attitude by service providers. Both service providers and families also reported the need for more community and informal social supports for families navigating their way through pregnancy and early parenthood.

The Better Together Community Intervention (Bernard Van Leer Urban95 Workshop) highlighted how broader issues such as green spaces and access to transport impact on the wellbeing of families. It led to the surprising discovery of a collective vision among organisations and families within the Cities of Wanneroo and Joondalup of 'fostering a community in which children can thrive and feel safe'. This shared vision has created stronger relationships for collective action beyond the Reference Group and across a broader range of stakeholders, increasing momentum and motivation for collective action. There is a need to continue engaging stakeholders in intensive capacity building opportunities to harness the connections that have been established. Moving forward Better Together, in collaboration with other key organisations and community groups, needs to develop innovative ways of funding engagement and capacity development activities for the PIMH System of Care. This will be a crucial component of improving the cohesiveness of the system.

Better Together recognises the crucial importance of understanding how organisations within the PIMH System of Care work together and the role this plays in building a more cohesive and integrated system. Using a Social Network Analysis tool (PARTNER Tool), Better Together mapped for the first time (to the authors knowledge) in Western Australia, the network of relationships between organisations within the PIMH System of Care. The findings reveal that organisations within the network have low levels of trust and value and minimal coordinated and integrated activities with each other. These results highlight the need to adopt new approaches in the way organisations work with each other and are the first stage of making a shift towards thinking together as a network, rather than individual actors. By focusing more intentionally on building interconnectedness between organisations within the PIMH System of Care through continuous learning, connecting and collaborative action the quality of how organisations work together will directly impact on ability to achieve system level outcomes. There is a greater need to address intangible factors that are barriers to creating an integrated and cohesive System of Care. Implementing strategies and interventions designed to increase trust and value among organisations are essential and can be offered through capacity building engagement activities in addition to formal tools that promote communication and collaboration such as the Early Childhood Service Intensity Instrument (ECSII).

Better Together is striving to create a systems change in PIMH in the cities of Wanneroo and Joondalup. Building a successful network to address the problems that exist within a complex PIMH System of Care takes time and patience. Understanding the dynamics of this complex system has enabled Better Together to be in a position to now develop innovative ways in which decisions, strategies and interventions can be created to improve the outcomes and make a long term sustainable social change for infants, infants, young children and their families. The current momentum must continue as we make further strides towards working Better Together.

Chapter 10:

Appendix

Appendix

Reference Group Member Agencies/Organisations

Adult Mental Health
BankWest Curtin Economics Centre (BCEC)
Child and Adolescent Mental Health Service (CAMHS)
Centre for Parenting Excellence: Department of Local Government and Communities
Child and Adolescent Community Health Service (CACH)
Child Development Services (CDS)
Consumer Network
Department of Child Protection and Family Support (DCPFS)
Department of Education
Department of Communities: Disability Services
Early Childhood Australia
Edith Cowan University
Goodstart Early Learning Centres
General Practitioners
Health Consumer Council: Consumer Representatives
Ishar Multicultural Women's Health Services
Joondalup Health Campus
Joondalup Health Campus: Antenatal Clinic
Joondalup Women's Health and Family Services (WHFS)
Lendlease
Mental Health Commission, Planning Policy & Strategy
Nido Early Learning Centre
Parenting Connection WA
Parliament of Western Australia
Valuing Children Initiative
WA Perinatal Infant Mental Health Subnetwork Group
Wanneroo City Council Early Childhood Officers
WA Primary Health Alliance
Western Australian Council of Social Services (WACOSS)
Women and Newborn Health Service
Women's Health, Genetics and Mental Health

Chapter 11:

Glossary

Glossary

IMH

Infant Mental Health refers to the ability of infants from conception to three years, to develop physically, cognitively, and socially in a manner which allows them to master the primary emotional tasks of early childhood without serious disruption caused by harmful life events. Because infants grow in a context of nurturing environments, infant mental health involves the psychological balance of the infant-family system.

Network

A network refers to a social structure that is comprised of connections between agencies/organisations and individuals. In Better Together, network is used to refer to the connections between all those who are involved in working with infants, children and young families in the cities of Wanneroo and Joondalup.

PIMH

Perinatal and Infant Mental Health refers to the social and emotional wellbeing of those who are pregnant and through the first year following the birth of a child.

SEIFA

Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census. Four different indexes are produces. In this report, the Index of Relative Socio-Economic Disadvantage (IRSD) is used.

SNA

Social Network Analysis (SNA) is a quantitative method that uses graphs and network theory to analyse connections and ties between people and agencies/organisations. It offers both visual and quantitative descriptors to show connections, collaborations and relationships. As a guideline lines mean connections and the thickness of the line means stronger connections; where circles represent a measure the larger the circle the greater that measure.

Statistical Area Level 2 (SA2)

This is a construct of the Australian Bureau of Statistics, and part of their Australian Statistical Geography Standard (ASGS). An SA2 is designed to reflect functional areas that represent a community that interacts together socially and economically. The SA2 is the smallest area for the release of many ABS statistics.

System of Care

In this report the System of Care refers to the system of services supporting young infants and children in their families and communities across levels of service delivery as well as across sectors in the Cities of Wanneroo and Joondalup in Western Australia.

Chapter 11:

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ISBN: 978-0-6484444-2-8 e-book; 978-0-6484444-2-8 print book.

This report was compiled by: Lynn Priddis and Rochelle Matacz, from Edith Cowan University and by Daniel Kiely from the Bankwest Curtin Economics Centre at Curtin Business School pursuant to a funding agreement with the WAPHA.

This report may be cited as: Priddis, L.E., Matacz, R.A., Kiely, D., Bayes, S., Barratt-Pugh, C., Pooley, J.A., Lauren, C., Thornton, J., Fitzgerald, H.E. (2018), Better Together: Supporting Perinatal and Infant Mental Health Services.

The authors would like to thank all the reference group, survey and focus group participants in this project as well as those who participated in the interventions and who gave feedback. Particular thanks to the WA Primary Health Alliance, Bankwest Curtin Economics Centre and to Edith Cowan University.

Acknow**legdements**

WA Primary Health Alliance for graphics.

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CRICOS Provider Codes Edith Cowan University 00279B, Curtin Univerity 00301J
ADV120428