Perinatal and Infant Mental Health

Model of Care

FINAL VERSION FOR CONSULTATION - SEPTEMBER 2015

health.wa.gov.au

Dedication

This Perinatal and Infant Mental Health Model of Care is part of the rich legacy of Clinical Associate Professor Jonathan Rampono, AM.

A/Professor Jonathan Rampono's vision of a co-ordinated approach to the provision of care for mothers, their babies and their partners, was behind the creation of this project. Jon led the process from the beginning, pushing for an effective outcome from every meeting. He was welcoming of new ideas, he particularly liked to hear good evidence put forward, and his approach was consistently one of supporting inclusion and relationship. These longstanding characteristics made him an ideal advocate for best practice in this broad field.

This Model is respectfully dedicated to his memory.

Acknowledgement

The Perinatal and Infant Mental Health Model of Care has been developed by members of the Core Working Group and associated Sub Groups (Appendix 9.1) which were convened to complete specific sections across the continuum of care throughout the perinatal and infant period.

The contribution of the stakeholders, who participated in the workshop held on the 31 July 2012 and in the broad online consultation in October 2013, is appreciated and informed the development of the Model, together with Health Networks, WA Department of Health, for their guidance and support throughout this process.

The Women and Newborn Health Service respectfully acknowledges the Noongar people, both past and present, the traditional owners of the land on which we work.

Aboriginal Recognition Statement

Birth is a significant event for any cultural group. Aboriginal* tradition sees babies as 'not born of a woman's body but born of place.' Aboriginal women assisted those having a baby in traditional birthing places. Other cultural groups base their identity within time and lines of descent. Aboriginal people build their identity on place.

Traditional 'birthing places' still exist within the land. Nowadays for many Aboriginal women getting to these special places is not possible. In some areas access is still available but due to government health laws and regulations as well as the health status of Aboriginal women and babies, most births occur in clinical settings, such as hospitals. (Words from Oriel Green and others).

The Perinatal and Infant Mental Health Model of Care recognises and respects Aboriginal beliefs on pregnancy and birth and acknowledges the additional stress caused to some women and their families who are unable to birth on country. We affirm our commitment to reconciliation through strengthening partnerships and continuing to work with Aboriginal people.

* Consistent with the WA Health Aboriginal Health Impact Statement and Guidelines (2012) - The Aboriginal population of Western Australia predominantly comprises Aboriginal people, although small numbers of Torres Strait Islanders also reside in WA and use Aboriginal Health Services. The term 'Aboriginal' is taken to include both Aboriginal and Torres Strait Islander people through the document.

How to read this document

This document has two parts: Part I outlines the process of developing the WA Department of Health Perinatal and Infant Mental Health Model of Care, including the context, evidence base, rationale, and scope of the document; Part II outlines and details strategies which will support the implementation of the Recommendations, and a comprehensive Service Guide which will allow the planning of service provision and workforce training for mental health work with parents and children at different stages of the journey from before pregnancy to the child's fourth birthday.

Contents

Executive summary and recommendations

The aim of the Perinatal and Infant Mental Health Model of Care (the Model) is to provide a comprehensive approach to optimise perinatal and infant/child mental health services for all Western Australians. The Model describes evidence-based best practice and service delivery across the perinatal and infant/child continuum of care. It addresses promotion and prevention through to intervention and treatment for the pre-pregnancy, pregnancy, birth, postnatal, infant and early childhood periods. It aims to ensure that services consider each member of the family unit, and are respectful of the parent's/caregiver's own knowledge of their babies and children.

Across the Model there is a focus on integration across government, non-government and private sector service providers, and an emphasis on the importance of continuity of care, and equitable access to services. The Model supports a multidisciplinary approach with collaborative decision-making and respectful relationships between consumers and health professionals.

The recommendations of the Model identify the key priorities to improve access to services across the continuum of care. The Model recognises the diversity of the population in WA and the need to be respectful of culture and ensure that services are flexible and responsive to the unique needs of individuals, families and communities.

The Model identifies seven recommendations for implementation, with further detail on the recommendations provided under the heading 'Model of Care', later in this document.

Recommendation 1: Consideration of the whole family

Ensure that the mental health needs of parents and their infants and young children are considered simultaneously, and collaboratively, at all levels of service delivery.

Recommendation 2: Meeting the needs of vulnerable groups

Specifically recognise the needs of vulnerable groups in service planning and provision of perinatal and infant/child mental health services.

Recommendation 3: Health promotion, illness prevention and early intervention

Develop a comprehensive approach to perinatal and infant/child mental health promotion, illness prevention, detection, and early intervention.

Recommendation 4: Treatment and management

Treatment and management for perinatal and infant/child mental health problems to be based on best practice principles: including clear referral pathways, stepped care, and ongoing access to support services.

Recommendation 5: Planning, integration and coordination of services

Perinatal and infant/child services work together to establish referral, care and treatment pathways across agencies and the continuum of care to ensure a family's experience of services is seamless, equitable and inclusive.

Recommendation 6: Supporting the workforce

Consolidate perinatal and infant/child mental health service provision through the development of a dedicated and competent workforce.

Recommendation 7: Supporting research and the development of a local evidence base

To aid the expansion of the local evidence base, encourage and support research as an integral part of clinical programs and service development.

PART 1 Background to the Model of Care

1. Introduction

Throughout the 1990s, Western Australian (WA) initiatives led the way in increasing understanding of the role of mental health in the perinatal period. The Childbirth Stress and Depression project conducted at King Edward Memorial Hospital (KEMH) in 1995 revealed the prevalence of mental health problems in the postnatal period. As a result, screening for postnatal depression by child health nurses and general practitioners (GPs) commenced in the latter half of the 1990s; and KEMH became the first maternity unit in Australia to screen women during pregnancy.

At the same time epidemiological research identified that a growing number of young children in WA have clinically significant mental health problems. In 1995 a West Australian study identified that one in four children aged 4–17 years had significant mental health concerns.[1] In line with international research significant epidemiological studies identified that precursors to mental health issues in children and young people were evident in the antenatal and postnatal periods.[1, 2]

In response to increasing key stakeholder concerns, the State Perinatal Mental Health Reference Group (SPMHRG) was established in 2003, and included representatives from twenty five government, non-government, and private agencies, and interested health professionals. As part of the State Mental Health Strategy 2003 – 2007, the SPMHRG provided advice and guidance to the then newly established WA Perinatal Mental Health Unit (now known as Women's Health Clinical Support Programs - WHCSP) in relation to service expansion projects, research and evaluation, health promotion, and education and training initiatives across the State. Also in 2003, St John of God Healthcare (SJGHC) established and subsequently expanded a perinatal and infant mental health service, currently known as Raphael Services.

The list of organisations represented in the SPMHRG, are listed in Appendix 9.2.

2. Methodology

In August 2010, a SPMHRG strategic planning workshop identified the need for the development of a perinatal and infant/child mental health model of care to address the needs of Western Australian families into the future. The endorsed Perinatal and Infant Mental Health Strategic Framework 2012[3] provided the foundation for development of the Model, supported by a partnership between the WA Department of Health Women's and Newborns Health Network and the WHCSP as part of Women's Health Clinical Care Unit at the Women and Newborn Health Service.

In March 2012, under the leadership of Associate Professor Jonathan Rampono and Associate Professor Caroline Zanetti, health professionals and SPMHRG members were invited to participate in the core working group to develop the Model. A further invitation for expressions of interest for participation in the working group was issued in June 2012, resulting in an expanded membership.

A stakeholder consultation workshop was held in July 2012 with over 100 participants from a range of health, social services, consumer advocacy and special interest groups. At the

workshop, information was collected in relation to current service provision and future requirements. This information was used to inform the development of the Model. A similar workshop with key rural stakeholders was held via videoconference.

Following the workshops four sub groups were convened to develop the proposed Model for pre-pregnancy, pregnancy, birthing/birth, postnatal, infancy (0-2 years) and early childhood (2-4 years) periods across the continuum of care including screening, early detection, early intervention, treatment and management.

Further to this, two broad consultations have been undertaken to ensure all key stakeholders and interest groups had an opportunity to provide feedback prior to finalisation of the Model.

3. Scope and rationale

The following section provides the background and foundation on which the Model is built.

3.1 Definitions

For the purpose of this section key definitions are addressed. Further definitions can be found in Appendix 9.3.

Perinatal mental health refers to the emotional and psychological health and wellbeing of a parent during the period from conception to 12 months after a baby is born.

Infant mental health refers to "the capacity of children to experience, regulate, and express emotions, form close and secure interpersonal relationships, and explore the environment and to learn".[4] This document refers to children aged from birth to four years, and will use the term 'infant/child' to emphasise the inclusion of babies and young children.

While these terms are able to be defined separately, perinatal and infant/child mental health are interdependent. In addressing both perinatal and infant/child mental health, this Model seeks to include understanding and integration of both fields. Consideration of the infant/child's capacities and what he/she brings to the relationship is coupled with understanding of parental mental health and how it influences and contributes to the infant/child's current and future development and emotional well-being.

Perinatal mental health disorders refers to a range of mental health problems including anxiety, depression and postnatal psychotic disorders, occurring during pregnancy and in the first year after birth. While these mostly occur in mothers, fathers may also experience mental health disorders during the perinatal period.

Perinatal and infant/child mental health service provision spans across primary, secondary and tertiary levels of service, and across diverse areas of service provision, encompassing: all services for children aged 0-4years; maternity and child health services; mental health services (both adult and child and adolescent); child protection and family support services; public health; early years education and care; and early parenting services.

3.2 Focus of Concern

3.2.1 Mothers and mothers to be

The birth of a baby is a significant and life changing event for women and their families. It signifies a time of great change, emotional upheaval and adjustment within a woman's life. It

can create conditions of risk and heightened vulnerability, yet can also stimulate the development of new ways of coping and greater levels of adaptation. For many women feelings of stress and worry will resolve with time; however for some, pregnancy and parenthood will trigger or worsen mental health problems, and there is considerable evidence that this has serious implications for both individual sufferers, and the social fabric.

Mental illness is predicted to be a greater burden of disease for women living in WA by 2016 than cancer.[5, 6] During the perinatal period, onset and re-occurrence of mental illness is higher than at any other time for women.[7] In addition, depression, anxiety disorders, suicide and self-harm are the leading causes of disease for women during the childbearing years.[5] A 2012 report commissioned by *beyondblue* revealed untreated depression and anxiety associated with the births of children, could cost Australia almost $500 million by the time those children reach two years of age.[8]

It has been estimated that at least one in ten pregnant women in Australia suffers from depression and/or anxiety.[9] Severe and prolonged maternal pregnancy stress has been associated with higher rates of emotional and cognitive problems in children.[10-15] In addition, women with chronic or severe mental illness are at increased risk of pregnancy and birth complications such as threatened preterm labour, pre-eclampsia, gestational diabetes and fetal distress.[16-20]

It is now well established that postnatal depression (PND) can progress to a chronic mood disorder or recur following subsequent pregnancies.[21-24] More recent research has reported that almost 40% of women with a major depressive episode also have a co-morbid anxiety disorder,[25] and the prevalence of depressive symptoms in women 4 years postpartum may be higher than at any time point in the first 12 months postpartum.[26]

Mental illnesses other than depression and anxiety also occur in the postpartum period but are less common. Bipolar disorder affects between 1 and 3 women in every 100 and puerperal psychosis affects 1 or 2 in every 1000 birthing women.[9] The most common diagnoses for postpartum women admitted to the Mother and Baby Unit at KEMH, are depressive and anxiety disorders (31% and 21% respectively); however, bipolar affective disorder is the third most prevalent diagnosis (16.4%). Despite their low prevalence, severe mental illnesses present a high risk for mothers and their babies and other children and thereby require a substantial investment of specialised services. Patients with bipolar disorder may present with psychotic symptoms,[27] adding significant additional risk to maternal and infant/child outcomes.

Research has established that perinatal mental health conditions may involve significant and complicated outcomes for entire families, including increases in marital disharmony or divorce,[28-32] and interruptions to the development of secure and mutually satisfying mother-infant attachment.[33-40]

At the most severe end of the spectrum, it is important to acknowledge that maternal suicide and filicide does occur[41] but is a relatively rare situation. Studies in Australia,[42] New Zealand and the United Kingdom[43] identify mental illness as a leading cause of maternal death during the postnatal period. In a Queensland report, suicide was listed as one of the most prominent causes of maternal death in the period from 6 weeks to 12 months postpartum.[44]

Monitoring the mental health of women antenatally and postnatally, through formal screening protocols is fundamental to prevention and early intervention. Due to the multiple factors that can impact on a mother's emotional well-being during the perinatal period a range of services is required to prevent and treat perinatal mental health disorders and mitigate the impact on the

infant/child, father and family system. These services need to be well-integrated to ensure better access and effectiveness.

3.2.2 Fathers and fathers to be

The role of the father is pivotal as mothers are more likely to seek and receive support from their partners than any other individual.[45] However, men are also more likely to be engaged with services during the transition to parenthood than at other stages of life.[46]

When a new mother is distressed there is a reasonable likelihood that the father may also be suffering; in up to 50% of couples where the mother is depressed, so is the father.[47] In fact, if either partner is depressed, the other is also more likely to be depressed.[47, 48] Infants and children within the family may also suffer as a result of one or both parent's compromised mental health. Although there is limited research investigating the impact of paternal mental illness on child outcomes, there is some evidence to suggest that depressed fathers of infants are at higher risk of demonstrating sub-optimal parenting.[49]

3.2.3 Infants and young children

The human baby is one of the most defenceless of all offspring in the animal world. The role of the parent is intense and long term. In creating a positive future there must be investment in the most important part of our social capital – our children. The best way to invest in our children is via support of those who will become parents. The health of an individual and their families is a function of their individual and collective characteristics and the external environment in which they live. A focus on a healthy community is vital to support parents and their relationships with their children.

There are multiple environmental and biological risk factors that can jeopardise the course of healthy development in early childhood. The psychological and social development of babies and very young children is highly sensitive to factors within their social environment, particularly the quality of emotional and physical care they receive. The quality of the attachment relationship between parents and children is a critical mediator of infant mental health.[50] Thus, assessing infant mental health needs should commence in pregnancy and continue into childhood. Not all infant-parent relationship difficulties can be identified by the presence of a maternal mental health disorder, and there is evidence that infant/child and maternal factors have a reciprocal role in precipitating and perpetuating problems in the parent-infant relationship.[51]

Longitudinal research has shown that negative cognitive, neuropsychological, physiological, social and emotional effects of disruption to parental attachment persist into childhood and adolescence.[40, 52-56] Moreover, research indicates links from maternal to child depression and from early-onset to adolescent and adult depression.[35, 53, 57-59] Studies also show that interventions early in life can address risk factors more effectively, and reduce symptoms more easily, to improve outcomes for children and reduce adverse impact on development.

In 2008 the Western Australian Longitudinal (Raine) Study of children from pregnancy to the age of five, reported that 11.5% of children aged two years had externalising or internalising behaviour problems. At the age of five years, 20% of the children had clinically significant behavioural problems. More than 6% of the children had clinically significant mental health problems at both ages.[2] In Australia, large scale national and state population studies report between 11% and 15% of children aged 4 to 13 years and between 14% and 17% of young people aged 14 to 18 years have mental health problems.[2, 59-62]

Persistent problems in the parent-infant relationship have the potential to interfere with the mental health of both parent and child, and to have implications for the long term wellbeing of families and communities across generations.[63]

Thus, supporting perinatal, infant and early childhood mental health is a crucial component of service provision across all sectors that come into contact with young families.

3.2.4 Families

Perinatal mental health disorders and risk factors such as experiences of trauma, substance misuse and domestic violence impact on every member of the family. Accordingly, effective care and treatment of mental health issues in the perinatal period needs to address the multiple risk factors associated with this period and be family-centric, offering a multi-systemic approach to assessment, intervention and treatment that includes the mother, father, infant/child and family unit.

A family-centric approach is well aligned with recovery-orientated mental health practice, which takes a holistic approach to wellbeing that builds on individual strengths and emphasises hope, social inclusion, community participation, personal goal setting and self-management.[64]

3.2.5 Vulnerable groups and communities

Women and families have different experiences, needs and issues in the perinatal period. The World Health Organisation (2012) considers individual attributes and behaviours; social and economic circumstances, as well as environmental factors, contribute toward or determine mental health and wellbeing. Some families, particularly during the perinatal period, are vulnerable due to the presence of known risk factors which can have immediate and/or lasting impacts.

As outlined in the *beyondblue* clinical guidelines, women from some socio-cultural groups are at increased risk of developing perinatal mental health disorders including[9]:

- Aboriginal and Torres Strait Islander families[65]

- Culturally and linguistically diverse families (CaLD)[66]

- Rural and remote families[67]

- Teen parents[68]

- Women who have resettled in Australia under a refugee program[69]

In addition, other vulnerable groups in need of recognition and tailored support include, but are not limited to:

- Families with diversity of family structure including sole parents, same-sex and transgender parents,[70] adoptive parents, foster families, grand-families and families in which one parent regularly works away from home

- Parents with a mental illness,[71] chronic illness, physical and/or intellectual disability or substance use

- Families who have experienced previous pregnancy or postpartum complications, including loss and premature birth as well as families who have struggled to conceive[72]

- Infants or young children with chronic illness or physical and/or intellectual disability, including vulnerability stemming from preterm birth

- Families where there is domestic violence[73]

- Incarcerated parents[44]

- Infants and young children under the care of Department of Child Protection and Family Services

- Families with a history of trauma and/or abuse[74]

- Families experiencing adversity, including poverty, social isolation and other psychosocial stressors[75]

The impact of the vast and varied geography of WA plays a role in increasing the vulnerability of many families, by affecting access to services, particularly for remote communities. Issues of stigma in accessing mental health services are often compounded in small isolated communities.

The broader social determinants of health and spectrum of disadvantage (i.e. relationships, housing, poverty, low education, lack of support and discrimination) can compound the vulnerability to perinatal mental health issues.[75]

Families with complex needs have personal vulnerabilities coupled with multiple stressors in their current life or past history. They are frequently made more vulnerable by a co-existing history of trauma, so trauma-informed models of service delivery are important at every point of contact. As a group they require more intense support and intervention from a number of services over a longer duration of time to ensure the most optimal outcomes for the family in the perinatal period.[76]

All of these family groups are an important focus of the Model. As such, recommendation 2 of the Model relates specifically to population groups at higher risk of mental health problems in the perinatal period and infancy.

3.3 Risk and protective factors

There are many psychosocial factors that can protect or alternatively increase a parent's and infant's/child's risk for developing a mental health disorder. A summary table of risk and protective factors for mothers and their infants is included in Appendix 9.5. Some specific risk factors are outlined below:

3.3.1 Experience of trauma

During pregnancy and the early perinatal period, unforseen traumatic events may occur, including unexpected medical procedures, severe pain or threat of death. Such events have an impact on how a woman experiences the birth and postnatal period and can be associated with mental health problems, including acute and post-traumatic stress disorders.[77, 78] Traumatic loss due to miscarriage, stillbirth and termination of pregnancy or early neonatal death plays a role in how women experience future pregnancies. Having a preterm infant places parents at higher risk of developing post-traumatic stress disorder, up to one year after the infant's birth.[79]

Childhood maltreatment or the experience of other trauma prior to parenthood increases the potential of significant mental health problems for mothers in the perinatal period. Furthermore,

those with a trauma history are more likely to experience future traumatic events.[80] For women with a history of sexual trauma, routine antenatal care procedures, the birthing process and breastfeeding can trigger post-traumatic stress symptoms which, in turn can create negative impacts on the mother-infant relationship.[73, 77, 81]

3.3.2 Drug and alcohol misuse

The negative impacts of substance use on the mother's physical and emotional well-being and the health of the fetus, neonate and infant is well documented.[82] Drug and alcohol misuse have the potential to compromise the functioning of the family unit.

For infants and children there is higher risk of developing mental health disturbances if parents have a long term mental illness and other related disorders including substance abuse.[83]

Frequently drug and alcohol misuse may co-occur with mental illness, family and domestic violence and experience of trauma and hence there may be exposure of the family to multiple levels of harm [84]. Furthermore, infants and children born to parents who misuse drugs and other substances have higher risks of developmental disorders, mental health difficulties and substance use problems themselves.

3.3.3 Family and domestic violence

Domestic violence may occur in the perinatal period and be precipitated by the additional stress of the pregnancy as well as the anticipated imminent change that the birth of a baby will bring for the family.[26, 85] Pregnancy is a period of heightened risk for women for the onset of domestic violence within intimate relationships. An Australian study indicated that up to 20% of women were abused for the first time during pregnancy.[86] Women experiencing domestic violence in pregnancy have a threefold risk of postnatal depression.[87]

Exposure to family and domestic violence for infants/children not only poses greater physical risk, but an increased probability of development delay as well as disruption to the attachment relationship.[88]

3.3.4 Parents with personality disorder

Parents with personality disorder constitute a vulnerable group whose needs are not widely recognised. They may have direct experience with many of the factors mentioned above. Personality disorder is often associated with attachment trauma and/or abuse during infancy and childhood. The experience of pregnancy, childbirth and parenting a baby or young child can lead to the re-experiencing of emotional pain related to past events that a parent with personality difficulties may struggle to manage. This can compromise her/his functioning in core parenting tasks, with the potential to lead to unregulated emotions and behaviours in the infant, and potential repetition of trauma across generations.[89]

3.3.5. Parents with eating disorders

Although women with eating disorders have an increased rate of infertility, many do become pregnant. Women's concerns with body image can be lessened by the expectation of weight gain during pregnancy, however for some women, the changes in bodyweight and shape can be very challenging. Most studies have reported decreased symptomatology of eating disorders during pregnancy, particularly in non-clinical populations. Onset of eating disorders during pregnancy is rare, other than binge eating disorder. A significant proportion of women may have continuing symptoms or relapse postpartum.[90, 91] This may disrupt maternal adjustment

resulting in an increased risk of postpartum depression, interfere with breastfeeding, have potential impacts on family feeding patterns[92] and family functioning as a whole.

4. Screening, early intervention and management of mental health disorders

Evidence for screening, detection, early intervention, treatment and service provision has been established in some areas, and remains under development in others. Wherever possible, information is based on evidence, but where evidence is lacking, it is informed by expert consensus.

4.1 Screening

Detection of symptoms of depression or anxiety in the perinatal period enables suitable follow up, thus improving outcomes for women. This requires an approach that recognises that distress may develop into depression and/or anxiety, and symptoms may escalate over the perinatal period.[9]

Screening allows for the identification of people who already have mental health problems, and people with increased risk during the perinatal period. *The Edinburgh Postnatal Depression Scale* (EPDS)[22] is regarded as the gold standard for screening women with perinatal depressive symptoms, and has been validated for use in pregnancy as well as postnatally.[94] The EPDS has been translated into many different languages, but translations in themselves do not necessarily take cultural issues into account, and thus its acceptability and validity cannot be assumed for every individual. No tool has been validated as yet for use with Aboriginal groups.

Identification of risk in early pregnancy allows for appropriate intervention to prevent the development of a mental health disorder during this period of increased vulnerability. Furthermore, appropriate treatment of a diagnosed mental health disorder during pregnancy offers the opportunity to positively impact on the wellbeing of the father and unborn fetus and importantly on the developing mother-infant relationship after birth.[95]

There is currently no specific screening instrument for anxiety that has been recommended for use during pregnancy, but there are several currently being developed. The EPDS has been used, but a higher cut-off of 15/30 has been suggested for antenatal depression.[96] In one study, the *Perinatal Anxiety Screening Scale* (PASS)[97] successfully identified 68% of pregnant and postpartum women with a diagnosed anxiety disorder, whereas the EPDS, using the anxiety subscale only,[98] detected 36%. The applicability of this and other screening tools to specific target populations in Australia is being evaluated on an ongoing basis.

4.1.1 Psychosocial screening

Psychosocial screening encompasses the evaluation of both current and longstanding psychological, and socio-cultural risk factors impacting on women during the perinatal period.[99] There are protocols and tools available (for example, PRAM[100]) which involve use of the EPDS and a psychosocial tool such as the Antenatal Risk Questionnaire (ANRQ) or Postnatal Risk Questionnaire (PNRQ), or the ALPHA.[101] While the practice of psychosocial screening was endorsed, no one tool or protocol was recommended in the *beyondblue* clinical guidelines.[9]

4.1.2 Parent-infant relationship

Screening for problems in the parent-infant relationship needs to be undertaken separately and in addition to parental mental health screening. Parent-infant relationship problems can have significant adverse long-term effects on infant development,[95, 102] and are associated with maternal depression[66] and other mental health problems

There are few brief screening tools for measuring the parent-infant relationship. The Mother Object Relations Scale (MORS-SF) is a 14 item maternal self-report questionnaire validated for use with infants aged 8 weeks to 4 years.[103] Other tools are also available, such as the Mother-to-Infant Bonding Scale,[104] an 8-item scale, and the Postpartum Bonding Questionnaire (PBQ),[105] an 84-item questionnaire with good psychometric properties. These instruments are freely available, but may need validation with specific Australian populations. Administration of such instruments does require the clinician to have some background knowledge of infant mental health, and skills in talking with parents on the subject of problems within the parent-infant relationship.

Observational tools are also available, but these always require training before administration and scoring, and often require greater resources than are usually available in primary care.

For uses beyond screening, such as for the measurement of pathology or to assist in program evaluation, other tools are available to provide standardised measurement of interaction, and a review of these can be found in a review by Carter and colleagues.[106]

4.1.3 Infant and young child

Screening for infant mental health problems separate to the parent-infant relationship occurs mainly at the clinical level, in situations where an infant does not demonstrate typical social responses for his or her age, or has significant feeding, sleeping and settling problems, including excessive crying. Once again, this level of screening requires training and the attainment of competence, as well as the availability of further assessment and treatment.

Some validated instruments are available for measuring infant mental health, such as the Ages & Stages Questionnaire Social & Emotional Scales (ASQ-SE),[107] but require purchase of a license, and training for application.

4.2 Early intervention and management

Prior to any intervention, it is important that a comprehensive mental health assessment is undertaken.

4.2.1 Preconception

The National Institute for Health and Clinical Excellence (NICE) guidelines 2014[71] recommend that all women during the childbearing years who have current or past mental health difficulties be given the opportunity to discuss the use of contraception and pregnancy planning, together with how a mental health problem and its treatment could potentially affect the woman, the fetus and baby as well as impact on parenting. Information needs to be imparted in a culturally sensitive manner. [71]

Preconception counselling is a particular prevention strategy that involves providing health information to women (and their partners as appropriate), who suffer from specific chronic conditions, with the intention of promoting optimal health and informed choice around

pregnancy.[134] Preconception counselling has been shown to impact on health behaviours and is recommended for a number of chronic disorders.[135]

Justification for preconception counselling for women with severe mental illness, particularly bipolar disorder and schizophrenia, and with a history of postpartum psychosis includes the following:

- The perinatal period is a time of high risk for women with severe mental disorders with increased risk of relapse, particularly in women who stop taking maintenance medications prior to, or during, pregnancy[136]
- Women with these difficulties have increased risk of pregnancy complications as well as the potential for congenital abnormalities and adverse neurodevelopmental outcomes for the baby, independent of any risk associated with psychotropic medication[16, 137]
- There are also longer term concerns with respect to the women's functioning and capacity to parent if she remains unwell.

Preconception counselling requires an individualized bio-psychosocial assessment and involves a detailed discussion, ideally accompanied by written information, with the woman (and her partner, family or carer if she agrees) which encompasses treatment and prevention options, all potential outcomes for the woman and her unborn child, through pregnancy and beyond, and considers the risks of treatment and of no treatment for each individual and the family as a whole.

4.2.2 Psychological and psychosocial interventions

There is good evidence for a range of interventions to treat mental health problems in the perinatal period. Most studies focus on effective treatments for maternal depression experienced during pregnancy[108, 109] and after childbirth,[110] however, perinatal anxiety disorders have recently received increased research attention and there is initial evidence to support specific interventions to treat antenatal[111, 112] and postnatal anxiety.[113] More serious conditions, such as bipolar disorder and postnatal psychosis have also been studied; although as pharmacological treatment is consistently indicated as the most effective intervention for these disorders,[114, 115] research on complementary psychological and social approaches is scarce.

Psychological interventions differ in their therapeutic orientations. Cognitive Behavioural Therapy (CBT) appears as the most widely used approach for treating both depression and anxiety[110, 112, 113] in the perinatal period. A recent review has suggested that Interpersonal Therapy (IPT), with its explicit focus on role transitions and interpersonal conflicts, is also beneficial for depressed pregnant women and new mothers, who usually experience significant changes in their social roles and relationships during the transition to motherhood.[108, 116] Similarly, evidence supports the efficacy of psychodynamic interventions in treating postnatal women who present with depression.[110] In the field of perinatal anxiety, mindfulness-based interventions and mindfulness-based cognitive therapy show promising results.[111, 117]

Psychosocial interventions also appear to be effective in reducing symptoms of maternal depression, with evidence supporting the provision of social support[118] and the use of non-directive counselling.[110] Interestingly, interventions such as antenatal and postnatal classes, do not appear to be effective in the prevention of mental health symptoms after childbirth.[119]

Intervention, treatment and support for mental health disorders during the antenatal period has the potential to prevent the escalation of existing problems and can reduce the negative impact

on the family and developing parent-infant relationship. In a rapidly changing field with incorporation of new therapy approaches, a strong evidence base is yet to be demonstrated.

There are a range of infant mental health preventative interventions and treatments that demonstrate effectiveness in increasing attachment security, reducing symptoms of trauma in children of families where there is marital violence and decreasing insecure attachment behaviours in vulnerable families.[120] Clinical research has provided empirical evidence for a range of interventions including,[121] Watch, Wait and Wonder,[122] Circle of Security,[123] Interactional Guidance and Parent/Infant or Parent/Child Psychotherapy.[124] There is strong evidence supporting the effectiveness of a sustained home visiting model of intervention with families during the perinatal period,[125] to promote healthy parent-child functioning particularly for vulnerable families experiencing multiple stressors.[126]

Minding the Baby (MTB) is an intensive interdisciplinary metallisation-based home visiting intervention for first time mothers. It is a good example of an evidence-based model of service delivery that is resulting in positive health and attachment/parenting outcomes for families who experience significant poverty and multiple environmental stressors.[127]

The impact of maternal trauma during the perinatal period highlights the 'need for preventative strategies and early intervention for at risk families'.[77] Recognising and responding to trauma signs and symptoms during pregnancy and early post-partum period (for example whilst infants are in the neonatal intensive care unit) can result in the mother receiving effective intervention and treatment and can indirectly improve the likelihood of positive outcomes for infants, children and families. Direct benefits have been demonstrated by programs lessening the level of stress and trauma experienced by premature and sick infants[75, 128] – hence programs should target the needs of both parents and infants, either directly, or through the formation of strong working relationships between services. For preterm infants and their families there are a range of intervention studies that have demonstrated effective outcomes across various domains such as the Newborn Individualised Developmental Care Assessment Program,[129] Creating Opportunities for Empowerment[130], Infant Health and Development Program[131] and the Avon Premature Infant Project.[132] All of these intervention models have demonstrated improvements in infant outcomes, mother-infant interactions, parenting and maternal mental health.

There are few intervention and treatment models that focus simultaneously on the mental health of both parent and infants or small children. Research demonstrates that improving quality of the mother-infant interactions can simultaneously reduce mother's symptoms of mental health disorder.[133] This finding leads to an important consideration in intervention and treatment planning for families in the perinatal and infant/child period to ensure that women with an identified perinatal mental health disorder also receive intervention and/or treatment to support the developing parent-child attachment relationship either as part of, or in addition to their mental health treatment. Simultaneous focus on the mental health of both parents and infants/small children is in the best interests of all individuals within the family.

4.2.3 Psycho-pharmacological interventions

No psychotropic medication in Australia is marketed as safe for women who are pregnant and breastfeeding. The following outlines the evidence base and general principles for prescribing psychotropic medication to women in the perinatal period, and emphasizes the importance of consideration of the effects on the fetus, infant and young child.

4.2.3.1 Pregnancy

Unfortunately, few high quality studies exist on the effectiveness or safety of pharmacological treatments in pregnancy.[138, 139] This is not surprising given that pregnant or breastfeeding women are usually routinely excluded from randomized clinical trials.[140] Valuable data, although not without limitations, can be obtained from an increasingly available number of observational studies including from national birth registries, administrative databases, case control studies, prospective comparative cohort studies and meta analyses. The prescribing clinician needs to keep abreast of the frequent developments in the medical literature. Decisions to prescribe medication during pregnancy rely heavily on the evidence base for pharmacological treatment of mental health disorders in non-pregnant women[141, 142] but with careful consideration of the key principles of assessment, facilitation of informed consent, and medication prescribing specific to the perinatal period. In addition, non-medication treatment options should be considered.[143]

The decision to use psychotropic medication in the pregnant woman may be difficult for the woman and her partner, and for the prescribing clinician, however for some women with a perinatal mental illness, treatment with medication will be an important therapeutic option.

It is important that the woman and her partner are as fully involved as possible in the decision making process.[144]

A comprehensive mental health assessment is essential to this process, and needs to include information from collateral sources. This assessment will help the clinician and the woman (and partner) to consider the potential course of her illness during the perinatal period, and any particular risks for her and the fetus and the recommended treatment.

As most medications cross the placenta (Stephens et al, 2009) and available data with respect to all the potential risks of medication during pregnancy is incomplete, it is important that the prescribing clinician provides the woman and her partner with information and assistance in weighing up the known risks and benefits of taking medication with the risks of not treating with medication, both for the woman and the fetus.[145]

Prescribing during pregnancy is guided by key principles, as outlined for example in the Maudsley Prescribing Guidelines in Psychiatry[146] and includes:

- Choose medications with lower risk profiles for the mother and the fetus
- Use lowest effective dose needed to achieve therapeutic response
- Where possible prescribe as few drugs as possible
- Carefully monitor the woman during pregnancy, consider the pharmacokinetic profile of the drug during pregnancy and titrate dose as indicated according to clinical status and stage of pregnancy
- Monitor the infant for adaptation difficulties after birth
- Consider drugs the mother previously found beneficial first

A multidisciplinary approach across the perinatal period is important, with the woman and her partner/support person, GP, obstetrician, psychiatrist, neonatologist, midwife, psychologist and any other involved professionals collaborating actively in developing a perinatal mental health plan. Given the challenges involved in prescribing psychotropic medication in a field of clinical research that is constantly subject to update, it is recommended that the prescriber consults the current literature, and considers referral to, or consultation with a perinatal psychiatrist.

4.2.3.2 Breastfeeding

There are many physical and psychological benefits of breastfeeding for the mother and infant.[147] Unfortunately, but understandably, there is limited controlled or systematic research addressing the safety of psychotropic medication in breastfed infants[148], particularly any long term effects. However, for many psychotropic medications (notable exceptions being lithium) infant exposure is generally less than 10% of the maternal daily intake, and there are few reports of adverse effects in exposed infants.[149] Therefore, as in prescribing during pregnancy, it is important to consider the risk benefits for the mother and the infant of continuing to breastfeed in a mother who is taking psychotropic medication.

Breastfeeding is a potentially emotionally charged issue for many parents, and for many clinicians, and it is important that prescribers hold awareness of the many factors influencing mothers' choices and experiences around breastfeeding.

General principles of prescribing are outlined in evidence-based guidelines such as the Maudsley Prescribing Guidelines[146] and the NICE guidelines[71] and include:

- Use the lowest effective dose
- Avoid using multiple medications wherever possible
- Monitor the infant for any specific known adverse effects of the drug
- If possible, time the feeds to avoid peak drug levels in breast milk
- Note that preterm infants and infants with renal, hepatic, cardiac or neurological impairment are at higher risk from drug exposure
- Keep abreast of recent developments in the breastfeeding literature
- Consider the relative benefits of breastfeeding or formula feeding for each mother and infant, in consultation with the mother and partner

4.2.3.3 Non psychotic disorders

These are the commonest mental health disorders during the perinatal period and include depressive and anxiety disorders, PTSD, eating disorders and personality disorders.

The mainstay of pharmacological treatment for non-psychotic mental disorders is antidepressants. Antidepressants are effective treatments for depression, particularly for severe cases, however, for the reasons outlined above no formal trials have been done for perinatal disorders other than during the postnatal period. A Cochrane review[150] looking at the data from three studies comparing SSRIs (selective serotonin reuptake inhibitors) with placebo reported significantly higher response and remission rates for participants taking SSRI however these studies were small and underpowered.[151] It has been shown that some patients with major depression who ceased antidepressant treatment during pregnancy (particularly those with more previous episodes, longer length of illness and an episode in the six months prior to conception) showed significantly higher rates of relapse compared to those who remained on their preconception dose of medication throughout the pregnancy (68% vs 26%).[152, 153]

In the light of these findings, it is recommended that if a woman is taking psychotropic medication and discovers she is pregnant, that she does not abruptly cease medication but rather seek advice from her prescriber as to the recommended course of action[154].

4.2.3.4 Psychotic disorders

These include schizophrenia, bipolar disorder, postpartum psychosis (including chronic disorders preceding pregnancy, and new onset disorders following childbirth), and psychotic episodes secondary to substance abuse.

The first three months postpartum represent the highest risk period (20 – 30 times) in a woman's life of requiring hospitalisation for psychosis.[30] In particular, women with bipolar disorder, schizoaffective disorders or previous postpartum psychosis are at 30 – 50% risk of psychosis if unmedicated.[155, 156] Bergink et al (2012)[157] evaluated the relapse rates of 41 women with bipolar disorder and 29 women with a history of postpartum psychosis during pregnancy and the postpartum period. The outcomes of this study have led them to propose different treatment algorithms for women in each group, advising prophylaxis during pregnancy with bipolar disorder to maintain mood stability and minimize the high risk of postpartum relapse.

Postpartum psychosis is a psychiatric emergency with rapid symptom and risk progression. There are associated increased risks of maternal suicide and infanticide. Women with postpartum psychosis always need intensive psychiatric care, ideally by specialist perinatal psychiatric services or within a Mother Baby Unit. Given the severity of symptoms, medication is required in the acute stage of treatment.

Pharmacological treatment choices will be guided by the principles outlined above, recognizing the significant risks to the woman and her fetus/infant that might occur without adequate treatment.

A prospective study[154] looked at the effects of mood stabiliser cessation during pregnancy and found that those women who ceased their mood stabiliser were more than twice as likely to relapse during pregnancy, and they remained unwell for five times longer than those who continued their medication. In addition, the risk after relapse was increased up to eight fold in the first month post-partum. For pregnant women with bipolar disorder there is some evidence that continuing lithium in pregnancy may reduce relapse[136, 154] and that for women who do discontinue lithium during pregnancy, there is some evidential support for recommencing lithium immediately after birth.[114, 158] Furthermore, Bergink et al (2012)[157] in their description of a peripartum prevention programme designed to reduce the incidence and severity of relapse in women with a history of bipolar disorder and/or postpartum psychosis, provided further evidence that lithium is an effective postpartum prophylactic agent.

Other mood stabilisers have been used in pregnancy and postpartum, with varying levels of efficacy, side effects for the mother, and potential effects on the developing fetus or infant. These include atypical antipsychotic medications, such as quetiapine or olanzapine, sodium valproate, and lamotrigine. It is beyond the scope of this document to specifically recommend any particular medication – these choices should be based on the principles above, involving awareness of the current evidence, consultation with the woman (and her partner or other support person wherever possible) and also with a perinatal psychiatrist. Recent guidelines recommend that sodium valproate should be avoided for the treatment of mental illness during the childbearing years, because of the potential for teratogenic and neurodevelopmental effects on the fetus, should the woman become pregnant.[71]

There have been no randomized trials of treatment interventions for postpartum psychosis, and sample sizes in treatment studies have been small.[115] However, lithium, antipsychotic medications and electroconvulsive therapy (ECT) have all been reported to be associated with

successful outcomes.[115] Psychological and social interventions (including Child Protection Service involvement) can be important aspects of clinical management.[159]

Most importantly, women who have a history of psychotic illness, or who become psychotic during pregnancy or following childbirth, require the care of a multidisciplinary team, including a psychiatrist, and their care needs to be coordinated across the various services involved with the family, with the aim of collaboratively developing a comprehensive plan for all aspects of the mother and baby's care throughout pregnancy and beyond.

5. Current service provision in Western Australia

There are a number of services and programs in WA which directly address issues of mental health and well-being across the continuum of care throughout the perinatal and infant/child period. A general outline of programs and where they are positioned across the continuum of care is provided below, along with a brief discussion of the implications for providing a broadly adequate level of service for improving the outcomes for families during the perinatal period through prevention, early identification and treatment of perinatal and infant/child mental health problems.

5.1 Universal services and primary care

Throughout the perinatal and infant/child period, health promotion and illness prevention programs aim to optimise physical and mental health across the population spectrum from those who are healthy to those with or at-risk of diagnosed mental health issues. Universal services are based on principles of primary health care to meet the needs of women, children and families at multiple contact points.

5.1.1 Mental health promotion

Media campaigns, such as the *beyondblue* "Just Speak Up" campaign increase community knowledge of mental health issues in the perinatal period and encourage women to seek help. Likewise, the "Act Belong Commit" campaigns promote positive emotional wellbeing by encouraging families in the perinatal period to become active in their local community. The WHCSP has actively partnered with both these campaigns and worked to encourage community participation in events that promote the "Just Speak Up" and "Act-Belong-Commit" messages during Postnatal Depression Awareness Week each year.

School-based programs that promote preventative mental health amongst children and youth, including programs that focus on relationships and sexual health, are also available locally, and in some instances, are included in the school curriculum. Promoting infant/child mental health and emotional wellbeing ideally commences in pregnancy. There are resources available that provide education and information about the importance of the developing attachment relationship between a caregiver and their child (for example: Getting to Know You: Recognising Infant Communication and Social Interaction).[160] These resources are not readily available to all parents and are yet to be included in any national media campaigns or health promotion strategies. It is difficult to measure the true impact of health promotion campaigns, as they generally have multiple goals, such as providing information, encouraging engagement, and diminishing social stigma for parents affected by perinatal mental illness. In addition, the changes within the attitudes of specific individuals might be quite subtle, or awareness may be raised of the prevalence and importance of perinatal and infant/child mental health in general,

without an individual recognising its personal relevance. Hence, such programs should be an important adjunct, rather than the mainstay of primary intervention.

5.1.2 Illness detection and early identification

Included in this section is the provision of universal depression and anxiety screening protocols utilising the EPDS[22] for perinatal women by midwives, GPs and Child Health Nurses. Most policies, including the *beyondblue* clinical guidelines, recommend that women are screened at least once in the antenatal and the postnatal period with the EPDS and a psychosocial assessment tool. Other than this important intervention, screening is not routine across the public and private health sectors, nor is it routine across the perinatal period, in part because not all services have established good working referral protocols. As previously stated, the acceptability and efficacy of screening using the EPDS for women from diverse cultural groups, including Aboriginal and CaLD groups, has not been fully established.

5.1.3 Primary care service providers

GPs are one of the main primary health care providers for women and their families. Services include education, screening, assessment, treatment, and referral to specialist services when needed, throughout the perinatal and infant/child period. GPs have contact with nearly all families during the pregnancy and postnatal period, which means they play a crucial role in identifying mothers who are at risk or suffering a perinatal mental health disorder and often provide an ongoing link between the parent and other services and supports.

Midwives and practice nurses may identify mothers who are struggling emotionally very early in the perinatal period, and play an important role in ensuring that mothers are connected with appropriate supports.

Similarly, child health nurses, who see families at regular points throughout the early years, and often provide an important relationship for mothers, can identify those at risk through the universal postnatal screening program, and can facilitate referral. Child health nurses provide further support for mothers who are receiving treatment, while monitoring the social, emotional, and physical development of babies and small children.

Primary care providers are placed in a unique position because of the nature and regularity with which they see women and young children during the perinatal period. Sensitive and supportive care, particularly if delivered consistently from the same professionals, allows trusting relationships to develop, enhancing the potential for families to engage around their mental health needs.

Parent support groups are available through child health services[161] and the local community. They focus on prevention and early intervention, including recognising and addressing the importance of child-caregiver attachment and infant/child mental health. These services can help mothers provide sensitive and responsive care, and develop healthy relationships with their babies. Unfortunately, not all mothers are able to access local support groups, as they are not routinely offered to mothers having a second or third baby, or available in rural and remote areas, and some women (for a variety of reasons) do not find benefit in the particular group they join. Groups for fathers exist sporadically, and sometimes struggle to recruit participants. However, there is substantial evidence for the importance of social relationships for promoting and supporting mental health (*beyondblue* clinical guidelines),[9] so the provision of parent support groups is a critical aspect of perinatal and infant mental health care. Research, clinical

audits and reports would be of benefit in establishing the best ways to ensure group programs meet the needs of parents and their babies and small children.

5.1.4 Services for Aboriginal families

The importance of supporting the mental health of Aboriginal parents and their young children is well-recognised. However, Aboriginal women are less likely to access mental health services during the perinatal period. It is widely acknowledged that a culturally sensitive approach is required. Services for Aboriginal families exist within the Government and non-Government sector, although not all focus on perinatal and infant mental health specifically.

Aboriginal families may utilise medical services such as Derbarl Yerrigan for primary health care or a GP within their community. To promote early uptake of general antenatal care, specialised programs such as Boodjarri Yorgas enable early intervention across a range of issues, including referral and support for mental health. These early intervention programs may include an Aboriginal 'grandmother' as part of the health care team as an additional support for social and emotional wellbeing.

A current research project, Kalyakool Moort – Always Family, is examining current screening practices for depression and anxiety among Aboriginal women and men during pregnancy and after their baby is born, with the aim of developing a screening process and tool that can be used confidently with mothers and fathers.

5.1.5 Services for culturally and linguistically diverse and vulnerable communities

Traditional and cultural barriers influence how CaLD families seek and receive services addressing mental health needs of mother, father and child during the perinatal and infant/child period. There are some service providers in the metropolitan area providing perinatal and infant/child mental health care and support services for CaLD families. The services focus on the provision of education, support and specialist mental health care for vulnerable women and their families. As awareness of services appropriate to the needs of CaLD parents and children during the perinatal period is often lacking in both the parents themselves, and in other service providers, a variety of identification and treatment approaches may be of benefit.

5.2 Targeted services and secondary care

Families presenting with mild to moderate mental health concerns in the pregnancy and postpartum period can benefit from a range of support services and interventions that address their concerns and may prevent the onset of a more serious mental health disorder. Selective preventions targeting groups that have been identified as 'at risk' are also important and can be delivered in a variety of settings (health, education, mental health, social services).

5.2.1 Parent-child attachment

There has been limited availability of targeted services focusing on parent-child attachment. Some programs are available through Child Development Services, Department for Local Government and Communities, Department of Child Protection and Family Support, and Child and Adolescent Mental Health Services. These services offer interventions that aim to enhance secure attachment in families who show signs of insecure and disorganised attachment or are at risk of developing adverse consequences of insecure attachment. Interventions focus on the mother-infant/child dyad and family system, and are targeted at high-risk families.

The State Government Department of Education, as lead agency, has recently established a number of Child and Parent Centres for vulnerable communities across WA. These community

centres are intended to improve access to a range of early learning, parenting, child and maternal health and wellbeing programs and services that provide support to families with young children (birth to eight years) with a focus on children from birth to four years of age. The Child and Parent Centres are on public school sites in low socio economic communities.[162]

Additionally, Child and Adolescent Community Health services may provide support and early management strategies prior to referral for children with identified developmental problems.

Within the private sector there is an increasing number of services offering parent-child attachment interventions, particularly Circle of Security programs aimed at providing psycho-education and sometimes psychotherapy for parents experiencing difficulties in the parent-infant/child relationship.

5.2.2 Women's support services

Other non-government services located mainly in the metropolitan area provide complementary support programs for women and their families considered at-risk as well as those with perinatal mental health problems. In particular the women's health services offer a range of perinatal mental health programs, including women's support groups, therapy groups for postnatal depression, counselling and information resources, as well as supported mother and baby groups. One community-based women's health service provides a targeted rural in-reach program that offers perinatal mental health counselling via videoconferencing, in partnership with local community resource centres.

5.3 Specialist services and tertiary care

Specialist services provide treatment for established mental health disorders in the perinatal and infant/child period and are concerned with resolution of symptoms and distress in the mother, infant/child and father. These services are typically a multidisciplinary team of nurses, psychiatrists, psychologists and allied health professionals. Throughout the State, moderate to severe perinatal mental health disturbances are mostly assessed by GPs, or through local Mental Health Services. Some services have a specific perinatal and infant mental health focus however the scope of services is variable. Presently, only a small number of practitioners exist in the private or public sectors, who are able to offer specialised assessment and/or intensive support for parent-infant/child relationship difficulties, and people living in rural and remote areas may find it particularly difficult to access such services.

5.3.1 Consultation liaison

Perinatal and infant consultation and liaison services currently exist in a variety of hospitals across both the public and private sectors. However, their reach is variable, and dependent on referrers' knowledge of their availability and local funding models.

At some tertiary maternity hospitals, specialist psychiatric and psychological services provide assessment, treatment and management for women diagnosed with perinatal mental health disorders. Some consultation liaison services also operate within the Neonatal Intensive Care Unit (NICU), but this is not universal.

The perinatal consultation liaison service at KEMH is a specialized tertiary service providing mental health advice and care to patients of the hospital, including via antenatal clinics for women with at risk pregnancies. These services include:

- Childbirth and Mental Illness (CAMI) Antenatal (Pregnancy) Clinic for women with serious mental illness (SMI) including schizophrenia, bipolar affective disorder and/or a history of postpartum psychosis
- Women and Newborn Alcohol and Drug Service (WANDAS)
- Adolescent Clinic
- Perinatal Loss Service
- Special Care Nursery

The CAMI Antenatal clinic and Department of Psychological Medicine Preconception Counselling Service for women with SMI are state-wide services, with capacity for video link consultations for women in rural areas.

5.3.2 Specialist drug and alcohol services

The Women and Newborn Drug and Alcohol Service (WANDAS), is a tertiary state-wide service providing specialist clinical services and professional support to care for pregnant women with drug and alcohol dependence. The midwifery-led multidisciplinary team includes doctors, social workers, dieticians, drug and alcohol specialist midwife and mental health professionals. As well as being provided with woman centred pregnancy care, women are able to access strategies to reduce or stop using drugs/substances, obtain referrals to support services, obtain advice and classes on parenting skills and receive mental health support and treatment if required.

5.3.3 Mother and baby units

There are two Mother and Baby Units in WA. The Mother and Baby Unit at KEMH and Fiona Stanley Hospital are both authorised inpatient treatment centres for acute psychiatric conditions in the postnatal period. KEMH MBU is also able to admit women during pregnancy. Both are state-wide services providing a total of 16 inpatient beds.

There are currently no private Mother and Baby Units. Some private psychiatric hospitals will admit mothers with their babies, however they are limited in the specific interventions that can be offered.

5.3.4 State-wide Specialist Aboriginal Mental Health Service

The State-wide Specialist Aboriginal Mental Health Service (SSAMHS) model of care adopts a life course approach to Aboriginal families at risk, with one of the focus areas being the perinatal and early childhood period. Their service is delivered in metropolitan and rural areas. The metropolitan service collaborates with Department of Psychological Medicine at KEMH with respect to mental health needs of Aboriginal women and their families during the perinatal period. Future planning includes the employment of traditional healers to add to the suite of services. They will be engaged on a consultation basis accessible via KEMH/SSAMHS service.

5.3.5 Child and Adolescent Mental Health Service

The Child and Adolescent Mental Health Service (CAMHS) provide mental health programs to infants and their families experiencing significant mental health issues across the acute (hospital), and community settings.

Within Princess Margaret Hospital infants with medical conditions and their families receive mental health interventions provided by CAMHS clinicians within the Paediatric Consultation Liaison team.

In community CAMHS, due to high demand on services, priority is given to adolescents with

high risk presentations. However, infants and their parents also receive mental health interventions, and CAMHS clinicians offer specialist consultation to other agencies offering psychosocial interventions (e.g. Child Development Services). When parental mental health issues are present, CAMHS clinicians work in partnership with other agencies (e.g. adult mental health, obstetric-psychiatry services, Department of Child Protection and Family Services).

The recent reform of adopting the Choice and Partnership Approach (CAPA) has increased access to community CAMHS services for infants and their families. CAMHS is building workforce capacity to meet the mental health needs of infants via specialist infant parent mental health training offered across the government and non-government sector.

5.3.6 Adult mental health services

Adult mental health services provide mental health care for people experiencing mental illness, and tend to focus on those with severe or acute mental illness. Individual mental health services vary in their capacity to assess and manage perinatal and infant mental health disorders. They frequently work collaboratively with local community services, including GPs, private clinical psychologists and women's health centres, and also with specialist perinatal services such as KEMH CAMI Antenatal clinic.

Summary

It is beyond the scope of this document to mention by name, or provide detail of every WA service that aims to provide for the mental health needs of families during the perinatal period. Although there is clearly a broad range of services and treatments available, they tend to be limited in the populations they can reach, and they all essentially rely on support from other related services. Families, particularly those with significant or complex levels of problem, benefit substantially when collaborative support can be provided.

A gap in service provision exists, in that there are no specialist perinatal and infant/child mental health teams or integrated service delivery models within the WA public sector.

Although services have considered best practice in developing their programs and clinical interventions, there is a notable lack of local research evidence that could support services to expand, and to inform direction of clinical work and further service development, and this is further hindered by the lack of availability of relevant databases.

6. Enabling factors

Enabling factors are critical to the success of the Model and include a trained and skilled workforce; research and evaluation; systems that support information sharing through communication/technology; and quality and safety.

6.1 Workforce

Best practice perinatal and infant/child mental health service delivery is contingent upon a workforce that is well informed, well prepared and appropriately resourced. To promote positive mental wellbeing in infants/children, their caregivers and families, it is important to build capacity for health professionals to work in a family centred way through:

- A competent and resourced workforce
- Education and training
- Clinical and reflective supervision

The "Training Matrix Framework of Perinatal Depression and Related Disorders" developed by *beyondblue* provides guidance on various skill levels required for those working with women during the perinatal period.

The WA Mental Health Commission through the Australian Association for Infant Mental Health (WA Branch) Inc. [163] commissioned a report on long term workforce requirements and work based competency training for health professionals. The report investigates competency frameworks, training models and reflective supervision.

6.2 Research

Translation of research into practice requires a sound health professional knowledge base and competency.

beyondblue has been a leader in research and evaluation across the perinatal period and has a clearinghouse of evidence-based practice on their website which is widely recognised and used by health professionals and mental health practitioners to inform practice.

Over the last decade new research, particularly in the infant/child mental health field has identified factors that contribute to the mental health of infants and young children and the connections between maternal health and positive fetal/infant outcomes.

There are currently a number of different Western Australian agencies involved in research into perinatal and infant/child mental health, but as noted above, there is little published to establish treatment models as best practice for the WA environment. A limitation to research is the paucity of dedicated perinatal and infant mental health databases across the public and private sectors, and the lack of formal data linkage processes. It is anticipated that there will be many positive developments over the next few years.

6.3 Information communication and technology

There is a need to develop information and communication technology to enable multi-disciplinary care planning and service provision, supported by evidence-based guidelines and patient pathways. The technology needs to be integrated across WA Department of Health hospital and community settings, to facilitate appropriate exchange within and between government and non-government service providers, as well as private and primary care providers who are external to WA Department of Health. This would enable the provision of seamless high quality care through effective communication. The WA Health Information and Communication Technology Strategy 2015 – 2018[164] provides guidance for health staff with particular key attention on matters of privacy.

Telehealth/Tele Mental Health is an effective way of providing assessment, consultation and treatment for individuals and families living in remote areas, as well as being a means of providing professional development and upskilling. This is an area being considered within the Mental Health Services 10yr plan[165] but could be further developed across the public and private sectors.

6.4 Quality and safety

Within WA Department of Health, safe and high quality care is governed by a number of standards, policies, guidelines and frameworks to ensure that all people within the health system receive the best possible care.

All services that provide care are required to meet or exceed standards and these standards and practices are governed, informed and guided by a range of documents. These include, but are not necessarily limited to:

- Mental Health Act 2014 [166]
- National Mental Health Policy 2008 [167]
- Australian Council on Healthcare Standards (EQuIPNational) 2013 [168]
- National Standards for Mental Health Services 2010 [169]
- The Fourth National Mental Health Plan: An Agenda for collaborative government action in mental health 2009-2014 [170]
- National Safety and Quality Health Service Standards 2012 [171]
- The review of the admission or referral to and the discharge of public mental health facilities and services in Western Australia (Stokes Report) 2012[172]
- Admission, Readmission, Discharge and Transfer Policy for WA Department of Health Services, July 2012[173]
- Matters to be Reported to the Chief Psychiatrist, Operational Directive OD0242/09

6.5 Experiences of care

Health professionals need an understanding of the patient journey to enable an empathic response to women, infants and families in their care. Consumers have supplied some small insights to their experiences of care:

"I know what I know through my profession yet this is something so different. Nothing prepared me for the depression, yet now I am learning how to take care of my emotions alongside my children's emotions."

"I dread to think what would have happened if I did not make that first call."

"When I share in a safe place with others who nod and listen, I now think I may actually be normal. This is my normal. It's been a long time since I thought I am normal, I thought I was a monster."

"I felt like the worst mum in the world, yet I knew other mums understood as we shared our pain and our hopes."

"I feel like I have a support team around me and my family, the support from each service is relevant for a specific part of my life. Together this helps me to feel okay as a whole."

"It helped me to have one person to talk to who understood and did not judge me."
"I could not have survived retelling my story to strangers over and over again."

7. Horizon scanning

As with any body of work committed to a formal document, the Model is a reflection of the time in which it was created. In recognising the time-limited nature of the Model, it is therefore important to acknowledge the potential for change due to developments in technology, changes in workforce, pharmacological advancements and changes in disease profiles, to name but a few.

The issue of mental health in general is complex and challenging, but is also gaining ground in terms of political recognition at both a State and Federal level. It is important that perinatal and

infant/child mental health is included and highlighted within broader strategies, and that past achievements made through intensive strategies such as the National Perinatal Depression Initiative are incorporated into ongoing work and built upon in the future.

With the opening of WA's second Mother Baby Unit at Fiona Stanley Hospital in February 2015, as well as the implementation of [The Western Australian Mental Health, Alcohol and other Drug Services Plan 2015-2025](#),[165] the perinatal and infant/child mental health service landscape in WA will necessarily change.

The Model articulates the need to build on current services as well as acknowledging prevention and promotion as integral to the State's Mental Health Plan.[165]

In addition, emerging research will continue to add to the body of evidence supporting best practice in perinatal and infant/child mental health care. As a result, consideration will need to be given to reviewing the Model into the future, and examining its recommendations and key strategies to ensure ongoing work remains relevant and supported.

8. Implementation and evaluation

Following publication a working group will be required to plan and drive the implementation of the Model in conjunction with service providers, consumers and stakeholders.

It is envisaged that the implementation group will continue to support the guiding principles of the Model and be a driving force behind the ongoing improvement of perinatal and infant/child mental health services in WA.

The responsibilities of the implementation group will include, but not be limited to, the following:

- **Outcomes** – providing a mechanism by which the Model's recommendations and key strategies are acted upon, establishing key performance indicators for the implementation of the Model.
- **Accountability** – establishing clear areas of responsibility for both funding and service provision.
- **Evaluation** – taking a lead in ensuring performance against established key performance indicators, as well as being responsible for the review and update of the Model into the future, maintaining an emphasis on quality improvement and best practice.

9. Appendix

9.1 Working group members

Co-leads: Associate Professor Caroline Zanetti and Clinical Associate Professor Jonathan Rampono/Dr Felice Watt

Core group

Elaine Bennett/Helen Carter	Annie Mullan
Pip Brennan	Sarah Mumme
Paula Chatfield	Anna Roberts
Carol Clark	Elizabeth Seah
Jenni Collard/ Nicole McCartney	Sue Somerville
Lea Davidson	Leanda Verrier
Elizabeth Dundas	Pamela Whittaker
Julia Feutrill	Belinda Whitworth
Caroline Goossens	Nicole Woods
Adele James	Rosemary Woodward

Sub groups

Pre-pregnancy

Jonathan Rampono/Iolanda Rodino	Chair
Maxine Croft	University of Western Australia (UWA)
Kate Gatti	Public Health, Ambulatory Care, South Metropolitan Health Service (SMHS)
Iolanda Rodino	Private Clinical Psychologist
Julie Skevington	GP Liaison, SMHS

Pregnancy

Sue Somerville/Julie Watts	Chair
Belinda Butler-O'Halloran	Consumer
Shamila Dharma-Trumps	Princess Margaret Hospital (PMH), Child and Adolescent Health Service (CAHS)
Yvonne Hauck	King Edward Memorial Hospital (KEMH), Women and Newborn Health Service (WNHS)
Claudia Hoenig	Consumer
Jenny O'Callaghan	KEMH, WNHS
Angela Poole	South Coastal Women's Health Services

Felice Watt	Department of Psychological Medicine, Women's Health Clinical Care Unit (WHCCU), WNHS

Postnatal

Julia Feutrill/Pamela Whittaker	Chair
Kim Adey	Consultation Liaison – Maternity, Mental Health, Armadale Health Service, SMHS
Claire Davis	Community Mental Health, North Metropolitan Health Service (NMHS)
Chris Hawkes	Playgroup WA
Lindy Henry	Child and Adolescent Community Health (CACH), CAHS
Sally Langsford	Joondalup Community Mental Health Service, NMHS
Gail Wells	Ngala Family Resource Centre
Nicole Woods	From the Heart WA

Infants

Caroline Zanetti/ Elizabeth Seah	Chair
Anne Clifford	St John of God (SJG) Subiaco Raphael Centre
Elizabeth Dundas	Child Development Centre, CACH
Miriam Krouzecky	CACH, CAHS
Annie Mullan	Australian Association for Infant Mental Health (WA Branch) Inc. (AIMHI)
Helen Ritter	Joondalup Community Mental Health Service, NMHS
Jo Wraith	Child and Adolescent Mental Health Service (CAMHS)

Other Contributors

Janette Brooks, James Foley, Renae Gibson, Laura Halim	Women's Health Clinical Support Programs (WHCSP – formerly WA Perinatal Mental Health Unit), WHCCU, WNHS
Lea Davidson	WHCSP,WHCCU, WNHS
Leanda Verrier	WHCCU, WNHS
Felice Watt	Psychological Medicine, WHCCU, WNHS.
Rochelle Matacz	Psychological Medicine, WHCCU, WNHS.
Belinda Whitworth	Health Networks, Department of Health
Joanne Cronin	Health Networks, Department of Health
Gitana Matthews	Health Networks, Department of Health
Jennifer Watchorn	Health Networks, Department of Health
Tanya Devadason	Osborne Park Mental Health Service

9.2 State Perinatal Mental Health Reference Group (May 2012)

- Australian Association for Infant Mental Health West Australian Branch Incorporated
- Carer Representative
- Child and Adolescent Community Health, Child and Adolescent Health Service
- Child and Adolescent Mental Health Service, Child and Adolescent Health Service
- Consumer Representative
- Department of Communities
- From the Heart WA consumer support organisation
- Ngala Family Resource Health Service
- North Metropolitan Health Service
  - Adult Mental Health Program
  - Public Health
  - Statewide Specialist Aboriginal Mental Health Service
- Perinatal Mental Health Professional Association
- RUAH Community Services
- St John of God Outreach and Advocacy
- South Metropolitan Health Service
  - Transcultural Mental Health Services, Department of Psychiatry, Royal Perth Hospital
- WA Country Health Service
  - Aboriginal Health Unit
  - Central Office
  - Population Health
  - Wheatbelt region
- Women and Newborn Health Service
  - State Obstetric Support Unit
  - Women's Health Clinical Care Unit
    - Department of Psychological Medicine
    - Mother and Baby Unit
    - Women's Health Clinical Support Programs
- Womens and Newborns Health Network
- Women's Health Services
  - Gosnells Women's Health
  - South Coastal Women's Health
  - Women's and Family Health Service

9.3 Glossary

Term	Definition
Birth	Pertaining to the period of labour and birth (also referred to as the 'intrapartum' period).
Carer	"A carer is someone who, without receiving a payment for the provision of care, apart from Carer's Payment or Carer's Allowance, provides care and support for a family member or friend who has a disability, is frail, aged or who has a mental or chronic illness".[174]
Continuity of care	The care team maintains contact with patients, monitors their progress, and facilitates access to needed services. Includes two core elements, care over time and the focus on individual patients.
Continuum of care	The delivery of services by different providers in a coherent, logical, and timely fashion
Early detection	Refers to the early identification of a state of ill health or poor wellbeing so that effective and timely interventions are implemented.
Early intervention	Early intervention is often aimed at those identified at risk of developing a mental or physical illness to reduce the severity of further deterioration in health.
Fetus	The period from approximately the 9th week after fertilisation until birth.
Foster carer	*Individual or couple* registered by the Department for Child Protection to provide care to children and young people who are in the CEO's care.
Illness prevention	Activity undertaken to affect the trajectory from a pathway of illness towards health. Includes primary, secondary and tertiary prevention. Primary – prior to any disease states occurring, e.g. immunisation, Act Belong Commit; Secondary – disease is present but signs or symptoms may not be evident or recognised, e.g. screening mammography, EPDS screening; Tertiary – disease or disorder having already been diagnosed and treated, with further activities undertaken to stop re-occurrence of disorder or reduce the impact of the disease on health, e.g. diabetes management, psychotherapy, medication management).
Infant and early childhood mental health	Refers to 'the young child's capacity to experience, regulate, and express emotions; form close and secure interpersonal relationships; and explore the environment and learn'.[4]

Mental health promotion	Health promotion is the process of enabling people to increase control over, and to improve, their health.[175]
	Mental health promotion involves actions to create living conditions and environments that support mental health and allow people to adopt and maintain healthy lifestyles. These include a range of actions to increase the chances of more people experiencing better mental health[176]
Mental health workforce training and development	Series of activities and learning modalities to up-skill and further develop the health workforce to enable an effective and integrated response to the health needs of the population.
Perinatal	The period from conception to 12 months after the birth of a baby.
Perinatal depression and/or anxiety	Mood disorders that occur during pregnancy and/or the postnatal period.
Perinatal mental health	The emotional and psychological state of a parent during the period from conception to 12 months after a baby is born.
Pre-conception	The period preceding conception and pregnancy ('pre-pregnancy' in this document).
Pregnancy	The period from conception to the commencement of labour.
Psychotropic medication	Medication used to treat mental health problems.
Traumatic birth	A negative perception of the labour/birth, which may be influenced by experiences of severe pain, powerlessness, lack of control, and a lack of communication and care from staff[177]
Postnatal	The period immediately following the birth to 12 months after the birth.
Treatment	Refers to medical, psychiatric, psychological or nursing activity undertaken to correct a state of physical or mental illness, disorder or disease through a therapeutic intervention such as medication.
Severe mental illness	Psychiatric disorders inclusive of schizophrenia, psychosis, bipolar mood disorder, schizoaffective disorder and postpartum psychosis.
Socio-cultural groups	Refers to communities within the broader population that identify with specific cultural and/or social group orientation. In particular, Aboriginal communities, groups entering Australia on humanitarian grounds (refugees), migrant populations, groups with specific needs such as disability, premature infants and their carers, those with multiple risk factors for mental health disorders. People may belong to more than one socio-cultural group simultaneously – for example a teenage Aboriginal mother with a premature infant.

Substantive Equality	Involves achieving equitable outcomes as well as equal opportunity. It takes into account the effects of discrimination. It recognises that rights, entitlements, opportunities and access are not equally distributed throughout society.
	Substantive equality recognises that equal or the same application of rules to equal groups can have unequal results. Where service delivery agencies cater to the dominant, majority group, then people who are different may miss out on essential services. Hence, it is necessary to treat people differently because people have different needs.[178]

9.4 Key documents

The Perinatal and Infant Mental Health Model of Care and Service Delivery is informed by the following key frameworks, plans and reports:

- Mental Health Act 2014 [166]
- Perinatal and Infant Mental Health Strategic Framework 2012[3]
- Report of the Inquiry into the Mental Health and Wellbeing of Children and Young People in WA Commissioner for Children and Young People, April 2011 [179]
- Mental Health 2020: Making it personal and everybody's business, Mental Health Commission 2012 [180]
- *beyondblue* Perinatal Mental Health National Action Plan [67]
- *beyondblue* Clinical Practice Guidelines for Depression and Related Disorders [9]
- Framework for the National Perinatal Depression Initiative 2008/2009 – 2012/2013 [181]
- Perth Charter for the Promotion of Mental Health and Wellbeing, 2012[182]
- National Maternity Services Plan 2010 [183]
- Improving Maternity services: Working Across Western Australia- A Policy Framework 2007[184]
- Western Australian Women's Health Strategy 2013 – 2017 [185]
- National Aboriginal and Torres Strait Islander Women's Health Strategy 2010[186]
- National Mental Health Policy 2008[167]
- National Standards for Mental Health Services 2010[187]
- The Fourth National Mental Health Plan: An Agenda for collaborative government action in mental health 2009-2014[170]
- Trauma – Informed Treatment Guide for Working with Women with Alcohol and Other Drug Issues 2011[188]
- Michigan Association for Infant Mental Health Competency Guidelines and Endorsement Process (2009) [189]
- National Safety and Quality Health Service Standards 2011 [171]
- The review of the admission or referral to and the discharge of public mental health facilities and services in Western Australia (Stokes Report) 2012 [172]
- Admission, Readmission, Discharge and Transfer Policy for WA Department of Health Services, July 2012 [173]
- The Western Australian Mental Health, Alcohol and other Drug Services Plan 2015-2025[165]

9.5 Summary Table: Factors affecting perinatal and infant mental health

The table below summarises some of the factors that health professionals need to consider during the assessment phase, keeping in mind the changing circumstances for many families. Recognised cause of perinatal mental health disorders have been summarised in Cox, Holden and Sagovksky,[22] Sroufe,[50] Milgrom[75] and O'Hara[93] as noted in the tables.

Risk factors for maternal mental health problems

Individual	Family	Social determinants
• Past history or existing mental health problem • Premature cessation of psychotropic medications • History of insecure or disorganised attachment to own caregivers • History of trauma or abuse • Always being a worrier • Poor reflective functioning • High levels of stress • Stressful life events • Pregnancy related and baby health problems • Perinatal loss • Genetic predisposition	• Family history of mental health problems, particularly in the perinatal period • Family history of drug and alcohol misuse • Family and domestic violence • Relationship conflict/breakdown • Lack of emotional and practical family support • Trans generational trauma background, for example parents with history of abuse	• Experiences of disadvantage, discrimination or marginalisation • Poor or inadequate housing • Poverty • Low education • Lack of community support • Geographical isolation/Lack of access to transport • Lack of accessible healthcare

Protective factors for infant/child mental health

Infant/child	Parenting/Family	Social determinants
• Good physical health • Secure attachment with primary caregiver • Availability of other attachment figures including in day care or when hospitalised • Sensitive medical and nursing care	• Nurturing, loving caregiver able to offer sensitively attuned responses to infant's/child's needs • Provision of consistent long term caregivers (especially for children in care) • Parents with history of secure attachment to own caregivers in childhood	• Safe community • Well-supported day care facilities • Availability of social support for parents at times of particular vulnerability such as the transition to parenthood

Infant/child	Parenting/Family	Social determinants
	• Good parental reflective capacity	

Risk factors for infant/child mental health problems

Infant/child	Parenting/Family	Social determinants
• Developmental factors such as perinatal brain injury, malnutrition, genetic vulnerabilities, chronic illness or disability. • Poor "goodness of fit" with caregivers due to temperamental differences • Exposure to frightening relationship experiences without adequate repair • Other traumatic experiences (fire, famine, war)	• Parental depression, anxiety or other mental illness • High levels of parental stress with low levels of support • Parents with history of insecure or disorganised attachment to own caregivers • Low level of parental reflective function • Harsh or rigid discipline practices • Inadequate supervision and physical neglect • Marital relationship conflict/breakdown • Parental substance misuse • Unresolved parental trauma, including domestic violence, childhood abuse, bereavement, or other trauma • Separations from or loss of primary caregivers	• Lack of available, accessible and appropriate services • Community and cultural disadvantage, discrimination or marginalisation • Poor or inadequate housing • Poverty • Low education • Lack of community support

10. References

1. Zubrick SR, Silburn SR, Garton AR, Burton P, Dalby R, Carlton J, et al. Western Australian Child Health Survey: Developing health and well-being in the nineties. Australian Bureau of Statistics and the Institute for Child Health Research 1995.
2. Robinson M, Oddy WH, Li J, Kendall GE, de Klerk NH, Silburn SR, et al. Pre- and postnatal influences on preschool mental health: a large-scale cohort study. Journal Of Child Psychology And Psychiatry, And Allied Disciplines 2008;49(10):1118-28.
3. Western Australian Department of Health. Perinatal and Infant Mental Health Strategic Framework. Perth: Western Australian Perinatal Mental Health Unit, Women's Health Clinical Care Unit, Women and Newborn Health Service, Western Australian Department of Health; 2012.
4. Zero to Three Taskforce on Infant Mental Health. Definition of infant mental health. Washington DC: Zero to Three Infant Mental Health Steering Committee; 2001.
5. Somerford P, Katzenellenbogen J, Codde J. Burden of disease in Western Australia: An overview. (online); 2004 (updated 2012; cited July 4). Available from: http://www.health.wa.gov.au/publications/documents/BOD/BOD2.pdf.
6. Western Australian Department of Health. HealthTracks Reporting. Perth: Epidemiology Branch, Public Health and Clinical Services Division, Western Australian Department of Health; 2015.
7. Mares S, Newman L, Warren B. Clinical skills in infant mental health. Camberwell, Victoria: ACER Press; 2005.
8. *beyondblue:* The National Depression Initiative. Media release: Perinatal depression and anxiety resulting from births in 2012 could cost Australians up to $500 million by the children's second birthdays. (online). Melbourne: beyondblue; 2012 (updated 2015; cited January 22). Available from: http://www.beyondblue.org.au/media/media-releases/media-releases/Perinatal-depression-and-anxiety-resulting-from-births-in-2012-could-cost-Australians-up-to-500-million.
9. *beyondblue*: The National Depression Initiative. Clinical practice guidelines: Depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period. Melbourne: *beyondblue:* The National Depression Initiative; 2011.
10. Glover V, O'Connor T. Maternal anxiety: Its effect on the fetus and the child. British Journal of Midwifery 2006;14(11):663-7.
11. Glover V, O'Connor TG. Effects of antenatal stress and anxiety: Implications for development and psychiatry. The British Journal Of Psychiatry: The Journal Of Mental Science 2002;180:389-91.
12. Lou HC, Hansen D, Nordentoft M, Pryds O, Jensen F, Nim J. Prenatal stressors of human life affect fetal brain development. Developmental Medicine and Child Neurology 1994;36:826-32.
13. O'Connor TG, Heron J, Golding J, Glover V. Maternal antenatal anxiety and behavioural/emotional problems in children: A test of a programming hypothesis. Journal Of Child Psychology And Psychiatry 2003;44(7):1025-36.
14. Talge NM, Neal C, Glover V. Antenatal maternal stress and long-term effects on child neurodevelopment: How and why? Journal of Child Psychology & Psychiatry 2007;48(3-4):245-61.
15. Van den Bergh BRH, Mulder EJH, Mennes M, Glover V. Antenatal maternal anxiety and stress and the neurobehavioural development of the fetus and child: Links and possible mechanisms. A review. Neuroscience And Biobehavioral Reviews 2005;29:237-58.

16. Jablensky AV, Morgan V, Zubrick SR, Bower C, Yellachich LA. Pregnancy, delivery, and neonatal complications in a population cohort of women with schizophrenia and major affective disorders. The American Journal Of Psychiatry 2005;162(1):79-91.

17. Macabe JH, Martinsson L, Lichtenstein P, Nilsson E, Cnattingius S, Murray RM, et al. Adverse pregnancy outcomes in mothers with affective psychosis. Bipolar Disorders 2007;9:305-9.

18. Matevosyan NR. Pregnancy and postpartum specifics in women with schizophrenia: a meta-study. Archives Of Gynecology And Obstetrics 2011;283(2):141-7.

19. Nguyen TN, Faulkner D, Frayne JS, Allen S, Hauck YL, Rock D, et al. Obstetric and neonatal outcomes of pregnant women with severe mental illness at a specialist antenatal clinic. Medical Journal of Australia 2012;1(1):26-19.

20. Nilsson E, Lichtenstein P, Cnattingius S, Murray RM, Hultman CM. Women with schizophrenia: Pregnancy outcome and infant death among their offspring. Schizophrenia Research 2002;58:221-9.

21. Cooper PJ, Murray L. Postnatal depression. BMJ 1998;316:1884-6.

22. Cox J, Holden J, Sagovsky R. Detection of postnatal depression: Development of the 10 item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry 1987;150:782-6.

23. Kumar R, Robson KM. A prospective study of emotional disorders in childbearing women. British Journal of Psychiatry 1984;144:35-47.

24. Philipps LHC, O'Hara MW. Prospective study of postpartum depression: 4 1/2-year follow-up of women and children. Journal Of Abnormal Child Psychology 1991;100:151-5.

25. Austin M-P, Hadzi-Pavlovic D, Priest SR, Reilly N, Wilhelm K, Saint K, et al. Depressive and anxiety disorders in the postpartum period: How prevalent are they and can we improve their detection? Archives of Women's Mental Health 2010;13(5):395-401.

26. Woolhouse H, Gartland D, Hegarty K, Donath S, Brown SJ. Depressive symptoms and intimate partner violence in the 12 months after childbirth: a prospective pregnancy cohort study. BJOG: An International Journal Of Obstetrics And Gynaecology 2012;119(3):315-23.

27. Brown P, Brooks J, Fisher J. The Western Australian Mother Baby Unit: Providing specialist services for severe perinatal mental illness in the world's most isolated capital city. In press.

28. Boyce P. Personality dysfunction, marital problems and postnatal depression. In: Cox J, Holden J, editors. Perinatal psychiatry: Use and misuse of the Edinburgh Postnatal Depression Scale. London: Gaskell; 1994. p.82-102.

29. Holden JM. Postnatal depression: Its nature, effects, and identification using the Edinburgh Postnatal Depression Scale. Birth 1991;18:211-22.

30. Kendell R, Chalmers J, Platz C. Epidemiology of puerperal psychosis. British Journal of Psychiatry 1987;19(150):662-73.

31. Marks M, Lovestone S. The role of the father in parental postnatal mental health. British Journal of Medical Psychology 1995;68:157-68.

32. Richards JP. Postnatal depression: A review of recent literature. British Journal of General Practice 1990;40:472-6.

33. Burt VK, Stein K. Epidemiology of depression throughout the female life cycle. Journal of Clinical Psychiatry 2002;63 (Suppl 7):9-15.

34. Milgrom J, Ericksen J, McCarthy RM, Gemmill AW. Stressful impact of depression on early mother-infant relations. Stress and Health 2006;22:229-38.

35. Murray L, Cooper PJ. Effects of postnatal depression on infant development. Archives of Disease in Childhood 1997;77(2):99-101.

36. O'Hara M. Postpartum 'blues', depression, and psychosis: A review. Journal of Psychosomatic Obstetrics & Gynecology supplementary 1987;7:205-27.

37. O'Hara M. Postpartum depression - Causes and consequences. New York: Springer - Verlag; 1995.

38. Seretti A. Influence of postpartum onset on the course of mood disorders. Biomed Central Psychiatry 2006;6(4).

39. Shamir-Essakow G, Ungerer JA, Rapee RM. Attachment, behavioral inhibition, and anxiety in preschool children. Journal Of Abnormal Child Psychology 2005;33(2):131-43.

40. Weinberg MK; Tronick EZ. The impact of maternal psychiatric illness on infant development. Journal of Clinical Psychiatry 1998;59:53-61.

41. Chan A, Payne J. Homicide in Australia: 2008–09 to 2009–10 National Homicide Monitoring Program annual report. Canberra: Australian Institute of Criminology; 2013.

42. Austin M-P, Kildea S, Sullivan E. Maternal mortality and psychiatric morbidity in the perinatal period: Challenges and opportunities for prevention in the Australian setting. The Medical Journal Of Australia 2007;186(7):364-7.

43. Oates M. Perinatal psychiatric disorders: A leading cause of maternal morbidity and mortality. British Medical Bulletin 2003;67(1):219-29.

44. Humphrey M. Maternal and perinatal mortality and morbidity in Queensland. Queensland Maternal and Perinatal Quality Council Report. Brisbane: Queensland Health; 2011.

45. Fatherhood Institute. Fathers and postnatal depression. (online); 2010 (updated 2015; cited 23 February). Available from: http://www.fatherhoodinstitute.org/2010/fatherhood-institute-research-summary-fathers-and-postnatal-depression/.

46. Kiernan KM, Smith K. Unmarried parenthood: new insights from the Millennium Cohort Study. Population Trends, London 2003;26-33.

47. Goodman JH. Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. Journal of Advanced Nursing 2004;45(1):26-35.

48. Paulson JF, Bazemore SD. Prenatal and Postpartum Depression in Fathers and Its Association With Maternal Depression: A Meta-analysis. JAMA 2010;303(19):1961-9.

49. O'Hara M, Fisher S. Psychopathological states in the father and their impact on parenting. In Tyano. S. Keren. M. Herrman. H. & Cox. J (Eds), Parenthood and mental health: a bridge between infant and adult psychiatry. London: John Wiley & Sons 2010:231-40.

50. Sroufe LA. Attachment and development: a prospective, longitudinal study from birth to adulthood. Attachment and Human Development 2005;7(4):349-67.

51. Murray L, Cooper PJ. The role of infant maternal factors in postpartum depression, mother-infant interactions, and infant outcomes. In: Murray L, Cooper PJ, editors. Postpartum Depression and Child Development. New York: Guilford Press; 1997.

52. Beck CT. The effects of postpartum depression on child development: A meta-analysis. Archives of Psychiatric Nursing 1998;12:12-20.

53. Cicchetti D, Toth SL. The development of depression in children and adolescents. American Psychologist 1998;53:221-41.

54. Goodman SH, Gotlib IH. Risk for psychopathology in the children of depressed mothers: A developmental model for understanding mechanisms of transmission. Psychological Review 1999;106:458-90.

55. Murray L, Woolgar M, Cooper P, Hipwell A. Cognitive vulnerability to depression in 5-year old children of depressed mothers. Journal of Child Psychology & Psychiatry 2001;42:891-9.
56. Raskin VD, Richman JA, Gaines C. Patterns of depressive symptoms in expectant and new parents. The American Journal Of Psychiatry 1990;147(5):658-60.
57. Caspi A, Sugden K, Moffitt TE, Taylor A, et al. Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene. Science 2003;301(5631):386-9.
58. Fombonne E, Wostear G, Cooper V, Harrington R, Rutter M. The Maudsley long-term follow-up of child and adolescent depression. British Journal of Psychiatry 2001;179:210-7.
59. Rutter M. Understanding and testing risk mechanisms for mental disorders. Journal of Child Psychology & Psychiatry 2009;50:44-52.
60. Sawyer M, Arney F, Baghurst P, Clark JJ, Graetz BW, Kosky RJ, et al. The National Survey of Mental Health and Wellbeing:The mental health of young People in Australia: Canberra: Commonwealth Department of Health and Aged Care; 2000.
61. Sawyer M, Arney F, Baghurst P, Clark JJ, Graetz BW, Kosky RJ, et al. The mental health of young people in Australia: Key findings from the child and adolescent component of the national survey of mental health and well-being. Australian and New Zealand Journal of Psychiatry 2001;35:806-14.
62. Silburn S, Zubrick S, Garton A, Burton P, et al. Western Australian Child Health Survey: Family and Community Health. Perth, WA: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research; 1996.
63. Morrell J, Murray L. Parenting and the development of conduct disorder and hyperactive symptoms in childhood; a prospective longditudinal study from 2 months to 5 years. Journal of Childhood Psychology and Psychiatry 2003;44(4):489-508.
64. Victorian Department of Health. Framework for recovery-oriented practice. Melbourne: Victorian Department of Health; 2011.
65. MacRae A, Thomson N, Anomie, Burns J, Catto M, Gray C, et al. Overview of Australian Indigenous health status 2012. (online); 2013 (cited September 2015). Available from: http://www.healthinfonet.ecu.edu.au/uploads/docs/overview_of_indigenous_health_2012.pdf.
66. Murray L, Cooper PJ. The impact of postpartum depression on child development. International Review of Psychiatry 1996;8(1):55.
67. Perinatal Mental Health Consortium. Perinatal Mental Health National Action Plan 2008-2010. Melbourne: beyondblue; 2008.
68. Reid V, Meadows-Oliver M. Postpartum depression in adolescent mothers: an integrative review of the literature. Journal Of Pediatric Health Care: Official Publication Of National Association Of Pediatric Nurse Associates & Practitioners 2007;21(5):289-98.
69. State Perinatal Reference Group. Social and emotional experience of the perinatal period for women from three culturally and linguistically diverse (CALD) communities. Perth, Western Australia: WA Department of Health; 2008.
70. Ross LE, Steele L, Goldfinger C, Strike C. Perinatal depressive symptomatology among lesbian and bisexual women. Archives of Women's Mental Health 2007;10(2):53-9.
71. National Institute for Health Care Excellence. Antenatal and postnatal mental health: clinical management and service guidance: NICE; 2014.
72. Bayrampour H, McDonald S, Tough S. Risk factors of transient and persistent anxiety during pregnancy. Midwifery 2015;31(6):582-9.

73. Lev-Wiesel R, Daphna-Tekoah S. The role of peripartum dissociation as a predictor of posttraumatic stress symptoms following childbirth in Israeli Jewish women. Journal of Trauma and Dissociation 2010;11:266-83.
74. Buist A. Childhood abuse, postpartum depression and parenting difficulties: a literature review of associations. Australian and New Zealand Journal of Psychiatry 1998;32(3):370-8.
75. Milgrom J, Gemmill AW, Bilszta JL, Hayes B, Barnett B, Brooks J, et al. Antenatal risk factors for postnatal depression: A large prospective study. Journal Of Affective Disorders 2008;108(1-2):147-57.
76. New South Wales Department of Health. SAFE START Guidelines: Improving mental health outcomes for parents and infants. Sydney: New South Wales Department of Health; 2009.
77. Reay R, Harris A. The perinatal period: trauma and families. Canberra: Department of Health.
78. Lev-Wiesel R, Chen R, Daphna-Tekoah S, Hod M. Past traumatic events: are they a risk factor for high-risk pregnancy, delivery complications, and postpartum posttraumatic symptoms? J Womens Health (Larchmt) 2009;18(1):119-25.
79. Nix CM, Ansermet F. Prematurity, risk factors, and protective factors. In Zeanah, C (Ed). Handbook of infant mental health New York: Guildford Press 2009:180-96.
80. Scott K, Smith D, Ellis P. Prospectively ascertained child maltreatment and it's association with DSMIV mental disorders in young adults. Arch Gen Psychiatry 2010;67(7):712-9.
81. Schachter CL, Stalker CA, Teram E, Lasiuk GC, Danilkewich A. Handbook on sensitive practice for health care practitioners: lessons from adult survivors of childhood sexual abuse. Ottawa: Public Health Agency of Canada; 2008.
82. Crome I. Substance problems: bridging the gap between infant and adult. In Tyano, Keren S, Herrman M & Cox J (eds), Parenthood and mental health: a bridge between infant and adult psychiatry. London: John Wiley & Sons 2010:251-70.
83. Cowling VE. Children of Parents with Mental Illness. Australian Council for Education Research, Melbourne 1999.
84. Weaver TL, Gilbert L, El-Bassel N, Resnick HS, Noursi S. Identifying and intervening with substance-using women exposed to intimate partner violence: phenomenology, comorbidities, and integrated approaches within primary care and other agency settings. Journal of Women's Health 2015;24(1):51-6.
85. Winkler D, Pjrek E, Kasper S. Anger attacks in depression - evidence for a male depressive syndrome. Psychotherapy and Psychosomatics 2005;74(5):303-7.
86. Taft A. Violence against women in pregnancy and after childbirth: Current knowledge and issues in health care response, Australian Domestic Violence Clearinghouse. 2002.
87. Howard LM, Oram S, Galley H, Trevillion K, Feder G. Domestic violence and perinatal mental disorders: A systematic review and meta-analysis. PLOS Medicine 2013;10(5):1-16.
88. Koenen KC, Moffitt TE, Caspi A, Taylor A, Purcell S. Domestic violence is associated with environmental supression of IQ in young children. Development and Psychopathology 2003;15(02):297-311.
89. Apter-Danon G, Candilis-Huisman DA. Challenge for perinatal psychiatry: therapeutic management of maternal borderline personality disorder and their very young infants. Clinical Neuropsychiatry 2005;2(5):302-14.

90. Easter A, Solmi F, Bye A, Taborelli E, Corfield F, Schmidt U, et al. Antenatal and postnatal psychopathology among women with current and past eating disorders: longitudinal patterns. European Eating Disorders Review 2015;23(1):19-27.
91. Knoph C, Von Holle A, Zerwas S, Torgersen L, Tambs K, Stoltenberg C, et al. Course and predictors of maternal eating disorders in the postpartum period. International Journal of Eating Disorders 2013;46(4):355-68.
92. Reba-Harrelson L, Von Holle A, Hamer RM, Torgersen L, Reichborn-Kjennerud T, Bulik CM. Patterns of maternal feeding and child eating associated with eating disorders in the Norwegian Mother and Child Cohort Study (MoBa). Eat Behav 2010;11(1):54-61.
93. O'Hara MW, Wisner KL. Perinatal mental illness: definition, description and aetiology. Best Practice and Research Clinical Obstetrics Gynaecology 2014;28(1):3-12.
94. Murray D, Cox JL. Screening for depression during pregnancy with the Edinburgh Depression Scale (EDDS). Journal of Reproductive and Infant Psychology 1990;8(2):99-107.
95. Stein A, Pearson RM, Goodman SH, Rapa E, Rahman A, McCallum M, et al. Effects of perinatal mental disorders on the fetus and child. The Lancet 2014;384:1800-19.
96. Matthey S, Henshaw C, Elliott S, Barnett B. Variability in use of cut-off scores and formats on the Edinburgh Postnatal Depression Scale - implications for clinical and research practice. Archives of Women's Mental Health 2006;9(6):309-15.
97. Somerville S, Dedman K, Hagan R, Oxnam E, Wettinger M, Byrne S, et al. The perinatal anxiety screening scale: development and preliminary validation. Archives of Women's Mental Health 2014;17(5):443-54.
98. Matthey S. Using the Edinburgh Postnatal Depression Scale to screen for anxiety disorders. Depression and Anxiety 2008;25(11):926-31.
99. Austin MP, Marce Society Position Statement Advisory Committee. Marce International Society position statement on psychosocial assessment and depression screening in perinatal women. Best Practice Research Clinical Obstetrics Gynaecology 2014;28(1):179-87.
100. Priest SR, Austin MP, Barnett BB, Buist A. A psychosocial risk assessment model (PRAM) for use with pregnant and postpartum women in primary care settings. Archives of Womens' Mental Health 2008;11(5-6):307-17.
101. Blackmore ER, Carroll J, Reid A, Biringer A, RH G, Midmer D, et al. The use of the Antenatal Psychosocial Health Assessment (ALPHA) Tool in the detection of psychosocial risk factors for postpartum depression: A randomized controlled trial. Journal of Obstetrics and Gynaecology Canada 2006;28(10):873-8.
102. Murray L, Halligan SL, Goodyer I, Herbert J. Disturbances in early parenting of depressed mothers and cortisol secretion in offspring: a preliminary study. Journal Affective Disorders 2010;122(3):218-23.
103. Simkiss DE, MacCallum F, Fan EE, Oates JM, Kimani PK, Stewart-Brown S. Validation of the Mothers Object Relations scales in 2-4 year old children and comparison with the Child-Parent Relationship Scale. Health and Quality Life Outcomes 2013;11:49.
104. Taylor A, Atkins R, Kumar R, Adams D, Glover V. A new Mother-to-Infant Bonding Scale: links with early maternal mood. Archives of Women's Mental Health 2005;8(1):45-51.
105. Brockington IF, Oates J, George S, Turner D, Vostanis P, Sullivan M, et al. A screening questionnaire for mother-infant bonding disorders. Archives of Women's Mental Health 2001;3:133-40.
106. Carter AS, Godoy L, Marakovitz SE. Parent reports and infant –toddler mental health assessment. In: Zeanah CH, ed. Handbook of infant mental health 3rd ed. New York: Guildford; 2009. p.233-51.

107. Squires J, Bricker D, Heo K, Twombly E. Identification of social-emotional problems in young children using a parent-completed screening measure. Early Childhood Research Quarterly 2001;16:405-19.
108. Clatworthy J. The effectiveness of antenatal interventions to prevent postnatal depression in high-risk women. Journal of Affective Disorders 2012;137(1):25-34.
109. Milgrom J, Schembri C, Ericksen J, Ross J, Gemmill AW. Towards parenthood: an antenatal intervention to reduce depression, anxiety and parenting difficulties. Journal of Affective Disorders 2011;130(3):385-94.
110. Dennis C, Hodnett E. Psychosocial and psychological interventions for treating postpartum depression. Cochrane Database of Systematic Reviews 2007(4).
111. Dunn C, Hanieh E, Roberts R, Powrie R. Mindful pregnancy and childbirth: effects of a mindfulness-based intervention on women's psychological distress and well-being in the perinatal period. Archives of Women's Mental Health 2012;15(2):139-43.
112. Thomas N, Komiti A, Judd F. Pilot early intervention antenatal group program for pregnant women with anxiety and depression. Archives of Women's Mental Health 2014;17(6):503-9.
113. Green SM, Haber E, Frey BN, McCabe RE. Cognitive-behavioral group treatment for perinatal anxiety: a pilot study. Archives of Women's Mental Health 2015.
114. Yonkers KA, Wisner KL, Stowe Z, Leibenluft E, Cohen L, Miller L, et al. Management of bipolar disorder during pregnancy and the postpartum period. American Journal of Psychiatry 2004;161:608-20.
115. Doucet S, Jones I, Letourneau N, Dennis CL, Blackmore ER. Interventions for the prevention and treatment of postpartum psychosis: a systematic review. Archives of Women's Mental Health 2011;14:89-98.
116. Sockol LE, Epperson CN, Barber JP. Preventing postpartum depression: a meta-analytic review. Clinical Psychology Review 2013;33(8):1205-17.
117. Goodman JH, Guarino A, Chenausky K, Klein L, Prager J, Petersen R, et al. CALM Pregnancy: results of a pilot study of mindfulness-based cognitive therapy for perinatal anxiety. Archives of Women's Mental Health 2014;17(5):373-87.
118. Dennis CL. The effect of peer support on postpartum depression: A pilot randomized controlled trial. Canadian Journal of Psychiatry 2003;48(2):115-24.
119. Dennis CL. Psychosocial and psychological interventions for prevention of postnatal depression: systematic review. British Medical Journal 2005;331:1-8.
120. Zeanah CHE. Handbook of infant mental health. New York: Guildford Press 2009.
121. McDonough SC. Interaction guidance: An approach for difficult-to-engage families. In Zeanah CH, Jr. (Ed.). Handbook of infant mental health New York: Guildford Press 2000(2nd):485-93.
122. Cohen NJ, Muir E, Lojkasek M, Muir R, Parker CJ, Barwick M, et al. Watch, wait, and wonder: Testing the effectiveness of a new approach to mother–infant psychotherapy. Infant Mental Health Journal 1999;20(4):429-51.
123. Powell B, Cooper G, Hoffman K, Marvin RS. The circle of security. In Zeanah CH, Jr. (Ed.). Handbook of infant mental health New York: Guildford Press 2009(2nd):450-67.
124. Lieberman AF, Silverman R, Pawl JH. Infant-parent psychotherapy: Core concepts and current approaches. In Zeanah CH, Jr. (Ed.). Handbook of infant mental health New York: Guildford Press 2000(2nd):472-84.
125. Olds DL, Kitzman H, Hanks C, Cole R, Anson E, Sidora-Arcoleo K, et al. Effects of nurse home visiting on maternal and child functioning: age-9 follow-up of a randomized trial. Pediatrics 2007;120(4):e832-e45.

126. Olds DL, Sadler L, Kitzman H. Programs for parents of infants and toddlers: recent evidence from randomized trials. Journal of child psychology and psychiatry 2007;48(3-4):355-91.
127. Sadler LS, Slade A, Close N, Webb DL, Simpson T, Fennie K, et al. Minding the Baby®: Enhancing reflectiveness to improve early health and relationship outcomes in an interdisciplinary home visiting program. Infant Mental Health Journal 2013;34:391-405.
128. Rauh VA, Nurcombe B, Achenbach TM, Howell CT. The Mother-Infant Transaction Program: the content and implications of an intervention for the mothers of low-birthweight infants. Clinics in Perinatology 1990;17(1):31-45.
129. Kleberg A, Westrup B, Stjernqvist K, Lagercrantz H. Indications of improved cognitive development at one year of age among infants born very prematurely who received care based on the Newborn Individualized Developmental Care and Assessment Program (NIDCAP). Early Human Development 2002;68(2):83-91.
130. Melnyk BM, Crean HF, Feinstein NF, Fairbanks E. Maternal anxiety and depression following a premature infants' discharge from the NICU: Explanatory effects of the COPE program. Nursing Research 2008;57(6):383-94.
131. McCarton C. Behavioral outcomes in low birth weight infants. Pediatrics 1998;102(5, Suppl. E):1293-7.
132. Avon Premature Infant Project. Randomised trial of parental support for families with very preterm children. Archives of Diseases in Childhood, Fetal and Neonatal Edition 1998;79(1):F4-11.
133. Barlow J, Schrader McMillian A. Health led parenting interventions in Pregnancy and the Early Years.; 2008.
134. de Weerd S, van der Bij AK, Cikot RJ, Braspenning JC, Braat DD, Steegers EA. Preconception care: a screening tool for health assessment and risk detection. Preventive Medicine 2002;34(5):505-11.
135. Winterbottom JB, Smyth RMD, Jacoby A, Baker GA. Preconception counselling for women with epilepsy to reduce adverse pregnancy outcome (Review): Cochrane Database of Systematic Reviews; 2008.
136. Viguera AC, Nonacs R, Cohen LS, Tondo L, Murray A, Baldessarini RJ. Risk of recurrence of bipolar disorder in pregnant and nonpregnant women after discontinuing lithium maintenance. American Journal of Psychiatry 2000;157:179-84.
137. Boden R, Lundgren M, Brandt L, Reutfors J, Andersen M, Kieler H. Risks of adverse pregnancy and birth outcomes in women treated or not treated with mood stabilisers for bipolar disorder: population based cohort study. British Medical Journal 2012;345:e7085.
138. Boyce P, Galbally M, Snellen M, Buist A. Pharmacological management of major depression in pregnancy. In: Galbally M, Snellen M, Lewis A, editors. Psychopharmacology and pregnancy. New York: Springer Heidelberg; 2014. p.67-86.
139. Howard LM, Piot P, Stein A. No health without perinatal mental health. Lancet 2014;384:1723-4.
140. Cloverdale JH, McCullough LB, Chervenak FA. The ethics of randomized placebo-controlled trials of antidepressants with pregnant women: a systematic review. Obstetrics and Gynecology 2008;112(6):1361-8.
141. Yonkers KA, Wisner KL, Stewart DE, Oberlander TF, Dell L, Stotland N, et al. The management of depression during pregnancy: a report from the American Psychiatric Association and the American College of Obstetricians and Gynecologists. Obstetrics and Gynecology 2009;114(3):703-13.
142. Bennett HA, Einarson A, Taddio A, Koren G, Einarson TR. Prevalence of depression during pregnancy: systematic review. Obstetrics and Gynecology 2004;103(4):698-709.

143. Shea AK, Nguyen T-AT, Brain U, Rurak D, Oberlander TF. Maternal and fetal factors that influence prenatal exposure to selective serotonin reuptake inhibitor antidepressants. In: Galbally M, Snellen M, Lewis A, editors. Psychopharmacology and pregnancy. New York: Springer Heidelberg; 2014.

144. Paton C. Prescribing in pregnancy. British Journal of Psychiatry 2008;192(5):321-2.

145. Snellen M, Thompson G, Murdoch N. The process of obtaining informed consent when prescribing psychopharmacology in pregnancy. In: Galbally M, Snellen M, Lewis A, editors. Psychopharmacology and pregnancy. New York: Springer Heidelberg; 2014. p.5-18.

146. Taylor D, Paton C, Kapur S. Maudsley prescribing guidelines in psychiatry. 12th ed. Oxford UK: Wiley Blackwell; 2015.

147. Numan I, Ito SI, Koren G. Antidepressant medication and breast-feeding. In: Steiner M, Koren G, editors. Handbook of Female Psychopharmacology. London: Martin Dunitz; 2003. p.103-15.

148. Kohen D. Psychotropic medication and breast-feeding. Advances in Psychiatric Treatment 2005;11:371-9.

149. Rampono J, Kristensen JH, Ilett KF. Antidepressants and antipsychotics. In: Hale TW, Hartman PE, editors. Textbook of human lactation. Texas: Hale Publishing; 2007. p.535-55.

150. Moyneaux E, Howard LM, McGeown HR, Karia AM, Trevillion K. Antidepressant treatment for postnatal depression (Review): John Wiley and Sons; 2014.

151. Howard LM, Molyneaux E, Dennis CL, Rochat T, Stein A, Milgrom J. Non-psychotic mental disorders in the perinatal period. Lancet 2014;384:1775-88.

152. Cohen LS, Altshuler LL, Harlow BL, Nonacs R, Newport JD, Viguera C, et al. Relapse of Major Depression During Pregnancy in Women Who Maintain or Discontinue Antidepressant Treatment. American Medical Association 2006;295(5):499-508.

153. Yonkers KA, Gotman N, Smith MV, Forray A, Belanger K, Brunetto WL, et al. Does antidepressant use attenuate the risk of a major depressive episode in pregnancy? . Epidemiology 2011;22(6):848-54.

154. Viguera CA, Whitfield T, Baldessarini JR, Newport DJ, Stowe Z, Reminick A, et al. Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. The American Journal of Psychiatry 2007;164:1817–24.

155. Bergink V, Burgerhout KM, Weigelt K, Pop VJ, de Wit H, Drexhage RC, et al. Immune system dysregulation in first-onset postpartum psychosis. Biological Psychiatry 2013;73(10):1000-7.

156. DiFlorio A, Jones L, Fort L, Gordon-Smith K, Robertson Blackmore E, Heron J, et al. Mood disorders and parity – A clue to the aetiology of the post partum trigger. Journal of Affective Disorders 2014;152-154:334-9.

157. Bergink V, Bouvy PF, Vervoort JSP, Koorengevel K, Steegers EAP, Kushner SA. Prevention of postpartum psychosis and mania in women at high risk. American Journal of Psychiatry 2012;169(6):609-15.

158. Cohen LS, Sichel DA, Robertson LM, Heckscher E, JF R. Postpartum prophylaxis for women with bipolar disorder. The American Journal of Psychiatry 1995;152(11):1641-5.

159. Jones I, Chandra PS, Dazzan P, Howard L. Bipolar disorder, affective psychosis, and schizophrenia in pregnancy and the post-partum period. Lancet 2014;384:1789-99.

160. Northern Beaches Child and Family Health Service and The New South Wales Institute of Psychiatry. Getting to know you: recognising infant communication and social interaction [videorecording]. Bondi NSW: Hilton Cordell Productions; 2003.

161. Western Australian Department of Health. Early parenting groups: a facilitators guide. Perth: Child and Adolescent Health Service, Western Australian Department of Health; 2011.

162. Whiteside L, Barratt-Pugh C, Barblett L, Stamopoulos E, Knaus M, Targowska A, et al. Child and parent centres on public school sites in low socioeconomic communities in Western Australia: A model of integrated service delivery - Literature Review. Perth: Edith Cowan University.

163. Australian Association for Infant Mental Health Western Australian. Buidling the mental health of infants and young children in WA: Workforce compentency based training project. Perth: Australian Association for Infant Mental Health Western Australian; 2015.

164. Western Australian Department of Health. WA Health Information and Communications Technology (ICT) Strategy 2015–2018: Building a Strong Foundation. Perth: Western Australian Department of Health; 2015.

165. Government of Western Australia. Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015-2025 (consultation draft). Perth: Government of Western Australia; 2014.

166. Government of Western Australia. Mental Health Act 2014. Perth: Government of Western Australia; 2014.

167. Department of Health. National Mental Health Policy 2008. Canberra: Department of Health; 2009.

168. The Australian Council on Healthcare Standards. EQuIPNational (online); 2013 (cited 4 March 2015). Available from: http://www.achs.org.au/publications-resources/equipnational/.

169. Australian Government. National Standards for Mental Health Services 2010 (online). Canberra: Commonwealth of Australia; 2010 (cited 4 March 2015). Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-n-servst10.

170. Department of Health. The Fourth National Mental Health Plan: An Agenda for collaborative government action in mental health 2009-2014. Canberra: Department of Health; 2009.

171. Australian Commission on Safety and Quality in Health Care (ACSQHC). National Safety and Quality Health Service Standards. Sydney: Commonwealth of Australia; 2011.

172. Western Australian Department of Health, Western Australian Mental Health Commission. Review of the admission or referral to and the discharge and transfer practices of public mental health facilities/services in Western Australia. Perth: Western Australian Department of Health; 2012.

173. Western Australian Department of Health. Admission, Readmission, Discharge and Transfer Policy for WA Health Services. Perth: Western Australia Department of Health; 2012.

174. Carers WA. Who are carers (online); 2015 (cited 4 March 2015). Available from: http://www.carerswa.asn.au/information-and-support/who-are-carers/.

175. World Health Organisation. The Ottawa Charter for Health Promotion (online). Ottawa: World Health Organisation; 1986 (updated 2015; cited 25 March). Available from: http://www.who.int/healthpromotion/conferences/previous/ottawa/en/.

176. World Health Organisation. Mental health: strengthening our response (online); 2014 (cited May 2015). Available from: http://www.who.int/mediacentre/factsheets/fs220/en/.

177. Ross LE, McLean LM. Anxiety disorders during pregnancy and the postpartum period: A systematic review. Journal of Clinical Psychiatry 2006;67.

178. Equal Opportunity Commission. The Policy Framework for Substantive Equality "If you want to treat me equally, you may have to be prepared to treat me differently". Perth: Equal Opportunity Commission.

179. Commissioner for Children and Young People Western Australia. Report fo the Inquiry into the mental health and wellbeing of children and young people in Western Australia. Perth: Commissioner for Children and Young People Western Australia; 2011.

180. Mental Health Commission Western Australia. Mental Health 2020: Making it personal and everybody's business. Action Plan 2011-2012. Perth: Mental Health Commission Western Australia; 2012.

181. COAG Health Council. Framework for the National Perinatal Depression Initiative 2008-09 to 2012-13. (online) 2009 (cited 25 March 2015). Available from: http://www.coaghealthcouncil.gov.au/Publications/Reports/ArtMID/514/ArticleID/39/Framework-for-the-National-Perinatal-Depression-Initiative-2008-09-to-2012-13.

182. McHenry JA, Donovan RJ. Developing the Perth charter for the promotion of mental health and wellbeing. Advances in Mental Health 2013;12(1):8-10.

183. Australian Health Ministers' Conference. National Maternity Services Plan. (online) 2010 (cited 25 March 2015). Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/8AF951CE492C799FCA257BF0001C1A4E/$File/maternityplan.pdf.

184. Western Australian Department of Health. Improving maternity services: Working together across Western Australia - A Policy Framework. Perth: Health Policy and Clinical Reform, Western Australian Department of Health; 2007.

185. Western Australian Department of Health. Western Australian Women's Health Strategy 2013-2017. Perth: Women's Health Clinical Care Unit, Women and Newborn Health Service, Western Australian Department of Health; 2013.

186. Fredericks B, Adams K, Angus S, The Australian Women's Health Network Talking Circle. National Aboriginal and Torres Strait Islander Women's Health Strategy. Melbourne: Australian Women's Health Network; 2010.

187. Department of Health. National Standards for Mental Health Services. Canberra: Department of Health; 2010.

188. Marsh A, Towers T, O'Toole S. Trauma-informed treatment guide for working with women with alcohol and other drug issues. Perth: Women's Health and Family Services; 2011.

189. Michigan Association for Infant Mental Health. Competency Guidelines: MI-AIMH endorsement for culturally sensitive, relationship focused practice promoting Infant Mental Health: Michigan Association for Infant Mental Health; 2009.

190. Priebe S, Matanov A, Schor R, Straβmayr C, Barros H, Barry MM, et al. Good practice in mental health care for socially marginalised groups in Europe: a qualitative study of expert views in 14 countries. BMC Public Health 2012;12(248):1-12.

191. Buist AE, Austin MP, Hayes BA, Speelman C, Bilszta JL, Gemmill AW, et al. Postnatal mental health of women giving birth in Australia 2002-2004: findings from the beyondblue National Postnatal Depression Program. Australian and New Zealand Journal of Psychiatry 2008;42(1):66-73.

192. Schmied V, Kruske S, Barclay L, Fowler C. National framework for universal child and family health services: Australian Health Ministers' Advisory Council; 2011.

PART 2

Perinatal and Infant Mental Health Model of Care

Part II: Model of Care

"The right care, at the right time, by the right team, and in the right place" ([Model of Care Overview and Guidelines 2007; WA Health Strategy and Networks)](#)

The Model of Care is structured in three Sections: Section 1 states the Purpose and Guiding Principles; Section 2 outlines the Recommendations with broad strategies for fulfilling them; and Section 3 provides a Service Guide.

Services desiring to provide for the mental health needs of parents during the perinatal period, and for that of babies and very young children, can use the Service Guide to shape their programs and service design. The Service Guide provides the key skills requirements, potential service providers and the service components across the continuum of care. These are set out in tables according to the stages: pre-pregnancy, pregnancy/ birth, postnatal, infant 0-2 years of age and early childhood 2-4 years of age.

Section 1

1.1 Purpose

The Model aims to define evidence-based best practice and service delivery across the continuum of care in the perinatal and infant/child period. There is a focus on integration across government, non-government and the private sector service providers. The Model supports a multidisciplinary approach with collaborative decision-making between consumers and health professionals, including providing services in ways that are respectful of families' knowledge of their own babies and children.

This Model is consistent with [the Perinatal and Infant Mental Health Strategic Framework 2012](#)[3] and builds upon the notion of family-centric care highlighted in the Framework. In addition, the development of the Model has been informed by a range of key international, national and state frameworks, plans and reports relating to best-practice in the delivery of perinatal and infant/child mental health services (see Part 1 [Background to the Model of Care](#)).

More specifically, as depicted in [figure one](#) below, the Model provides a foundation on which to plan and deliver evidence-based, best practice services across the continuum of care, ranging from prevention to treatment and management in the pre-pregnancy, pregnancy/ birth, postnatal and infant/child periods. Just as the broader community values good physical health and wellbeing, the Model recognises that equal emphasis on emotional health of pregnant women, mothers, fathers, partners, babies, and children is integral to a well-functioning society. This Model reflects the importance of a consistent infant-caregiver relationship, whether that caregiver be the child's mother, father, or another person providing care for the baby or small child.

This Model recognises a continuum of services spanning across universal services (prevention and health promotion), targeted services (intervention addressing identified risks factors), secondary level services (preventative intervention addressing early manifestations, and moderating the progression of perinatal and infant mental health problems) and tertiary level services (expert intensive treatment for the resolution of identified mental health disorders), The target of intervention and/or treatment can be a range of variables including maternal mental

health concerns/disorders, infant/child social and emotional disturbance, the attachment relationship between children and their parents, parenting behaviours and family functioning.

The Model also recognises the need to create an environment that supports participation by consumers and carers in decision-making and managing their own health. Access to peer support workers who bring lived-experience of perinatal mental health issues is therefore an important component of the healing journey.

Building on the knowledge, best practice, service delivery models and capacity of existing programs, the principles outlined within this Model can be used to address the existing gaps in service provision.

1.2 Guiding principles

The Model is based upon the strategic guiding principles set out in The Perinatal and Infant Mental Health Strategic Framework 2012.[3]

- Promotion of emotional health and wellbeing of women, their infants/children and families.
- Embracing diversity within the population and communities of WA.
- Substantive equality and access to services that are timely and responsive.
- Partnerships and collaboration in the provision of care and services.
- Consumer-centred services that recognise the needs of infants and young children and that seek to optimise the child-caregiver attachment relationship.
- Accountability within a clearly identified safety and quality framework.

Figure 1: Conceptual model of care

Section 2

2.1 Recommendations

The recommendations for the provision of care and the delivery of perinatal and infant/child mental health services are presented in the following subsections below.

1. Consideration of the whole family
2. Meeting the needs of vulnerable groups
3. Health promotion, illness prevention, detection, and early intervention
4. Treatment and management
5. Planning, integration and coordination of services
6. Building and supporting the workforce
7. Supporting research and the development of a local evidence base

Each section includes recommendations, a summary of key issues, and specific strategies to inform policy development and improve service delivery. It is inevitable, and to some extent desirable, that some overlap will occur within the suggested strategies across the recommendations.

In the following recommendations, the term 'parents' is used loosely to include foster parents and other extended family members caring for infants and young children.

2.1.1 Consideration of the whole family

> Ensure that the mental health needs of parents and their infants and young children are considered simultaneously, and collaboratively, at all levels of service delivery.

Mental disorder in one family member can affect the wellbeing of others in the family. Because a well-functioning family environment supports recovery, the needs of parents and infants/children in the perinatal and early childhood period are best met by integrated services that provide coordinated care and consider the needs of, and include, every family member.

Strategies:

a) Service policies to reflect a consumer-focused and family-centred approach that considers the mental health needs of all members of the family.

b) Services devise clear care pathways, both internal and external, that support the needs of families with whom they engage.

c) Engage consumers and carers in a timely and meaningful way in the development and improvement of service delivery.

d) Involve the woman, and if she agrees, her partner, family and carer, in all decisions about her care and the care of her baby.

e) All levels of service demonstrate focus on supporting healthy family relationships.

f) Make purposeful efforts to involve fathers or partners who experience difficulty accessing services.

g) Encourage the provision of crèche facilities for women attending services specifically aimed at maternal mental health needs.

h) Encourage services to include programs which can flexibly involve infants and small children alongside their parents or other caregivers.

2.1.2 Meeting the needs of vulnerable groups

> **Recommendation 2**
>
> Specifically recognise the needs of vulnerable groups in service planning and provision of perinatal and infant/child mental health services

Any interventions and support across the continuum of care for perinatal and infant/child mental health need to be sensitive to the unique needs of WA's vulnerable groups, recognising diversity, reflecting cultural expectations and requirements, and employing principles of substantive equality wherever possible.

As discussed in Part I of this document, many individuals are made vulnerable by their history and current circumstances. Their vulnerability may be intensified by the vastness and geographical complexity of WA.

When dealing with vulnerable groups, including those who experience a sense of stigma, best practice exists where mental health services meet four criteria.[190]

- **Early identification** and engagement of those in need through provision of primary care services and community-based outreach programmes.
- **Facilitating access** to services that cater to a number of different aspects of mental health care, where possible reducing the need for referrals to multiple services.
- **Strengthening the collaboration** between different services so that there is a well-functioning working relationship between services whose focus is on the infant/child as well as children/adolescent and adult mental health services.
- **Disseminating information** to both consumers and professionals about the needs of marginalised groups and the services available to them.

Strategies:

a) Develop service and workforce capacity to detect and respond to the increased risk of vulnerable communities, emphasising service planning and a delivery model that is flexible, equitable, timely, respectful, sensitive, empathic and recognises diversity.

b) Develop accessible programs and outreach services specific for, but not limited to, Aboriginal communities and ethnic minority groups.

c) Consult and build strong working relationships with other services that work with high risk populations, such as Child Protection and Family Support Services, Drug and Alcohol

Services, Department of Corrective Services, and specialised Aboriginal and Refugee services.

d) Create and provide accessible information of services that are available for specific vulnerable groups.

e) Develop practice guidelines for professionals across services that promote awareness and sensitivity to a family's needs during childbirth and outline skills needed to recognise and respond to vulnerabilities that can negatively impact on a family's experience of childbirth. This may include consideration of culture, religion, experiences of trauma and those with a history of abuse.

f) Provide trauma-informed models of care and ensure sensitive practices inform planning for, and care during the birth process for women with a history of sexual trauma.

2.1.3 Health promotion, illness prevention and early intervention

> **Recommendation 3**
>
> Develop a comprehensive approach to perinatal and infant/child mental health promotion, illness prevention, detection, and early intervention.

It is crucial that strategies addressing perinatal and infant/young child mental health are integrated with existing health policy, and across living and working environments for communities and individuals. Thus, a comprehensive approach to health promotion and illness prevention requires broad action across a variety of settings and target groups, throughout the perinatal period. This includes identification of barriers to both screening and engagement with services.

Screening is used for the purpose of identifying people, including infants and very young children, at increased risk for mental health problems, and should always lead to further assessment if needed. Screening requires the availability of professional services to follow up identified problems. Thus, defined referral pathways are a necessary aspect of any screening protocol.

Strategies:
a) Develop a health promotion framework explicitly addressing perinatal and infant mental health. Content needs to include the importance of relationships within and outside the family, protective factors, risk factors and warning signs; and promotion of help-seeking behaviours, to complement formal screening protocols. A further essential feature should be the promotion of information providing a realistic understanding of issues that are often present for expectant parents and families with babies and very young children that encourages supportive behaviours within the community.

b) Promote healthy attitudes and behaviours in all women of childbearing age with consideration of their emotional, physical and sexual wellbeing.

c) Develop a screening and assessment process/schedule, across sectors, at regular time-points during pregnancy, the postnatal period, infancy and early childhood. Promote

universal screening using reliable and valid tools for early identification of perinatal mental health disorders, parental and infant/child mental health problems and assessment of family functioning.

d)   Recognise the limitations of current screening tools for some vulnerable groups, and encourage the development of appropriate assessment processes to identify risk and promote health.

e)   Promote recognition that for women with specific risk factors, such as pre-existing mental illness, intervention needs to begin during the period in which conception is considered, and extend to provision of services to support the wellbeing of their existing and future children.

f)   Ensure that intervention is implemented as early as possible for babies and children identified at risk, and for their parents.

2.1.4 Treatment and management

Recommendation 4

Treatment and management for perinatal and infant/child mental health problems to be based on best practice principles, and include clear referral pathways, stepped care, and ongoing access to support services.

This recommendation spans across service settings, agencies and levels of complexity. Wherever possible, mothers and their babies need to be treated and cared for together.

During the perinatal period, parents and children will come under the care of many different agencies and clinicians of various professional disciplines. It is necessary that those providing care for parents, infants and very young children are aware of their mental health needs, and act in a way to promote healthy adaptation at each stage. Strong working relationships between healthcare and other service providers are essential in developing and sustaining an integrated cohesive care pathway.

A stepped care approach ensures that a woman or infant/child presenting with a mental health disorder across the perinatal and early childhood period receives systematic follow up which is appropriate to the individual's stage of recovery. Clear communication and collaboration between health professionals, parents and family supports is critical to best practice, and enables an experience of seamless care across primary, secondary and tertiary levels.

Strategies:

a)   Health assessment of mothers, fathers, infant and small children to include documented attention to their current mental wellbeing.

b)   Services develop and use a comprehensive mental health assessment process that is appropriate to perinatal and infant mental health, and capable of identifying specific problems requiring intervention, with consideration of acuity, severity and complexity.

c) Following a comprehensive assessment, care plans are developed in consultation with the woman and her partner/support person and shared with those involved in her care during the perinatal period, allowing for modification over time.

d) Care plans and protocols involve assertive monitoring, particularly in the first few weeks after childbirth and early intervention for patients with a history of mental illness, as well as for those identified at significant risk.

e) Include in the care plan: treatment for the mental health problem, how frequently during the perinatal period monitoring should occur and the roles of all healthcare professionals, including who is co-ordinating the plan.

f) At every level, recognise the value of input from clinicians of various disciplines, wherever possible including those with specialist PIMH expertise.

g) Ensure access and provide clear referral pathways to perinatal and infant/child consultation liaison services within hospitals providing obstetric and paediatric care.

h) Support the development of services able to provide step up and step down levels of care appropriate to needs of the mother, infant and family at different times along the continuum of care, such as inpatient or residential care, day programs, and home-based treatment and support.

i) Standard practice of Mother and Baby Mental Health Units should include psychiatric care and treatment for women who develop a serious mental health disorder in the perinatal period in addition to interventions and psychological therapies to improve the mother-infant relationship, and support for partners and other family members, including siblings.

j) Services working in the perinatal and infant/child realm continue working together to develop clinical interventions that include dyadic/triadic therapy models which address difficulties within the parent-infant/child relationship and incorporate a specific focus on engaging fathers in the therapeutic process.

k) Promote provision of intensive day-stay services that minimise the separation of baby and other small children in the family from their parent, and support the capacity of inpatient units to provide for mother and baby together.

l) Adult and infant/child services create formal liaison arrangements allowing collaboration and coordination of care, which includes consultation and liaison with each other to provide support for infant/child mental health concerns identified in adult services and perinatal concerns in infant/child services.

m) Comprehensive discharge planning in collaboration with the family and relevant community organisations combined with clear clinical handover processes will support transitioning of care and sustained recovery.

n) Recognise and respond to the needs of parents with enduring and significant mental illness, and their children, for ongoing and targeted interventions to support optimal parenting and children's development.

2.1.5 Planning, integration and coordination of services

> **Recommendation 5**
>
> Perinatal and infant/child services work together to establish referral, care and treatment pathways across agencies and the continuum of care to ensure a family's experience of services is seamless, equitable and inclusive.

At present many referral pathways in use are between single agencies or services and there are few pathways that fully address the needs of the mother, father, infant and wider family system. Cross-sector collaboration within and between government and non-government agencies is required to enhance the continuity of care across current service boundaries.

Special attention must be given to changes in service providers during the antenatal, labour/birth and postnatal period with a focus on comprehensive handover within and between services for mothers and for their children, to ensure ongoing engagement and support management.

Strategies:

a) Establish clearly articulated agreements, including Memoranda of Understanding, between perinatal and infant/child mental health service providers to improve communication and enhance service delivery.

b) Review handover protocols across all services to improve continuity of care between pregnancy and postnatal service providers for mothers and babies.

c) Promote sustainable funding models and partnerships between funding bodies to ensure equitable service access and continuity of care consistent with good clinical practice.

d) Encourage the development of clear referral and treatment pathways across private and public community and hospital services that are relevant to the local context.

e) Broaden availability and accessibility of services appropriate to the needs of vulnerable groups for care and support and therapeutic intervention.

f) Encourage forward planning that involves the use of diverse and flexible modes of service delivery according to the needs of families.

g) Promote use of the [Service Guide](#) to all health service professionals and service planners.

2.1.6 Supporting the workforce

> **Recommendation 6**
>
> Consolidate perinatal and infant/child mental health service provision through the development of a dedicated and competent workforce.

Many people are strongly motivated to work in the field of perinatal and infant mental health, but in practice, the work is often emotionally taxing in ways that the person may not have anticipated. Workers may have considerable competence in working with adults, but less in working with babies and young children, and vice versa. Hence it is important to have opportunities for developing competence through training and supervision.

Good clinical care can be compromised when workers are not able to acknowledge their own needs, or find support in circumstances where they find themselves overwhelmed. Ensuring staff have effective and timely support mechanisms, such as clinical and reflective supervision, helps to reduce the burden on health professionals and ultimately improves service functioning and the patient journey. For many front line service providers such as child health nurses, midwives, peer support workers or GPs working with women and their families, participation in reflective clinical supervision has not traditionally formed part of their expected role and responsibilities, and this constitutes an unrecognised gap.

Opportunities for supervision and reflection may be particularly important in not only supporting the regional workforce, but also as a means to promote workforce retention and improve continuity of care in regional areas.

The need and desire for dedicated training in perinatal and infant mental mealth has been well-demonstrated in workforce mapping.[163]

Strategies:

a) Support formal education and training frameworks which improve coordination of training, define core competencies, and promote uniform training requirements necessary for best practice for service planning, screening, risk assessment and referral for perinatal and infant/child mental health.

b) Develop best practice guidelines for professionals' access to supervision, debriefing and reflective practice to support the entire workforce, paying particular attention to additional measures, such as use of telehealth and video-conferencing technology that might be necessary to support and retain the workforce in regional and remote areas of WA.

c) Identify strategies to ensure practitioners have the necessary skills and knowledge to conduct universal screening and the capacity to detect and respond to increased risk with flexibility and empathy.

d) Promote the development and use of competence frameworks that allow measurable demonstration of professional competence.

2.1.7 Supporting research and the development of a local evidence base

Recommendation 7

To aid the expansion of the local evidence base, encourage and support research as an integral part of clinical programs and service development.

Few WA services or programs are supported by local research demonstrating their efficacy and acceptability. Notable exceptions are the implementation of universal postnatal screening with

the EPDS, which stemmed from a collaboration between WA services and *beyondblue*[191] thus establishing the acceptability of screening within the local community, and the Kalyakool Moort project , which is engaging in broad consumer and professional consultation in order to develop screening protocols appropriate to Aboriginal parents during the perinatal period.

Consultation during the development of this Model of Care revealed a deep commitment across services and professional disciplines to supporting the mental health needs of parents and their babies and young children. Many clinicians have engaged in extra professional training to enhance their skills. Some services have developed innovative protocols and interventions, and demonstrated their success through evaluation, but there is little published within the literature.

Strategies:

a) Encourage services to engage in evaluation and audit processes to demonstrate the efficacy of programs and interventions

b) Support the development of research initiatives into the needs of families during the perinatal period, including infants and small children

c) Support collaboration between clinicians, services and researchers

d) Support the publication of research results that have been subjected to formal peer review processes

e) Use local research that has been subjected to formal peer review processes and published, to inform future policy and service provision.

f) Encourage the formation and support the maintenance of linkages between data collection systems related to perinatal and infant health, including mental health, throughout WA.

Section 3

3.1 Perinatal and Infant Mental Health Service Guide

This section sets out the strategic and operational guiding principles for the Model. It describes the key components of service delivery, progressing chronologically over the pre-pregnancy, pregnancy/birth and postnatal care periods, and working systematically across the continuum from health promotion towards treatment and management. The period of infancy uses the same parameters for service delivery for 0-2 years of age, and early childhood is defined as 2–4 years of age for the purposes of the Model.

The following tables set out key skills requirements, potential service providers and service components across the continuum of care service provision, under the headings: Universal Services, Early Identification (primary level), Targeted Services (Primary/secondary level), Management/Treatment (Secondary/tertiary level), and Intensive treatment (Tertiary level).

The tables are designed to promote use by service planners and providers who are developing or delivering perinatal and infant/child mental health services. The cut-off points between table cells have been chosen arbitrarily to assist clarity, however it is important to recognise that this Model promotes and encourages clinicians and other service providers to work together at a number of levels of care.

It is recognised that many services will only be able to provide some of the service components listed within the tables, and that individual services and agencies may focus of delivering particular aspects of education or care.

A list of the professional disciplines likely to be involved in delivering care at each level is provided. While it is recognised that some workers, for example a neonatal nurse, family support worker or pharmacist, may be involved in the care of patients receiving tertiary level treatment, their role is likely to be adjunctive. While trying to be inclusive of all clinicians and workers involved in the care of perinatal women and their children, the focus at each level of service delivery is on the role and training requirements of those who are providing mental health care.

The definitions used to describe the services are based on those used in the National Framework for Universal Child and Family Health Services 2011.[192]

Universal services are those that 100% of families are able to access, often at the primary health care level, and meeting the needs of pregnant women, children and families at multiple contact points. Such services focus on increasing protective factors and reducing risks that impact on health and wellbeing, and provide early identification and referral for children and families who may require targeted, secondary or tertiary specialist services.

Targeted services focus on children, families or communities who have additional needs, increased likelihood of poor health, or developmental outcomes. Such services are often provided from within the universal platform and aim both to minimise the effect of risk factors, and to build resilience. Importantly, targeted services and supports work to reduce inequalities in outcomes between different population groups.

Secondary level services also form part of targeted services, and usually fall outside the scope of practice of universal service providers. Frequently referral is required from a primary health or other service provider.

Specialist or intensive tertiary services involve individually tailored responses to a particular woman, child or family situation that often requires high levels of expertise from a multidisciplinary team.

The abbreviation 'PIMH' is used throughout to denote 'perinatal & infant mental health'.

.

Table 1: Pre-pregnancy mental health care

Universal services Primary level	Early identification Primary level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive treatment Tertiary level
Potential service provider				
• GP, child health nurse, midwife, health promotion officer, dietician, Aboriginal health worker, community service worker, peer support, school teacher, school nurse, pharmacist	• GP, obstetrician, fertility specialist, child health nurse, midwife, mental health nurse, Aboriginal health worker, psychologist	• GP, community psychiatrist, obstetrician, fertility specialist, fertility counsellor, child health nurse, midwife, mental health nurse, Aboriginal health worker, psychologist, peer support worker, social worker	• GP, psychiatrist, mental health nurse, clinical psychologist, social worker, occupational therapist with mental health expertise, Aboriginal health worker, peer support worker	• PIMH psychiatrist, specialist clinical psychologist, perinatal & infant mental health nurse, social worker or occupational therapist with perinatal mental health expertise, Aboriginal health worker with perinatal mental health expertise
Required training				
• Competence in engaging and communicating with individuals, couples and family members • Knowledge and awareness of healthy life style choices for parents and babies which promote positive emotional health • Health staff – professional education on pre-pregnancy care, sexual health and contraception	• Competence in engaging and communicating with individuals, couples and family members • Competence in promoting engagement in mental health care • Professional education on pre-pregnancy mental health care	• Competence in engaging and communicating with individuals, couples and family members • Competence in engaging the individual, couple or family in specific behaviours or interventions • Competence in making a bio-psychosocial assessment leading to a detailed formulation and care plan • Competence in identifying and liaising with appropriate	• Specialist formal education and training on PIMH management and treatment • All previously mentioned competencies • Competence in provision of specific therapies and interventions	• Specialist expertise and experience in addition to formal PIMH education and training management and treatment • All previously mentioned competencies • Competence in provision of specific therapies and interventions for complex and severe presentations

Universal services Primary level	Early identification Primary level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive treatment Tertiary level
		• services on the woman and family's behalf • Basic knowledge about fetal development and the psychological and physiological processes of pregnancy • Professional PIMH education and training		
Service components				
• Promote the woman and her family's engagement in pre-pregnancy care • Provide information on health lifestyle and behaviours, planned conception, appropriate nutrition, including folic acid supplements • Encourage optimisation of physical and mental health • Discussion of bio-psycho-social risk factors, including issues related to family and domestic violence, misuse of alcohol and other drugs, smoking • Discussion on expectations of parenting	• Promote the woman and her family's engagement in pre-pregnancy care • Screening – bio-psycho-social risk assessment • Mental state assessment • Health condition management • Genetic screening • Referral to specialist services if indicated e.g. gynaecology, genetics, endocrinology, drug and alcohol units, andrology, psychiatric services, fertility	• Promote the woman and her family's engagement in pre-pregnancy care • Detailed bio-psychosocial assessment to identify particular risks for the woman and her family • Individualised pre-pregnancy counselling inclusive of available options where potential hurdles are identified, including risk/benefit discussion of treatment options • Discussion about expectations of parenting and planned supports • Information on planned conception • Couple/family counselling to	• Promote the woman and her family's engagement in pre-pregnancy care • Psycho-education and discussion with the woman and her support person, identifying and addressing particular issues of concern for the woman and her family • Information on planned conception • Pre-conception medication review and management plan • Collaboration/liaison with relevant specialists • Optimise management of identified health problems	• Promote the woman and her family's engagement in pre-pregnancy care, particularly encouraging engagement with ongoing service providers • Detailed assessment of individual, couple and family functioning • Recognition and management of identified vulnerabilities at both an individual and systemic level • Optimise family functioning, especially for families with a history of parenting difficulties • Preconception counselling for women

65

Universal services Primary level	Early identification Primary level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive treatment Tertiary level
and required supports • Provide school-based sexual health, mental health and respectful relationships programs and promotion of healthy lifestyle • Contraception information and advice • Advocacy for healthy communities and safe environments, access to services in the local community • Promotion of healthy and strong family relationships and support	specialist, sexual assault services	strengthen relationships and support networks • Address modifiable risk factors to ensure optimal environment for potential fetal growth • Promotion of self-management • Non-judgemental support for family planning decisions • Referral to an infertility counsellor who has specialist knowledge on the spectrum of psychosocial/legal implications of infertility treatment including donor conception and surrogacy • Culturally sensitive and specific support services and groups • Support and engagement with PIMH research	• Optimise management of alcohol & drug problems • Psychotherapeutic interventions, such as individual, couple and family counselling • Non-judgemental support for family planning decisions • Monitoring mood and psychological well-being • Promotion of self-management • Liaison/collaboration between services involved in the individual's care • Support and engagement with PIMH research	with serious mental illness • Identification of services and supports involved in care and establishment of communication and feedback pathways • Pre-conception medication review and management plan with consideration of risk/benefit profile for the woman and the fetus • Collaboration/liaison with other clinicians and services involved in care • Support and engagement with PIMH research

Table 2: Pregnancy mental health care

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
Potential service provider				
• GP, midwife, peer support worker, health promotion officer, Aboriginal health worker, community service worker, volunteers, librarian, pharmacist	• GP, obstetrician, practice nurse/midwife, midwife, mental health nurse, child health nurse, Aboriginal health worker, counsellor, psychologist, volunteer worker	• GP, midwife, obstetrician, psychiatrist, mental health nurse, Aboriginal health worker, psychologist, community service worker, peer support worker, volunteers, social worker, health promotion personnel	• Community psychiatrist, GP, midwife, mental health nurse, clinical psychologist, social worker/occupational therapist with mental health expertise, Aboriginal health worker with mental health expertise, peer support worker	• Perinatal and infant psychiatrist, midwife with mental health expertise, perinatal and infant mental health (PIMH) nurse, clinical psychologist, social worker/occupational therapist with PIMH expertise, Aboriginal health worker with PIMH expertise
Required training				
• Competence in engaging and communicating with individuals, couples and family members • Knowledge and awareness of healthy life style choices for parents and babies which promote positive emotional health • Health staff - Specific training in screening and recognition of perinatal mental illness risk	• Competence in engaging and communicating with individuals, couples and family members • Competence in promoting engagement in mental health care • Professional education about pregnancy mental health care • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on	• Competence in engaging and communicating with individuals, couples and family members • Competence in engaging the individual, couple or family in specific behaviours or interventions • Competence in making a bio-psychosocial assessment leading to a detailed formulation and care plan	• Specialist formal education and training on PIMH management and treatment • All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions	• Specialist expertise and experience, in addition to formal PIMH education and training, as well as continuing professional development to maintain relevant and current specialist knowledge e.g. of psychotropic medications in pregnancy • All previously mentioned competencies, knowledge and skills

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
	pregnant women and the developing fetus • Specific training in screening and recognition of mental illness risk	• Competence in identifying and liaising with appropriate services on the woman and family's behalf • Basic knowledge about fetal development and the psychological and physiological processes of pregnancy • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on pregnant women and the developing fetus • Training in identification of risk, referral pathways and perinatal and infant mental health		• Competence in provision of specific therapies and interventions for complex and severe presentations
Service components				
• Routine pregnancy checks which include depression/anxiety, psychosocial risk screening e.g. EPDS, *beyondblue* questions • Health information to promote awareness of importance of maintaining emotional	• Depression/anxiety (EPDS) screen and psycho-social assessment at least twice during pregnancy, in the first and third trimester • Screening (through personal engagement and inquiry) for	• Community and hospital based midwifery pregnancy care to include early intervention for mental health concerns, monitoring and support • Detailed bio-psychosocial assessment to identify	• Promote the woman and her family's engagement in pregnancy care • Detailed bio-psychosocial assessment to identify particular risks for the woman and her family • Development of a comprehensive	• Specialist PIMH consultation liaison psychiatrist-led multidisciplinary service to pregnant women at identified risk of mental health disorder or who have significant pregnancy complications • Seamless transition

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
wellbeing and mental health • Promote knowledge and awareness of the impact of drug and alcohol misuse and smoking on the pregnant woman and the developing fetus. • Discussion and information focused on couples' reactions and experiences around pregnancy, birth and parenthood to facilitate positive adaptation to life stage • Information promoting couple co-operation and effective communication regarding expectations, needs and changing demands • Pregnancy education inclusive of emotional health and social support for expectant parents (verbal information, modelling, print material, web-based information, social media) • Expectant dads education to promote	ambivalence about pregnancy and relating to the unborn baby • Screening for risk of harm to parent, fetus or other children including relational violence and drug and alcohol use • Provide information and assistance for families to access appropriate services, community networks and links • Provide education and resources about expectant parent emotional health and wellbeing • Provide education and resources about child development and positive parenting approaches e.g. building healthy attachment relationships, Circle of Security etc. • Education and support for positive adaptation to the physical and emotional changes in pregnancy • Education and	particular risks for the woman and her family • Access to specialist perinatal psychiatric consultation for women on psychotropic medications in pregnancy or with existing mental health conditions • Continued screening (through personal engagement and inquiry) for ambivalence about pregnancy and relating to the unborn baby • Continued assessment and management of risk to parent, fetus or others including smoking, drug and alcohol misuse, and relational violence • Psycho-education regarding pregnancy and mental health • Facilitation of referral to appropriate health professionals as required • Culturally sensitive and specific support services and groups • Access to perinatal loss	pregnancy and birth care plan with the woman and her partner, which includes attention to prescription and monitoring of psychotropic medication, consideration of psychotherapeutic treatments, and the need for social support for the family during pregnancy and into the postpartum period. • Use of validated psychometric instruments to inform treatment needs, monitor functioning and measure progress and outcomes • Care planning is collaborative and respectful of a woman's needs/preferences regarding treatment during pregnancy, as well as her labour and birth experience • Liaison, collaboration and communication with and between the woman and her supports, mental health services,	between PIMH care provided for outpatients or during periods of obstetric, general, or mental health inpatient admission • Continuity of care with stable midwifery and other professional staff • Family centred approach to involve partners, children and other carers in the care plan and addressing their support needs as appropriate • Monitoring of mental state, mood, behaviour and coping to inform management • Specialist childbirth and serious mental illness (SMI) pregnancy clinics incorporating mental health, social and physical care in pregnancy • Effective handover of patient care between pregnancy and postnatal follow up mental health services • Engagement in

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
appropriate expectations and support • Education and discussion about infant social and emotional development, and infants' interest in relationship, as well as the benefits they experience from caregivers' capacity to engage with them in an attuned way • Community level activities and events which promote healthy functioning and support for young families e.g. expos, fundraisers, fairs • Information on community resources and activities easily available • Advocate for effective town planning to enhance community identity, safety and support • Advocate for workplace and employer support during the perinatal period both financially	discussion regarding the birth process to elicit and/or address fears about childbirth • Facilitate referral for further assessment where there are existing mental health conditions, or concerns about risk or emotional wellbeing • Maintain knowledge and resources regarding appropriate referral pathways • Family centred approach to involve partners, children and other carers in care planning	support services e.g. SIDS and Kids • Family centred approach to involve partners, children and other carers in care planning • Care planning is collaborative and respectful of a women's needs/preferences regarding her labour and birth experience • Provision of professional training, both didactic and experiential to support workforce development and promote collaborative interagency relationships • Support and engagement with PIMH research	maternity and other services to optimise ongoing pregnancy care and postnatal planning. • Optimise management of alcohol & drug problems • Psychotherapeutic interventions, such as individual, group, couple and family counselling • Engagement in interventions which allow discussion of ambivalence about pregnancy and relating to the unborn baby and promote pregnancy bonding between parent and unborn infant • Preventative attachment-based therapeutic approaches where indicated • Non-judgemental support for decisions made by the family in circumstances of compromised pregnancy • Facilitation of access to a wide range of health and support services, including peer support	interventions which promote discussion and intensive therapeutic intervention where there is ongoing ambivalence about pregnancy and parental difficulties in relating to the unborn baby • Consideration of postnatal planning for support of the parent-infant relationship, and/or infant mental health needs • Consultation with and between specialist psychiatrists, pharmacists, obstetricians, obstetric physicians, maternal fetal medicine specialists, and neonatologists to inform and optimise management • Established and effective processes for interagency communication within and between Government and non-government organisations (which may

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
and practically.			groups, tailored to the woman and her family's needs • Continuity of care model for pregnancy services with consistency in staff caring for the woman throughout her pregnancy • Development and maintenance of therapeutic treatment and support services which meet the mental health needs of local pregnant women and their partners • Establishment of step up and step down referral pathways • Provision and maintenance of up to date, accurate and respectful psycho-educational and self-help resources, including online. • Provision of professional training, both didactic and experiential to support workforce development and	include child protection, corrective and drug and alcohol services) • Assertive community mental health intervention 'step up' and 'step down' programs and referral processes for women with significant mental health problems identified during pregnancy as potentially requiring Mother Baby Unit admission • Provision of professional training, both didactic and experiential to support workforce development and promote collaborative interagency relationships • Support and engagement with PIMH research

Universal services Primary level	Early identification Primary Level	Targeted services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
			promote collaborative interagency relationships • Support and engagement with PIMH research	

Table 3: Postnatal mental health care

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
Potential service provider				
• GP, midwife, child health nurse, health promotion officer, Aboriginal health worker, community service worker, volunteer, librarian, day care worker	• GP, child health nurse, midwife, obstetrician, practice nurse, mental health nurse, Aboriginal health worker, psychologist, counsellor, pharmacist	• GP, psychiatrist child health nurse, midwife, mental health nurse, practice nurse, Aboriginal health worker, psychologist, counsellor, social worker, lactation consultant, peer support worker	• Community psychiatrist, GP, practice nurse, mental health nurse, clinical psychologist, social worker/occupational therapist with mental health expertise, Aboriginal health worker with mental health expertise, lactation consultant, child protection worker, family support worker, peer support worker, midwife, neonatal nurse	• Perinatal and infant psychiatrist, PIMH nurse, clinical psychologist, social worker/occupational therapist with PIMH expertise, neonatal nurse, Aboriginal health worker with PIMH expertise, midwife with PIMH expertise, mothercraft nurse with PIMH expertise, lactation consultant, , child protection worker, family support worker
Required training				
• Competence in engaging and communicating with individuals, couples and family members • Knowledge and awareness of healthy life style choices for parents and babies which promote positive emotional and psychological health	• Competence in engaging and communicating with individuals, couples and family members • Competence in promoting engagement in mental health care • Professional education about parental mental health at the transition to parenthood, including	• Competence in engaging and communicating with individuals, couples and family members • Competence in engaging the individual, couple or family in specific behaviours or interventions • Competence in making a bio-psychosocial	• All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions • Knowledge of psychological developmental processes involved in the transition to parenthood	• Specialist expertise and experience, in addition to formal PIMH education and training, as well as continuing professional development to maintain relevant and current specialist knowledge. • All previously mentioned competencies, knowledge and skills

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
• Professional education about parental mental health at the transition to parenthood, including attention to both pregnancy and postnatal risk factors is required for optimal delivery of care • Health staff - Specific training in screening and recognition of perinatal mental illness risk	attention to both pregnancy and postnatal risk factors, and screening modalities and tools, as well as referral pathway, is required for optimal delivery of care • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on mothers and babies • Specific training in screening and recognition of mental illness risk • Non-health staff – knowledge and understanding about healthy lifestyle choices and common parental mental health problems and signs of problematic adjustment	assessment leading to a detailed formulation and care plan • Competence in timely identification and management of risk • Competence in identifying and liaising with appropriate services on the woman and family's behalf • Knowledge about risk factors, signs and symptoms of perinatal and infant mental health disorders • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on mothers and their babies	and for infants encountering the physical and relational world • Some specific formal training in perinatal and infant mental health disorders within a bio-psycho-socio-cultural framework	• Competence in provision of specific therapies and interventions for complex and severe presentations • More extensive specific formal training in perinatal mental health is essential for clinicians working therapeutically with parents with mental health disorders and their families
Service components				
• Information on symptoms of common mental health disorders in the perinatal period • Opportunity to discuss the experience of	• Screening made available across a range of settings • Screening for paternal, maternal and infant well-being and family	• Psycho-education about emotional health and wellbeing throughout the postnatal period to promote help-seeking and early treatment	• A service stance that promotes engagement in postnatal care • Detailed bio-psychosocial assessment to identify particular risks for the	• Specialist PIMH consultation liaison psychiatrist-led multidisciplinary service to women in the postnatal period

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
pregnancy and delivery, especially in the case of complications and/or trauma • Information on normal adjustment experiences in the postnatal period • Information on how to support self and relationships in the postnatal period • Discussion with parents on feelings and experiences of being a parent with the understanding that a family's need for information changes over time • Discussion with parents about the relationship they are forming with their baby, and their feelings about it • Information about, and pathways to, community resources and activities • Aim for consistency in service providers to enhance therapeutic relationship • Home visit by child	functioning • Screening utilising standardised screening tools supported by appropriate training for delivery • Screening incorporating information about pregnancy risk factors, such as conception history, symptoms during pregnancy, past mental health history, current or past trauma, and major life events • Screening enabling identification of postnatal risk factors, such as traumatic birth, infant feeding difficulties, neonatal health problems • Screening (through personal engagement and observation) for parents' feelings about the relationship with their baby, and becoming a parent, with a view to referring parents who show marked ambivalence or negativity to appropriate	• Detailed bio-psychosocial assessment to identify particular risks for the women and her family • Continued assessment and management of risk to parent, infant or others including relational violence and drug and alcohol use • Screening (through personal engagement and observation) and assessment for parents whose feelings about their relationship with their baby, and becoming a parent, reflect marked ambivalence or negativity with a view to participation in supported group or individual programs, and/or referral to specialist services • Family centred approach to involve partners, children and other carers in care planning • Ensure ongoing monitoring at regular intervals as the demands on a new parent change	women and her family • Development of a comprehensive postnatal and mental health care plan with the woman and her partner, which includes attention to the developing parent-infant relationship, prescription and monitoring of psychotropic medication (breastfeeding mothers), consideration of psychotherapeutic treatments, and the need for social support for the family during the postpartum period. • Care planning that is collaborative and respectful of a woman's needs/preferences regarding treatment during the postnatal period • Family centred approach to involve partners, children and other carers in care planning • Liaison, collaboration and communication with and between the woman and her supports, mental	identified at risk of mental health disorder or who have significant postnatal complications • Seamless transition between PIMH care provided for outpatients or during periods of obstetric, general, or mental health inpatient admission • Monitoring of mental state, mood, behaviour and coping to inform management • Effective handover of patient care between postnatal follow up mental health and child health services • Engagement in interventions which promote discussion and intensive therapeutic intervention where there is ongoing ambivalence about the infant and parental difficulties in relating to the baby • Consideration in discharge planning for support of the parent-

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
health nurse (CHN) (particularly if first baby or previously identified risk) to establish relationship with mother, father, initial screening for paternal, maternal and infant well-being, provide information and determine level of further support required for the family • Six week check for mother and infant to establish or build on relationship with father as well as mother, provide information about parents' group and other local services, and determine level of further support required for this family • Provision of appropriate educational material from evidence-based sources e.g. *beyondblue*, in a variety of modalities • Father, mother-baby information and social support groups (open house programs) • Playgroup to provide	services • Specific screening for risk of harm to parent, infant or other children including relational violence and drug and alcohol misuse • Establishment of local pathways to enable timely referral to appropriate services for comprehensive mental health assessment for mothers identified as having marked changes in mood, thoughts, perceptions or behaviours and/or multiple social risk factors • Routine communication between service providers over the 12 months postpartum, with each visit recorded on a centralised information base • Timely alerts to CHN and GP from hospital prior to discharge of mother and newborn • CHN home visits to	over time • Strong collaborative relationships between services with information sharing and shared care arrangements to reduce known barriers to access such as complex referral processes, long waiting times, repeated assessment, non-family friendly environments, stigma, and geographical isolation • Referral to counselling or appropriate therapeutic interventions services for fathers/mothers identified at risk • Home visiting to provide psycho-education and establish deeper understanding of family circumstances and dynamics, and identify areas requiring support • Group programs – run by clinician with appropriate level of mental health expertise with a focus on promoting self-care, providing skills for managing psychological	health services, child health and other services to optimise ongoing postnatal planning. • Monitoring and management of alcohol & drug problems • Psychotherapeutic interventions, such as individual, group, couple and family counselling that includes focus on the developing parent-infant relationship • Preventative attachment-based therapeutic approaches where indicated to support the parent-infant relationship • Facilitation of access to a wide range of health and support services, including peer support groups, tailored to the woman and her family's needs • Development and maintenance of therapeutic treatment and support services which meet the mental health needs of local	infant relationship, and/or infant mental health needs • Consultation with and between specialist psychiatrists, pharmacists, obstetricians, obstetric physicians, maternal foetal medicine specialists, and neonatologists to inform and optimise management • Established and effective processes for interagency communication within and between Government and non-government organisations (which may include child protection, corrective and drug and alcohol services) • Assertive community mental health intervention 'step up' and 'step down' programs and referral processes for women with significant mental health problems identified

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
opportunities for parents with older children to find social and educational support as families grow • Telephone support lines to provide support and information, including options for further assessment • Peer organisations to provide emotional and social support for fathers, mothers with babies • Local council services in contact with young families (e.g. library) to provide social and educational support to families in the first year postpartum • Advocate for effective town planning to enhance community identity, safety and support • Advocate for workplace and employer support during the perinatal period both financially and practically..	routinely screen for paternal, maternal and infant well-being, and ascertain other important factors in the home environment that may contribute to psychological morbidity, and to determine level of further support required for the family • GP visits to routinely screen women/men throughout the first 12 months post-partum to assess physical and mental wellbeing and support healthy lifestyle decisions • Regular checks of child and parent health and wellbeing and family functioning across the 12 month postpartum period as demands on parents change over time • Maintain knowledge and resources regarding appropriate referral pathways	distress and supporting the adjustment to parenthood • Culturally specific support groups • Residential infant feeding, sleep and settling programs which encompass the psychological and emotional perspective of the parent • Practical in-home support focused on supporting parenting capacity • Enhanced home visiting linked with specialist providers for continuity of care/safety net care • Tailored individual support and counselling – run by clinician with appropriate level of mental health expertise with a focus on promoting self-care, providing skills for managing psychological distress and supporting the adjustment to parenthood	women and their partners • Establishment of step up and step down referral pathways • Provision and maintenance of up to date, accurate and respectful psycho-educational and self-help resources, including those available online. • Provision of professional training, both didactic and experiential to support workforce development and promote collaborative interagency relationships • Psycho-education for patients and carers about mental health disorders in the perinatal period, adjustment to parenting and infant relationship • Strong collaborative relationships between services with information sharing and shared care arrangements to reduce known barriers to access such as complex referral	during the postnatal period as potentially requiring Mother Baby Unit admission • Provision of professional training, both didactic and experiential to support workforce development and promote collaborative interagency relationships • Inpatient admissions for caregiver may be provided, preferentially within Mother Baby Unit when there are serious concerns that mental health of parent has deteriorated to the extent that functioning is limited and/or there is risk of disturbance to attachment relationship or other family relationships, risk of self-harm or of harm unintended or otherwise to the infant or other children • In the case of admission, separation of mother and infant should be avoided if possible

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
		• Support and engagement with PIMH research	processes, long waiting times, repeated assessment, non-family friendly environments, stigma, and geographical isolation • Referral to counselling or appropriate therapeutic interventions services for fathers/mothers identified at risk • Therapists should aim to help parents limit their infants' exposure to parents' expression of painful or negative affect • Regular measurement of functioning and outcomes for the individual patient and for service organisations, using validated instruments • Support and engagement with PIMH research **A range of interventions and programs may include:** • Home visiting – providing therapeutic interventions to the	• Assertive assessment and treatment of mental health disorder including consideration of medication with specialist pharmacology or perinatal psychiatrist input • Use of evidence-based therapies that focus on the treatment of mental health disorders including psychological treatment and social interventions • Continued assessment and management of risk to parent, infant or others including domestic violence and drug and alcohol use • Programs should include aspects that support the parent-infant relationship • Observation and assessment of mother-infant interaction and referral to mother infant relationship therapies • Support for mothercraft skills including feeding and settling

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
			patient with attention to their multiple roles of parent and partner • Therapeutic groups– run by clinician with appropriate level of mental health expertise with focus on managing mental health disorder in the context of being a parent • Consultation and liaison to maternity services by appropriately qualified perinatal mental health practitioners to ensure timely treatment and assessment • Tertiary neonatal special care unit-based therapeutic programs to support parents and infants • Residential infant feeding, sleep and settling programs which encompass the psychological and emotional perspective of the parent • Community or hospital psychiatrist/psychologist/ mental health nurse	• Family centred approach to involve partners, children and other carers in the care plan and addressing their support needs as appropriate • Therapists should aim to help the parent limit infants' exposure to parents' expression of painful or negative affect • Regular measurement of functioning and outcomes for the individual patient and for service organisations using standardised measures • Appropriate attention for all services to clinical governance practices • Comprehensive discharge planning with focus on relapse prevention and counselling with regards to future pregnancies • Consultation and liaison to NICU and hospital maternity and paediatric wards providing support for parental mental

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
			follow up	health
				• Assertive community mental health service preferably with capacity for outreach with perinatal expertise
				• Support and engagement with PIMH research
				A range of interventions and programs may include:
				• Day stay unit to allow intensive treatment of mental health disorder combined with infant mental health interventions
				• Therapeutic groups – run by clinician with appropriate level of mental health expertise
				• Home visiting and collaborative outreach programs for high risk or hard to reach individuals and their families and other supports
				• Consultation by video conferencing about individual high-risk or rural and remote cases

Table 4: Infant mental health care 0–2 years

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
Potential service provider				
• GP, child health nurse, midwife, health promotion officer, Aboriginal health worker, community service worker, volunteer, librarian, day care worker, foster carers	• GP, paediatrician, child health nurse, midwife, lactation consultant, mental health nurse, Aboriginal health worker, psychologist, social worker, day-care worker, foster carers, physiotherapists, occupational therapists, speech therapists	• GP, psychiatrist, paediatrician, child health nurse, midwife, mental health nurse, Aboriginal health worker, psychologist, social worker, lactation consultant, foster carers, physiotherapists, occupational therapists, speech therapists	• Community infant/child psychiatrist, GP, child and adolescent mental health nurse, clinical psychologist, social worker/occupational therapist, Aboriginal health worker with PIMH expertise, child health nurse with infant and perinatal mental health expertise, neonatal nurse, child protection worker, family support worker, foster carers	• Specialist infant and child psychiatrist, child and adolescent mental health nurse with infant and parental mental health expertise, PIMH clinical psychologist, social worker/occupational therapist with infant and parental mental health expertise, Aboriginal health worker with infant and parental mental health expertise, child protection worker with infant and parental mental health expertise, family support worker
Required training				
• Competence in engaging and communicating with babies, individuals, couples and family members • Knowledge and awareness of healthy life style choices for parents and babies which	• Competence in engaging and communicating with babies, individuals, couples and family members • Competence in promoting engagement in mental health care • Competence in using	• Competence in engaging and communicating with babies, individuals, couples and family members • Competence in engaging the individual, couple or family in specific behaviours or	• All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions • Some specific formal training in infant mental health is desirable for	• Specialist expertise and experience, in addition to formal PIMH education and training for clinicians who work therapeutically with infants and the parent-infant relationship, as well as continuing professional

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
promote positive emotional health • Knowledge of the developmental trajectory and socio-emotional needs of babies and toddlers • Health staff - Specific training in screening and recognition of perinatal and infant mental illness risk • Professional education about parental mental health at the transition to parenthood, as well as infant physical and psycho-emotional health is required for optimal delivery of care	broad-based screening tools, and recognising signs of impaired infant social development or parent-infant interaction • Knowledge of the developmental trajectory and socio-emotional needs of babies and toddlers • Professional education about infant and parental mental health care • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on babies and mothers • Specific training in screening and recognition of mental illness risk • Professional education about parental mental health at the transition to parenthood, infant physical and psycho-emotional health, and screening modalities and tools, as well as referral pathways, is required for optimal delivery of care	interventions • Competence in making a bio-psycho-social assessment leading to a detailed formulation and care plan • Competence in using broad-based screening tools, and recognising signs of impaired infant social development or parent-infant interaction • Competence in identifying and liaising with appropriate services on the infant/child, woman and family's behalf • Knowledge of the developmental trajectory and socio-emotional needs of babies and toddlers • Knowledge and awareness of mental health problems in young children, and how they present • Professional education about child and parental mental health care • Knowledge about the harmful effects of drug &	clinicians working therapeutically with infants and the parent-infant relationship	development to maintain relevant and current specialist knowledge e.g. of psychotropic medications in breastfeeding women. • All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions for complex and severe presentations

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
		alcohol misuse, smoking, and relational trauma on babies and mothers • Training in identification of risk, referral pathways and perinatal and infant mental health • Some specific formal training in infant mental health is desirable for clinicians working therapeutically with infants and the parent-infant relationship		

Service components

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
• Routine infant health and development checks • Father, mother-baby information and social support groups (open house programs) • Relationship-based father, mother and baby support groups • Father, mother and baby shared activities directed at promoting parent-infant relationship (e.g. rhyme and music, baby massage etc) • Playgroup to promote	• Screening made available across a range of settings familiar to the family • Screening utilising standardised screening tools supported by appropriate training for delivery • Observation of parent-infant interaction, cues and miscues, supported by appropriate professional training • Bio-psychosocial assessment of infant and	• Home visiting to provide psycho-education and developmental guidance, establish deeper understanding of family circumstances and dynamics, and identify areas for support • Psycho-education (Circle of Security and other relationship-based approaches) • Monitoring parental mental health, family functioning, psychosocial risk, parent-infant relationship with	• Diagnostic screening tools (for example Observational; PIRGAS, Strange Situation & Still-Face Procedures; Parent-report questionnaires: Parent-Stress Index, CBCL 1-3) • Use of evidence-based parent-infant therapies that focus on promoting the attachment relationship (e.g. mother-infant psychotherapy, Circle of Security programs, Interactional Guidance, Watch, Wait &	• Specialist PIMH consultation liaison psychiatrist-led multidisciplinary service to babies and their families identified at risk of mental health disorder or who have significant neonatal complications • Seamless transition between PIMH care provided for outpatients or during periods of paediatric, general, or mental health inpatient admission • Inpatient admissions for

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
infant social development, Dads playgroup • Telephone support lines e.g. Ngala, Parenting WA • Information and discussion on infant self-regulation, social and emotional health, feeding, settling, sleeping (verbal information, modelling, print material, web-based information, social media) • Information on sensitive parenting, Circle of Security concepts, healthy relationships • Discussion with parents on feelings and experiences of being a parent • Information about – and pathways to – community resources and activities • Translated/culturally appropriate parenting information	caregiver (parental mental health, family functioning, psycho-social risk, parent-infant relationship) • Systems in place for routine identification of children potentially at risk of adverse developmental outcomes due to family circumstances, which include screening for risk of harm to parent, infant or other children through relational violence or drug and alcohol misuse, and which occur at predictable points of service contact during the perinatal period and beyond • Referral for further assessment/diagnosis • Referral to counselling or appropriate therapeutic intervention services to support caregiver's personal functioning and parenting capacity • Maintain knowledge and resources regarding	validated recognised tools • Supported playgroup (focus on promoting infant psycho-emotional development, parenting skills, and the infant-caregiver attachment relationship) • Therapeutic playgroup – run by clinician with appropriate level of mental health expertise (focus on promoting infant psycho-emotional development, parenting capacity and the infant-caregiver attachment relationship, but also may give emphasis to particular issues relevant to participants) • Culturally specific support groups which focus on promoting parental capacity to support infant psycho-emotional development and building strong infant-caregiver attachment relationship • Practical in-home support focused on	Wonder) • Psycho-education and developmental guidance for parents and caregivers delivered within the context of a therapeutic relationship • Home-visiting – providing therapeutic interventions to enhance the parent-infant relationship, as well as the infant's other relationships within the family, and to promote reflective parenting • Caregiver relationship counselling and support • Therapists should aim to limit the infants' exposure to parents' expression of painful or negative affect • Individual or couple therapies aimed at promoting the parent-child relationship through discussion around caregivers' own feelings, background and circumstances should be conducted separately, when infants > 3 months old are not present	caregiver and infant may be provided within mother-baby or paediatric units when serious concerns that mental health of infant is compromised in context of disturbed parent/caregiver-infant relationship, or when behavioural, physical or neurological problems evident in the child impair parental functioning • Consultation and liaison to NICU and hospital maternity and paediatric wards providing expert assessment of risk and support for infant mental health and parent-infant attachment relationship • Consultation and building of strong working relationships with services who work with high-risk infant populations, such as Child Protection and Family Court, ATSI and refugee services • Consistent and

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
	appropriate referral pathways	supporting parenting capacity and the infant's relationships within the family • Enhanced home visiting linked with specialist providers for continuity of care/safety net care • Infant feeding, sleep and settling day programs which encompass the psychological and emotional perspective of the infant • Infant feeding support which allows a flexible child-centred approach to establishing modes of feeding comfortable to both infant and parent • Support for child physical development as appropriate, including referral to other health professionals • Clear local referral pathways to specialist care providers • Special consideration and inclusiveness provided for families involved in surrogacy, or	• Therapeutic support services for parental functioning, infant physical and psycho-emotional wellbeing • Therapeutic playgroup – run by clinician with appropriate level of infant mental health expertise (focus on promoting infant psycho-emotional development, parenting capacity and the infant-caregiver attachment relationship, but also may give emphasis to particular issues relevant to participants) • Outreach to day-care centres to promote and support ancillary attachment relationships for children identified at risk • Neonatal Special Care Unit-based therapeutic programs to support infant mental health and parent-infant attachment relationship • Residential infant feeding, sleep and settling programs which	systematised monitoring • Diagnostic screening tools for parent-infant interaction (e.g. Observational: PIRGAS, Strange Situation, Still-Face Procedures; Parent-report questionnaires: Parent-Stress Index, CBCL 1-3) • Play therapy for infants who have experienced trauma, or with developmental problems, and whose parents or caregivers are currently unable to provide adequate psychological and emotional support • Parent-infant therapy structured and open-ended programs focusing on parental representations of self and infant, and which allow the infant's developing sense of self and agency to be known • Consultation by video conferencing about individual high-risk cases • Consultation and

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
		with same sex parents • Special consideration for young infant in foster care • Support and engagement with infant and parental mental health research	encompass the psychological and emotional perspective and development of the infant • Liaison, collaboration and/or case management with child and adolescent mental health services, child development centres, child health services and other health professionals or services involved in families' care • Continued assessment and management of infant physical and psycho-emotional health • Referral to specialist services: perinatal and infant mental health service, perinatal and infant psychiatrist/psychologist/ mental health nurse follow up • Support and engagement with infant and parental mental health research	assessment of parenting capacity for referred families • Consider support for foster carer and children with special needs • Support and engagement with infant and parental mental health research • Family centred approach to involve partners, children and other carers in the care plan and addressing their support needs as appropriate

Table 5: Early childhood mental health care 2–4 years

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
Potential service provider				
• GP, child health nurse, midwife, health promotion officer, Aboriginal health worker, community service worker, volunteer, librarian, day care worker, pre-school (or early childhood) teacher, foster carer	• GP, paediatrician, child health nurse, midwife, lactation consultant, mental health nurse and other mental health clinicians in contact with young families, Aboriginal health worker, social worker, day-care worker, foster carer, physiotherapists, occupational therapists, speech therapists	• Early childhood mental health clinicians, GP, paediatrician, psychiatrist, child health nurse, midwife, mental health nurse, Aboriginal health worker, psychologist, social worker, child protection worker, family support worker, foster carer, physiotherapists, occupational therapists, speech therapists	• Early childhood mental health clinicians, Community child psychiatrist, GP, child and adolescent mental health nurse, clinical psychologist, social worker/occupational therapist with mental health expertise, Aboriginal health worker with mental health expertise, child health nurse with mental health expertise, child protection worker, family support worker, foster carer	• Early childhood mental health clinicians, specialist child psychiatrist, child and adolescent mental health nurse, infant/child mental health clinical psychologist, social worker/occupational therapist, Aboriginal health worker with infant/child mental health expertise, child protection worker, family support worker
Required training				
• Competence in engaging and communicating with young children individuals, couples and family members • Knowledge and awareness of healthy life style choices for parents and young children which	• Competence in engaging and communicating with young children, individuals, couples and family members • Competence in promoting engagement in mental health care • Knowledge of the developmental trajectory	• Competence in engaging and communicating with young children, individuals, couples and family members • Competence in engaging the young child, individual, couple or family in specific behaviours or	• All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions • Some specific formal training in child mental health is desirable for	• Specialist expertise and experience, in addition to formal PIMH education and training for clinicians to work therapeutically with young children, as well as continuing professional development to maintain relevant and current

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
promote positive emotional health • Knowledge of the developmental trajectory and socio-emotional needs of babies, toddlers and pre-school children • Health staff - Specific training in screening and recognition of perinatal and infant/child mental illness risk • Professional education about parental mental health at the transition to parenthood, as well as child physical and psycho-emotional health is required for optimal delivery of care	and socio-emotional needs of babies, toddlers and pre-school children • Professional education about child and parental mental health care • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on young children and mothers • Specific training in screening and recognition of mental illness risk • Professional education about parental mental health at the transition to parenthood, child physical and psycho-emotional health, and screening modalities and tools, as well as referral pathways, is required for optimal delivery of care	interventions • Competence in making a bio-psychosocial assessment leading to a detailed formulation and care plan • Competence in identifying and liaising with appropriate services on the child, parent and family's behalf • Knowledge of the developmental trajectory and socio-emotional needs of babies, toddlers and preschool children • Knowledge and awareness of mental health problems in young children, and how they present • Professional education about child and parental mental health care • Knowledge about the harmful effects of drug & alcohol misuse, smoking, and relational trauma on young children and mothers • Training in identification of risk, referral pathways	clinicians working therapeutically with children and the parent-child relationship	specialist knowledge e.g. of psychotropic medications in breastfeeding women. • All previously mentioned competencies, knowledge and skills • Competence in provision of specific therapies and interventions for complex and severe presentations • Some specific formal training in child mental health is essential for clinicians working therapeutically with children and the parent-child relationship

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
		and perinatal and infant/child mental health • Some specific formal training in child mental health is desirable for clinicians working therapeutically with children and the parent-child relationship		
Service components				
• Routine child health and development checks • Relationship-based father, mother and baby support groups • Father, mother and toddler/child shared activities directed at promoting parent-child relationship (e.g. rhyme and music, story time etc) • Playgroup to promote child social development, Dads playgroup • Telephone support lines e.g. Ngala, Parenting WA • Information and discussion on toddler/pre-schooler self-	• Screening made available across a range of settings familiar to the family • Screening utilising standardised screening tools supported by appropriate training for delivery (e.g. ASQ: Social emotional) • Observation of parent-child interaction, cues and miscues, supported by appropriate professional training • Bio-psychosocial assessment of child and caregiver (parental mental health, family functioning, psycho-social risk, parent-child	• Home visiting to provide psycho-education and developmental guidance, establish deeper understanding of family circumstances and dynamics, and identify areas for support • Psycho-education (Circle of Security and other relationship-based approaches) • Monitoring parental mental health, family functioning, psycho-social risk, parent-child relationship with validated recognised tools • Supported playgroup (focus on promoting child	• Diagnostic screening tools (e.g. Observational; PIRGAS, Strange Situation & Still-Face Procedures; Parent-report questionnaires: Parent-Stress Index, CBCL 1-3, etc) • Use of evidence-based parent-child therapies that focus on promoting the attachment relationship (e.g. mother-toddler psychotherapy, Circle of Security programs, Interactional Guidance, Watch, Wait and Wonder) • Psycho-education and development guidance for parents and caregivers delivered	• Specialist PIMH consultation liaison psychiatrist-led multidisciplinary service to young children and their families identified at risk of mental health disorder or who have significant physical/developmental? complications • Seamless transition between PIMH care provided for outpatients or during periods of paediatric, general, or mental health inpatient admission • Inpatient admissions for caregiver and child may be provided within mother-baby or

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
regulation, social and emotional health, eating, sleeping, toilet training, and sibling relationships (verbal information, modelling, print material, web-based information, social media) • Information on sensitive parenting, management of conflict (difficult emotional and behaviours), circle of security concepts, healthy relationships • Discussion with parents on feelings and experiences of being a parent • Information about, and pathways to, community resources and activities • Translated/culturally appropriate parenting information	relationship) • Systems in place for routine identification of children potentially at risk of adverse developmental outcomes due to family circumstances, which include screening for risk of harm to parent, infant or other children through relational violence or drug and alcohol misuse, and which occur at predictable points of service contact during the child's first 4 years • Referral for further assessment/diagnosis • Referral to counselling or appropriate therapeutic interventions services to support caregiver's personal functioning and parenting capacity • Maintain knowledge and resources regarding appropriate referral pathways	psycho-emotional development, parenting skills, and the child-caregiver attachment relationship) • Therapeutic playgroup – run by clinician with appropriate level of mental health expertise (focus on promoting child psycho-emotional development, parenting capacity and the child-caregiver attachment relationship, but also may give emphasis to particular issues relevant to participants) • Culturally specific support groups which focus on promoting parental capacity to support child psycho-emotional development and building strong child-caregiver attachment relationship • Practical in-home support focused on supporting parenting capacity and the child's relationships within the family	within the context of a therapeutic relationship • Home-visiting – providing therapeutic interventions to enhance the parent-child relationship, as well as the child's other relationships within the family, and to promote reflective parenting • Caregiver relationship counselling and support • Therapists should aim to limit the child's exposure to the parent's expression of painful or negative affect • Individual or couple therapies aimed at promoting the parent-child relationship through discussion around caregivers' own feelings, background and circumstances need to be conducted separately, when infants > 3 months old and are not present • Therapeutic support services for parental functioning, child physical and psycho-	paediatric units when serious concerns that mental health of child is compromised in context of disturbed parent/caregiver-child relationship, or when behavioural, physical or neurological problems evident in the child impair parental functioning • Consultation and liaison to hospital paediatric wards to provide expert assessment of risk and support for child mental health and parent-child attachment relationship • Consultation and building of strong working relationships with services who work with high-risk child populations, such as Child Protection and Family Court, ATSI and refugee services • Consistent and systematised monitoring • Diagnostic screening tools for parent-child interaction (e.g.

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
		• Eating, sleep, toileting and parenting skill day programs which encompass the psychological and emotional perspective and developmental level of the child • Support for child physical development as appropriate, including referral to other health professionals • Outreach to day-care centres and schools to promote and support ancillary attachment relationships for children identified at risk • Specific consideration for children in foster care • Special consideration and inclusion in service delivery for families using surrogacy, or with same sex parents • Clear local referral pathways to specialist care providers • Support and engagement with PIMH research	emotional wellbeing • Therapeutic playgroup – run by clinician with appropriate level of child mental health expertise (focus on promoting child psycho-emotional development, parenting capacity and the child-caregiver attachment relationship, but also may give emphasis to particular issues relevant to participants) • Outreach to day-care centres to promote and support ancillary attachment relationships for children identified at risk • Residential programs for eating, sleep, toileting and parenting skill development which encompass the psychological and emotional perspective and development of the child • Liaison, collaboration and/or case management with child and adolescent mental	Observational: PIRGAS, Strange Situation, Still-Face Procedures; Parent-report questionnaires: Parent-Stress Index, CBCL 1-3) • Play therapy for children who have experienced trauma, or with developmental problems, and whose parents or caregivers are currently unable to provide adequate psychological and emotional support • Parent-child therapy structured and open-ended programs focusing on parental representations of self and child, and which allow the child's developing sense of self and agency to be known • Group therapy programs for parents focusing on parental representations of self and child and development of parenting skills which take into account the child's social and emotional needs in

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
			health services, child development centres, child health services and other health professionals or services involved in families' care • Continued assessment and management of child physical and psycho-emotional health • Referral to specialist services: perinatal infant and early childhood mental health service, perinatal, infant and early childhood psychiatrist/psychologist or mental health nurse follow up • Support and engagement with PIMH research	relationship with the parent • Specialist interventions for neurological disorders in the child such as obsessive compulsive disorder, autism and pervasive developmental disorders as well as depression and anxiety, attention deficit hyperactivity disorder, disruptive behaviours, attachment disorders, feeding disorders etc • Consultation by video conferencing about individual high-risk cases • Consultation and assessment of parenting capacity for referred families • Consider support for foster carer and children with special needs • Support and engagement with infant/child and parental research • Family centred approach to involve partners, children and other carers

Universal services Primary level	Early identification Primary Level	Targeted Services Primary/secondary level	Management/treatment Secondary/tertiary level	Intensive/treatment Tertiary level
				in the care plan and addressing their support needs as appropriate