Infant, Child and Adolescent Mental Health

Contents

Who are we?

The Melbourne Children's Campus is the strategic and physical alignment of the Royal Children's Hospital (RCH) as the custodian of clinical care, the Murdoch Children's Research Institute (MCRI) as custodian of research and the University of Melbourne's Department of Paediatrics as custodian of education.

The RCH has been providing outstanding care for Victoria's children and their families for over 140 years. We are the major specialist paediatric hospital in Victoria and our care extends nationally and internationally.

The MCRI is Australia's leading child and adolescent health research organisation that translates knowledge into effective prevention and treatment strategies across a range of disorders.

The Department of Paediatrics is ideally placed to educate and train the next generation of mental health workers through the development of evidence-based guidelines, pathways and educational resources. The RCH Foundation has also supported critical trials and research with the aim of improving mental health provision on the campus.

The three institutions are collocated with the Royal Children's Hospital Foundation, in Parkville. Together, the Campus represents more than 6,000 health professionals committed to improving the health outcomes for children and adolescents today and in the future.

With support, the Campus believes it is well positioned to work with the community and regional providers to lead the redevelopment of an evidence-based mental health service for infants, children and adolescents, and develop a data strategy to monitor outcomes and system effectiveness.

Friday, 5 July 2019

Dear Commissioners,

Thank you for the invitation to provide a submission on the Mental Health of Victoria's infants, children and adolescents. We commend the Commission for the inquiry and proactive stance to address this significant issue. This submission represents the united voices of over 6000 health professionals across the Melbourne Children's Campus. Twenty-five internationally recognised experts have met regularly to contribute to this submission, which draws on the clinical, research and educational expertise of our institutions.

We know that;

- Up to 600,000 of Australian's children and adolescents have a diagnosable mental health problem
- Half of adult problems begin before the age of 14
- The increasing demand on child health services is unsustainable
- The Royal Children's Hospital cares for infants, children and adolescents with neurodevelopmental conditions, and chronic health conditions who have a 6 times greater risk of mental health disorders than typically developing children and constitute the majority of emergency department presentations for challenging behaviour and mental health symptoms
- Presentation of mental health problems to emergency departments have doubled since 2012
- Less than a third of Australian parents can recognise the signs of a mental health problem in their child
- Less than half of parents know where to go for help

The submission describes why child and adolescent mental health is different from adult mental health, advocates for a focus on prevention and early intervention, and describes how the child and adolescent mental health system could be redesigned to make it more equitable, accessible and easier to navigate for infants, children, adolescents and their families or caregivers.

An improved mental health system will ensure that it addresses the needs of all infants, children and adolescents who need it, will provide integrated care and good coordination across the various health, education and community services that see this population, practise evidence-based and measurement-based care, have mental health providers who are skilled in working in mental health care, and have established governance and accountability mechanisms to ensure the system is providing effective health care.

The submission discusses 8 key messages, leading to a series of 28 recommendations. These are backed by supporting research evidence and are illustrated in some clinical cases at the end of the submission.

The Melbourne Children's Campus believes that the following recommendations are key priorities needed to reform the mental health system for infants, children and adolescents. These are expanded in greater detail in the submission and are the following:

Integrate the CAHMS/CYMHS system with acute medical and child and family services, and align with other specialist mental health systems

Invest in primary prevention, mental health promotion and early intervention through state-wide programs delivered in partnership with primary healthcare, early childhood education and care services and schools

Centralise the CAMHS/CYMHS governance model by developing a single governance structure, separated from adult mental health

Remove current criteria-based eligibility requirements of age, geography and type of mental health condition, to provide one-stop shop access points, with opportunity for referral to specialist services depending on diagnosis

Develop a new **model of stepped care**, to provide the integrated care that infants, children, adolescents and their families need when they need it

Develop **specialist integrated care models for conditions which require concurrent physical and mental health** management

Develop **fit-for-purpose safe facilities in all children's emergency departments**, staffed by expert providers in behavioural management

Develop **service pathways for culturally diverse and socially disadvantaged** infants, children and adolescents

Develop a stronger program of **telehealth** and telepsychiatry to increase regional and rural reach

Conduct a price and funding review of specialist mental health services for infants, children and adolescents and establish a new funding model

Develop and implement outcome-based funding models, using evidence-based clinical pathways and monitoring of outcomes

Develop and deliver evidence-based mental health guidelines for the Victorian context

Develop and deliver evidence-based clinical pathways across primary, secondary and tertiary mental health services to promote coordinated care

Develop a statewide mental training program to build capability in all the workforces who manage infants, children and adolescents with mental health needs

Build expertise in specialist mental health providers on the needs of complex populations of infants, children and adolescents

All staff should be trained in providing culturally safe and trauma-informed care

Develop clinical governance mechanisms to oversee the care of patients in the mental health system

Monitor performance through the development of a Victorian dataset to support funding provisions and drive clinical improvement

The Melbourne Children's Campus welcomes further discussion and collaboration with the Commission regarding this submission and we commend the work of the Commission on this critical review.

Yours sincerely,

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KEY MESSAGES & RECOMMENDATIONS

INFANT, CHILD AND ADOLESCENT MENTAL HEALTH IS DIFFERENT TO ADULT MENTAL HEALTH

Recommendation 1 - Infants, children and adolescents require a developmental approach to mental health care.

Recommendation 2 - Integrate the infant, child and adolescent mental health systems with child and family acute medical, health and community services, education, and align with other specialist mental health systems.

MENTAL HEALTH IN INFANTS, CHILDREN AND ADOLESCENTS REQUIRES INVESTMENT IN PREVENTION AND EARLY INTERVENTION

Recommendation 3 - Invest in mental health from preconception and early in life and take a lifecourse approach

Recommendation 4 - Invest in primary prevention, mental health promotion and early intervention through state-wide programs delivered in partnership with primary healthcare, early childhood education and care services and schools.

MENTAL HEALTH PROBLEMS ARE BECOMING INCREASINGLY COMMON IN INFANTS, CHILDREN AND ADOLESCENTS

Recommendation 5 – Develop parental mental health literacy and parenting resources to improve identification of mental health problems

Recommendation 6 - Early identification and intervention is needed to improve the wellbeing of infants, children, adolescents and their families/carers

THE CURRENT CHILD AND ADOLESCENT MENTAL HEALTH SYSTEMS ARE FRAGMENTED, DISCONNECTED AND DIFFICULT TO ACCESS AND NAVIGATE

Recommendation 7 - Improve equitable access to mental health support

Recommendation 8 - Mental health services must be patient and family centred

Recommendation 9 - Centralise the CAMHS/CYMHS models by developing a single governance structure, separated from adult mental health

Recommendation 10 - Remove current criteria-based eligibility requirements of age, geography and type of mental health condition, to provide one-stop shop access points, with opportunity for referral to specialist services depending on diagnosis.

SERVICES OUTSIDE THE MENTAL HEALTH SYSTEM SEE A SIGNIFICANT PROPORTION OF MENTAL HEALTH PATIENTS

Recommendation 11 - Mental health system redesign must address the growth in Emergency Department presentations of children and adolescents with challenging behaviours and mental health disorders

Recommendation 12 - Develop fit-for-purpose safe facilities in all children's emergency departments, staffed by expert providers in behavioural management

Recommendation 13 - Develop a new model of stepped care, to provide the integrated care that infants, children, adolescents and their families need when they need it

MENTAL HEALTH CARE FOR INFANTS, CHILDREN AND ADOLESCENTS REQUIRES THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICE, CLINICAL PATHWAYS AND MEASUREMENT-BASED-CARE

Recommendation 14 - Fund salaried community paediatricians to work within specialist children's services, who can drive integrated care across the medical, welfare and mental health systems

Recommendation 15 - Develop specialist integrated care models for conditions which require concurrent physical and mental health management

Recommendation 16 - Develop service pathways for culturally diverse and socially disadvantaged infants, children and adolescents

Recommendation 17 - Develop a stronger program of telehealth and telepsychiatry to increase regional and rural reach

Recommendation 18 - Develop and implement outcome-based funding models, using evidence-based clinical pathways and monitoring of outcomes

Recommendation 19 - Develop and deliver evidence-based mental health guidelines for the Victorian context

Recommendation 20 - Develop and deliver evidence-based clinical pathways across primary, secondary and tertiary mental health services to promote coordinated care

Recommendation 21 - Invest in generation of the evidence base through rigorous research and evaluation

CAPABLE WORKFORCES DELIVER SUSTAINABLE HIGH-QUALITY CARE

Recommendation 22 - Develop a state-wide mental training program to build capability in all the workforces who manage infants, children and adolescents with mental health needs.

Recommendation 23 - Build expertise in specialist mental health providers on the needs of complex populations of infants, children and adolescents.

Recommendation 24 - All-staff should be trained in providing culturally safe and trauma-informed care

Recommendation 25 - Develop workplace supports to promote workforce wellbeing and safety

GOVERNANCE AND ACCOUNTABILITY DRIVE EXCELLENCE IN CARE

Recommendation 26 - Develop clinical governance mechanisms to oversee the care of patients in the mental health system, and coordination across systems, especially those from culturally diverse and socially disadvantaged groups.

Recommendation 27 - Conduct a price and funding review of specialist mental health for infants, children, adolescents and young adults and establish a new funding model

Recommendation 28 - Monitor performance through the development of a Victorian dataset to support funding provisions and drive clinical improvement

GLOSSARY

This submission acknowledges there are different preferences around the terminology of mental health in our younger populations. For a unified strategy and a system that is easy for families and health professionals to navigate, it is important that the commission lead the adoption of consistent terminology. For the purpose of this submission, terms are defined as the following:

Term	Definition
Perinatal	28 weeks gestation to 28 days post term
Neonate	First 28 days of life
Infant	Birth to 24 months of age
Early childhood	0 to 5 years of age
Middle childhood	6 to 12 years of age
Child	28 days to 18 years of age
Adolescent	12 to 18 years of age
Youth	12 to 24 years of age
Young adult	18 to 24 years of age
Mild and moderate disorders	Mental health problems that affect thought, feelings, behaviour or interactions with other people, are present to the level of a clinical disorder and lead to significant impairment
Severe disorders	Mental health problems that are present to the level of a clinical disorder and lead to severe impairment to self-care, relationships, communication, education or work and developmental course and/or serious risks of harm to self or others
Chronic illness	Medical, neurodevelopmental and acquired conditions associated with persisting challenges for health and well-being
Mental health	A state of wellbeing in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.
Mental health problems	A catch-all term to describe mental health issues that can be of any severity, but in the context of the submission, relates mainly to mild-moderate symptoms
Mental illness or mental disorder	A health problem that significantly affects how a person feels, thinks, behaves and interacts with other people. It is diagnosed according to standardised criteria
Aboriginal	This submission uses Aboriginal to respectfully refer to Victoria's First Peoples, inclusive of both Aboriginal and Torres Strait Islanders
Equity	Health equity is the principle underlying a commitment to reduce—and, ultimately, eliminate—disparities in health and in its determinants, including social determinants. Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions

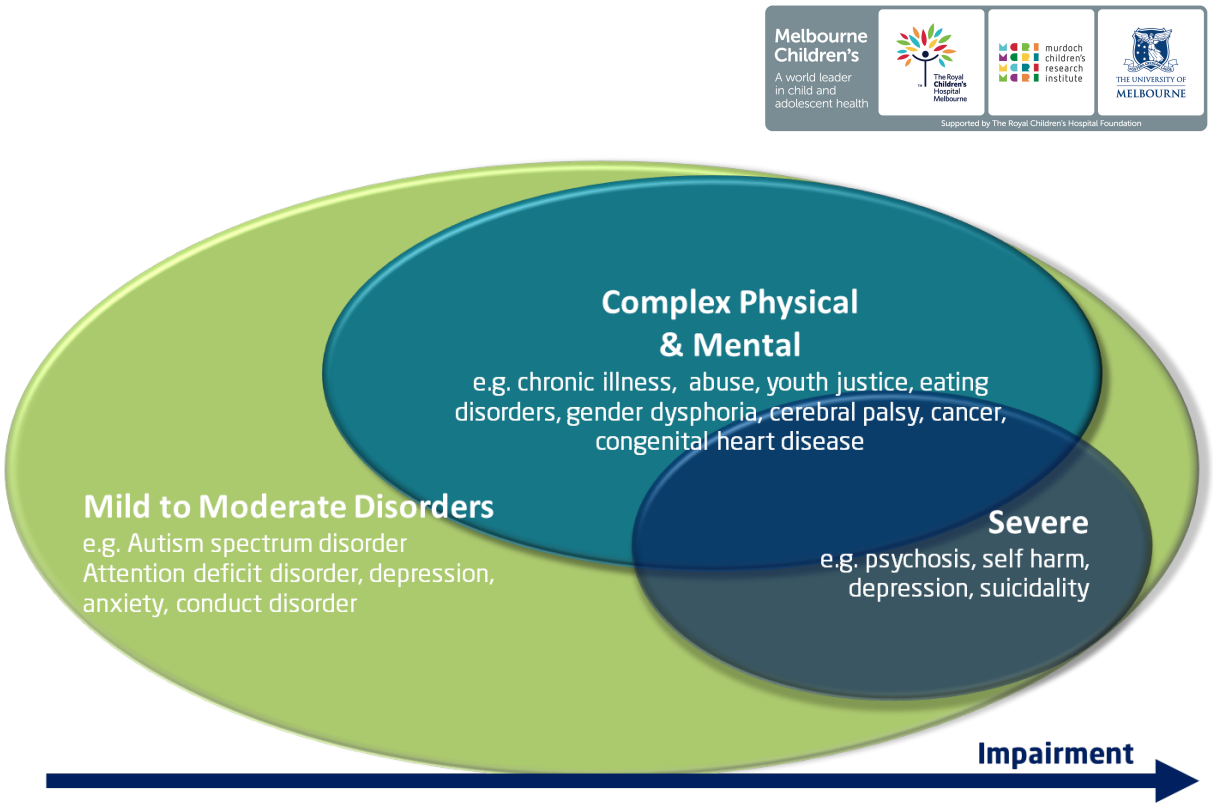


Figure 1: Spectrum of mental health issues across infants, children and adolescents.

Mental health problems in infants, children and adolescents range from mild to severe, are independent of age and due to a vast array of causative factors. This figure highlights the fact that many of the infants, children and adolescents with mental health problems have a broad range of impairment. Many are seen by different parts of the health and mental health systems. This submission acknowledges that the specialist mental health services tend to see the severe group of mental health illnesses, but might also see infants, children and adolescents with mild or moderate impairment. Other health services, such as community psychology, paediatricians, headspace, and general practitioners may also see patients right across the spectrum of impairment.

Infants, children and adolescents may move between categories over time as their impairment and control of their symptoms vary. Many have comorbid physical conditions, and for some, the physical and mental conditions cannot be managed separately. This highlights the challenges of a mental health system that needs to be agile, responsive to need, provide continuity of care and foster excellence in outcomes.
The submission outlines a series of recommendations which may make the mental health system more effective and equitable.

The case studies presented at the end of the submission illustrate some of the problems currently experienced by many patients seen at the Royal Children's Hospital. They are accompanied by a summary of research and work being done at the Melbourne Children's Campus that can inform any mental health system redesign.

SUPPORTING EVIDENCE

INFANT, CHILD AND ADOLESCENT MENTAL HEALTH IS DIFFERENT TO ADULT MENTAL HEALTH

Recommendation 1. Infants, children and adolescents require a developmental approach to mental health care.

All infants, children and adolescents deserve to live their best lives at every age and stage, with access to quality health, education, play, recreation and safe environments.

Infants, children and adolescents are not 'little adults' and should not be treated as such: immense physical, cognitive, social and emotional growth is well documented across early childhood, childhood and adolescence. During this time, in general, most children are dependent in on their families, spend much of their time in educational settings, and are influenced by all of their experiences to grow and develop into young adults on the verge of independence.[1]

This intense growth and development requires a clinical approach using a developmental model which takes into account their stage of development and any developmental delays, includes, wherever possible, their families in their care and incorporates the risk factors, protective factors, and the social, geographic and economic contexts that influence their clinical and developmental life journeys through life.[2]

The developmental approach is underpinned by a focus on equity in health, and extends to an intergenerational approach to mental health and trauma, with particular focus on Aboriginal children and adolescents, children of refugee-like background, and in situations where there are child protection concerns, such as physical, sexual, emotional abuse and neglect.

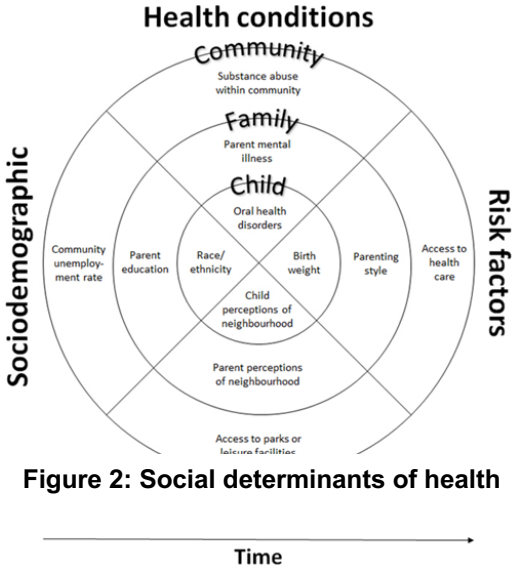


Figure 2: Social determinants of health

Recommendation 2. Integrate the infant, child and adolescent mental health systems with child and family acute medical, health and community services, education, and align with other specialist mental health systems.

Victorian specialist infant, child and youth mental health services were originally constructed as part of the broader area-based mental health system. However, Children and Adolescents Mental Health Services (CAMHS) do not align well with adult mental health systems:

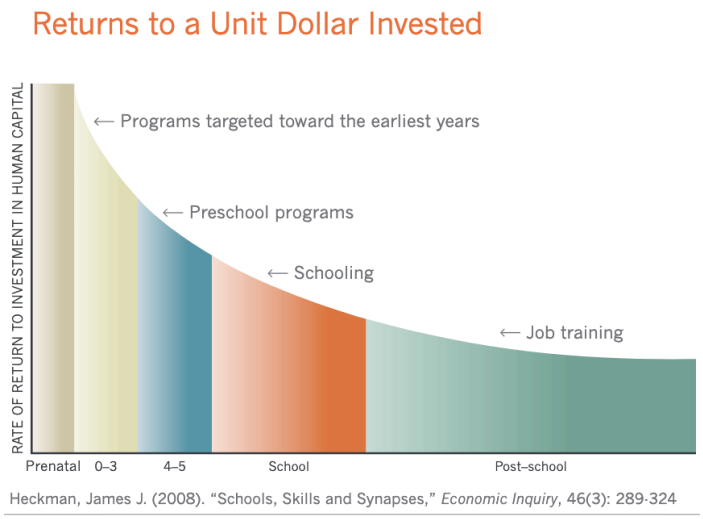
- Specialist mental health systems are designed for adult mental disorders (e.g. catchments, case management models, recovery models) and the nature, comorbidities, intervention, providers and community support are all different in infants, children and adolescents.
- There is no specific policy focus for infant, child and adolescent mental health within State or Federal government.
- The needs of infants, children and adolescents often take second place to adult (and more recently youth) mental health services in policy and funding decisions, which is a lost opportunity for prevention and early intervention.
- Specialist mental health services for infants, children and adolescents lack the critical mass required to deliver efficient services and service improvements.
- Many conditions in infancy, childhood and adolescence share physical and mental health symptoms and impact development, learning and education; these issues cannot be effectively managed separately.

The strong developmental focus of the acute paediatric medical services and the community-based infant, child and family services - including community-based paediatricians and mental health providers - provides a perfect opportunity to align a broader network of child and adolescent mental health services with other services including education, child welfare and justice, which address the needs of infants, children and adolescents.

MENTAL HEALTH IN INFANTS, CHILDREN AND ADOLESCENTS REQUIRES INVESTMENT IN PREVENTION AND EARLY INTERVENTION

Recommendation 3. Invest in mental health from preconception and early in life and take a lifecourse approach

The importance of the early years of life is now well understood, with decades of science clearly showing that experiences shape brain development, and that development requires strong and positive experiences to promote early attachment, later emotion regulation, relationships, self-esteem, learning and literacy. Investment in human capital in the early years has a strong return on investment over the lifecourse.[3].



"Early childhood is an efficient and effective investment…the earlier the investment, the greater the return"

James Heckman Prof & Economics Nobel Laureate

Figure 3. Rate of Return to Investment in Human Capital

The middle years of childhood (age 6-12 years) is the period where children enter school, face new challenges outside the home environment, and establish social, emotional, behavioural and cognitive competencies that support a positive transition into adolescence. Recent research has focused on the role of the middle years when pubertal processes begin and the incidence of mental health problems increases.[4]

More recently, evidence shows that investment in the second decade of life also results in large returns. Initiatives to improve secondary school enrolment and quality of education are shown to be central to health, and wellbeing and have long-lasting benefits on health and welfare. Globally, modelling of investment in adolescent health and education was found to generate 10-fold benefits by 2030, even before considering the broader health and social benefits of the education interventions.[5]

Investment in adolescent health builds on the benefits of positive early childhood development already gained, and can rectify earlier health deficits. This brings a **triple dividend** of health benefits:

- Immediate health benefits to the adolescent in their own life
- Establishing positive behaviours and better health in childhood and adolescence leads to adults with healthier lifestyles and reduced morbidity, disability and premature mortality
- Healthier behaviours and better health status as adolescents enter adulthood, leads to the eventual birth of healthier offspring, who grow up in more positive circumstances.[6]

Recommendation 4. Invest in primary prevention, mental health promotion and early intervention through state-wide programs delivered in partnership with primary healthcare, early childhood education and care services and schools.

Investment in promotion of positive mental health must start early in life, as there is now strong evidence that mental health conditions can be prevented. [7] Engaging in preventive activities in the antenatal period, infancy, childhood and adolescence, when the foundations for good physical and mental health wellbeing are being built, and prior to the onset of mental health disorders, there is a higher chance of saving health care costs over a lifetime, due to improved adult morbidity and mortality.[8] This includes investment in mental health promotion

for parents and carers from preconception through early parenting, in programs such as the First Thousand Days.[2]

The role of families in prevention and mental health promotion

Promoting the health of infants, children and adolescents in their homes through parental education and health promotion has a strong evidence base. An economic analysis by Mihalopoulos et al in 2011 shows that interventions designed to prevent childhood and adulthood depression, suicide and childhood anxiety provide very good return on investment.[8] Further, prevention programs early in life, such as parenting programs and school-based programs, have also been found to be both clinically- and cost-effective.[9, 10]

The evidence is clear that parents who have access to education about positive parenting and whose own parenting needs are addressed, are more likely to show improved parenting skills, which are necessary for promoting positive development in infants, children and adolescents. [11]

*The **Early Years Education Program** is a community-based trial in early childhood education and care, designed to meet the educational and developmental needs of children living in significant disadvantage, to enable them to begin formal education with the skills needed for successful learning. At the 2-year follow up, the children were found to have better cognitive and social/emotional development, with emerging evidence of better primary caregiver mental health.*

The role of early childhood services and schools in prevention and health promotion

The middle years of childhood play a crucial role in the development of mental health problems and are the time when the foundations of mental health and wellbeing, such as skills, habits and supports are being established. [12] Given the amount of time children spend at school, it is the obvious platform on which to base strategies to prevent mental health problems. [13]

A growing body of evidence shows that interventions promoting health through the modification of the whole school environment can have positive effects on a range of important outcomes such as reduced bullying victimisation, mental health and wellbeing, quality of life, smoking, alcohol and drug use and police contact. [14, 15] The World Health Organization Health Promoting School framework for improving the health and wellbeing of students and their academic achievement, has been used in the past as the basis for the development of a Victoria-wide settings-based health promotion program, of which mental health was one of the outcomes, however, this program is now in abeyance. [16, 17] A more systematic approach to implementing a health promoting framework in early childhood services and schools should be considered.

Cultural connection is associated with lower rates of psychological distress and mental health problems.[18, 19] Culturally designed programs can bring families together and build community cohesion and connection, while at the same time having in-built exposure to mental health information and resources in a non-stigmatising way. This builds motivation and 'sow the seeds of readiness' among vulnerable families to be able to identify and address mental health issues. Such programs have the potential to increase the likelihood that children and families receive support and help enable them to reach both specialist and community mental health services.

MENTAL HEALTH PROBLEMS ARE BECOMING INCREASINGLY COMMON IN INFANTS, CHILDREN AND ADOLESCENTS

Although public perception is that childhood and adolescence are the healthiest times of life, mental health problems are common in infants, children and adolescents:

- Mental health disorders start early in life. One in seven or 560,000 4-17 year-olds reported having one or more mental health disorders in the previous 12 months in the 2013-14 Second Australian Child and Adolescent Survey of Mental Health and Wellbeing[20, 21]
- One in five 4-17 year-olds were estimated to have high to very high levels of psychological distress, with impacts on their education and quality of life, and one in ten had self-harmed at some point in their life[20]
- Fifty percent of all adult mental disorders have been established by the age of 14 years [22]

- Aboriginal children aged 10-14 years are more than 8 times more likely to commit suicide than non-indigenous children, and those aged 15-24 years are 5 times more likely[23]
- Sixty percent of infants, children and adolescents with chronic illness experience mental health problems[24]
- Trauma, including through child abuse and neglect, exposure to family violence, other child protection concerns, adult mental health and substance use disorders, and forced migration experiences, underpins many mental health disorders across the lifecourse, including through infancy, childhood and adolescence.[25, 26]
- More than one in four Victorian children are exposed to interpersonal violence between their parents/caregivers before they start primary school. By age ten, almost one in three Victorian children are exposed to intimate partner violence. [27]
- Mental health problems in infants, children and adolescents set up patterns which lead to poorer educational and employment outcomes and poorer adult life outcomes. [28]
- The combined burden of untreated and multiple mental disorders is often accompanied by social, educational disadvantage and trauma, which in turn, places avoidable demand on adult mental health, forensic and disability services. This leads to significant health care costs.

Recommendation 5. Develop parental mental health literacy and parenting resources to improve identification of mental health problems during infancy, childhood and adolescence

When children do experience mental health problems, parents do not necessarily recognise them, and do not know where to seek help when needed. Worryingly, despite research showing that early professional help for child mental health problems can improve outcomes, a third (35%) of parents think these problems might be best left alone to work themselves out over time and they frequently report that signs of a problem went unnoticed or unaddressed for a period before they sought help. [29]

Development of mental health literacy programs, targeted towards parents, which can be implemented through the settings where families live, work, learn and play (e.g. early childhood services, schools, workplaces, local councils) and to diverse groups within the community are key.

Expansion of the mental health content of trusted parenting resources e.g. Raising Children Network, including presentation in multiple languages would be useful

RCH Poll

Only a third (35%) of Australian parents are confident they could recognise the signs of a mental health problem in their child. A quarter (27%) of parents do not know that ongoing physical complaints can be a sign of mental health problems and less than half (44%) reported feeling confident they would know where to go for professional help if their child was experiencing social, emotional or behavioural difficulties.

Recommendation 6. Early identification and intervention is needed to improve the wellbeing of infants, children, adolescents and their families/carers

Once a mental health problem has been identified, there are opportunities for early intervention. Early intervention in the child and adolescent context means 'intervention for those children and families/carers at risk before the development of mental disorders, or early in their presentation'. The expectation of early intervention in child and adolescent mental health is that **mental health problems can be mitigated and controlled effectively.** This is in direct contrast to the youth and adult mental health construct of early intervention, which has been co-opted to reflect 'early intervention for enduring mental disorders of adulthood'.

Early intervention includes a focus on family and carer involvement, an understanding of children and adolescents' physical, cognitive and social and emotional growth and development, which may impact both their clinical presentation and management, and attention to the other important issues in their lives such as family, school, social connections, and growing independence. Early interventions can be part of a stepped model of care which addresses the level of need.[30]

In RCH clinical practice, in cases where the first presentation of conditions which are likely to become chronic, family-centred psycho-education is part of the overall care plan. Infants, children, adolescents and their families are initially managed by a mental health worker where available (such as a psychologist or social worker).

Where adjustment problems evolve or mental health symptoms escalate into a disorder (for example, depression or anxiety), referral for specialised care usually occurs. This allows mental health distress to be anticipated, prevention strategies to be implemented, and symptoms to be identified and managed early.

An often-forgotten group of children who would benefit from identification and early intervention include children of adults with a severe mental illness. One in five children live with parent with a serious mental illness and approximately half of the children who attend Child and Adolescent Mental Health Services (CAMHS)/Child and Youth Mental Health Services (CYMHS) have a parent with a mental illness.[31] Adult services seeing these adults must identify their children and refer to child and family services, in order to minimise the impact on those infants, children and adolescents.

THE CURRENT CHILD AND ADOLESCENT MENTAL HEALTH SYSTEMS ARE FRAGMENTED, DISCONNECTED AND DIFFICULT TO ACCESS AND NAVIGATE

Recommendation 7. Improve equitable access to mental health support

For patients with mental health problems, it can often be difficult to access appropriate care when needed. While 14% of Australians aged 4-17 years met criteria for a mental health disorder in 2013-14, only 56% of them had accessed mental health services.[20] Parents reported they couldn't access care because of long wait times and high out-of-pocket costs, but there are no published data on actual wait times and costs in Australia.[32] Older data on refugee children suggest only 13% of those with emotional or behavioural problems access professional help.

A recent study at the Melbourne Children's Campus aimed to determine the wait times and costs for general paediatricians, psychiatrists and psychologists in Victoria and South Australia for mental health services. The study also examined whether there were any regional differences between specialists and in low, medium and high socioeconomic status regions.

The researchers used a "secret shopper" technique, telephoning the private practices of 81 paediatricians, 48 psychiatrists and 198 psychologists (two-thirds were Victorian clinicians). They posed as a parent seeking an appointment for their child with possible (i) anxiety or (ii) attention-deficit hyperactivity disorder (ADHD), requesting time to the first available appointment, total costs and out-of-pocket expenses after a Medicare rebate was applied. Calls were made between March-May 2019.

They found that 8 paediatricians, 8 child and adolescent psychiatrists and 40 psychologists had closed their books to new mental health patients. Appointments were available in two-thirds (67.6%) of clinics, with just over half (52.3%) able to offer an appointment with the requested clinician.

Average wait times and out-of-pocket fees quoted for an initial consultation

Health care provider	Wait times (Mean, range)	Out-of-pocket costs (mean, range)
Paediatricians	58.3 days (1-229)	$122.30 (0-253)
Psychologists	40.5 days (0-201)	$82.33 (0-170.50)
Psychiatrists	50.8 days (3-170)	$184.84 (0-415)

There was a trend for longer wait times for rural specialists and for psychiatrists and psychologists working in high-SES practices, followed by medium, then low-SES practices.

The evidence is clear that even when wanting to access services, it is very difficult to see someone in a timely manner that is affordable, especially for those from lower socioeconomic areas. For the most vulnerable children, from disadvantaged backgrounds, this service system is not affordable.

Overburdened CAMHS services rely on children and adolescents and their (often chaotic) family to attend and engage – if families do not engage or attend, the child does not receive intervention. This means the most vulnerable families do not receive the care they need, including those that are most unwell, transient families, those in out-of-home care, those from non-English speaking families. Reaching families unable to attend clinic-based services requires innovative solutions, including outreach and tele-psychiatry.

Lack of language service support is a structural inequity, and a further, substantial barrier to mental health care for individuals with low English proficiency. Around 3-4% of people in Australia report they have limited or no English proficiency, and require the assistance of an interpreter.[33] In general, most non-medical providers in the private sector, including psychologists, do not have access to funded language services, and language service access in the public sector may also be limited. Interpreter access within the headspace network has been variable, and the MBS Better Access Initiative does not provide language service funding for psychologists.[34]

Children who are incarcerated with parents in prison, detained in Youth Justice facilities, resident in out-of-home care residential group homes, temporarily housed in Secure Welfare and children who are socially isolated as a consequence of poor parental mental health also experience severely restricted access to mental health services.

Recommendation 8. Mental health services must be patient and family centred, trauma informed, and integrate with other health, education and community services

When families do try to seek help for their infant, child or adolescent, their first port of call is their General Practitioner, or Maternal and Child Health Nurse, who may have variable experience and training in dealing with mental health problems in the young. In trying to access more specialised mental health expertise, families and providers are faced with a complex system, where it is often difficult to know which provider to see and how to access care in a timely manner, let alone get the support they need. With often arbitrary differences between age requirements, geographic boundaries, different pathways for inpatient vs outpatient care, different requirements for public vs private care or hospital vs community care, varied availability for culturally appropriate care and interpreter access issues, it is clear that families (and their health care providers) struggle to know how to navigate the system.

Once the child and family/carer are engaged, services are often not patient-centred, and communication is fragmented, meaning they have to navigate the various complex parts of the system, and can get lost within the system or lost to follow up if clinicians do not take a holistic, long-term overview of the infant, child or adolescent and their family and social circumstances.

Recommendation 9. Centralise the CAMHS/CYMHS models by developing a single governance structure, separated from adult mental health

A centralised specialist mental health service (i.e. a move away from 13 CAMHS and CYMHS) would provide a developmentally appropriate level of service across the state, establish consistent supports for primary care and paediatricians, remove the barriers that occur due to age, geography, complexity of mental health problems, and lack of coordination with other child and family services. Further, a centralised governance structure will facilitate the implementation of evidence-based care and the ability to monitor outcomes across services.

Recommendation 10. Remove current criteria-based eligibility requirements of age, geography and type of mental health condition, to provide one-stop shop access points, with opportunity for referral to specialist services depending on diagnosis.

Because the 13 CAMHS and CYMHS have devolved governance, inconsistent age and geographic entry criteria, they provide variable clinical care, practice is not always evidence-informed and monitoring of outcomes is not possible state-wide.

CAMHS/CYMHS services lack the central direction needed to balance the competing functions of treating psychiatric disorders, providing social supports and case management at the same time as managing often considerable risks.

In this context, services prioritise practices to address risks (predominantly suicide prevention), which are more common in older adolescents and young adults.

Specialist CAMHS/CYMHS in many parts of Victoria operate in the absence of a functioning service base of independent providers of mental health care in school and community with capacity and training to provide accessible and effective interventions for mild and moderate disorders.

CAMHS are funded based on population and numbers of patients seen, rather than the need for services within the catchment area. Generally, funding for specialist mental health services is provided for only 1.2% of the population, however 3.1% of the population have serious mental disorders. Funding of CAMHS has no relation to the prevalence of mental health disorders in each region, resulting in significant inequities of access. Funding

to south western Victoria for specialist mental health is considerably lower by population of 0-24year olds than for all other sectors of the State [35] despite known higher prevalence of mental disorders in families with greater socioeconomic disadvantage.

Service coordination between specialist CAMHS/CYMHS and health and family service providers including paediatricians is not consistently undertaken and hampered by communication technology limitations and excessive service demand for CAMHS/CYMHS.

Fragmentation of care across geographic boundaries

Inpatient and outpatient care is inequitably distributed across the state, with CAMHS/CYMHS services bound by geographic region, which in turn, can be used to ration supply.

Arbitrary geographic boundaries can disrupt continuity of care for many patients accessing the mental health system

- RCH provides outpatient services to children only in the Northwest Metropolitan region aged 0-15 years but has **no inpatient services for children under the age of 13 years**. Children requiring more intensive inpatient care are admitted to the Austin or Monash Hospitals.
- RCH provides inpatient admissions and services to adolescents only in the Northwest Metropolitan region aged 13-18 years but no outpatient services after the age of 15 years.

Patients who present to an Emergency Department and require an inpatient psychiatric admission but have a residential address outside the catchment region must wait in the Emergency Department until a transfer to the appropriate inpatient unit has been arranged. This negotiation can take many hours and multiple phone calls around the state to find an available inpatient place because there is no centralised system that can identify where the available inpatient places are at any one time; this adds to the length of the Emergency Department stay.

Fragmentation of acute services across ages

The CAMHS approach takes into account the developmental stage of the child and accepts patients on the basis of complexity and severity. Children aged up to 15 years access community-based care through CAMHS.

Youth mental health is provided through some child and youth mental health services (CYMHS) – with integrated care for young people up to the age of 25 years. Services designed to combine child, adolescent and youth mental health provide improved access to care for 18-25 year-olds at the expense of access and interventions for younger adolescents.

In the RCH Northwest Metropolitan region catchment, Orygen Youth Health provides community-based care to young people 15 years and over. It uses adult models of psychiatric care and entry criteria directed to severe manifestations of specific diagnostic categories. RCH is often not able to gain help for adolescents seen at the hospital with a range of mental disorders that fall outside of those criteria. Figure 4 highlights the fragmentation of care according to age for inpatient and outpatient status.

Because some youth mental health services have time limits for therapeutic engagement, some adolescents and their families find themselves having to engage with a new provider more than once. This discontinuity places pressure on the adolescent and their family, while they wait for a new referral, wait for a new intake into a service, and then have to re-engage with a new mental health provider. It also places pressure on the referring clinician, who has to identify a new mental health service to refer the patient and provide supportive care to the patient until the patient has re-engaged.

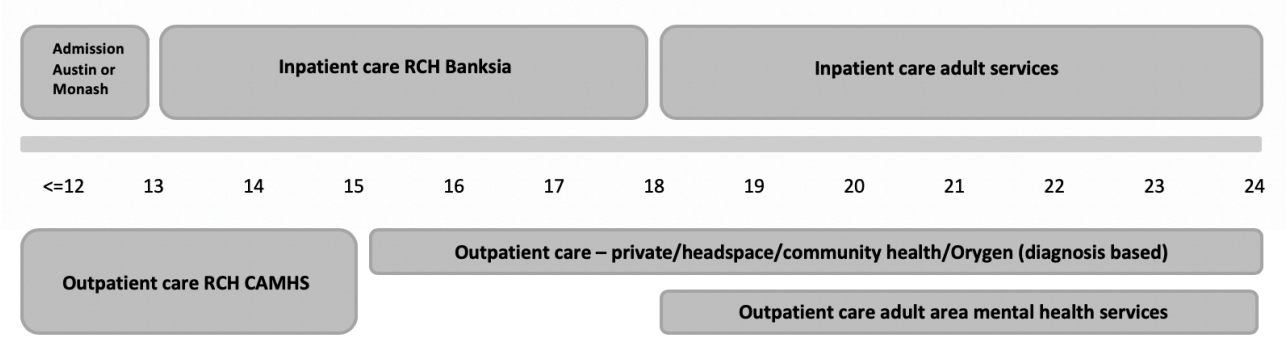


Figure 4: Age criteria for mental health service provision in the North-West Metropolitan region

Disconnect between CAMHS other services providing mental health

Multidisciplinary care for children and young people with complex conditions can lead to improved care and outcomes. There is a lack of coordination or integration of key aspects of health services, which lead to patients receiving suboptimal care demonstrated by the following:

- The pressure on mental health services had led to triage models directed to redirection of less severe cases, with multiple levels of assessment, often by different providers, leading to problems with engagement.
- Communication between private and public health providers is not always adequate. Infants, children and adolescents, particularly those in the child protection system are commonly not followed through their development as they move between providers and services.
- The Health information data often do not follow the infants, children and adolescents across different services, and patients are often forced to tell their story multiple times, potentially amplifying the trauma they have experienced.
- A patient with a chronic medical condition who receives consultation-liaison mental health support as an inpatient, but may be referred on discharge to a different regional CAMHS/CYMHS service, may not meet referral criteria for that CAMHS/CYMHS, thereby interrupting the continuity of care started in the hospital.
- Duration of treatment limitations have been developed in some CYMHS and not others, with the result that adolescents may cease to be eligible for a youth mental health service before the age of 18, however adult mental health services may not accept them for care until they reach 18 years.
- Mental health and child protection legislation are not aligned, resulting in instances where adolescents are admitted to adult mental health inpatient services where the principle of 'least restrictive practices' exists, which may place the adolescent at risk.

Transition to youth and adult mental health services

The developmental continuities across adolescence into young adulthood are increasingly appreciated to require health care that is both patient and family-centred.[36] The RCH continues to support adolescent patients through their final year of school and the transition to post-school earning or learning. It has developed a variety of transition programs to build health literacy, support patients and families, identify the most appropriate adult services, and actively support patient and family engagement with these services. Internationally, the upper age of paediatric services has increased over the past 20 years; paediatrics extends beyond 19 years in over half of countries in a recent survey.[36]

Best practice transition planning should be an integral part of child and adolescent mental health care services. General practice provides important continuity, but continuity of specialist mental health care is also required across adolescence and young adulthood. A decision on the best mental health support for older adolescents will need to be made on a case-by-case basis, depending on the disorder and its expected prognosis. A strength of the headspace model and Child and Youth Mental Health services is eligibility for young people up to 24 years of age.

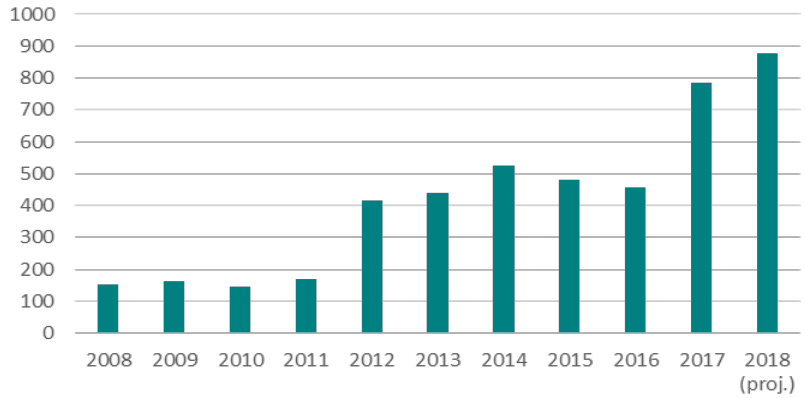
Recommendation 11. Mental health system redesign must address the growth in Emergency Department presentations of children and adolescents with challenging behaviours and mental health disorders

Lack of access to mental health services and a poorly coordinated mental health care system (particularly after hours), has led to an increasing reliance on Emergency Departments (ED) for access to acute mental health care.[32, 37] Many EDs in Victoria, including the RCH ED has experienced unprecedented demand both for acute mental illness and crisis presentations for children and adolescents with mental health related comorbidities. This latter group includes those with challenging behaviours in the setting of neuro-developmental disorders (such as Attention Deficit and Hyperactivity Disorder, Autism Spectrum Disorders, Intellectual Disability, Cerebral Palsy), violence and aggression, increased social dysfunction, child abuse and neglect and substance abuse.

EDs are often seen as the only solution to access initial care. The rapid recent increase in ED demand means that paediatric emergency facilities have not been designed to accommodate children and adolescents with severe behavioural or mental health related concerns.

Each presentation to the ED means that children and adolescents may have not received the adequate care prior to the issue that led to that presentation. This can include effective prevention, early intervention, active management and planning for behavioural and mental health crises.

EDs are noisy, bright, stimulating environments, full of action and movement 24 hours a day. This is the worst environment to attempt to manage a child or adolescent with mental health care needs or behavioural disturbance who needs time, calm and support to control their behaviour and contain their distress. The ED is not resourced to help these patients with the psychosocial care they require, and the stimulating environment can risk an escalation of the problem.



After hours mental health referrals to emergency

There has been a 400% increase in emergency presentations after hours mental health referrals at RCH since 2011, and currently, there are 120-150 mental health presentations per month to the ED at RCH, largely after hours

Recommendation 12. Develop fit-for-purpose safe facilities in all children's emergency departments, staffed by expert providers in behavioural management

The mental health assessment of a patient presenting to the ED, can take many hours of a mental health professional's time. When there are multiple patients with mental health problems in the ED, the time lag for them to be seen by the overstretched mental health professional can extend to well over 4 hours, which is the key performance indicator for carrying out a mental health assessment in ED. As a result, the patient's distress and problematic behaviours can go unmanaged or unaddressed, and cause further risk to themselves, their family or carers, other patients around them and staff. Busy ED departments are also not well structured to manage aggressive behaviours. Fit-for-purpose spaces within the ED backed with experienced staff would be a positive addition to provide crisis care for this challenging group of patients.

The Melbourne Children's Campus recognises the health system is struggling to meet the needs of those with mental health disorders and the consequent impact on ED presentations. It has received a Medical Research Futures Fund grant called, "The Kids are not Alright", to undertake a series of research projects with the aim of improving acute mental health care for children and adolescents presenting to the ED.
Activities include:

- Analysis of the current patterns of ED use, factors influencing ED presentations including the costs involved, the contribution of comorbid conditions, and precipitants and predictors of mental illness and suicidality.
- Assessment of real-world clinical and cost-effectiveness of an enhanced safety planning (ESP) intervention involving assertive follow-up telephone calls, a co-designed smartphone app and web-based resources to manage suicidality
- Randomised controlled trials to determine the most effective and cost-effective pharmacologic agents to manage acute severe behavioural disturbance in the ED
- The development and dissemination of national clinical practice guidelines for the management of acute severe behavioural disturbance in those presenting to the ED.

SERVICES OUTSIDE THE MENTAL HEALTH SYSTEM SEE A SIGNIFICANT PROPORTION OF MENTAL HEALTH PATIENTS

A range of services outside of the mental health system currently see infants, children and young people with mental health problems.

The Maternal and Child Health (MCH) Service is a universal service that sees almost all newborns and their families within the first week of life. The service provides ten visits at which the Maternal and Child Health Nurse assesses growth, development, behaviour and wellbeing over the first four years of life.[38]

MCH nurses are well placed to identify risk for maternal mental health problems, behavioural problems in the infant and can provide early intervention using evidence-based activities and supports. Vulnerable families can be identified and have access to further visits. The MCH program is a "jewel in the crown" of child and family services and provides a ready platform to engage families and carers in prevention (through mothers' groups

and supported playgroups), early intervention, surveillance, referral for further assessment where needed and emotional support for mothers.

School health services (including secondary school nursing and Doctors in Secondary Schools Program) exist in some mainly disadvantaged schools, to provide health promotion and primary care support for students. Anecdotally, many consultations are mental health related, and the programs provide a wonderful opportunity to link students into community based mental health care. Evaluation of the Doctors in Secondary Schools program is not yet complete.

The Young Minds Matter Survey highlighted that only 50% of children and adolescents with a mental health disorder had accessed any health services in the last 12 months. The most commonly accessed health professionals included GPs (35%), followed by psychologists (23%), paediatricians (21%), and psychiatrists (7%). The data show that 8.2% of children and 23.1% of adolescents had mental health disorders with severe impact, while the rest had mild to moderate impact. [21]

Paediatricians receive referrals for children and adolescents with complex mental health and behavioural presentations, which can have a comparable burden of severity to those referred to CAMHS/CYMHS. [39] Paediatricians regularly see children and young people with mild to severe mental health concerns, and clinical presentations that are a combination of physical and emotional symptoms. These include conditions such as depression, anxiety, ADHD, autism spectrum disorders, behavioural issues. eating disorders, trauma related presentations, dual disability (intellectual disability and mental health disorders), child protection issues, risk-taking behaviour, chronic pain syndromes, gender identity dysphoria, substance abuse, somatic symptom disorders (where symptoms are physical but no medical cause can be found) and conversion disorders.

Mental health concerns (including problems with development and behaviour) form a substantial part of paediatric practice. The Children Attending Paediatricians Survey, first conducted in 2008, reviewed more than 8000 attendances and found that one in two children had developmental and behavioural problems. [40] Thirty-five percent of patients seen by regional paediatricians had behavioural problems. [41] ADHD is the most frequent mental health diagnosis managed by Australian paediatricians. [42] Hiscock et al found that 30% of consultations were for patients with ADHD alone and 14% for patients with Autism Spectrum Disorders (ASD). [43] More recent data indicates that ASD now accounts for 15 per cent of new diagnoses made by general and community paediatricians. [43]

Paediatricians and GPs however, do not always acknowledge mental disorders as part of their core work, and many consider themselves ill-equipped or financially disadvantaged to manage these conditions. This further results in variable quality care.

headspace: The government response to rising prevalence of adolescent and young adult mental health problems has been investment in specialist youth mental health platforms within the community, including headspace and early psychosis centres for 12-24 year-olds. The logic behind this investment was that this type of early intervention would shift the natural history of these conditions and reduce the levels of social, physical and educational harm. Implicit in the strategy was the view that only specialist trained mental health providers could run services of this kind effectively. This model was created with the downward extension of adult mental health model and lacks the developmental focus required for adolescents, especially younger ones.

The creation in headspace of another layer of mental health community care, whilst undoubtedly expanding access to mental health service providers, has led to further complexity for referrers and families, particularly for adolescents and young adults with moderate to severe mental health disorders. If mental health difficulties become too severe or are of a particular kind, or if the patient requires an interpreter, the young person will be referred to specialist mental health services. In evaluating the model, it appears that headspace has a small effect on outcomes perhaps not justified by the cost.[44]

Clinical issues specific to the Royal Children's Hospital

The Royal Children's Hospital (RCH) has a large population of patients, with many additional complexities, all of which have some mental health implications. These include infants, children and adolescents with congenital illnesses, consequences of prematurity, chronic illnesses, cancer, disabilities, Aboriginal children and adolescents, refugee/asylum seeker children with complex presentations, and those suffering from child abuse, neglect, disadvantage and trauma.

Many of the infants, children and adolescents at the RCH have devastating diagnoses, and medical disorders that have significant mental health consequences. Many have conditions that manifest with both physical and mental health symptoms that have to be managed as a whole. The hospital experience of these complex populations is that mental health support should be provided according to the level of need:

- Prevention/initial psychoeducation to help children, adolescents and their families/carers know what to expect after medical diagnosis.

- Directed prevention strategies for those who are at risk of developing mental health problems (e.g. providing support for procedures, play therapy, mindfulness techniques while in hospital, use of a trauma-informed approach).
- Early intervention to help those with emerging mental health problems, should be provided by mental health practitioners working within outpatient medical clinics in collaboration with other health practitioners.
- Mental health intervention by paediatricians, inpatient psychologists and social workers, and other allied health staff manage mild-moderate cases, would benefit from responsive secondary consultation, access to evidence-based therapies and regular collaboration and advice from CAMHS/CYMHS specialist mental health providers.
- Patients with severe symptoms or psychiatric disorders are referred to CAMHS for specialist treatment
- An after-hours approach to mental health is needed to decrease emergency department presentations
- Provision of additional specialist mental health services are specifically needed for a range of subspecialty areas. For example, Aboriginal health services, disability services, refugee health and for infants with severe congenital and medical conditions.

Recommendation 13. Develop a new model of stepped care, to provide the integrated care that infants, children, adolescents and their families need when they need it

A comprehensive, coordinated approach to mental health for infants, children and adolescents can take advantage of the range of child and family health systems, and can provide high quality care and supports with the right structure.

A new model has to incorporate the workforces which deal with the spectrum of mental health problems (ranging from mild problems through to severe mental illness) - the primary care services (maternal and child health services, general practitioners), secondary services (community paediatricians and psychologists, community mental health services) and tertiary services (hospital paediatricians, hospital mental health services, CAMHS/CYMHS, private psychiatrists) – and clarify their roles and relationships.

One way of doing this is by using a stepped care model for mental health, which is already being used by Primary Health Networks across Australia to coordinate primary care.

Stepped care is an evidence-based, staged system comprising a hierarchy of interventions, from the least to the most intensive, matched to the individual's needs. While there are multiple levels within a stepped care approach, they do not operate in silos or as one directional steps, but rather offer a spectrum of service interventions.

Stepped care is a different concept from 'step up/step down' services. [45] In a stepped care approach, a person presenting to the mental health system is matched to the intervention level that most suits their current need. An individual does not have to start at the lowest, least intensive level of intervention in order to progress to the next 'step'. Rather, they enter the system and have their service level aligned to their requirements.

Recommendation 14. Fund salaried community paediatricians to work within specialist children's services, who can drive integrated care across the medical, welfare and mental health systems

Primary child and family services in the community, could be linked to secondary services, such as community paediatricians, community psychologists, mental health services, so if the level of severity of the t disorder increases, they can access tertiary services and specialist child and adolescent mental health services.

Because of the fragmentation and variable costs of services in the community, consideration should be given to providing salaried community paediatricians, working alongside specialist children's services, who work as gatekeepers into the mental health system for children and adolescents and provide the 'glue' to ensure integrated care with the child and family in mind. Victoria is the only state in Australia without salaried community paediatricians.

Community mental health services need to be affordable in order to avoid a further barrier to care for vulnerable infants, children, adolescents and their families.

Recommendation 15. Develop specialist integrated care models for conditions which require concurrent physical and mental health management

There are some infants, children and adolescents who have severe coexisting medical and mental health disorders which both require active inpatient treatment (e.g. eating disorders, overdoses). Dedicated inpatient medical/mental health beds with corresponding staff expertise would help manage these patients.

The RCH has developed very successful integrated care models for complex conditions or patient groups with both medical and mental health manifestations. This model is used for management of patients with eating disorders, gender management, refugee health and Wadja Clinic for Aboriginal children and families. These models, which combine seamless multidisciplinary care with integrated research and evaluation, have been shown to be effective and could be extended to other complex conditions/patient groups.

This model can be extended to other patient groups with additional mental health needs, such as those with disabilities, somatic symptom disorders and chronic illness.

The incorporation of research alongside clinical care and education in a single model of care, builds a cycle of knowledge generation through research, translation and evaluation through clinical care, and knowledge dissemination and capability building through education and training, that benefits patients and clinicians. This is the unique value proposition of the Melbourne Children's Campus, which has all three functions collaborating closely.

Recommendation 16. Develop service pathways for culturally diverse and socially disadvantaged infants, children and adolescents

The issues facing culturally diverse and socially disadvantaged infants, children and their families amplify the barriers to effective mental health care. Integration of mental health care into health and social care services which deal with these highly vulnerable populations (e.g. agencies supporting children in out-of-home-care, Aboriginal community controlled health services and other agencies working with Aboriginal families, refugee resettlement and counselling services) can ensure a range of pathways that are culturally safe and trauma-informed.

There is an urgent need to map the current mental health system pathways as they exist for Victorian Aboriginal children and families, in order to develop clearer service pathways that have established cross-organisational communication and referrals.

There is a need for dedicated mental health workforce positions that are responsible for working directly with families as they navigate the mental health system. They could work with the multiple services involved and ensure adequate client care plans are in place to allow for continuity of care.

Recommendation 17. Develop a stronger program of telehealth and telepsychiatry to increase regional and rural reach

The structural inequity that exists in the relative lack of mental health support for children, adolescents and their families living in regional and rural areas can be mitigated through strategic investment in telehealth. This could be used for mental health consultations with mental health providers, as well as for the provision of specialist secondary supervision and advice to local providers.

Exploration of options for video-interpreting is required to promote access to culturally diverse families.

Exploration of extending telehealth to mental health professionals not currently funded (e.g. psychologists) should be considered.

MENTAL HEALTH CARE FOR INFANTS, CHILDREN AND ADOLESCENTS REQUIRES THE IMPLEMENTATION OF EVIDENCE-BASED PRACTICE, CLINICAL PATHWAYS AND MEASUREMENT-BASED-CARE

Recommendation 18. Develop and implement outcome-based funding models, using evidence-based clinical pathways and monitoring of outcomes

In a field where there are different approaches to the identifying and managing of mental health disorders in infants, children and adolescents, data to assess the extent to which health care providers use evidence-informed practices, or mental health outcome measures are not routinely collected.

The systematic use of repeated outcome measures to monitor treatment progress and support clinical decision making – dramatically improves psychiatric treatment outcomes. Although much of this work has focused on adult mental health, studies have also shown that measurement-based care also benefits children and adolescents. [46, 47] The evidence suggests that measurement-based care is a critical missing link in the well documented gap between the results of randomised controlled trials and outcomes in real-world clinical practice.

Some aspects of measurement-based care are already implemented within the publicly funded Victorian CAMHS and CYMHS. However, these measures are not incorporated into clinical care from non-CAMH/CYMHS services, such as community psychologists, paediatricians, or outpatient health services - where most children with mental health problems receive care.

Recommendation 19. Develop and deliver evidence-based mental health guidelines for the Victorian context

There is a lack of evidence-based clinical practice guidelines being routinely applied in Australia to guide high quality mental health clinical care. The development of evidence-based clinical guidelines has been driven from the National Institute of Clinical Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN) in the UK. While NICE, and to a lesser extent SIGN, have now developed evidence-based guidelines for most common child and adolescent mental health problems, the only current Australian guidelines relating specifically to children and adolescents are those for the assessment of Autism Spectrum Disorder.[48]

Recommendation 20. Develop and deliver evidence-based clinical pathways across primary, secondary and tertiary mental health services to promote coordinated care

There is also a corresponding lack of clinical pathways developed for child and adolescent mental health and behavioural disorders across the primary, secondary and tertiary services. These require quality standards, indicators as system metrics of effectiveness, and service improvement tools, all of which have been shown to improve quality of care for children and young people. [49]

Recommendation 21. Invest in generation of the evidence base through rigorous research and evaluation

Government investment in mental health research can build the evidence-base for quality care through the resourcing of proper trials and evaluations of interventions using rigorous research methods. Government is uniquely placed to be both a generator of knowledge and evidence, as well as a user of the evidence to design strong policy and programs.

As many aspects of the mental health system are being analysed and potentially being redesigned after the Royal Commission, the use of investing in key research collaboration around specific topics, and rigorous evaluations of pilots or new programs can inform the effectiveness of government investment in mental health.

There is a particular urgent need to develop the almost non-existent evidence base for therapeutic practices that are safe and effective in Aboriginal mental health. [50]

Mechanisms to accurate identify, and monitor populations vulnerable to poor mental health outcomes, including infants, children and adolescents of refugee background, those exposed to family violence and children with special developmental needs will contribute to the provision of equitable mental health care.

CAPABLE WORKFORCES DELIVER SUSTAINABLE HIGH-QUALITY CARE

Recommendation 22. Develop a state-wide mental training program to build capability in all the workforces who manage infants, children and adolescents with mental health needs.

Identification, early intervention and management often fall to workforces that don't necessarily have the training or expertise to manage the complexity of mental health problems in children and young people.

These include early childhood service workers, school teachers, primary care services, community and hospital paediatricians and psychologists, social workers, occupational therapists, physiotherapists and speech pathologists working in mental health.

Current training requirements: Who gets trained in what?

- Clinical psychologists and neuropsychologists have good general training in evidence-based assessment and therapy and are required to participate in regular clinical supervision and professional development, mandated by their regulatory body.
- Other allied health professionals such as speech pathologists, occupational therapists and social workers are well trained in some specific areas of work but not others.
- General mental health nurse training contains little content specific to child and adolescent mental health.
- General practitioners receive limited child and adolescent health training and even less child and adolescent mental health training.
- Paediatricians are required to do a 6-month rotation in a community-based field, which can be either community child health, child psychiatry or adolescent medicine. This experience is variable and unlikely to provide the opportunity to assimilate all of the knowledge and skills required to manage the range, volume and complexity of patients they are expected to manage as consultants.
- Child and adolescent psychiatrists are exposed to a range of training opportunities and supervision during basic (three years) and specialist (two years) training but, because the current workload of CAMHS services is heavily weighted towards adolescents with mood disorder and psychosis, this can make it difficult for trainees to gain adequate experience with younger children and neurodevelopmental disorders.
- There is limited opportunity to receive on-the-job training in evidence-based practice within public CAMHS/CYMHS due to workload and funding restrictions.
- Mindful is the state-wide unit responsible for the delivery of postgraduate courses, training programs, professional development and research programs in child and adolescent mental health. They run the specialist training course for child and adolescent psychiatrists, advanced psychotherapy training also for psychiatrists, and a series of high quality introductory and post basic courses for practitioners.
- Gaps remain in evidence-based practice for all professional groups and for paediatricians wishing to specialize in child and adolescent mental health.

Recommendation 23. Build expertise in specialist mental health providers on the needs of complex populations of infants, children and adolescents.

Building expertise in specialist mental health providers, is especially required for the complex populations of children and adolescents. This would include, but not be limited to, expertise in Aboriginal health, infant mental health, child abuse and neglect including child sexual exploitation and trafficking, incarcerated adolescents, refugee health, intergenerational issues of disadvantage, and disabilities. The Gatehouse Centre and the Refugee clinic at the Royal Children's Hospital have already developed evidence-based training of its junior medical staff.

Recommendation 24. All-staff should be trained in providing culturally safe and trauma-informed care

In order to provide equitable care, staff need to understand the complex nature of patients from culturally diverse and socially disadvantaged backgrounds. While not all staff will be in the position of working in depth with these populations, all staff must be able to recognise past trauma, work in a way that doesn't reinforce trauma and respect their patients' culture and background in a way that facilitates their dignity, rights, clinical engagement and mental health care.

Recommendation 25. Develop workplace supports to promote workforce wellbeing and safety

Working with children, adolescents and families/carers can be stressful and can leave staff feeling vulnerable and unsafe. There is a range of opportunities that can promote workforce safety including;

- An Employee Assistance Program services (EAP) is available, that meets the specific needs of the mental health professionals, allied health, nursing staff and medical staff, in order to encourage its use by everyone as needed.
- A Critical Incident Debriefing process which ensures timely support for staff.
- A user-friendly, efficient Incident Reporting System, to encourage people to report when an incident occurs.
- Regular review of the Code Grey notification processes and ensure key staff are trained in identification of risk and de-escalation of aggressive behaviours.
- Recognition of the taxing nature of working with patients with mental health problems, by ensuring that workplaces deal with workload issues, including rostering, workload management systems and a culture that encourages all staff (including senior staff) to ask for help when needed.

GOVERNANCE AND ACCOUNTABILITY DRIVE EXCELLENCE IN CARE

Recommendation 26. Develop clinical governance mechanisms to oversee the care of patients in the mental health system, and coordination across systems, especially those from culturally diverse and socially disadvantaged groups.

Excellence in care relies on effective monitoring of performance, both at an individual patient level and at a system level. Excellence of mental health care in Victoria would be enriched by clinical governance mechanisms, especially ones that ensure the needs of culturally diverse and socially disadvantaged infants, children and adolescents are addressed.

Recommendation 27. *Conduct a price and funding review of specialist mental health for infants, children, adolescents and young adults and establish a new funding model*

Given the different service delivery models of the CAMHS and CYMHS across Victoria, a price and funding review should inform the establishment of the single governance specialist mental health model of care. A new funding model can then be established to better address the prevalence of mental health disorders across the state, leading to more equitable distribution of services to where they are most needed.

To promote integrated care, incentives for an integrated approach should be considered, such as co-bundled payments for co-consultations, case discussions and secondary supervision.

Recommendation 28. Monitor performance through the development of a Victorian dataset to support funding provisions and drive clinical improvement

There is a general lack of linked data across service systems, such as health, education, community services and youth justice. For many infants, children and adolescents vulnerable to poor mental health outcomes, this means their information can be fragmented or not available.

Key performance metrics, which assess the quality of care at a service level (i.e. system metrics) as well as individual outcome measures to monitor individual patient care should be implemented systematically.

Metrics which assess the equity of distribution of services, and the degree to which services meet the needs of vulnerable groups, should be included in the funding model.

Similarly, collaboration and integration of care with education, community services and other health services can be promoted by measuring the extent to which these networks and collaborations have been developed. This may include measure of patient experience as well as workforce experience and satisfaction.

Finally, a focus on outcomes, which would be measured as part of stronger measurement-based care, should also be incorporated into evaluations and funding models to ensure a patient-centred focus.

CONCLUSION

The Melbourne Children's Campus recognises that infant, child and adolescent mental health is a critical precursor to adult mental health. Prevention of lifelong morbidity, disability and mortality is possible if prevention starts early in the lifecourse, and early identification and intervention of mental health problems can occur, with the aim of restoring good quality of life and family, school and social connections.

The components of a strong, integrated and successful patient and family focused mental system include:

- A child and adolescent mental health system with centralised governance
- A service system integrated with medical, child and family services, that is easy to access for all groups, including culturally diverse and socially disadvantaged infants, children, adolescents and their families
- Use of a stepped-care therapeutic model that includes primary, secondary and tertiary services and which provides levels of support according to need
- Placing the infant, child or adolescent and their family at the centre of care

Underpinning this system, is an ongoing commitment to evidence-based quality care through clear clinical pathways, ongoing professional development for clinical workforces, a culture of support and care for all health providers who look after infants, children and adolescents with mental health disorders and a strong governance and accountability framework to continue to drive quality care.

MENTAL HEALTH RESEARCH AT MELBOURNE CHILDREN'S

We are a nationally recognised Academic Health Science Centre. The 2013 McKeon Review put our Campus forward as an exemplar of integrated research and healthcare delivering better health outcomes. The Campus houses Australia's leading child health research organisation, represented by 1,200 clinicians, scientists and students across 60 research areas. The Campus partners works under an overarching goal of translating knowledge into effective prevention, intervention and treatment strategies to address a range of disorders. Advocating for quality equitable care for all children what makes us unique in Australia is the critical mass of researchers across a breadth of disciplines within a single, purpose-built facility.

Some examples of the depth of research relevant to infant, child and adolescent health include:

- **The Kids are not alright** - $5 million dollar federally funded project to ensure quality care for children and young people presenting to emergency departments with mental health problems
- The **Centre for Community Child Health** works at the nexus of academic research, clinical practice and public policy. Research focuses on new models to shift care from the hospital to community, understanding clinician and caregiver voices to improve mental health services and reducing wasteful, low value care.
- **Service mapping –**health and social and education services for children aged 0-8 years of age
- **The Centre for Adolescent Health** has a unique longitudinal cohort studies focusing on common mental disorders and the interface of health and education systems
- **Centre for Adolescents** eating disorders clinic
- **Calm Kids intervention** for children with co-morbid attention deficit disorders and anxiety
- **Digital health** - developing safety plans for kids in Banksia
- The **Australian Paediatric Research Network** – a secondary care practice-based research network with 500 paediatrician members across Australia
- **Child Health Checkpoint** - dataset that spans genomic and phenotype data across 2 generations about growing up on Australia.
- **Signposts** working with parents of children with acquired brain injury
- **Raising Children Network – campus led website that provides evidence-based tips and tools for everyday parenting from pregnancy to teens. It is a free resource viewed over 50 000 times per day.**
- **Child Policy Equity and Translation** researchers leading over 30 local, state, national and international research and evaluation projects.
- Campus led the national implementation of the **Australian Early Development Census** – a world leading data set informing policy and funding priorities.
- **The Intergenerational Health** group– are evaluating strategies to improve maternal and child mental and physical health outcomes among socially disadvantaged populations, including families of refugee background, Aboriginal families and children and families experiencing family violence.

CASE STUDIES AND CAMPUS RESEARCH

Experts at Melbourne Children's see an opportunity to implement evidence based recommendations across a range of areas **specific** to infants, children and adolescents, including:

- Patient pathways
- Emergency care
- Acute care
- Infants
- Sexual assault
- Disability
- Eating disorders
- Chronic illness
- Out of home care
- Youth justice
- Aboriginal families
- Refugee and asylum seeker children
- Parental literacy
- Service fragmentation
- Prevention
- Child abuse
- Mild, moderate and severe disorders
- Standardising assessment
- Training and education
- Data linkage
- Pharmacovigilance and pharmacoepidemiology
- Neurodevelopmental and disruptive behaviour disorders
- Quality of life and functional outcomes

We would welcome consideration of all of the areas above. Here we present 4 case studies indicative of the issues listed above and highlight the impact Melbourne Children's research is having in these areas.

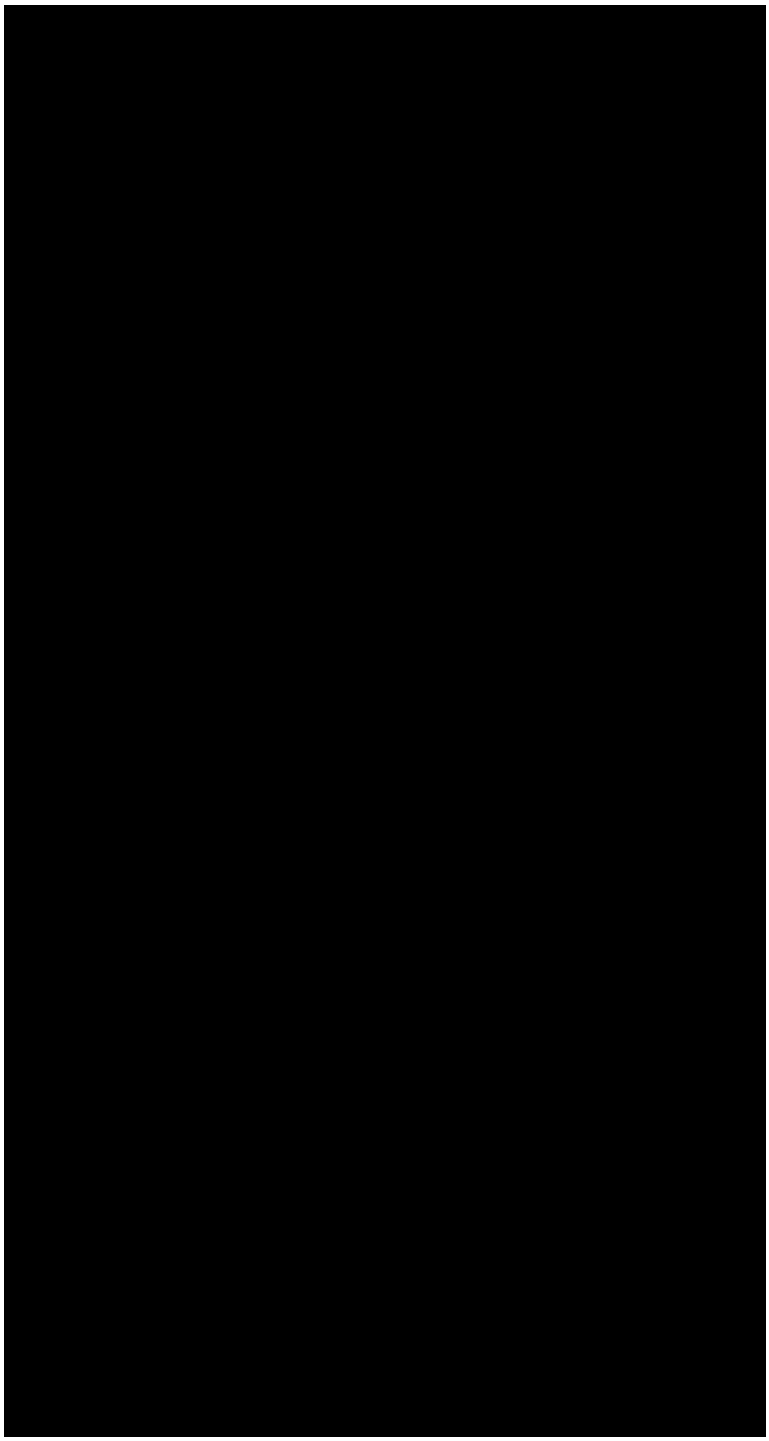
INFANT MENTAL ILLNESS

What we know
There is a high community prevalence of infant mental illness, in particular in the context of parent-infant relationship disorders, parental mental illness, family violence, children with congenital medical and developmental problems and medical trauma. Very few infants and toddlers receive early mental health interventions, to minimise impact of trauma and emotional developmental difficulties.

The burden is significant and clearly documented, but regularly goes unrecognised in relation to intervention and data collection, with Australian epidemiological data focused on ages 4 years and up.[51] (Lyons-Ruth et al. 2017).
There is systematic reluctance to acknowledge that babies, infants and toddlers can suffer significant emotional disorder and stress. This is despite decades of evidence to the contrary.[52]

Infancy/early childhood is a time of rapid brain, social, emotional and cognitive development with powerful opportunities for early treatment, intervention and prevention of mental illnesses through childhood and adulthood. [53, 54]

Increased capacity for infant mental health clinician training is imperative.
Trained staff working in an integrated mental health system – in collaboration with other agencies including family violence workers, family support and maternal nursing staff is key to helping these infants mental health trajectory.



Melbourne Children's
A world leader in child and adolescent health
The Royal Children's Hospital Melbourne
murdoch children's research institute
The University of Melbourne
Supported by The Royal Children's Hospital Foundation

FRAGMENTATION AND OUT OF HOME CARE

What we know

Investment in specialist's services for children and adolescents has been well intended but resulted in barriers to service entry and gaps in service prevision. The current system is fragmented. We know that **half of patients are unable to navigate our system**, with more than **one third not knowing where to seek help**. If families do identify a service, only children aligning with restrictive criteria - including their geographical location, the child's age, severity and duration of the condition - gain access to treatment. Our services are not connected, our data are not connected and consequently neither is our care. Families are desperate for help, wanting to help their children, and are unable to navigate our complex entry criteria, barriers to service and extensive waitlist times.

[redacted]

Campus Research

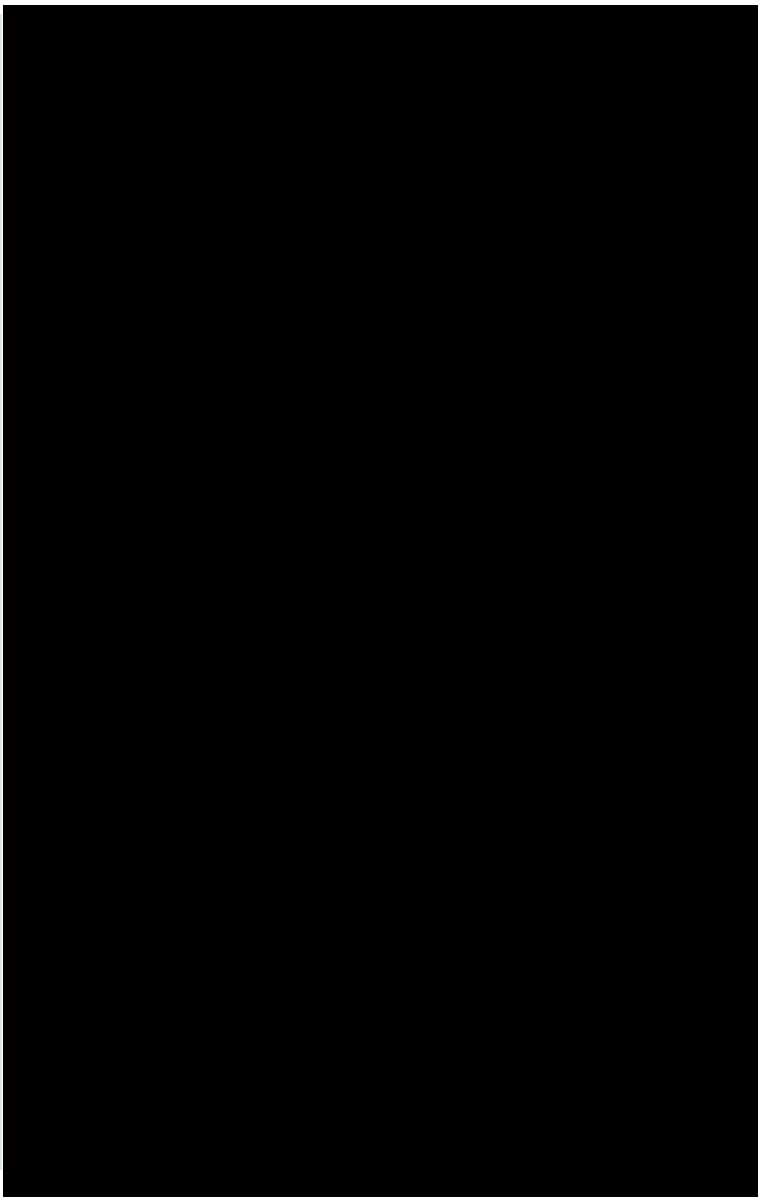
- Melbourne Children's houses Australia's only Paediatric Health Services Research Unit.
- The Policy and Equity team – are developing frameworks to assist communities refocus services for children and families, and strengthening the capacity of communities to promote positive outcomes for children.
- Raising Children Network – is a campus led website that provides evidence-based tips and tools for everyday parenting from pregnancy to teens. It is a free resource that is viewed over 50 000 times per day.

DISABILITY AND THE FIRST 1000 DAYS

What we know

The first 1000 days of life are particularly critical. A poor start can lead to cascade of negative biopsychosocial changes that have lifelong adverse impacts (MCRI evidence paper CCCH). Prevention of adverse childhood experiences, acknowledgement of the mental illnesses and stresses in ill infants and their continuity from infancy thought to school age and beyond is particularly crucial.

Reducing the negative impacts of socioeconomic disadvantage, family violence and improving patenting skills and conflict have all shown to make a significant difference on mental health. Evidence-based programs and outcomes exist, however frequently they are working in silos with limited reach. Evaluation and wide implementation of the most successful programs is the next step towards seeing meaningful change.



Campus research

- **Right @ home** – Campus led cost-effective nurse home visiting program for new mothers experiencing adversity that has resulted in safer homes, more confident mothers, less hostile parenting, and more nurturing home learning environment.
- **Take a breath** – Campus led psychosocial support program for families with chronically ill children. The intervention is unique internationally and is showing improved outcomes for the 50% of families that suffer mental health issues at this vulnerable time[55]
- The campus has ongoing collaboration with **20 EU countries** to identify optimal primary and secondary care interfaces to manage complex mental health conditions.
- **Barwon Infant Study** and Maternal Health Study– Campus led population based cohort studies investigating the role of social and environmental factors in early life on child development and mental and physical health outcomes.[56]

REFUGEE AND ASYLUM SEEKER CHILDREN

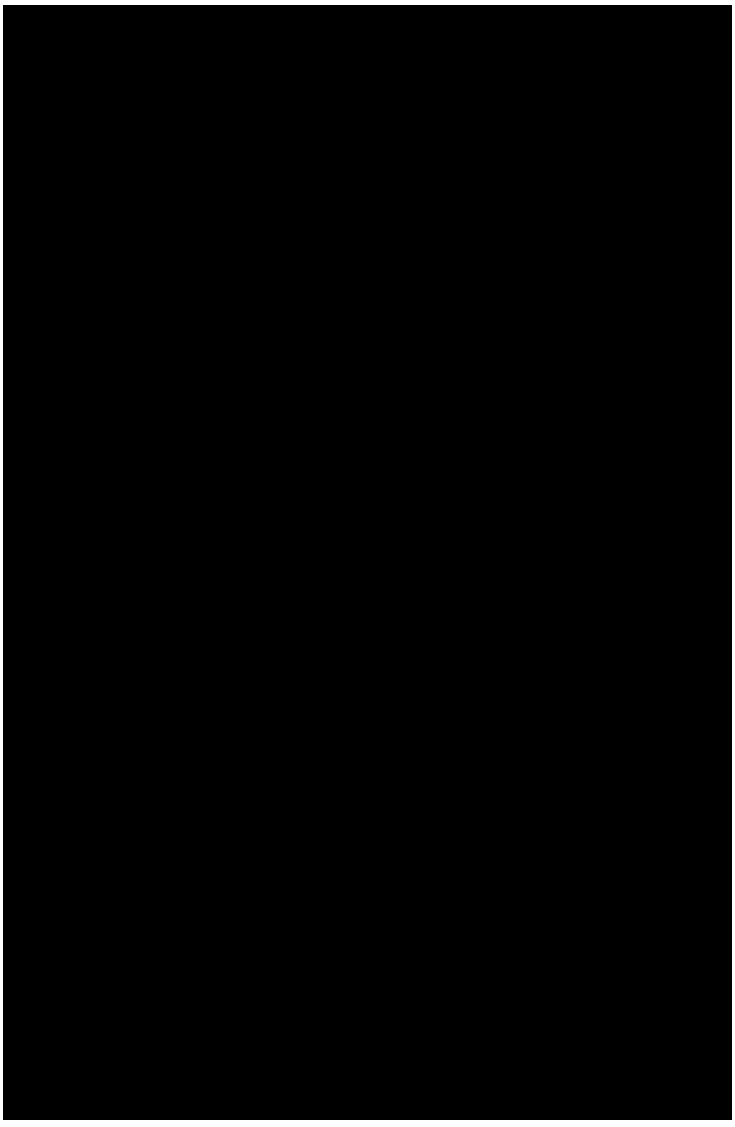
What we know

The refugee and asylum seeker experience for children, including experiences of forced migration, displacement, conflict, detention, settlement, and the challenges of learning a new language within a new education system should be a major consideration in our infant, child and adolescent mental health services. Forty percent of all women giving birth in Victoria are born overseas, and approximately 10% of births at major metropolitan maternity hospitals are to women of refugee background. Each year Victoria has around 6000 new refugee arrivals – 40% of this cohort are aged under 18 years. Women that have migrated from low-middle income countries experience high rates of perinatal depression, anxiety and post-traumatic stress disorder.[57]

Children of refugee background have higher prevalence of mental health disorders, and multiple stages of traumatic experience.[58] A high level of mental health problems is also reported for refugee young people with multiple barriers to accessing mental health services, [59] and the refugee experience also impacts the second generation. Our research in Melbourne indicates that families experience significant stress associated with housing insecurity, unemployment, low English proficiency, poor literacy in community language, and being in Australia without extended family.[60]

Campus Research

- **The Bridging the Gap Study** led by the Intergenerational Health group is working to achieve change in the way that maternity and early childhood health services support families of refugee background. The aims of the program are to improve access to universal health care for families of refugee background and build organisational and system capacity to address modifiable risk factors for poor maternal and child health outcomes.[61]
- **The Healthier Wealthier Families program is** addressing child poverty through evaluation and implementation of relevant international healthcare systems.
- **The Group Pregnancy Care** Study is evaluating an innovative model of multidisciplinary, trauma-informed antenatal care for families of refugee background involving collaboration between public maternity hospitals, maternal and child health services and refugee settlement services. The program aims to improve health literacy, overcome social isolation and improve maternal and infant mental and physical health outcomes.[62]
- **Clinical research –** examining health screening, clinical presentations and service access for our patients who arrived as refugees or seeking asylum.



VICTORIA'S ABORIGINAL CHILDREN AND YOUNG PEOPLE

What we know

Aboriginal children aged 10-14 years are more than 8 times more likely to suicide and Aboriginal young people in the 15-24 year age range more than 5 times more likely to suicide than non-Aboriginal Australians.[23] Almost a third of Aboriginal adolescents aged 18–24 years report high levels of psychological distress (twice the non-Indigenous rate), coinciding with the peak age of commencement of childbearing for the Victorian Aboriginal population.

Victoria has the highest rate of any jurisdiction rate for Aboriginal children in out-of-home care - 13 times the rate for non-Aboriginal children.[63] Compared to other Aboriginal Australians those in Victoria are less likely to recognise their traditional country, or identify with a clan, tribal or language group than other Indigenous Australians, with profound consequences for social and emotional wellbeing for the Victorian Aboriginal community.[18]

Aboriginal Victorians report health inequalities across most key social determinants in comparison to other non-Aboriginal Victorians.[64] Social determinants such as housing insecurity, grief and loss, family violence and drug and alcohol problems are associated with higher rates of psychological distress and mental illness, with consequences for health and wellbeing across generations.[65]

Families experiencing multiple social health issues often experience ongoing crises and/or have adverse perceptions and experiences of health services, making them less likely to engage with mental health and primary care services. [66, 67]

[redacted]

Campus Research

- **Maternal Health –** study of 1500 first time mothers investigating the impact of exposure to family violence on maternal and child health outcomes.
- **Aboriginal Families Study** – a population based longitudinal birth cohort investigating the health and wellbeing of 344 Aboriginal children and families
- **Family Foundations –** study to promote parenting skills and reduce inter-parental conflict.
- **Working Out Dads –** early intervention to reduce paternal mental health problems
- **Childhood Resilience Study:** developing a multi-dimensional, socially inclusive measure of resilience in middle childhood – working with Aboriginal families, families of refugee background and women and children exposed to intimate partner violence[68]

CHRONIC ILLNESS AND EARLY INTERVENTION

What we know

Six out of every ten infants, children and adolescents with a chronic illness will experience mental health problems. Research demonstrates that these problems can be avoided, or reduced, by low intensity early intervention and prevention. Mental health problems arise from a variety of sources; adjusting to a diagnosis, stigma attached to illness, anxiety around painful medical procedures, inability to participate in normal childhood activities and school and worry about the future and in some instances dying.

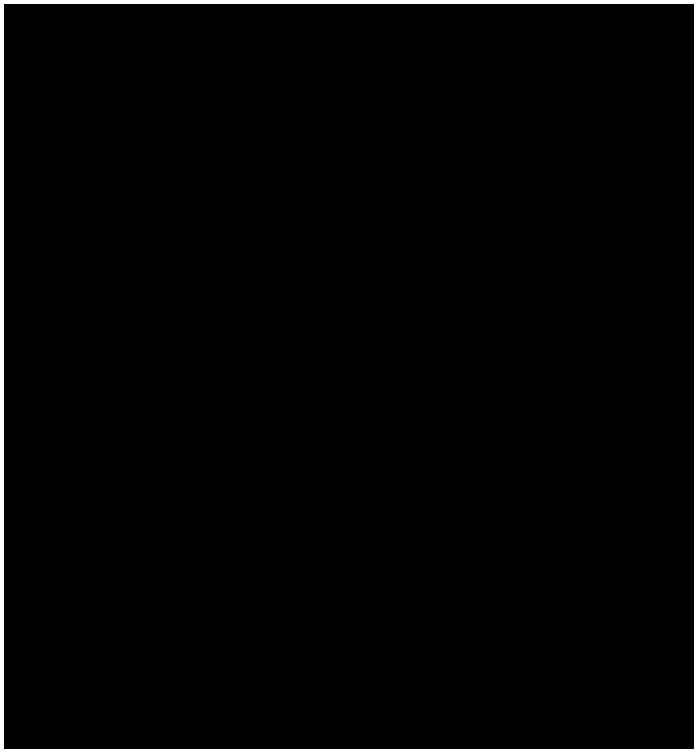
In addition, chronic illness places a major burden on families, encompassing anxiety about the child's condition and future, financial hardship, reduced work hours and family separation. Due to limited resources, only those children and adolescents with the most severe psychological conditions are able to access mental health support, and support for parents is particularly limited, despite good evidence that well-functioning families can support best outcomes for their children.

Campus Research

The Kids are not alright – a $5 million-dollar project funded by the federal government to improve the care children and young people receive when presenting to emergency departments with mental health problems. Three streams of research will;

- Identify factors influencing the pathways of care currently being used for children that present to emergency.
- map the staff information/training needs
- Describe the (a) current patterns and costs; (b) contribution of co-morbid conditions; (c) predictors of mental illness and suicidality
- Assess the real-world clinical and cost-effectiveness of an enhanced safety planning

The project involves Monash Children's and the Royal Children's Hospital's and will lead to the development of national clinical practice guidelines for the management of acute severe behavioural disturbance in those presenting to the ED.



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