PREVENTION AND EARLY INTERVENTION OF MENTAL ILLNESS IN INFANTS, CHILDREN AND ADOLESCENTS
PLANNING STRATEGIES FOR AUSTRALIA AND NEW ZEALAND

Faculty of Child and Adolescent Psychiatry
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**Suggested citation**
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parents tend to delay presenting their children for assessment
A significant number of infants, children and adolescents experience some form of mental illness. Mental illness in infancy, childhood or adolescence can have enduring consequences if left unresolved. Those affected bear a major burden in suffering, lost opportunities and reduced social and economic outcomes in adulthood, including reduced workforce participation. Among the many adverse outcomes are reduced self-esteem or confidence, reduced educational and occupational opportunity, increased risk of substance abuse and other mental disorders, as well as increased family conflict, family breakdown and homelessness.

The development and implementation of early intervention and prevention strategies for the prevention of mental illness in infants, children and adolescents is imperative to addressing these adverse outcomes and preventing or reducing mental disorders in adulthood. This report determines key strategies to promote and develop cohesive and evidence-based prevention and early intervention strategies with the aim of decreasing the prevalence and harmful impact of mental illness in infants, children and adolescents.

Critical to the success of the prevention and early intervention of mental illness in childhood, is broadening the roles and priorities of child and adolescent psychiatrists and general psychiatrists to include the provision of leadership to multidisciplinary teams, training of other professionals, and advocating for improvements in service delivery.

Effective development and implementation of prevention and early intervention strategies requires:

• Further research into acceptability and effectiveness of prevention and early intervention programs for infants, childhood and adolescents.

• Working with parents, children, care providers and early childhood educators to raise awareness of prevention and early intervention for mental illness and the avenues available for assistance.

• Adequate funding for child and adolescent mental health services.

• Increased capacity and competence of the workforce to engage in prevention and early intervention work.

• Coordinated and integrated care between health and other sectors to identify high risk children and deliver prevention and early intervention programs.

• Continued strategies to reduce stigma associated with mental illness in children and adolescents and mental illness and parenting.

• Introduction and maintenance of rigorously evaluated prevention and early intervention programs across all age-groups from zero to 18 years.

• Enhanced integration between child and adolescent and adult mental health services to ensure smooth transitions for those at need.

• Focus on specific prevention and early intervention programs to address these key target groups: children with conduct disorders, anxiety disorders, depressive disorders, children who self-harm or who are at risk of suicide, children of parents with a mental illness, and Indigenous children.
1. INTRODUCTION

The Child and Adolescent component of the Australian National Survey of Mental Health and Wellbeing reported in 2000, that 14% of children and adolescents experience mental health problems. This proportion correlates to other studies internationally. Mental disorders are responsible for an estimated 11% of disease burden worldwide (thought to increase to 15% by 2020). The prevention and early intervention of mental illness in childhood and adolescence is therefore critically important, both to improve children and young people’s mental health, and to help prevent the onset of mental illness in adult life.

Advances in the science of early childhood and early brain development, combined with rigorous program evaluation and research, can provide a strong foundation for the development of early intervention and prevention strategies for mental illness. Early experiences determine whether a child’s developing brain architecture provides a strong or weak foundation for all future learning, behaviour, and health. Mental health problems during early years can have enduring consequences if left unresolved not only by placing individuals at increased risk of difficulties in adult life, but also by placing increased pressure on limited community service resources. Suffering and negative outcomes can also cause intergenerational cycles which become larger problems to address. There is robust evidence that the onset of many adult psychological problems have their origins in childhood and adolescence.

There is a critical need for strategies to be developed in Australia and New Zealand to improve children and young people’s physical wellbeing and mental health. This report focuses in particular on those issues associated with mental health and psychological wellbeing in those aged zero to 18. Given the enormous personal and societal burdens of mental disorders, and with most mental illness beginning in childhood or adolescence, it is appropriate to focus on early interventions aimed at preventing the progression of mental disorders. This report addresses prevention and early intervention for young people from a developmental perspective.

Research demonstrates that first symptoms of behavioural problems typically precede a mental, emotional or behavioural disorder by two to four years and that early therapeutic intervention can be highly effective at limiting the severity and/or progression of problems. Prevention and early intervention strategies have been accepted as legitimate actions to address physical health issues for many years, however, they are a relatively recent area of interest in the field of mental health. Despite the relatively recent focus on prevention and early intervention for mental illness, the evidence-based research continues to expand and strengthen the argument in favour of these strategies as having the potential to be both beneficial and cost-effective. In recognition of this need, the governments of Australia (both Commonwealth and State) and New Zealand have begun, to various degrees, to incorporate the concepts of prevention and early intervention into their policy frameworks. The inclusion of prevention and early intervention into policy frameworks across jurisdictions is a positive step forward, however current approaches remain ad hoc and uncoordinated.

It is possible to identify specific strategies and programs which can achieve positive lasting results. Particular program designs will be discussed, which have been identified as highly successful, and an overall model of care proposed with recommendations for action. The focus is on particular disorders and vulnerable groups, where psychiatrists are likely to have the most significant input. Defining the role of psychiatrists in the prevention and early intervention of mental illness is important and suggestions for developing and enhancing this role are outlined in this report.

The report further outlines a proposed strategy for the implementation of prevention and early intervention programs that can best be applied across the age ranges and priority disorders. It focuses on all age groups from conception to 18 years, with a particular focus on infancy and childhood – the time of origin of many early mental health issues.

Discussion of early intervention for psychosis has not been included in this report. Important and critical work has been and is being undertaken in this field and full consideration of this area is beyond the scope of this report. This report instead focuses on other diagnostic groups which have not been covered by the extensive work in early intervention for psychosis.

Definitions

For the purpose of this report, prevention and early intervention is defined as ‘any activity which is aimed at identifying and/or treating risk factors for, or early symptoms of, emotional and behavioural disturbance that may lead to mental illness in childhood or adolescence.’

- Promotion strategies are any action taken aimed at promoting positive mental health and maximising wellbeing among populations. Mental Health Promotion includes efforts to enhance individuals’ ability to achieve developmentally appropriate tasks (developmental competence) and a positive sense of self-esteem, mastery, wellbeing and social inclusion and to strengthen...
Early intervention as referred to in this report should not be confused with ‘early intervention in psychosis’ which refers specifically to the detection and treatment of psychosis during the critical early phase of illness, and which is sometimes abbreviated to ‘early intervention’. The concept of early intervention described in this report focuses on other diagnostic groups which have not been covered by the extensive work in early intervention for psychosis.

- **Prevention** strategies aim to maintain positive mental health through pre-emptively addressing factors which may lead to mental health problems or illnesses. These strategies can be aimed at increasing protective factors, decreasing risk factors or both, as long as the ultimate goal is to maintain or enhance mental health and wellbeing. Prevention strategies can be classified according to the population group they concentrate on:
  - **Universal prevention** is provided to entire populations or the general public and can overlap with mental health promotion strategies.
  - **Selective prevention** focuses on groups identified as at heightened risk of developing mental health problems.
  - **Indicated prevention** targets people ‘who are identified as having minimal but detectable signs and symptoms foreshadowing mental disorder’ or mental health problems. This term can intersect with the term early intervention outlined below.

- **Early intervention** strategies refer to the identification of early manifestations of mental health problems or illnesses, and the subsequent delivery of a prompt response aimed at preventing progression and reducing the impact. Treatment in childhood and adolescence can be a form of early intervention that prevents the onset of mental illness in early adulthood. Early diagnosis and treatment can lead to appropriate treatment interventions and, possibly, to a better prognosis for individuals in the future. This term can also overlap with indicated prevention as outlined above.

Relapse prevention is a specific component of the recovery process. It entails maximising wellness for people with mental illness by reducing the likelihood and impact of relapse. It involves empowering people with mental illness to recognise early warning signs of relapse and develop appropriate response plans. It requires identifying risk and protective factors for mental health, and implementing interventions that enhance protective factors and eliminate or reduce the impact of risk factors.

Mental health problems experienced by infants and families during the perinatal period are a major public health concern as they can have serious, long-lasting and potentially intergenerational consequences.
2. IMPROVING THE MENTAL HEALTH OF INFANTS, CHILDREN AND ADOLESCENTS

The Royal Australian and New Zealand College of Psychiatrists’ (RANZCP) Faculty of Child and Adolescent Psychiatrists (FCAP) believes that development and implementation of early intervention and prevention strategies for mental illness in infants, children and adolescents is imperative to the prevention of mental disorder later in life. Currently, such prevention and early intervention strategies in Australia and New Zealand are all too often supported by piecemeal funding which is not guided by current literature, resulting in interventions that lack cohesive rationale and are not evidence-based.

The 2009 National Health and Hospital Reform Committee report brings a necessary emphasis back onto prevention in Australia and recognises that there is no nationally coordinated mechanism to deliver prevention and health promotion services on the scale required to impact significantly on the cost of chronic disease. The attention the report gives to mental health and the prioritising of mental health as a key reform direction is welcome, as is the recognition that the Commonwealth has a responsibility to offer equivalent focus on mental health across the life span with associated targeted early intervention measures for each relevant age group. Many of the mental health recommendations in the report including more investment in early intervention and social support services, compulsory training in mental health for primary care workers, and public awareness campaigns to reduce stigma are fully supported. Similarly the Australian Fourth National Mental Health Plan includes prevention and early intervention as a priority area and makes a number of recommendations for action, which align closely with the recommendations in this report.

The New Zealand current Second National Mental Health and Addiction Plan published in 2005 Te Tahuhu – Improving Mental Health 2005-2015 has recognised promotion and prevention as the first of 10 challenges to be addressed. This document is a detailed plan outlining specific actions, key stakeholders and timelines with the Ministry of Health monitoring and evaluating the implementation by the District Health Boards. This policy framework and implementation plan has put New Zealand in a prime position to achieve real progress in the fields of mental health promotion, and prevention and early intervention in mental illness and provides crucial recognition that prevention and intervention strategies, particularly from zero to 18 years, are an important part of reducing the long term impact of mental illness.

The implementation of successful prevention and early intervention strategies is dependent on adequate commitment and funding from governments, both national and state-based. In general, current funding for mental health is inadequate. Funding for mental health should be reflective of the burden of disease attributable to mental health; based on current figures, around 14% of all healthcare spending should be directed towards mental healthcare. Further to this, child and adolescent mental health services are generally underfunded compared to adult mental health services. In Australia, the 2000 Mental Health Report showed that, in 1997-1998, under 18 year olds, which formed 27% of the population, received only 7.5% of the mental health funding, or one quarter of the per capital spending on adults.

Adequate capacity of the child and adolescent mental health workforce is also a key consideration in determining the successful delivery of prevention and early intervention strategies. Building competence and capacity in the health workforce to focus on and include prevention and early intervention as part of everyday activity will lead to improved outcomes. Recommendations made as part of the Australian Preventative Health Taskforce in 2009 for developing the preventative health workforce will hopefully begin to address this issue. Specifically, workforce shortages and difficulties in recruitment are significant in psychiatry and constitute a major challenge to service provision. RANZCP is working to address these issues through development of its curriculum program to broaden the experience of psychiatric trainees and promote psychiatry to trainee doctors in the early career stages.

There is also a need for long term sustainable improvements in the rural health workforce shortage, where recruitment of mental health workers is particularly difficult. It is mental health workers in rural settings who are particularly likely to have to respond to mental illness across all ages and spectrums, leaving less time to focus on prevention and early intervention. Mentoring and support, and development of innovative ways to meet needs of rural populations – e.g. telepsychiatry, secondments, better use of information and communication technology – are essential to allow sufficient focus on prevention and early intervention.

Responding to the mental health needs of the community involves not only
adequate levels of services and staff but also requires a responsive and integrated health workforce that delivers quality and sensitive care to consumers, carers and families. Psychiatrists have a role in leading multidisciplinary teams in the delivery of mental healthcare, and promoting the need for prevention and early intervention. However, in terms of delivery of prevention and early intervention strategies, some work will be done not at the psychiatrist level, or even at the mental healthcare level. This indicates the need for coordination and integration between different areas of the health system (i.e. GPs, public health nurses) and other sectors (i.e. early childhood educators, child support officers) in the early identification of behavioural and emotional disturbances in children, and referral to mental health professionals when appropriate. Guidance for, and the commitment of, the entire related workforce is necessary to make real improvement in this area. In the UK, following a report into the mental health and psychological wellbeing of children and young people,\textsuperscript{16} funding has been allocated to strengthen specialist activity and also build capacity in other sectors to deliver prevention and early intervention programs to target high-risk children and those with early disorders. Primary Child and Adolescent Mental Health Services (CAMHS) teams are working with schools, community health services and welfare services to achieve this. Local inter-sectoral partnerships are being supported and UK CAMHS funding is two to three times CAMHS funding in Australia.\textsuperscript{20}

There is a need to raise awareness about the personal and financial costs of untreated mental illness in childhood, adolescence and adult life. Despite the evidence that early intervention is beneficial, parents tend to delay presenting their children for professional assessment.\textsuperscript{9} This delay in assessment could potentially be addressed through greater public awareness of symptom expression and the reduction of stigma associated with such concerns, greater coordination and communication between early childhood healthcare and educational services, and by reducing practical barriers to accessing services.

Recommendations
1. That the governments of Australia and New Zealand develop a clear and specific mental health strategy to guide prevention and early intervention of mental illness in infants, children and adolescents. This strategy requires a whole of community response, should be evidence-based, and pay particular attention to high-risk and Indigenous groups as well as priority disorders.

2. Increased funding for child and adolescent mental health services to develop primary mental healthcare teams to build community capacity for primary and secondary mental healthcare, and provide early intervention services relative to the proportion of the population experiencing problems.

3. Funding for mental health services increased to 14% of total health expenditure, with at least 15% of this funding being directed to child and adolescent mental health services, with greater emphasis on community services aimed at prevention and health promotion initiatives, with balanced distribution across all age groups.

4. That the governments of Australia and New Zealand report annually on expenditure on specialist mental health programs and their early intervention and prevention components (including child and adolescent mental health services) in a format that enables comparison between states and countries.

5. Workforce strategies for child and adolescent mental health services be developed to increase the capacity and competence of the workforce to engage in prevention and early intervention work, with a particular focus on rural and remote areas.

6. Strategies to reduce associated stigma and to raise awareness of mental illness should be continued to ensure that parents, care providers and educators respond early to potential mental disturbance in early childhood.
3. THE ROLE OF CHILD AND ADOLESCENT PSYCHIATRISTS

Child and adolescent psychiatrists, by virtue of their training and experience, have a key role in the assessment and treatment of mental disorders and problems in children and adolescents. Child and adolescent psychiatrists can also offer unique insight into the need to integrate biological, psychological and social aspects of individual, family and community experiences as a way to gain a comprehensive understanding of mental health problems and work towards improving mental health.21

Efforts to maximise a child’s mental health and wellbeing require a whole-of-community approach. Policies and practices need to be informed by collaborative research involving medicine, health, education, welfare and justice22. This approach requires improved coordination between all medical practitioners involved in child and youth health and development; particularly community based general practitioners, paediatricians, child and adolescent psychiatrists, general psychiatrists, allied health and nursing workforces. Additionally, coordination and communication is also required with other involved parties, such as parents, guardians, professional care providers, teachers, school counsellors, social workers and welfare and justice officers.

Unfortunately, the high prevalence of children and adolescents with mental health problems and disorders is in direct contrast with a limited number of child and adolescent psychiatrists. Additionally, the proportion of funding allocated to child and adolescent mental health services does not match the proportion of the population experiencing problems.23 These disparities mean that child psychiatrists are unable to provide direct care for all those who need it. Sawyer et al in 2000 found that only one out of every four Australian young people with mental health problems received professional help, including only 50% of those with the most severe problems.1

As noted in section 2, responding to the mental health needs of the community requires adequate levels of services and staff and a responsive and integrated health workforce that delivers quality and sensitive care. Adequate staffing levels are needed if prevention and early intervention work is to be undertaken. UK targets for community CAMHS with teaching responsibilities are for at least 20 full time equivalents (FTE) per 100,000 total population, while for smaller non-teaching services the target is 15 FTE per 100,000 total population. In NSW is it estimated that 18.2 FTE per 100,000 total population is required for comprehensive CAMHS service provision, including prevention and early intervention.24 Another model to calculate the CAMHS staffing needed to provide evidence-based services suggests that even more FTE staff are required to meet demand.25 An effective multidisciplinary CAMHS includes expertise from a wide range of disciplines including child psychiatry, nursing, psychology, social work, speech therapy and occupational therapy. These figures are for general CAMHS staff rather than child and adolescent psychiatrists specifically. This report does not recommend the numbers of child and adolescent psychiatrists which are necessary to contribute optimally to this service, although suggests that this may be a topic for further future research and consideration.

In addition to their role in assessment and treatment of individual children and assistance for their families, child and adolescent psychiatrists can and should adopt other roles and responsibilities in a more proactive manner aimed at reducing the prevalence of mental health problems. These roles can include:

- ensuring the appropriate provision of evidence-based prevention and early intervention strategies;
- providing leadership to multidisciplinary teams and enhancing collaboration across disciplines and services;
- the provision of training and information to other professionals on the complexities of child development and mental health, including professionals completely outside the traditional health sector (e.g. teachers, police, politicians etc.);
- mentoring and assistance for psychiatric registrars and psychiatrists in understanding the importance of prevention and early intervention;
- using influence and authority to provide protection and early intervention for high risk infants, children and adolescents;6, 21
- lobbying governments at all levels for strategic policy development and implementation;
- advocacy for service provision improvements; and
- research and evaluation of prevention and intervention programs.

The Faculty of Child and Adolescent Psychiatry (FCAP) can play a key role in supporting these additional functions. This report represents the first step in developing recommendations to lobby governments for comprehensive policy change and program implementation. Additionally, a crucial priority for FCAP is to ensure that appropriate training and information is provided to psychiatrists and trainees to identify and consider appropriate prevention and early intervention strategies.
**Recommendations**

7. The Faculty of Child and Adolescent Psychiatry (FCAP) can play a key role in supporting additional functions of child psychiatrists. To assist in achieving progress in relation to these roles, RANZCP, through its membership and national and regional structures, will work to:

(i) Create opportunities to share current knowledge about prevention and early intervention with other disciplines, organisations and the community as a way of increasing the understanding about the importance of the prevention of mental illness in infants, children, and adolescents.

(ii) Continue to develop training and continuing medical education programs for all psychiatrists and psychiatric registrars to enhance understanding of the importance of prevention and early intervention of mental illness in infants, children and adolescents.

(iii) Increase the capacity of the child and adolescent mental health workforce through strategies to promote psychiatry to medical students.

(iv) Lobby for increased funding and staffing levels for child and adolescent mental health services to meet the proportion of the population experiencing problems.

(v) Endeavour to develop specific education and upskilling programs on prevention and early intervention, including family based approaches and biopsychosocial perspectives for psychiatrists and other health and childhood professionals and education about the impact of parental illness on children.

(vi) Enhance collaboration across services through improved communication between a multidisciplinary workforce to best identify and manage mental health problems early.

(vii) Increase awareness of mental health issues and mental health literacy among gatekeepers and other healthcare workers (particularly GPs, psychologists, allied health practitioners and nurses).

(viii) Improve partnerships with education, child protection, family court, corrections, allied health practitioners and existing providers who have community networks for families in need.

(ix) Promote cultural competence for early intervention and prevention staff.

(x) Develop a referral directory of psychiatrists with special interest and expertise in prevention and early intervention of mental illness in infants, children and adolescents.

(xi) Make a recommendation on the number of child and adolescent psychiatrists necessary per 100,000 of the population to allow effective levels of prevention and early intervention work to be undertaken.

(xii) Identify specific gaps in service delivery, knowledge, and research which may cause barriers for prevention and early intervention of mental illness in infants, children and adolescents and lobby for development in policy, funding and research to support this work.

(xiii) Identify opportunities to address the gaps identified above and advise government and other stakeholders about effective strategies.
A developmental perspective is critical to inform prevention, early intervention and mental health promotion for infants, children and adolescents. Successful programs must be evidence-based, researched and evaluated with detailed attention to the structural obstacles which may hamper delivery. Good strategies will have both economic and societal benefits while maximising positive outcomes and minimising harm for individuals. In practice, specific programs may well include elements of promotion, prevention and early intervention. It is known that preventative programs in childhood are effective when they target multiple risk factors concurrently and there has been moves, both in Australia and New Zealand, to pilot some programs. The priority now is to ensure that such programs are properly implemented and evaluated to achieve optimum outcomes for childhood mental health.

Mental health is an issue for the entire community and requires a whole of community response. Responsibility should sit across portfolios and involve family and community services, educational institutions, recreation sectors, as well as consumer and carer groups. An integrated research program trialing multiple components would ensure that an evidence base is collated while still ensuring that all age-groups benefit from innovative programs and treatments. Child and adolescent psychiatrists may not be involved in the direct delivery of such programs in most circumstances (unless directly involved in early intervention service provision). However, child and adolescent psychiatrists can facilitate such programs by advocating for resources for staff, staff training, and program evaluation, and by ensuring that specialist CAMHS services are responsive to requests for consultation that may arise when serious or complex problems are uncovered.

Four key developmental stages are outlined first which cover a range of universal, selective and targeted prevention strategies, as well as early intervention strategies. These are general programs across the age ranges. Specific vulnerable populations and priority disorders are dealt with in the next sections.

### 4.1 Perinatal and Infant (conception to two years)

Mental health problems experienced by infants and families during the perinatal period are a major public health concern as they can have serious, long-lasting and potentially intergenerational consequences. There is the potential to achieve long term mental health benefits from strategies which provide quality care in safe, engaging, positive environments; enhance parenting skills and information; promote attachment; and improve the mental and physical health of parents.

This period is a time of repeated contact with health services for infants and mothers which can provide a key window for provision of prevention and early intervention programs and assist assessment and identification of high risk individuals. There should be an increased focus on parent-infant interactions and attachment and the enhancement of mental health checks for parents.

Emerging data reveals that mental health problems in infants can be reliably identified, and the prevalence of disorders in this age group in Northern Europe is between 16-18%. In the US, the prevalence of socio-emotional and behavioural problems in a representative sample of one and two year old children is 11.6%. Additionally, there is currently a gap in services and programs for children aged less than five years. There is a need to integrate perinatal, infant and child mental health services with parenting support being given in a coordinated way from conception to five years, particularly for at-risk groups.

Via universal screening, vulnerable families could be identified at birth and offered a home-based support program to supplement existing universal primary care services through infancy and toddlerhood. Further universal screening/surveillance at ages two to three could identify families who could benefit from a targeted program of individualised family support or a group parenting program and also indentify individual children with early symptoms of mental illness for early referral. An evidence base is emerging for preventative interventions that improve infant emotional development in the context of post-partum depression.

High risk families, such as those affected by mental illness, substance abuse, violence and trauma represent a gap in our knowledge base about evidence – based preventive intervention and appropriate early intervention in perinatal and infant years. This population should be a priority for significant research and development, given the need to adequately protect children, support families, and ensure their young children’s development is optimised.

Successful program examples include:

- The individual Nurse Home Visitation program has a strong balance of long term evidence. This is a targeted individual home visiting program delivered over two years to low income, unmarried, first-time mothers and includes 60 x 90 minute home visits from pregnancy to age two years.
• Early Start, a two to three year targeted-selective individual home visiting program in New Zealand for at-risk and stressed mothers, had strong evidence for reducing emotional problems from infancy.  
• Post-natal depression preventative interventions that enhance infant socio-emotional development.  

Programs which focus on antenatal and postnatal routine psychological assessment and screening tests to identify at-risk parents, potential family impacts, and infants at risk, including the NSW Safe-Start21 and beyondblue’s Perinatal National Action Plan, have commenced and their broad implementation is anticipated to enhance access to early intervention.

4.2 Preschool (two to five years)

The preschool period covers a time of rapid development, particularly in speech and language, the formation of social relationships and the development of impulse control and emotional regulation. 12 Rates of common child psychiatric disorders and patterns of co-morbidity in preschoolers are similar to those seen in later childhood. 32 Evidence suggests that interventions at a later stage are less effective and many children may not reach their full potential.

For preschool children, family support and parenting programs continue to be the most effective method of preventing the onset of emotional and behavioural problems which predispose to mental illness in later childhood and adolescence. Nevertheless, consideration should also be given to childcare centres, family day care, pre and post natal support programs, and the impact of workplace policies on families and child care options. Early identification of children with behavioural disorders, and individuals at risk of developing mental health problems with the subsequent provision of early intervention approaches, is also crucial during this stage.

In particular three parenting programs have been indentified as potentially applicable in the Australian and New Zealand context:

• The Family Check Up, which offers brief (up to six x 20-60 minute sessions) family support in the home or at community centres for at-risk families.
• Triple P – Positive Parenting Program, an individual parenting program over one to four months, delivered in a variety of forms (community centre, home, self-directed).
• Incredible Years, a parenting program over two to four months at community centres and delivered by nurses/teachers, delivered for children with behaviour problems on a weekly occurrence.

Recommendations

8. Integrate perinatal, infant and child mental health services. These services must adequately address both the needs of the parents and their infants.

9. Parenting support be developed in a coordinated way from conception to five years, particularly for at-risk groups. This support should focus on early intervention of disorders in the parent and prevention of mental health problems in the infant/child (or early intervention, if required).

10. Early identification during pregnancy of women and their partners with a mental disorder, or at risk of developing one.

11. Universal screening of infants expanded to include enhanced emphasis on their emotional and behavioural development, parental mental health, and identification of families under stress or at heightened risk of developing mental health problems.

12. Implementation of programs that not only treat maternal depression and other mental illness or risk factors, but also provide parenting interventions that enhance the parent-infant relationship.

13. Routine mental health checks in first five years of a child’s life.

14. The roll-out of rigorously evaluated parent management programs in Australia and New Zealand.

4.3 School age (five to 12 years)

For school age children, formal schooling becomes more relevant to prevention and early intervention of mental illness, and in detecting and controlling behavioural and emotional problems. However, it is important to still involve and support families in any school-based programs or initiatives. Additionally, parenting programs can continue to offer effective methods of intervention.

School-based initiatives can aim to improve self-esteem and life skills through school-based curricula of pro-social behaviour and by creating a positive and safe school environment. Resilience building and proactive teaching of cognitive techniques, for example enhancing individual coping skills and promoting social competence, are important tools for preventing and reducing mental health problems. Teachers can be trained to increase detection of problems and facilitate interventions or referrals to mental health professionals. However, early identification of individuals will only be successful in reducing the number and severity of mental health problems in the community if backed with easily accessible and high quality professional assistance.
Successful school-based program examples include:

- The Good Behaviour Game, a two year whole school social skills curriculum, effective in reducing aggression and oppositional/conduct problems.
- School-based programs can work well in conjunction with the parenting programs mentioned above in 4.2.

**Recommendations**

15. Introduction and maintenance of rigorously evaluated school-based initiatives aimed at resilience building and promoting social competence.

16. Introduction and maintenance of rigorously evaluated school-based programs which provide for identification of high risk individuals, early detection of mental health problems and facilitating early referrals to mental health professionals as required.

17. That the promotion of parenting programs to high risk families continue in conjunction with school-based programs.

18. Specific focus on prevention and early intervention programs for anxiety as the most common mental disorder in school-age children (see section 6.2).

**4.4 Adolescence (13 to 18 years)**

Adolescence is characterised by the growth of the child towards cognitive and physical maturity. Attitudes towards health behaviours may be particularly malleable in late childhood and early adolescence when decisions relevant to involvement in risky behaviours, such as binge drinking, are being made. There is potential, both at targeted and universal levels, of interventions to support young people and families through the adolescent phase.34

Strategies that have shown promising results for implementation include role models and mentoring; collaborative working between health professionals; adolescent health specific services; community awareness and advocacy, including increased presence of community organisations specifically focused on reducing stigma and promoting help seeking in young people; parent education; whole school approaches; and education and training for GPs in relation to their engagement with young people.

Examples of successful programs include:

- Communities that Care, a strategy that uses local data on risk and protective factors to identify risk and develop and implement evidence-based prevention programs that fit to the risk profile,52 which has been implemented successfully in the US, The Netherlands, Scotland and Wales.

- School-based curriculum skills programs, based on CBT, interpersonal therapy or psychoeducation, have also demonstrated efficacy. Of those introduced in Australia, including both indicated and universal interventions, a majority were associated with short term improvements or symptom reduction at follow up.35, 54

- Specific to early intervention, clinical staging approaches are demonstrated to improve outcomes, not only in psychotic disorders, but potentially in severe mood and personality disorders.36

**Recommendation**

19. Introduction of a combination of universal health promotion approaches to improve mental health and promote help-seeking behaviour, together with selected and indicated programs for individuals and high-risk groups (e.g. screening, case-finding and anti-bullying referral programs).
adolescence is characterised by the growth of the child towards cognitive and physical maturity
The vulnerability of children has long been recognised in terms of their development needs and the importance of protecting their physical health. The extent, severity and impact of their mental health problems, including the particular vulnerabilities associated with such problems in both childhood and through to adult life, have been less of a public health priority. A key focus of many early intervention and prevention strategies will be the identification of vulnerable populations, and targeted interventions toward these groups. Children of parents with mental illness and Indigenous children are particular groups for which specific prevention and early intervention strategies can be devised. In regard to child of parents with a mental illness specifically, the role of the psychiatrist is likely to be more pertinent. However all populations as outlined are vulnerable and thus require close attention at a primary care level and referral to secondary or tertiary care as necessary.

5.1 Children of parents with mental illness

All psychiatrists are concerned about the welfare of any dependent children in the care of their patients. To assist psychiatrists in management of children of parents with a mental illness, The Royal Australian and New Zealand College of Psychiatrists and the Royal College of Psychiatrists (UK) have developed position statements on this issue. There is a well established associative link between parental mental illness and adverse outcomes for children. A combination of factors including psychosocial adversity, children's age and developmental status, family relationships, the severity and chronicity of the parental psychiatric disorder, and the involvement of other carers in the child’s life, all impact on the child's risk of psychopathology. Furthermore, families affected by parental mental illness are also more likely to experience poverty and social isolation and are more likely to have children taken into care. Data regarding the number of mental health consumers who also have dependent children is emerging. In Queensland, 36% of mental health service clients with psychosis were parents. In a Victorian survey, 20-35% of mental health service clients were female parents of dependent children and a third of these mothers also had a history of alcohol and other drug use. In a community survey, 23.3% of Australian children had at least one parent with a mental illness, approximating to about one million Australian children. A parent’s mental illness may impact on their children directly through symptom expression such as, apathy and poor emotional support; distorted perceptions of reality; poor impulse control, inconsistent or unpredictable behaviour; and at the extreme end, inappropriate care, abuse or violence. Additionally, other factors relating to the service provision of mental healthcare and societal attitudes to mental illness have a substantial impact. These factors can include; physical separation of children and parents for hospitalisation, sometimes for lengthy periods; a reduction in living standards or other economic disadvantage due to an inability to gain and/or maintain employment; disruption and loss of friends, family or social networks; lack of support networks that can place an unfair burden on children to care for their parents, reducing their educational and social involvement; and the negative consequences of stigmatisation of people with mental illnesses which can affect the entire family.

Therefore, interventions to address the needs of children of parents with mental illness might involve parenting programs sensitive to the effects of the parental illness, in combination with practical assistance to families aimed at overcoming structural obstacles. Systematic data should be collected from mental health consumers who also have dependent children combined with screening of children for early identification of mental health problems with appropriate referral pathways.

An evidence base exists for early intervention for families with parental depression. Successful prevention of child and adolescent depression in families affected by parental depression has been demonstrated. Preventive interventions for depressed parents’ families have been identified as a key area for action relevant to most practicing general psychiatrists.

National implementation of preventive programs for families affected by mental illness have been described. In Australia, significant service gaps for such families have been identified, particularly for those with young children.

5.2 Indigenous children

Children and youth from Māori or Aboriginal and Torres Strait Islander backgrounds experience disproportionate rates of mental health and social and wellbeing problems. These higher rates of mental health problems can be linked to injustice, both past and present, and the socioeconomic disadvantages experienced by these groups. Geographic barriers to service access can also be a major risk factor.

Any interventions aimed at these population groups must contain; culturally relevant strategies; include
Indigenous input; appropriately adapt to Indigenous conceptions of what mental health is; and give detailed attention to the structural obstacles which may hamper deliver.\textsuperscript{54, 55} Despite the high levels of risk experienced, Indigenous children and adolescents can also maintain considerable resilience due to strong links to family (whānau) and local communities and robust cultural values.\textsuperscript{54, 55}

In relation to Indigenous populations, prevention and early intervention approaches need to work within a holistic understanding of social and emotional wellbeing, and incorporate all aspects of wellbeing – physical, cultural, social, emotional and spiritual.

Programs which have had successful culturally sensitive adaptations of the mainstream intervention are:

- The Group Triple P (Positive Parenting Program) – has been adapted for different cultures with success internationally.
- The Incredible Years program has been used internationally and has been rolled out in New Zealand although Māori people have a number of reservations about its use.\textsuperscript{56}

It should be noted that even when effective for those that attend, engagement with programs that are from different cultures may be poor. It is important to ensure that Indigenous communities are given choice, and that evaluation of programs developed specifically by and for local communities should not be neglected.\textsuperscript{56}

Indigenous program development should be led and informed by Indigenous communities and, where adaptation is appropriate, it should be sensitive to the culture of Indigenous communities.

Continued development of effective Indigenous-specific initiatives and approaches requires further investment and commitment to rigorous research and evaluation.

5.2.1 Aboriginal and Torres Strait Islander populations

An important source of information about the social and emotional wellbeing of Aboriginal and Torres Strait Islander children and youth is the Western Australian Aboriginal Child Health Survey, a large-scale, scientifically rigorous survey that included attention to the developmental and environmental factors that enable competency and resiliency in Indigenous children and young people aged four to 17 years.\textsuperscript{57} The survey findings concluded that 24\% of Indigenous children were rated by their parents as being at high risk of clinically significant emotional or behavioural difficulties, compared with 15\% in the general Australian population.\textsuperscript{58}

For Aboriginal and Torres Strait Islander people, the development of resilience is particularly important given the ongoing impact of serious disadvantage and poorer health outcomes.\textsuperscript{59} A mixture of universal and targeted approaches are therefore appropriate, including both adapted mainstream and Indigenous-specific programs, all of which require rigorous evaluation. Access to adapted mainstream programs should be introduced cautiously and only where there is evidence.

Generic activities/interventions relevant to prevention and early intervention approaches for Aboriginal and Torres Strait Islander people that have demonstrated effectiveness include:

- Parenting programs including Aboriginal fathers’ programs.
- Nurse home visitation.
- Initiatives aimed at children and communities suffering grief or loss.
- Screening for post-natal depression and postnatal support for mothers who have experienced birth complications.
- Assertive outreach programs.

Specific programs which that have demonstrated effectiveness include:

- Let’s Start – an initiative in the Northern Territory to identify and support families with pre-school children (aged four to six) experiencing emotional and behavioural difficulties.

Programs for children of parents with a mental illness within Aboriginal and Torres Strait Islander communities are generally not available in remote areas. This is an area in which further research, implementation and evaluation would be beneficial.

5.2.2 Māori populations

In Māori populations, there is proportionally more youth and statistical trends show a persistent trend in youthfulness; one in three are under the age of 15 years. At birth, Māori life expectancy is 8.5 years lower than non-Māori at birth\textsuperscript{60} and the Te Rau Hinengaro study indicated the median age of onset of mental disorder in Māori was 16 years of age.\textsuperscript{61} The Christchurch Health and Development Study found that from the ages of 16–18, 54\% of Māori individuals had experienced a mental disorder.\textsuperscript{62} This makes prevention and early intervention strategies particularly important in Māori groups.

Anecdotal experience, corroborated by local research, suggests that despite having significant psychiatric morbidity Māori are less likely than non-Māori to
access services of any kind and when they do, they are more likely to approach family or culturally acceptable sources of support and assistance.\textsuperscript{63} This suggests that in order to increase rates of access for Māori, services must be acceptable to, and perceived to be appropriate for, Māori people.\textsuperscript{64}

It is important to ensure development of strategies and programs that are familiar concepts within Māori communities; for example the concept of ‘infant mental health’ is not generally recognised within Māori communities. Whānau ora is in essence about extended family wellbeing and encompasses early intervention, prevention and whānau ora promotion. Encompassing intergenerational mental health has been a key policy in New Zealand for some time. In June 2009 the cabinet approved the establishment of the whānau Ora Taskforce (the Taskforce) to develop a framework for a whānau-centred approach to whānau wellbeing and development. This taskforce has developed a proposal for a whānau-centred approach to service design and delivery\textsuperscript{65} that should align closely with the prevention and early intervention strategy development.

Further development of promising Māori program in the context of prevention and early intervention requires investment to enable rigorous research, which is both acceptable to Māori and recognises a Māori world view. Despite a growing sense of the importance of culture to these processes, research in this area remains academically and geographically marginalised.

5.3 Other vulnerable groups
Other high risk groups who should be considered for targeted prevention and early intervention programs are: children with chronic conditions and their siblings; families with low socioeconomic status; children living in rural and remote communities; children affected by homelessness; children of prisoners; children with culturally and linguistically diverse backgrounds (particularly refugees and asylum seekers); children in out of home care environments; children living in dysfunctional family environments (including domestic violence and abuse); and children who have experienced trauma and abuse.

Recommendations

20. Screening of vulnerable children aimed at early identification of mental illness with appropriate intervention and referral pathways.

21. Targeted prevention and early intervention programs be developed for all Indigenous groups in a sensitive and appropriate manner including:

(i) Culturally sensitive development and evaluation of prevention programs for Indigenous families that address structural obstacles.

(ii) Increased number of community services that can provide holistic longer term care for Indigenous infants, children and adolescents that are proficient in recognising mental health issues.

22. Targeted prevention and early intervention program be implemented for children of parents with a mental illness by:

(i) Assessing the feasibility of a national roll-out of targeted prevention programs for children in families affected by parental depression and other mental illness.

(ii) Evidence-based preventative interventions as well as practical assistance and parenting support for families with a parent with a mental illness.
mental disorders and personality problems emerge in childhood
Four specific diagnostic groups have been identified as having particularly high prevalence, or persistence in adulthood, if not identified and treated early. These are:

- **Conduct disorder**.
- **Anxiety disorders**.
- **Depression**.
- **Self-harm and suicide**.

Mental disorders and personality problems emerge in childhood and, with regard to conduct disorder, anxiety disorders and depression, these disorders can start at a young age. Such disorders can be reliably diagnosed in preschool children if appropriate methodologies are used. The earlier these disorders start, unless addressed, the more harm they can do to a child’s development. Therefore, whilst persistence will depend on a variety of external risk factors and internal vulnerabilities, prevention and early identification strategies are crucial to improvement. Modern treatment in childhood must be multimodal and aim to improve individual coping as well as addressing the risk factors that otherwise maintain problems. These diagnostic groups are most likely to be relevant to the practice of psychiatry, and therefore relevant to this report.

### 6.1 Conduct disorder/problems

Conduct disorder is one of the most common childhood disorders and is a psychiatric category marked by a pattern of repetitive behaviour wherein the rights of others or social norms are violated. Symptoms include verbal and physical aggression, cruel behaviour toward people and pets, destructive behaviour, lying, truancy, vandalism, and stealing. Data on the prevalence of conduct disorders in young people from more than 50 community surveys from around the world, published in the past 15 years, estimates that the prevalence of conduct disorder is 3.5%.

The prevalence of any disruptive behaviour disorder is 6.8%.

Conduct disorder is a major public health problem because youth with conduct disorder not only inflict serious physical and psychological harm on others, but they are at greatly increased risk for incarceration, injury, mental illness, substance abuse, and death by homicide and suicide. A pilot study in the book Conduct Orders in Childhood and Adolescence estimates the costs of conduct disorder to be about AUD$40,000 per year per patient. After the age of 18, a conduct disorder may develop into antisocial personality disorder.

Most research for prevention and early intervention in conduct disorder has focused on reducing conduct difficulties through parent training programs. However, there has also been some limited research focusing on early intervention services that deal with emotional and/or conduct problems in a community setting.

Programs demonstrated as being effective for conduct disorder are:

- **In Infancy**, the Nurse Home Visitation program was found to be effective in reducing adolescent delinquency (15 year follow up).
- **In Preschool aged children**, Family Check Up found that positive and proactive parenting skills correlated with changes in child disruptive behaviour.
- **Triple P and Incredible years** were demonstrated as effective for child behaviour problems.
- **The Brief Psychoeducational Group-Based** program was found to be effective in reducing child hostility and aggression.
- **For school age children**, Good Behaviour Game demonstrated less oppositional and conduct behaviour problems, predominantly in children with moderate levels of initial inattention.

### 6.2 Anxiety disorders

There are several different types of anxiety disorder, as defined in the DSM IV. These include: separation anxiety disorder; generalised anxiety disorder; a specific phobia; social phobia; a panic attack; agoraphobia; obsessive-compulsive disorder; posttraumatic stress disorder; and acute stress disorder. Surveys of children and adolescents in community populations, using self-report questionnaires, indicate that anxiety disorders are the most common childhood emotional disorders. 12 month prevalence rates indicate a range as high as 17% to 21% and about 8% may require treatment. However data based on 50 community surveys from around the world, published in the past 15 years, indicates rates to be 8% indicating the difficulty in obtaining accurate figures.

There is considerable evidence that the onset of many adult psychological problems have their origins in childhood and adolescence and this is particularly the case for anxiety disorders. Therefore, effective prevention and early intervention for anxiety is of particular importance, and early childhood is an ideal point
of prevention for focusing on family risk factors such as attachment, parental psychopathology and family processes.

Programs which have demonstrated effectiveness for anxiety disorders for preschool children include:

- The Triple P Program has demonstrated effectiveness in prevention and reduction of anxiety and stress.
- The Parent Education program,\(^71\), \(^72\)
- The Brief Psychoeducational Group-Based program\(^73\) has been shown to be effective for anxiety disorders.

In older childhood and adolescence, early intervention programs are based on the efficacy of individual cognitive-behavioural treatment for children with anxiety disorders. Education and training for professionals who work with young people also indicate encouraging results for the reduction of mental illness. Programs with demonstrated effectiveness include:

- FRIENDS – a cognitive behaviour therapy program with good evidence of effectiveness from randomised controlled trials in both indicated and universal interventions.\(^7^5\)

Whole school approaches, coupled with curriculum based skills building, have also been demonstrated to reduce symptoms of anxiety and depression although further research and evaluation is needed.\(^3^5\)

### 6.3 Depression

Depression tends to become a significant problem later in childhood than both conduct and anxiety disorders. Data based on 50 community surveys from around the world, published in the past 15 years, indicates unipolar depression rates in children and adolescents to be 5.2%.\(^7\) Other studies show one year prevalence rates are about 2% in childhood and range from 4% to 7% in adolescence and the lifetime prevalence in adolescents aged 15 to 18 years to be 14%.\(^7^4\) Furthermore, one half of first episodes of depression occur during adolescence.\(^7^4\)

The high prevalence and costs of childhood and adolescent depression, the associated negative long term psychiatric and functional outcomes and the association between depression and attempted or completed suicide, demonstrate that efforts to prevent and intervene early in depression is warranted. Evidence-based prevention programs targeting depression in at-risk youth have yielded promising results.\(^7^4\), \(^7^5\) A systematic review conducted to identify and describe school-based prevention and early intervention programs for depression and to evaluate their effectiveness in reducing depressive symptoms demonstrated that indicated programs which targeted students exhibiting elevated levels of depression were found to be the most effective\(^7^5\) although there are methodological problems including the lack of attention to control conditions.\(^7^6\)

To date there is little evidence of long term effect with many of the studies\(^7^6\), \(^7^7\) but the Coping with Stress course\(^7^8\) showed a reduction in depressive episodes at follow-up. This study has recently been replicated\(^7^9\) and this is the most promising intervention to date. Both studies were in targeted populations and the method of recruiting would not be suitable for widespread roll-out, but the number needed to treat to prevent one episode is small\(^7^9\) so that this has the potential to be a highly effective preventive intervention. Research in a less highly targeted group is warranted.

- There are a number of targeted and universal prevention programs that show evidence of short term reduction in symptoms. Examples include The Coping with Stress Course, the Penn Resiliency Program, FRIENDS.
- The Coping with Stress Course has been shown to reduce depressive episodes at follow up with two randomized controlled trials showing effect in targeted populations.

There has been a great deal of interest in the use of internet programs to increase availability of interventions. Whilst there is some evidence showing that these programs may be helpful, this evidence is not robust and completion of the programs remains problematic. However, this is an approach for which further research and development is worth pursuing.

### 6.4 Self-harm and suicide

Suicide rates rise through the teen years and into the 20s. The Australian Bureau of Statistics does not routinely report suicide rates for those under 15 years of age, but tragically, while rare, such deaths do occur even in the very young. In Australia, the suicide rate for those under 15 in the period 1990-1999 was 0.23 per 100,000.\(^8^0\) In New Zealand the suicide rate for those under 15 in 2007 was 0.225 per 100,000.\(^8^1\) For youth aged 15-24 years, suicide accounts for 20% of all deaths.\(^8^2\) Suicide risk factors and processes often extend back to early childhood. Psychological, biological, and illness-related factors interact with family, school and wider socio-cultural environments.

For adolescent suicide prevention, programs which may be worth considering:

- School-based programs are important and can include suicide awareness, skills training, screening, peer support and gatekeeper training, although there is a mixed level of evidence about the effectiveness of these programs.\(^8^3\) Gatekeeper training is
6. SPECIFIC DIAGNOSTIC GROUPS: ROLE OF PREVENTION AND EARLY INTERVENTION CONTINUED

likely to be the most effective and teachers particularly are in a good position to recognise early indicators.

- Using a combination of universal approaches to improving mental health and promoting help-seeking behaviour, and selected and indicated programs (e.g. screening, case-finding and anti-bullying referral programs) is most likely to be effective.

- Adolescent suicide attempters are another high risk group that require specific attention. A study to assess the feasibility of systematically treating depressed adolescents who had recently attempted suicide demonstrated that allocation to Cognitive Behavioural Therapy, medication, or the combination lowers the six month risk for suicide events and reattempts. Further research and evaluation in this area is necessary.

- The use of Reach Out: http://au.reachout.com/ and beyondblue websites: http://www.youthbeyondblue.com/ may be helpful although there is no evidence that they prevent suicide.

Recommendations

23. Prevention programs should be developed to address priority disorders: conduct disorders, anxiety disorders, depressive disorders and self-harm and suicide.

24. Universal screening for infants, children and adolescents to identify early symptoms of mental disorders and illness as early as possible to improve effectiveness of clinical intervention and reduce disease burden on individuals and society.

There is evidence to demonstrate the effectiveness of certain programs as described above. However, there is a need to trial and evaluate programs that have the best balance of evidence and potential applicability in an Australian and New Zealand context. Dissemination trials of the following programs are recommended: Family Check Up; Triple P; Incredible Years; Parenting Through Change; and Family Talk Intervention.

Briefer programs are less demanding on families to facilitate uptake, as well as being more cost-effective to deliver. Dissemination trials should be careful to recruit at-risk groups as part of their population samples when taking a universal primary care approach to children’s mental health, including Indigenous families and parents with mental health and substance use problems. Long term effectiveness data need to be collected for all brief targeted programs recommended, and this requires sufficient research funding.

In dissemination research new preventative programs should demonstrate cost effectiveness.

To assist policy makers with resource management and decision making, it is critical that future disseminate research builds in economic evaluation to accompany measured mental health outcome for children and their families.
7. FURTHER RESEARCH

There is substantial evidence that parenting programs can improve family relationships and improve child outcomes, however little research has focused on Indigenous communities.\textsuperscript{85} As research is needed to evaluate the acceptability and effectiveness of these programs, culturally sensitive research practices are also necessary and the value of program evaluation and its benefit to the community must be clear. Community acceptance of the research process and the intervention itself is vital and may be influenced by community perceptions, current priorities, and local issues. If the overall aim is to increase the skilled health and mental health workforce in Indigenous communities and their use of evidence-based interventions, ongoing collaborative relationships between research institutions and service providers will serve to further this aim.

In general, funding for mental health research is underrepresented when compared to the burden of disease.\textsuperscript{86} To develop and enhance prevention and intervention strategies in childhood requires an increase in the funding and number of personnel undertaking research. There should be state and national funding of academic positions for child and mental health services and a bi-national and coordinated approach to research in both Australia and New Zealand.

**Recommendations**

25. Further research into acceptability and effectiveness of prevention and early intervention programs for infants, childhood and adolescents. This research should focus on applied and consumer driven research of interventions and performance measures for delivery outcomes.

26. Increased funding for mental health research to be reflective of the burden of disease attributable to mental health disorders.

27. Prevention and early intervention strategies properly evaluated with 15% of program funding allocated to evaluation.

28. To assist policy makers with resource management and decision making it is critical that future dissemination research builds in economic cost-benefit evaluation in addition to measured mental health outcomes for children and their families.

29. Culturally sensitive research practices are also necessary; community acceptance of the research process and the intervention itself is vital and may be influenced by community perceptions, current priorities, and local issues— the value of program evaluation and its benefit to the community must be clear.

30. An integrated research program trialing multiple components would ensure that an evidence base is collated while still ensuring that all age-groups benefit from the receipt of state of the art and innovative programs and treatments.

31. Collaboration is required between governmental jurisdictions in regard to funding research in prevention and early intervention strategies, including the appointment of a properly constituted expert body to oversee all research into prevention and early intervention of mental disorder in infants, children and adolescents.

32. Greater focus and collaboration between bi-national (Australia and New Zealand) research with efficacy and economic evaluation of programs occurring in both countries.
parenting programs offer effective methods of intervention
The economic costs of mental illness are extremely high and impact on the whole of society. A recent US study found that the economic cost in terms of treatment services and lost productivity for mental health problems and substance abuse in 2007 was USD$247 billion. A similar report for Scotland in 2006 found that the social and economic costs of mental health problems were GBP£8.6 billion, which equated to 9% of Scotland’s GDP and more than the total amount spent by the government on all health conditions combined. Australia also faces substantial costs arising from mental illness in young people. An Access Economics report in 2009 found the financial cost of mental illness in people aged 12-25 was $10.6 billion, including lost productivity, healthcare costs, and tax and welfare payments. Thus the need for action is imperative.

Few studies have reported economic evaluations for early intervention programs and the few that have do not use comparable assessment metrics. It is therefore difficult to directly compare the cost of one program with another. However, overall, considering the available cost data, for high-risk families, there seems to be a good return on investment although further research is needed. The limited amount and non-comparability of cost data across studies of preventative measures highlights the need for all future trials of preventative programs to build in formal economic evaluation procedures from the outset.

Multi-systemic approaches with a package of different interventions delivered by more than one service sector are likely to be most costly to implement. Individual approaches delivered one on one by a professional to each family (e.g. nurse home visiting) are likely to be moderately costly to implement, given that families are seen separately and sometimes over substantial time periods. Group approaches are likely to be least costly (estimates indicate eightfold less). The reach, however, of group programs might be lower because it is unlikely that all parents in the population are willing to attend groups. In a recent trial of a prevention program offered to all families attending their maternal and child health nurse in nine socioeconomically diverse areas of Melbourne, 69% of parents consented to take part in group parenting programs.

Recommendations
33. All future trials of prevention and early intervention programs should build in formal economic evaluation procedures from the outset.
### 9. PROPOSED PROGRAM IMPLEMENTATION FOR PREVENTION AND EARLY INTERVENTION OF MENTAL ILLNESS

<table>
<thead>
<tr>
<th>Priority area</th>
<th>Strategies for prevention and early intervention</th>
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<tr>
<td><strong>Developmental stage</strong></td>
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| Perinatal and infant  | Universal screening to identify high risk families:  
• beyondblue National Perinatal Action Plan implementation.  
• NSW Safe-Start.  
  
  Support for parents in high risk families:  
• Nurse Home Visitation program – targeted individual home visiting over two years (60 x 90 minute visits).  
• Early Start – targeted individual home visiting over two to three years.  
• Post-natal depression preventive interventions for infants.  
  
  Knowledge/research into child and adolescent outcomes for preventive and early intervention for families affected by mental illness, substance abuse, violence and abuse (and co-morbidity). |
| **Preschool**         | Parenting programs:  
• The Family Check-up – brief (up to six x 20-60 minute sessions) family support in the home or at community centres.  
• Triple P – Positive Parenting Program – an individual parenting program over one to four months, delivered in a variety of forms (community centre, home, self-directed).  
• Incredible Years – a parenting program over two to four months at community centres on a weekly occurrence.  
  
  Mental health checks to identify children with early symptoms for early clinical attention.  
  
  Implementation of preventive interventions for anxiety. |
| **School**            | School-based programs:  
• The Good Behaviour Game – a two year whole school social skills curriculum.  
  
  School-based programs can work well in conjunction with the parenting programs mentioned above.  
  
  Mental health checks to identify children with early symptoms for early clinical attention. |
| **Adolescence**       | Combinations of approaches (community-based, individual, school-based, early clinical intervention):  
• Communities that Care – a strategy that identifies risk and develops evidence-based prevention programs that fit to the risk profile; implemented successfully in the US, The Netherlands, Scotland and Wales.  
• School-based curriculum skills programs, based on CBT, interpersonal therapy or psychoeducation, have also demonstrated to have efficacy in the short term. Further study in this area would be worthwhile.  
• Specific to early intervention, clinical staging approaches are demonstrated to improve outcomes, not only in psychotic disorders, but potentially in severe mood and personality disorders. |
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<tr>
<th>Priority area</th>
<th>Strategies for prevention and early intervention</th>
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| Vulnerable groups Indigenous children | Any interventions aimed at Indigenous families must contain:  
  • culturally relevant strategies;  
  • include Indigenous input;  
  • appropriately adapt to Indigenous conceptions of what mental health is;  
  • give detailed attention to the structural obstacles which may hamper delivery,\textsuperscript{54, 55} and  
  • recognition of potential resilience due to strong links to family (whānau) and robust cultural values.\textsuperscript{54, 55}  
  Programs which have been had successful culturally sensitive adaptations of the mainstream intervention are:  
  • The Group Triple P (Positive Parenting Program) – has been adapted for different cultures with success internationally.  
  • The Incredible Years program has been used internationally and has been rolled out in New Zealand although Māori people have a number of reservations about its use. \textsuperscript{56}  
  Generic approaches should be considered:  
  • Parenting programs including Aboriginal fathers’ programs.  
  • Initiatives aimed at children and communities suffering grief or loss.  
  • Screening for post-natal depression and postnatal support for mothers who have experienced birth complications.  
  • Assertive outreach programs.  
  Specific programs for Indigenous groups with demonstrated effectiveness for Aboriginal and Torres Strait Islander Children:  
  • Let’s Start.                                                                                                                                                                                                                       |
| Children of parents with a mental illness | • Parenting programs, sensitive to the effects of the parental illness, in combination with practical assistance to families aimed at overcoming structural obstacles.  
  • Screening of children of parents with mental illness for early identification of mental health problems with appropriate referral pathways.  
  • Implementation of family – based preventive intervention feasibility.  
  • Implementation of school-based preventive interventions where the risk factors of parental depression has been identified.                                                                 |
### Priority area

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<thead>
<tr>
<th>Disorders</th>
<th>Conduct disorders</th>
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<tr>
<td>In perinatal period:</td>
<td>In Preschool aged children:</td>
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<tr>
<td>• The Nurse Home Visitation Program.(^\text{30})</td>
<td>• Family Check Up.</td>
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<td></td>
<td>• Incredible years.</td>
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<td>• Parent Child Interaction Therapy (PCIT).</td>
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<tr>
<th>Anxiety disorders</th>
<th>Parenting programs for preschool children:</th>
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<tbody>
<tr>
<td>• The Triple P program.</td>
<td>• The Parent Education program.(^\text{71, 72})</td>
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<tr>
<td>• The Brief Psycho-Educational Group-Based program.(^\text{73})</td>
<td>In older childhood and adolescence:</td>
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<tr>
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<td>• FRIENDS CBT program.</td>
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<td></td>
<td>• Education and training for professionals who work with young people.</td>
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<td></td>
<td>• Whole school approaches, with curriculum based skills building.(^\text{35})</td>
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<tr>
<th>Depressive disorders</th>
<th>• There are a number of targeted and universal prevention programs that show some evidence of short term reduction in symptoms. Further research is needed.</th>
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<td>• Coping with Stress Course has showed a reduction in depressive episodes at follow-up although research in a less highly targeted group is warranted.</td>
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<tr>
<th>Suicide and self-harm</th>
<th>• A combination of universal approaches to improving mental health and promoting help-seeking behaviour, and selected and indicated programs (e.g. screening, case-finding and anti-bullying referral programs).</th>
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<tr>
<td></td>
<td>• School-based programs are important although there is a mixed level of evidence about effectiveness; gatekeeper training is likely to be the most effective and teachers particularly are in a good position to recognise early indicators.</td>
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<td></td>
<td>• Systematic treatment of depressed adolescents who have recently attempted suicide.</td>
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<td></td>
<td>• Evidence based treatment of depression in childhood and youth.</td>
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<td></td>
<td>• The use of Reach Out <a href="http://au.reachout.com/">http://au.reachout.com/</a> and beyondblue websites <a href="http://www.youthbeyondblue.com/">http://www.youthbeyondblue.com/</a> may be helpful although there is no evidence that they prevent suicide.</td>
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10. STEPS TO IMPLEMENTATION

**Prioritisation**
Consultation with approximately 50 child and adolescent psychiatrists attending the Annual Meeting of the RANZCP Faculty of Child and Adolescent Psychiatry in September 2009 helped to identify priorities. Infancy was endorsed as the age band of highest priority for prevention and early intervention activity. Indigenous infants, children and adolescents were considered the vulnerable group of highest priority. In terms of specific conditions, the group felt the Faculty should in the first instance focus on conduct disorder and anxiety disorders. Consultation with 40 consumers, carers, and mental health professionals at the 6th National CAMHS Conference in October 2009 endorsed prevention and early intervention for children of mentally ill parents as the key priority and considered this an undertaking in which all psychiatrists could have a role with appropriate assistance from the Faculty.

To assist in achieving progress in relation to these priorities, RANZCP, through its bi-national and regional structures, will work to engage collaboratively with State and Territory Health Departments in Australia and District Health Boards in New Zealand in their efforts to establish or enhance strategies that focus on the prevention and early intervention of mental illness in infants, children, and adolescence and further develop policy in this area.

Local circumstances may determine that Faculty Branches establish different priorities. Expert reference group members will lead discussion about local priorities at respective Faculty Branch meetings in 2010.

Members of the expert reference group have expertise in a wide range of areas and would be pleased to provide input on specific areas of expertise as required. RANZCP contact details in the front cover.

- **Professor Philip Hazell**  
  Suicide and self-harm  
  Conduct disorder

- **Dr Josey Anderson**  
  Early intervention in child and youth mental health  
  First episode psychosis  
  Service delivery in child and youth mental health

- **Dr Nick Kowalenko**  
  Children of parents with a mental illness  
  Early years mental health (zero to five years old)  
  Anxiety and depressive disorders  
  School-based early intervention

- **Dr Cait Lonie**  
  Epidemiology and public health  
  General Child & Adolescent Psychiatry

- **Dr Donna Dowling**  
  General Child & Adolescent Psychiatry

- **Dr Teresa Foce**  
  General Child & Adolescent Psychiatry

- **Dr Rosemary Howard**  
  General Child & Adolescent Psychiatry

- **A/Prof Sally Merry**  
  Depressive disorder  
  Disruptive behaviour disorders

- **Professor Helen Milroy**  
  Aboriginal and Torres Strait Islander mental health

**Dr Stephanie Moor**  
Children of parents with substance dependency

**Professor Louise Newman**  
Perinatal and infant mental health

**Dr Ros Powrie**  
Perinatal and infant mental health

**Dr Fiona Wagg**  
General Child & Adolescent Psychiatry

**RANZCP support**
This report has been endorsed by the Executive of the Faculty of Child and Adolescent Psychiatry and the General Council of the College (May 2010).

**Publicity**
The Faculty of Child and Adolescent Psychiatry will work with the College’s Media Unit to disseminate and promote the contents of this report. Members of expert reference group are available for media comment.
11. CONCLUSION

The prevention and early intervention of mental illness in infancy, childhood and adolescence is critically important, both to improve children and young people’s mental health, and to help prevent the onset of mental illness in adult life. The evidence-base to support prevention and early intervention strategies for child and adolescent mental health continues to expand and strengthen, and indicates the potential of such strategies to be both beneficial and cost-effective.

The Royal Australian and New Zealand College of Psychiatrists’ Faculty of Child and Adolescent Psychiatry (FCAP) can play a key role in the promotion of prevention and early intervention strategies. With adequate funding and further rigorous research, there is much more that can be done to build capacity to prevent mental illness in infants, children, and adolescents.

Together with lobbying for comprehensive policy change and program implementation, a crucial priority for FCAP is to ensure that appropriate training and information is provided to psychiatrists and trainees to identify and consider appropriate prevention and early intervention strategies, and to encourage child and adolescent psychiatrists to adopt other roles and responsibilities aimed at reducing the prevalence of mental health problems.
Improving the mental health of infants, children and adolescents

1. That the governments of Australia and New Zealand develop a clear and specific mental health strategy to guide prevention and early intervention of mental illness in infants, children and adolescents. This strategy requires a whole of community response, should be evidence-based, and pay particular attention to high-risk and Indigenous groups as well as priority disorders.

2. Increased funding for child and adolescent mental health services to develop primary mental healthcare teams to build community capacity for primary and secondary mental healthcare, and provide early intervention services relative to the proportion of the population experiencing problems.

3. Funding for mental health services increased to 14% of total health expenditure, with at least 15% of this funding being directed to child and adolescent mental health services, with greater emphasis on community services aimed at prevention and health promotion initiatives, with balanced distribution across all age groups.

4. That the governments of Australia and New Zealand report annually on expenditure on specialist mental health programs and their early intervention and prevention components (including child and adolescent mental health services) in a format that enables comparison between states and countries.

5. Workforce strategies for child and adolescent mental health services be developed to increase the capacity and competence of the workforce to engage in prevention and early intervention work, with a particular focus on rural and remote areas.

6. Strategies to reduce associated stigma and to raise awareness of mental illness should be continued to ensure that parents, care providers and educators respond early to potential mental disturbance in early childhood.

The role of child and adolescent psychiatrists

7. The Faculty of Child and Adolescent Psychiatry (FCAP) can play a key role in supporting additional functions of child psychiatrists. To assist in achieving progress in relation to these roles, RANZCP, through its membership and national and regional structures, will work to:

(i) Create opportunities to share current knowledge about prevention and early intervention with other disciplines, organisations and the community as a way of increasing the understanding about the importance of the prevention of mental illness in infants, children, and adolescents.

(ii) Continue to develop training and continuing medical education programs for all psychiatrists and psychiatric registrars to enhance understanding of the importance of prevention and early intervention of mental illness in infants, children and adolescents.

(iii) Increase the capacity of the child and adolescent mental health workforce through strategies to promote psychiatry to medical students.

(iv) Lobby for increased funding and staffing levels for child and adolescent mental health services to meet the proportion of the population experiencing problems.

(v) Endeavour to develop specific education and upskilling programs on prevention and early intervention, including family based approaches and biopsychosocial perspectives for psychiatrists and other health and childhood professionals and education about the impact of parental mental illness on children.

(vi) Enhance collaboration across services through improved communication between a multidisciplinary workforce to best identify and manage mental health problems early.

(vii) Increase awareness of mental health issues and mental health literacy among gatekeepers and other healthcare workers (particularly GPs, psychologists, allied health and nurses).

(viii) Improve partnerships with education, child protection, family court, corrections, allied health practitioners and existing providers who have community networks for families in need.

(ix) Promote cultural competence for early intervention and prevention staff.

(x) Develop a referral directory of psychiatrists with special interest and expertise in prevention and early intervention of mental illness in infants, children and adolescents.

(xi) Make a recommendation on the number of child and adolescent psychiatrists necessary per 100,000 of the population to allow effective levels of prevention and early intervention work to be undertaken.

(xii) Identify specific gaps in service delivery, knowledge, and research which may cause barriers for prevention and early intervention of mental illness in infants, children and adolescents and lobby for development in policy, funding and research to support this work.

(xiii) Identify opportunities to address the gaps identified above and advise government and other stakeholders about effective strategies.
Developing policy and program strategies in Australia and New Zealand

Perinatal and infant
8. Integrate perinatal, infant and child mental health services. These services must adequately address both the needs of the parents and their infants.
9. Parenting support be developed in a coordinated way from conception to five years, particularly for at-risk groups. This support should focus on early intervention of disorders in the parent and prevention of mental health problems in the infant/child (or early intervention, if required).
10. Early identification during pregnancy of women and their partners with a mental disorder, or at risk of developing one.
11. Universal screening of infants expanded to include enhanced emphasis on their emotional and behavioural development, parental mental health, and identification of families under stress or at heightened risk of developing mental health problems.
12. Implementation of programs that not only treat maternal depression and other mental illness or risk factors, but also provide parenting interventions that enhance the parent-infant relationship.
13. Routine mental health checks in first five years of a child's life.
14. The roll-out of rigorously evaluated parent management programs in Australia and New Zealand.

School-age children
15. Introduction and maintenance of rigorously evaluated school-based initiatives aimed at resilience building and promoting social competence.
16. Introduction and maintenance of rigorously evaluated school-based programs which provide for identification of high risk individuals, early detection of mental health problems and facilitating early referrals to mental health professionals as required.
17. That the promotion of parenting programs to high risk families continue in conjunction with school-based programs.
18. Specific focus on prevention and early intervention programs for anxiety as the most common mental disorder in school-age children (see section 6.2).

Adolescents
19. Introduction of a combination of universal health promotion approaches to improve mental health and promote help-seeking behaviour, together with selected and indicated programs for individuals and high risk groups (e.g. screening, case-finding and anti-bullying referral programs).

Vulnerable groups
20. Screening of vulnerable children aimed at early identification of mental illness with appropriate intervention and referral pathways.
21. Targeted prevention and early intervention programs be developed for all Indigenous groups in a sensitive and appropriate manner including:
   (i) Culturally sensitive development and evaluation of prevention programs for Indigenous families that address structural obstacles.
   (ii) Increased number of community services that can provide holistic longer term care for Indigenous infants, children and adolescents that are proficient in recognising mental health issues.

Further research
22. Targeted prevention and early intervention program be implemented for children of parents with a mental illness by:
   (i) Assessing the feasibility of a national roll-out of targeted prevention programs for children in families affected by parental depression and other mental illness.
   (ii) Evidence-based preventative interventions as well as practical assistance and parenting support for families with a parent with a mental illness.

Specific diagnostic groups: priority areas
23. Prevention programs should be developed to address priority disorders: conduct disorders, anxiety disorders, depressive disorders and self-harm and suicide.
24. Universal screening for infants, children and adolescents to identify early symptoms of mental disorders and illness as early as possible to improve effectiveness of clinical intervention and reduce disease burden on individuals and society.

Further research
25. Further research into acceptability and effectiveness of prevention and early intervention programs for infants, childhood and adolescents. This research should focus on applied and consumer driven research of interventions and performance measures for delivery outcomes.
26. Increased funding for mental health research to be reflective of the burden of disease attributable to mental health disorders.
27. Prevention and early intervention strategies properly evaluated with 15% of program funding allocated to evaluation.
28. To assist policy makers with resource management and decision making it is critical that future dissemination research builds in economic cost-benefit evaluation in addition to measured mental health outcomes for children and their families.

29. Culturally sensitive research practices are also necessary; community acceptance of the research process and the intervention itself is vital and may be influenced by community perceptions, current priorities, and local issues – the value of program evaluation and its benefit to the community must be clear.

30. An integrated research program trialing multiple components would ensure that an evidence base is collated while still ensuring that all age-groups benefit from the receipt of state of the art and innovative programs and treatments.

31. Collaboration is required between governmental jurisdictions in regard to funding research in prevention and early intervention strategies, including the appointment of a properly constituted expert body to oversee all research into prevention and early intervention of mental disorder in infants, children and adolescents.

32. Greater focus and collaboration between bi-national (Australia and New Zealand) research with efficacy and economic evaluation of programs occurring in both countries.

Cost evaluation and effectiveness

33. All future trials of prevention and early intervention programs should build in formal economic evaluation procedures from the outset.


