Prevention Initiatives for

Child and Adolescent Mental Health

NSW Resource Document

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Working as a Team

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1. INTRODUCTION

The burden of mental health problems is high and rising. Murray and Lopez (1996) predict that depression will comprise one of the greatest health problems worldwide by the year 2020. Mathers et al. (1999) has replicated these same findings in an Australian report. These findings pose immediate and serious concerns and challenges for mental health and related workers.

It is becomingly increasingly clear that the extent of burden and human suffering associated with mental health problems and disorders will not be significantly reduced by treatment interventions alone, and that interventions are required earlier in the trajectory of mental health problems. Strong evidence is now available supporting the development, adoption and dissemination of initiatives that prevent the development of mental health problems and disorders, particularly among children and adolescents.

The *Prevention initiatives for child and adolescent mental health: NSW Resource Document* provides a comprehensive review of evidence based programs which have been shown to prevent the development of mental health problems and disorders in children and adolescents.

1.1 NSW Policy

Developing and implementing a strategic framework for promoting the positive mental health and wellbeing of children, adolescents and their families in NSW is a high priority for the NSW Government and the Centre for Mental Health, NSW Health Department. These themes are reflected in several state policies and strategies including:

- *Caring for Mental Health: A Framework for Mental Health Care in NSW* (1998);
- *Focus on Young People: NSW Youth Policy* (1998) the whole of government approach developed by the Cabinet Office, and the Families First initiative;
- *Getting in Early: A Framework for Early Intervention and Prevention in Mental Health for Young People in New South Wales* (2001);
- *Improving Mental Health and Wellbeing in NSW* (2003);
- *NSW Parenting Partnerships: A framework for mental health service involvement in promotion, prevention and early intervention through parenting initiatives. Resource and literature Review* (2003);
- *NSW Strategy: Making mental health better for children and adolescents* (1999);
- *The Start of Good Health: Improving the Health of Children in NSW* (1999); and
- *Young People's Health: Our Future* (1998).

1.2 Aims

The aims of the *Prevention initiatives for child and adolescent mental health: NSW Resource Document* are to identify:

- effective programs for prevention in child and adolescent mental health; and
- multiple components of these programs.

1.3 Background

Worldwide, health policies are being reviewed to meet the major challenges in health for the 21st Century. Despite the significant health gains over the past 50 years, mental health problems and disorders are emerging as a major public health problem in almost every country. Not only have mental health problems and disorders been underestimated, they are increasing, and will contribute significantly to the global burden of disease in the new millennium (World Bank, 1993; Murray and Lopez, 1996). These findings pose immediate and new concerns for governments, policy makers, researchers, health and other essential service providers, individuals, families and communities in Australia.

There are enormous financial and social costs associated with the public health impact of mental health problems and disorders. Health policies such as Australia's *National Mental Health Strategy* (1992) identified mental health as a key priority, requiring whole of government, non-government and community attention (Australian Health Ministers, 1992). The principal aims of the Strategy were to promote mental health; where possible, prevent mental health problems and disorders; and to provide effective treatments for those disorders which cannot be prevented.

The evaluation of the *National Mental Health Strategy* (1992) outlined the future directions of population approaches to prevention and promotion in mental health and concluded that the marginalisation of mental health from the broad health system has contributed to the limited effort made in primary prevention and promotion. This has left mental health providers to take up the role, but their treatment responsibilities make it difficult for them to engage in prevention and promotion activities. Mental health has been isolated from broad approaches to improving population health. Initiatives in the area of primary prevention need to integrate mental health with general health programs based on a partnership between population health and mental health experts (National Mental Health Strategy (1997) p.28).

The *Second National Mental Health Plan* (1998) calls for further reform under the following three key themes:

1. Prevention, early intervention and mental health promotion;
2. Development of partnerships in service reform; and
3. Quality and effectiveness of service delivery (Australian Health Ministers, 1998).

Prevention, promotion and early intervention in mental health are progressing from research and policy into action at the community service level consistent with the *Second National Mental Health Plan* (1998), the *National Public Health Partnership* (1998) and the *Mental Health Promotion and Prevention National Action Plan* (1999). In addition, a population health framework underpins these national policy developments. This requires consideration about mental health and its determinants, the causes of mental health problems and disorders, and about action to reduce the burden of mental health problems and disorders on individuals and the community, and to improve the mental health of the population (National Mental Health Strategy, 1997).

The shift to a population approach in mental health reflects similar policy trends for prevention in mental health in the United States, United Kingdom, Scotland, Ireland, Norway, Sweden, Netherlands and many other developed nations. Several international and national reports, initiatives, consultations and narratives, outline the importance of prevention and promotion the field of mental health, and evidence of effective programs. These include reports such as: *OSAP Prevention Monograph-2* (Shaffer et al., 1989); *Scope for Prevention in Mental Health* (Raphael, 1992); *Reducing Risks for Mental Disorders* (Mrazek and Haggerty, 1994); *Healthy Families: Strategies for Promoting Family Health in Australia* (Sanders, 1995); *Preventive Psychiatry* (Paykel and Jenkins, 1995); *Handbook of Prevention in Psychiatry* (Raphael and Burrows, 1995); and *Early Intervention and Prevention* (Cotton and Jackson, 1996).

In 1993–1994, the World Health Organisation (WHO) produced *Guidelines on the Primary Prevention of Mental, Neurological and Psychosocial Disorders*, to encourage practical action (Bertolote, 1998). These guidelines have been developed from extensive reviews of the literature, particularly on the effectiveness and efficiency of primary prevention action. The information was ranked according to internationally accepted scientific standards and quality criteria originally proposed by Bertolote in 1992 for mental health problems and disorders. The criteria include frequency, severity, importance, controllability and cost. The WHO acknowledges that an array of partners is involved in preventing mental disorders and produced the guidelines for a wide audience such as policy makers, health workers and the general public (Bertolote, 1998).

The *Second National Mental Health Plan* (1998) highlights the need to promote mental health, prevent mental health problems and disorders and encourage resilience, optimism and social well-being among children and young people. Some children and adolescents require greater consideration because their mental health needs are unmet due to social factors or barriers to accessing mental health services such as culture, race or geographic isolation. For example, priority groups include: children and young people from Aboriginal and Torres Strait Islander families; culturally and linguistically diverse families; and children and young people living in rural and remote areas.

In turn, the burden associated with mental disorders and mental health problems on the health and welfare system, families and carers can be ameliorated and/or reduced. Developing and implementing a strategic framework for promoting the positive mental health and wellbeing of children, adolescents and their families in NSW is a high priority for the NSW Government and the Centre for Mental Health, NSW Health Department. For instance, the NSW Government released the *Families First* initiative in June 1998. This new strategy is aimed at improving the mental and physical health of children and families, and at achieving a range of other outcomes relating to education, social functioning and general wellbeing. At the same time prevention and early intervention for disorders in childhood and adolescence is also critical.

Reports such as the Institute of Medicine (IOM) (Mrazek and Haggerty, 1994), advocate a risk reduction approach in prevention and suggest the use of a threefold typology—universal, selective and indicated prevention interventions. The IOM committee developed the conceptual framework, **The Mental Health Intervention Spectrum for Mental Disorders**, and places universal, selective and indicated interventions in the larger context of other strategies for mental health problems. For example, treatment and maintenance components are included alongside prevention in a spectrum of interventions (see Figure 1). More recently, Offord et al. (1998) examined the trade-offs among clinical, targeted, and universal interventions aimed at lowering the burden of suffering from child psychiatric disorders. This study group concluded that an optimal mix of universal, targeted, and clinical programs is needed.

There are growing numbers of children and adolescents in NSW and elsewhere experiencing mental health problems and disorders. An Australian epidemiological study conducted by Zubrick et al., in 1995 indicates that 16 to 20 per cent of children from 4–11 years experienced mental health problems in the previous 6 months. The experience of mental health problems rises to 20 to 25 per cent between the ages of 12 and 17 years. Evidence shows that mental health problems in childhood and adolescence are strongly predictive of poor mental health and social outcomes later in life. In a review of the use of evidence based care in commissioning and managing mental health services for children and young people, Kurtz (1996) suggests that intervention in the development of childhood disorders should be as early as possible and that prevention strategies are highly important.

A meta-analytic review conducted by Durlak and Wells (1997) of 177 primary prevention mental health programs for children and adolescents provides empirical support for further research and practice in primary prevention. This team found that most categories of programs produced outcomes similar to or higher in magnitude than those obtained by many other established preventive and treatment interventions in the social sciences and medicine. Mean effects ranging from 0.24 to 0.93 were yielded from programs modifying the school environment, individually focused mental health promotion efforts, and attempts to help children negotiate stressful transitions. The participants from prevention programs were found to have better outcomes of those in a control group by between 59 per cent and 82 per cent. Significantly, most categories of programs had the dual benefit of reducing problems and increasing competencies (Durlak and Wells, 1997).

While complex, multivariate, social and health problems yield no simple and quick solution, Bertolote (1998) suggests that comprehensive and culturally sensitive prevention plans must be tailored to a specific cause and effect. Effective prevention activities must also reflect an understanding that behaviour is a very critical element. Thus, changing attitudes and behaviours in individuals and in systems is essential (Bertolote, 1998).

It makes good sense to use the scientific knowledge that is growing about prevention in mental health. The way forward is for everyone to work together to provide quality services and programs through a spectrum of interventions to improve the mental health outcomes for children and adolescents across the state. Mental health promotion, prevention, and early intervention is as important as treatment and maintenance in child and adolescent mental health service delivery.

The *Prevention initiatives for child and adolescent mental health: NSW Resource Document* provides information on a range of evidenced-based programs for promoting the mental health and wellbeing of children and adolescents and preventing the development of mental health problems and disorders within a population health framework.

1.4 What's in it?

The document is divided into eight sections:

Section 1 provides an introduction to the research and policies that have influenced the growing interest in evidence based prevention initiatives for child and adolescent mental health.

Section 2 provides a general overview of prevention, partnerships and programs. The *Mental Health Intervention Spectrum for Mental Disorders* (Mrazek and Haggerty, 1994) is introduced as are National and State policy and research frameworks. Classification systems for prevention are identified. Effective methods for successful partnerships and programs are discussed.

Several elements to achieve a successful multicomponent approach are outlined:

- providing interventions to address several risk and protective factors;
- involving several domains such as home, school, and community networks;
- intervening at a range of different stages rather than once only; and
- using a range of intervention methods, for example social support and educational support.

Sections 3, 4, 5 and 6 review the developmental life stages of children and adolescents. Risk and protective factors are discussed along with other positive child attributes for coping such as resilience and optimism. In each developmental life stage, international and national research in prevention is summarised to provide a review of effective, evidence-based prevention initiatives. Multiple components of these effective programs are outlined. Where possible, Australian programs have been described which demonstrate effective child and adolescent mental health interventions in progress.

Section 7 describes initiatives and programs for children, adolescents and their families experiencing traumatic and adverse life events. Families may be affected by events such as death of a family member, marital discord or separation, environmental disasters and economic disadvantage. Children and adolescents may require interventions to ameliorate the effects of abuse or neglect, parental substance abuse or mental health problems or domestic violence.

Section 8 provides a reference list of the literature and studies mentioned in the document.

2 PREVENTION, PARTNERSHIPS AND PROGRAMS

2.1 What is prevention?

Prevention concepts have been around for a long time. In the fifties, two physicians Leavell and Gurney Clark defined three levels of prevention that were applicable to all disorders and dysfunctions (Silverman, 1995). These are widely known as primary, secondary and tertiary prevention. This concept of prevention fits with the population health (community) perspective. Prevention, specifically *primary prevention*, was aimed at groups and communities believed to be at increased risk for the development of a disorder or dysfunction.

However, it was Gerald Caplan, a child psychiatrist, who translated these population health concepts of primary, secondary and tertiary prevention into mental health terms in his classic volume, *The Principles of Preventive Psychiatry* (1964). Caplan defined primary prevention in mental health as "*… lowering the rate of occurrence of new cases of mental disorder in a population … by counteracting harmful circumstances before they have had a chance to produce illness. It does not seek to prevent a specific person from becoming sick. Instead, it seeks to reduce the risk for the whole population so that although some may become ill, their numbers will be reduced.*" (Caplan 1964, p.26).

The system of classification developed by Caplan (1964) is familiar to most mental health researchers, clinicians and practitioners. The goals of the three categories demarcate the distinctions between them.

- Primary prevention seeks to decrease the number of new cases of a disorder.
- Secondary prevention seeks to lower the rate of the disorder in the population.
- Tertiary prevention seeks to decrease the amount of disability associated with an existing disorder.

In clinical practice, and even in research, distinctions between these categories are not as clear-cut as they might appear (Mrazek,1998). Such confusion about the meaning of concepts in prevention has caused difficulties for researchers, policy makers, health workers, and community members alike. Hosman (1998) articulated the need for the international classification for prevention interventions stating "*… there is a great need in the field of mental health promotion and prevention of mental disorders for a framework of clear concepts, an overview of what we have to offer, and a need for monitoring tools to describe the state of the art and the progress made …*" (Hosman, 1998).

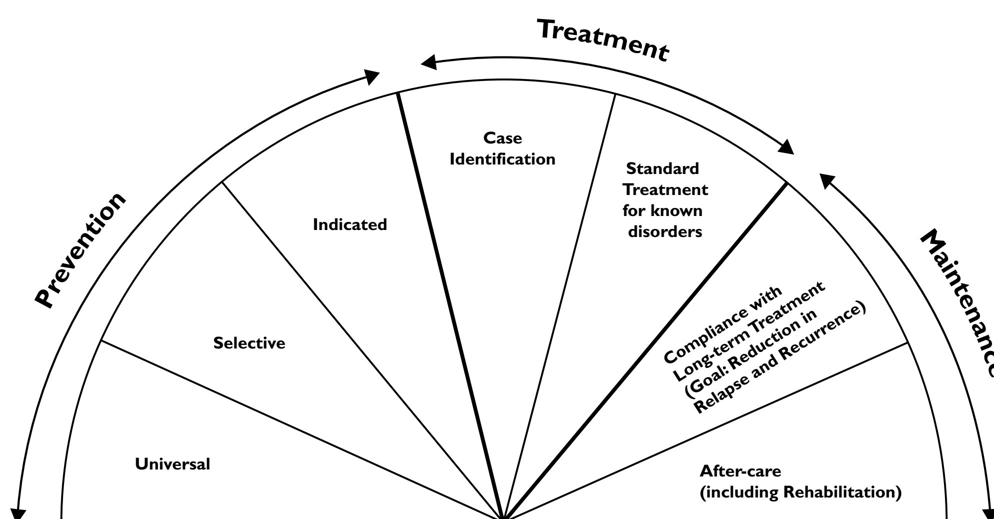
The renewed effort in the field of mental health prevention has led to much debate and consideration for classifying prevention interventions for mental disorders. In 1994, the US Institute of Medicine (IOM) committee on the Prevention of Mental Disorders, reviewed the definition for prevention interventions for physical illness and for mental disorders. The committee asserted that classification systems such as primary, secondary, and tertiary prevention or universal, selective and indicated prevention (Gordon, 1987), were not designed for use in the prevention of mental disorders but focused on prevention of disorders traditionally identified as medical disorders.

The IOM committee found the application of the population health classification system of primary, secondary and tertiary prevention was not straightforward for mental health. Therefore, the committee presented an alternative system in which the term **prevention is reserved for only those interventions that occur before the initial onset of a disorder**. This system incorporates many of the ideas proposed by Gordon in 1983 regarding prevention, including an adaptation of the concepts of selective and indicated intervention (Mrazek and Haggerty, 1994, p.23).

The committee named this classification framework *The Mental Health Intervention Spectrum for Mental Disorders* (see Figure 1). The committee contends that while their emphasis is on prevention, it is also necessary to have a classification system that recognises the importance of the whole spectrum of interventions for mental disorders, from prevention through to maintenance. Under this system there are:

- three components to prevention: universal, selective, and indicated;
- two components in treatment intervention: case identification and standard treatment for the known disorder, which includes interventions to reduce the likelihood of future co-occurring disorders; and
- two components in maintenance intervention: the patient's compliance with long-term treatment to reduce relapse and recurrence and the provision of after-care services to the patient, including rehabilitation (Mrazek and Haggerty, 1994, p.23, 24).

Figure 1. The Mental Health Intervention Spectrum for Mental Disorders.



Source: Mrazek and Haggerty (1994) p.23.

2.2 The relevance of the mental health intervention spectrum for Australian research, policy and practice

The *Mental Health Intervention Spectrum for Mental Disorders* is considered to be a useful framework for current research, policy and program initiatives in Australia. For example, this conceptual framework underpins the *Second National Mental Health Plan* (1998) and the *Mental Health Promotion and Prevention National Action Plan* (1999). This is both supportive and complementary to prevention work being conducted throughout the world. In the near future, Australia will also be linked to an international prevention consortium that will provide Internet access to state-of-the-art global prevention information, resources and opportunities.

The classification systems of primary, secondary and tertiary prevention and universal, selective and indicated prevention should not be blended simplistically or used interchangeably as a three-tiered system. Instead, the *Mental Health Intervention Spectrum for Mental Disorders* emphasises a **spectrum of interventions** including prevention, treatment and maintenance. Descriptions of universal, selective and indicated prevention interventions and corresponding examples in the field of child and adolescent mental health are provided in Table 1.

Table 1. Universal, selective and indicated preventive interventions in child and adolescent mental health

Universal prevention interventions are targeted to the general public or a whole population group that has not been identified on the basis of individual risk.

Examples: Prenatal care for all new mothers and their babies that has prevention effects for physical and mental health for all mothers and infants.

Selective prevention interventions are targeted to individuals or a subgroup of the population whose risk of developing mental disorders is significantly higher than average. The risk may be imminent or it may be a lifetime risk. Risk groups may be identified on the basis of biological, psychological, or social risk factors that are known to be associated with the onset of mental disorder.

Examples: Home visiting and infant day care for low birth weight children, preschool programs for all children from disadvantaged neighbourhoods.

Indicated prevention interventions for mental disorders are targeted to high-risk individuals who are identified as having minimal but detectable signs and symptoms foreshadowing mental disorder, or biological markers indicating predisposition for mental disorder, but who do not meet DSM-111-R (DSM-IV) diagnostic levels at the current time.

Examples: Parent-child interaction training program providing an intervention for children identified by their parents as having behavioural problems.

Source: Mrazek and Haggerty (1994) pp. 24–25.

Mrazek and Haggerty (1994) describe the overall aim of the three types of preventive intervention—universal, selective and indicated—as being to reduce the occurrence of new cases. Even if outcomes are in the distant future and the goal of fewer cases has not yet been established, the decrease in risk and/or increase in protective factors can be documented. Another aim may be the delay of onset of illness and the short-term reduction of new cases in addition to the overall reduction of new cases.

Indicated prevention interventions for high-risk individuals or groups aim to halt or ameliorate the symptoms of mental health problems or disorders. Even if the individual does eventually develop a disorder, the duration and/or severity may be reduced (Mrazek and Haggerty, 1994 p.26).

2.3 Promotion of mental health

According to Price (1998), while prevention approaches typically focus on avoiding the development of disorder, mental health promotion aims to optimise mental health and wellbeing in individuals and communities.

The *Mental Health Promotion and Prevention National Action Plan* (1999) describes mental health as: "*The capacity of individuals within groups and the environment to interact with one another in ways that promote subjective well-being, optimal development and use of mental abilities (cognitive, affective and relational) and achievement of individual and collective goals consistent with justice.*" (p.43).

Mental health promotion focuses on improving environments (social, physical and economic) which affect mental health and enhancing the 'coping' capacity of communities as well as individuals (Wood and Wise, 1997, p.42).

Although the goals of prevention and promotion differ, the two intervention frameworks may sometimes use similar approaches and produce similar outcomes. Therefore, a mental health promotion intervention aimed at increasing wellbeing in a community may also at times have the effect of decreasing the incidence of mental health problems or disorders (The *Mental Health Promotion and Prevention National Action Plan, 1999*).

Mental health prevention is concerned with individuals prior to the onset of a disorder. Prevention of mental health problems and disorders aims to reduce premature mortality and morbidity, associated disability, and individual risk of developing mental health problems and disorders by:

- focusing on identifying groups and individuals at 'high risk' of developing mental health problems or mental disorders and on reducing risk factors and enhancing protective factors;
- focusing on reducing the incidence, prevalence and sequelae of mental health problems and disorders; and
- measuring outcomes in terms of improvements in the coping capacity of people with defined health problems, including mental health problems and/or those who care for them and in terms of reductions in mortality, morbidity, disability and risk behaviours (National Mental Health Strategy, 1997, pp.16, 17).

Zubrick (1998) points out that the Institute of Medicine (IOM) report has been criticised by Albee (1996) for its unduly narrow conceptualisation of prevention to the exclusion of strategies that seek to promote mental health and wellbeing. He also emphasises that the distinction between prevention and promotion is scientifically unsound and suggests it artificially segregates theories and activities that are known to be on the causal pathway of mental health disorder and it alienates providers and communities. Further, Zubrick (1998) relates that there is a vigorous health promotion field in Australia where there is an opportunity in mental health to integrate prevention and promotion through the fair-brokerage of good theory, science and practice, bridging the gap between science and practice of treatment on the one hand and the science and practice of prevention and promotion on the other (Zubrick, 1998, p.7).

To facilitate bridging this gap, the *Mental health promotion in NSW: Conceptual framework for developing initiatives* (Scanlon et al., 1997) provides a tool for identifying and developing initiatives in mental health promotion. The principles underpinning this framework acknowledge that:

- opportunities for promotion and prevention in mental health exist at any point along the health care and mental health status continuums;
- many mental health problems and disorders are cyclical and episodic;
- physical health and mental health are inter-related;
- social, economic and environmental factors can affect mental health status;
- opportunities for promotion and prevention in the mental health field exist across a range of target audiences and settings and can use a range of approaches;
- mental health promotion initiatives are not solely the responsibility of the health care system; and
- mental health promotion initiatives need to address issues of equity.

2.4 Optimal mix of universal, targeted and clinical programs

Offord et al., (1998) examined the trade-offs among clinical, targeted and universal interventions aimed at lowering the burden of suffering for child mental health disorder. The authors advocate that the strategy to reduce the burden of suffering from child mental health disorder should consist of a number of concurrent steps. First, effective universal programs should be put in place. Second, targeted programs (selective and indicated) should follow for those not helped sufficiently by the universal programs. Finally, clinical services should be available for those who have greater needs than can be met by the targeted programs. Thus, an optimal mix of universal, targeted and clinical programs is needed (cited in Offord et al., 1998, p.686).

2.5 Prevention in child and adolescent mental health

Mental health problems may occur at any age and in any social group. However, Silverman (1995) reports that concepts of prevention have a particular importance for children and adolescents. Here the potential for modifying, averting or preventing the development of dysfunctional behaviours and pathways and for promoting healthy functioning are optimal. This fits well with the general focus on mapping developmental trajectories, and assessing the acquisition of stage and phase appropriate behaviours (Silverman, 1995).

Reports such as: *OSAP Prevention Monograph-2* (Shaffer et al., 1989); *Scope for Prevention in Mental Health* (Raphael, 1992); *Reducing Risks for Mental Disorders* (Mrazek and Haggerty, 1994); and *Healthy Families: Strategies for Promoting Family Mental Health in Australia* (Sanders, 1995), highlight the importance of understanding the developmental perspective and place a critical emphasis on the prevention of disorders in childhood and adolescence. The urgency of prevention across these age groups is reflected by the epidemic proportions with which children's problems are manifested.

Supporters of the population health approach to mental health have consistently advocated for primary prevention of children's problems. However, awareness, education and training is required for recognising that childhood and youth constitute defined developmental phases, and that problems in this period are often interactive, contributing to vicious cycles of cumulative risk. Thus, it is essential that a comprehensive prevention agenda build on an alliance of health, education and social agencies in our communities (Simeonsson, 1994).

For many health, education and community workers this requires a new way of thinking about mental health. The focus must shift from individual clinical casework to broader population mental health understanding such as: epidemiology; multifactorial aetiology; risk and protective factors; socio-environmental determinants of health and mental health such as poverty and unemployment; and socio-cultural processes. In particular, professionals employed in mental health services must be aware that in prevention, the proximal social environments that are most pertinent to population health problems are: family; school; workplace; media; social organisations; professional organisations; community organisations, peer and other social groups.

The burden and contexts of child and adolescent mental health problems and opportunities for prevention are examined in the extensive work of Zubrick and Silburn, TVW Telethon Institute for Child Health Research, Perth, Western Australia. This team conducted the first Australian epidemiological child health survey in Western Australia, the *Western Australian Child Health Survey*. They reported that 17 per cent of 4 to16-year-olds had significant mental health problems in the previous six months (53,500 Western Australian children) and that 68 per cent of these disorders were co-morbid. Fifty-two per cent of these children would have required professional assistance for their mental health problems, as defined by parents or teachers (Zubrick et al., 1995; Zubrick and Silburn, 1998).

In the *Western Australian Child Health Survey*, ten per cent of children and adolescents were reported as experiencing delinquency problems, nine per cent thought problems, six per cent attention problems, six per cent social problems, five per cent somatic complaints, four per cent aggressive behaviour, four per cent anxiety and/or depression and three per cent were withdrawn in the six-months prior to the survey (Zubrick et al., 1995).

The risks associated with poor mental health include poor school outcome, poor physical health, poor pro-social skills and suicidal ideation. The cost of mental health problems in children estimated from national and Western Australian data for all mental health conditions includes: $21 million for children per 219 mental health beds; $16,983 per median length of stay (LOS), and $1,883 per capita outpatient (Zubrick and Silburn, 1998).

Zubrick and Silburn (1998) articulated the following requirements for epidemiological estimates of mental health:

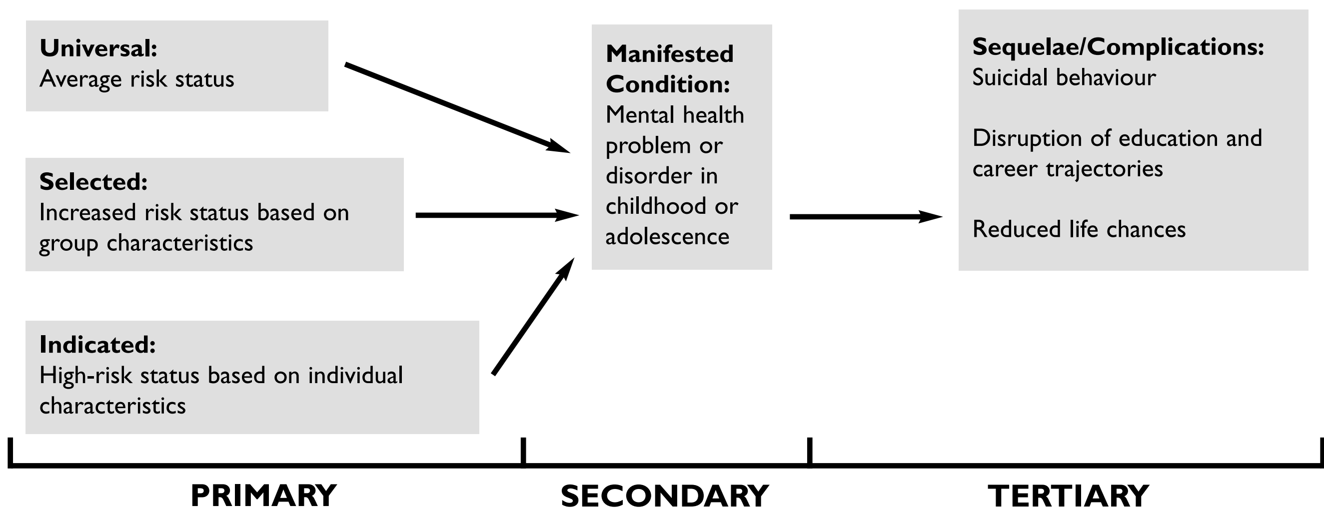
- define and describe the *nature and scope* of the problem;
- supply local descriptions of the *consequences* of these problems that speak to public and private sectors;
- inform *political* decision making and action; and
- assist *setting priorities* for treatment and prevention.

The major social determinants of child mental health include:

- the changing nature of work—who has it and how much are they doing;
- family diversity and function; and
- parenting skills and practices.

This team also outlined strategies for prevention opportunities (see Figure 2).

Figure 2. Prevention strategies.



Source: Zubrick and Silburn (1998); adapted from Simeonsson (1994).

There are also limitations of epidemiological information such as in relation to ethnicity and race including Aboriginality. Mental health services must be aware of a range of data and information systems available to delineate the extent of child and adolescent mental health problems and disorders, risk and protective factors, and outcomes relevant to local populations. In this way, effective preventive interventions can be planned, implemented and monitored. There are also unmet mental health needs in special population groups such as children and adolescents from Aboriginal and Torres Strait Islander peoples, from culturally and linguistically diverse families and those living in rural and remote communities.

Effective prevention is highly dependent on the identification of factors associated with risk for and protection from the disorder. In recent years, research has concentrated on elucidating some of the risk factors that predispose children and adults to mental disorder. This focus has not just been on the identification and alteration of risk factors but also on protective factors. On the one hand, risk factors refer to biological, environmental, and psychological factors that increase the probability of development of a psychological problem. On the other hand, protective factors produce a resilience to the development of psychological difficulties in the face of adverse risk factors (Spence, 1996a).

Prevention interventions, which reduce or modify risk factors, are showing improvement in mental health outcomes for children and young people. So are programs that promote protective factors to enhance children's development. Many risk and protective factors in childhood and adolescence tend to be generic rather than specific to individual disorders. Community and social factors can also contribute generically for instance: social disadvantage; poverty; poor housing; high level of community disorganisation; poorly functioning community institutions such as negative school and workplace environments. The converse of these can act as buffering or protective influences (Raphael, 1998).

According to Mrazek and Haggerty (1994):

> *Risk factors are those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected at random from the general population will develop a disorder (Werner and Smith, 1992; Garmezy, 1983). To qualify as a risk factor, therefore, a variable must be associated with an increased probability of disorder and must antedate the onset of disorder. Variables that may be risk factors at one life stage may or may not put an individual at risk at a later stage of development. Risk factors can reside with the individual or within the family, community, or institutions that surround the individual. They can be biological or psychosocial in nature. Some risk factors play a causal role, although this may not be known prior to an intervention study. Others merely mark or identify the potential for a disorder rather than cause the disorder, and for these, therefore, malleability is not an issue* (p.127).

Rutter (1985) defined protective factors as:

> *… those factors that modify, ameliorate or alter a person's response to some environmental hazard that predisposes to a maladaptive outcome. Protective factors seemingly function in a catalytic fashion. They do not necessarily foster normal development in the absence of risk factors, but they may make an appreciable difference on the influence exerted by risk factors. Protective factors also can reside with the individual or the family, community, or institutions and can be biological or psychosocial in nature …* (p.128).

Spence (1996a) summarised the most commonly identified areas of risk factors and protective factors that should be considered in the development of prevention programs in mental health (see Table 2).

Table 2. Factors influencing the development of mental health problems

Risk factors	Protective factors
Environmental	
Poverty	Positive peer relationships
Housing conditions	Social support (elders and peers)
Unemployment	Family structure and cohesion
Family size	Positive parent–child relations
Parent marital status	
Adolescent parents	
Marital conflict	
Poor parenting skills	
Parental psychopathology	
Exposure to negative life events	
(for example, bereavements, family separation, trauma, family illness)	
Life transitions (for example, school change)	
Child characteristics	
Genetic influences	Coping skills repertoire
Biological influences	Social skills
(prenatal, perinatal and postnatal)	Problem-solving skills
Difficult early temperament	Cognitive style
Cognitive style	Strong intellectual skills
Low IQ	Academic competence
Academic failure	

Source: Spence (1996a) p.8.

Risk factors may also be heightened at particular stages of the developmental life cycle. Prevention interventions must address risk and protective factors across the developmental life stages and across social settings. In summary, Silburn and Zubrick (1998) outline the following pre-requisites for effective prevention:

- epidemiological evidence of burden;
- detailed understanding/theory of critical causal mechanisms including risk and protective factors;
- preventability of condition;
- opportunities for preventive intervention;
- strategies for prevention; and
- methods of monitoring and evaluation.

2.6 Partnerships

The very nature of prevention requires a multidisciplinary approach. This means developing partnerships with people and agencies in the community with diverse theoretical, philosophical and cultural backgrounds. *Partnerships in service reform and delivery* is a key priority area identified in the *Second National Mental Health Plan* (1998).

The *Second National Mental Health Plan* suggests that important partnerships will include:

- consumers, families and carers
- general practitioners
- private psychiatrists and the private mental health sector
- emergency services
- wider health sector
- other government services
- non-government agencies
- community support services
- broader community

Priority partnerships for Aboriginal and Torres Strait Islander mental health services are likely to include:

- Aboriginal and Torres Strait Islander networks and organisations such as the National Aboriginal Community Controlled Health Organisation (NACC);
- general health and primary care services;
- rural and remote health services;
- adult and juvenile correctional systems; and
- drug and alcohol systems (Australian Health Ministers, 1998).

In all Areas there are networks of health and other agencies (communities of interest) that provide health care and general assistance for children, adolescents and their families. Partnerships between these agencies and specialist mental health services are essential.

Communities of interest for partnerships with child and adolescent mental health include:

Primary care sector: general practitioners, maternal and child health workers, youth health workers, community health nurses, preschool and school teachers, school counsellors, non-government organisations.

Secondary, tertiary and supra care sectors: specialist mental health service professionals such as nurses, psychologists, social workers, occupational therapists and psychiatrists; consumer, family and carer advocates, specialist child and adolescent health professionals such as obstetricians, paediatricians, other specialist child and youth workers such as Aboriginal and Torres Strait Islander health workers and bilingual counsellors and interpreters.

Population health, education, housing and other essential services: Departments dealing with education to facilitate implementation of school-based mental health promotion, prevention and early intervention programs. Departments dealing with children in care or detention to facilitate access to mental health services for children and young people. Other government departments that work with vulnerable children, adolescents and their families including Housing to prioritise housing for children and adolescents at risk of homelessness due to their own or their parents' mental health problems.

Building effective partnerships will require *working together* across and within these networks of services. Knowledge of partnership roles and responsibilities should be identified. Awareness raising and education for non-professionals about mental health issues is also important. So too is upholding social justice and equity issues as well as respecting partners for their culture and race. Building partnerships with young consumers and their families is also critical (see Table 3).

Table 3. Conditions for effective partnerships

Necessity
Is there a clear agreement that the intersectoral action is necessary?
Has a case for action been developed that has intersectoral support?

Opportunity
Is there wider community support for the action?
- Political
- Social
- Economic
- Public and private

Capacity
Do the partners have the capacity to carry out planned action?
- Resources and infrastructure/support
- Time
- Funds
- Staff skills
- Leadership

Recognition
Is there recognition of the expertise and contribution of all partners?

Relationship
Is there a clearly defined relationship between the partners?
Is there time built in to support and nurture the relationship?

Planned action
Is there an action plan that incorporates goals, activities, sector responsibilities, critical analysis of organisational benefits, strengths and weaknesses and acceptable outcome indicators?

Sustained outcomes
Can these outcomes be sustained and are they to be monitored?

Source: Adapted from Harris et al., 1995.

2.7 Effective prevention, promotion and early intervention programs

The third key theme in the *Second National Mental Health Plan* (1998) focuses on the quality and effectiveness of mental health services with a particular emphasis on improved consumer outcomes across the life span. The use of evidence-based practice is being encouraged in all health service delivery, including mental health service provision (Australian Health Ministers,1998). As such, mental health workers will be required to be knowledgeable about certain data requirements for prevention interventions. This includes information on several issues such as: effectiveness of an intervention, that is the extent to which an intervention does more good than harm to the recipients; the extent to which the intervention reaches those who need it; the rate of use or compliance with the intervention among those who need it; and the cost of the intervention (Offord et al., 1998).

Promising interventions must go through a cycle of:

1. research to test the efficacy of the intervention for risk reduction (Price, 1994; Lorion, et al., 1989; Mrazek and Haggerty, 1994); followed by
2. a series of trials in actual clinical settings to demonstrate the net effectiveness of such interventions when they are implemented on a large scale (Price and Lorion, 1989), (cited in Price, 1998, p.22).

Effectiveness is the indicator of choice for recommending prevention measures, with the quality of evidence considered to increase in the following order:

- opinion of experts and respected authorities;
- multiple time series studies, with and without intervention;
- well-designed cohort or case–control controlled analytic studies;
- well-designed controlled trials, without randomisation; and
- at least one properly randomised, controlled trial (cited in Bertolote, 1998 p.161).

Quality and effectiveness of prevention intervention programs can also be assessed by the criteria which were formulated by the US Institute of Medicine (IOM) report (Mrazek and Haggerty, 1994 p.217).

Price (1998) outlines another useful framework that provides a more detailed checklist for evaluating the designs and the evidence forthcoming from efficacy trials (see Table 4). The author contends it is worthwhile to consider cataloguing existing prevention interventions according to six sets of factors:

1. description of the risk and protective factors addressed;
2. descriptive information about the targeted population group;
3. detailed information about the intervention program;
4. the research methodologies used;
5. the evidence concerning implementation of the intervention; and
6. evidence concerning outcomes and impact (cited in Price, 1998, p.24), (see Table 4).

Table 4. Framework for examining prevention interventions

Risk and protective factors addressed	Targeted population group	Intervention program	Research methodologies	Evidence concerning implementation	Evidence concerning outcomes
Documentation	Universal, selective or indicated	Goals and content	Methods of recruitment	Exposure of target group to intervention	Changes in status of risk and/or protective factors
Relationship to developmental task	Evidence that group is at risk for disorder or problem	Protocols Personnel delivering the intervention	Sample size	Fidelity of delivery in accordance with design	Evidence of reduction of new cases
Causal status	Socio-demographic	Site	Randomisation		Evidence of delay of onset
Status in malleability		Institutional or cultural content	Baseline measures		Side effects
Correlation with incidence and prevalence		Ethical considerations			Benefit-cost and cost-effectiveness analysis
		Equipment or instrumentation			
		Method of delivery and techniques			
		Duration and extent			
		Multiple components			

Source: Price, R.H. (1998) p.25. *This format might be used as a work sheet in determining the methodological rigour of a specific program.

Raphael (1998) present key aspects for effective prevention intervention programs in child and adolescent mental health:

- Programs should involve a multi-component approach, taking into account the social environments influencing the child. Thus, they will always need to encompass parenting practices and family issues in the broad sense of family and to support and promote factors enhancing positive outcomes in these contexts.
- Programs need to take into account other contexts with powerful influences on the child, and other systems of care, such as day care for younger children and school and later education, workplace and youth culture settings.
- Programs need to take into account the broader community and its impact on the child and young person, for instance, through social prescriptions, socioeconomic disadvantage, social conflict and inequity.
- Programs need to take into account individual understanding of the child or young person; their individual experience, vulnerabilities and strengths, particular risk factors, and the significance of their developmental stage and pathway.

In summary, the following quote from Ustun and Jenkins (1998) offers good practical advice:

> *It is important that we look towards investing in effectiveness. The true test of a prevention program is not the efficacy and effectiveness in the research setting but the effectiveness in the real-life setting with the community in charge of the program.*
>
> *It is important to remain realistic in terms of research. Research results will be noted in the long run as we fine-tune our programs, but in the early stage of knowledge we have to make a start somewhere, otherwise we would not have anything to evaluate and we would never gather significant evidence* (p.490).

3. PREVENTION INITIATIVES SPANNING THE PERINATAL AND INFANCY PERIOD

3.1 Rationale

The antenatal period and first year of life is a particularly significant time. It can provide a sound base for healthy physical and mental development of the child and minimise adverse outcomes including later mental health problems and disorders. Parents or other carers have an important role in providing a supportive and nurturing environment for infants. Infants need consistent care to form healthy attachments, in an environment which encourages their cognitive, emotional and language development. Supportive relationships particularly with partners, family and friends helps parents and carers to meet their infants' emotional and physical needs.

It is useful to begin by reviewing prevention research from overseas and local sources concerning the first stage of life—pregnancy, infancy and early childhood. Here, effective prevention programs are mainly directed towards enhancing parenting and its effects. The rationale behind this approach is that it will lead to improved mental health for children and decrease their risk of developing mental health problems and disorders.

Several studies have identified parenting as one of the most important population health issues facing our society. For example, Hoghughi (1998) states that parenting is the single largest variable implicated in childhood illnesses and accidents; teenage pregnancy and substance misuse; truancy, school disruption, and under-achievement; child abuse; unemployability; juvenile crime; and mental illness. Conversely, parenting can act as a buffer against adversity (such as poverty or delinquent influences) or as a mediator of damage (as in child abuse).

Barnett (1995) reports that pregnancy and early parenting is an extremely important time for prevention as there is an increased risk for psychosocial problems and this may have far reaching effects. It is also a time when families come into contact with professional services therefore, there is the opportunity to provide assistance and interventions can be highly effective.

Prevention is a fivefold task to:

1. Ensure that individuals have the opportunity to consider carefully, well before the event, if becoming a parent is a role they can play competently, and to consider other possible options for achieving their personal goals.
2. Facilitate a successful transition for parents in general, for example by promoting self-esteem and keeping distress, anxiety and depressive symptoms within reasonable limits both antenatally and postpartum.
3. Identify parents at risk for mood disorders and other illness.
4. Actively treat parents who have acutely or chronic mental health disorders.
5. Identify early on parents at greater risk of anomalous parenting, whether because of their or the infant's vulnerability and provide specific assistance (Barnett, 1995, p.96).

Rutter (1985) outlines identifying presentations and family situations which are predictive of problems later in life as the most important issue for understanding the mental health of infants (0–24 months). Infants may present to health or other professionals with specific difficulties such as developmental delay, attachment problems, low birth weight, sleep disturbance, non-organic failure to thrive, colic, excessive crying, or feeding problems, including weaning difficulties, rumination and food refusal. Infants may also present with injuries that may be related to parental abuse or neglect. Family situations which put children at risk for developing mental health problems include: having a depressed or adolescent mother; being in an abusive situation; or other family circumstances associated with high risk (cited in Sanders, 1995, p.35).

There is a growing body of research indicating a range of prevention programs that reduce risk factors and enhance protective factors for infants, thereby effectively reducing mental health problems throughout the developmental life-span. Prevention strategies targeting babies, infants and their parents include: high-quality prenatal and perinatal care; childhood immunisation; regular home visiting; parenting education; promotion of healthy parent-infant interaction; appropriate cognitive and language stimulation; well-baby health care; family support; and centre-based infant day care (Mrazek and Haggerty,1994, pp.225, 226).

Risk and protective factors

Mrazek and Haggerty (1994) point out that in infancy, the biopsychosocial risk factors that can hinder development include, but are not limited to, preventable infections, disease or injuries that can cause brain damage; neurodevelopmental disorders, or behavioural disorders; problems of parent-infant attachment or parenting; deprivation of cognitive and language stimulation; economic deprivation; and child maltreatment. The corresponding protective factors include "good-enough" parenting coupled with adequate nutrition and shelter, which encourage the physical, intellectual, and emotional growth of the child (p.223).

3.2 Risk associated with maternal depression/postnatal depression

A major area of risk to infants is maternal post partum depression. Approximately 10 per cent of women develop a depressive disorder in the year following the birth of a child that is severe enough to interfere with daily functioning (Campbell and Cohn, 1991; O'Hara et al., 1990). While depression may be brief for some people, for up to one-third of women, depression may continue for up to two years, in various degrees of severity.

The infants of depressed mothers receive less appropriate and responsive care and more negative and rejecting care than infants of non-depressed mothers (Campbell et al., 1992). If the mother's depression continues, infants can develop a depressed mood style as early as three months of age, which tends to persist (Field, 1992). These factors can have a continuing impact on the infant's physical growth and development. Other risk factors for depression in children include parental alcoholism or other substance abuse, and infant maltreatment or neglect.

3.3 Programs for enhancing parenting and reducing risks for infants

Prevention and mental health promoting programs addressing vulnerabilities during pregnancy, the puerperium and the earliest years of life have been reviewed by Mrazek and Haggerty (1994) and Barnett (1995).

Mrazek and Haggerty (1994) reviewed the randomised controlled trials in this field and highlighted a number of significant interventions, including:

- Prenatal/Early Infancy Project (Olds et al., 1986, 1987, 1997);
- Early Intervention for Preterm Infants (Field et al., 1980);
- Tactile/Kinesthetic Stimulation Study (Field et al., 1986);
- Infant Health and Development Program (Ramey et al., 1992); and
- Carolina Abecedarian Project (Horacek et al., 1987), (see Table 5).

Table 5. Programs aimed at improving parenting and reducing risk for infants

Programs Note: all studies were randomised control trials	Targeted population group/sample size when project began	Risk factors addressed	Outcomes (for total intervention group or subgroups)	Principle Investigator(s) and year(s)
Prenatal/Early Infancy Project	Selective N=394	Economic deprivation, maternal prenatal health and damaging behaviours, poor family management practices	Improved maternal diet and reduced smoking during pregnancy, fewer preterm deliveries, higher-birthweight babies, less child abuse	Olds et al., 1986, 1988, 1997
Tactile/Kinesthetic Stimulation	Selective N=40	Preterm delivery, low birthweight	Better physical and mental development of infants	Field et al., 1986
Early Intervention for Preterm Infants	Selective N=60	Teenage parenthood, low socioeconomic status, preterm delivery	Better parenting behaviours and attitudes of mothers, better cognitive competence, better physical development, better temperament of infants	Field et al., 1980
Infant Health and Development Program	Selective N=985	Low birthweight, poor family management practices, academic failure, early behaviour problems	Better cognitive competence, fewer behaviour problems	Ramey, 1990
Carolina Abecedarian Project	Selective N=107	Academic failure, lack of readiness for school, economic deprivation, low commitment to school	Better cognitive competence, lower rates of retention in grade in school	Horacek et al., 1987

Source: Table 7.1. Mrazek and Haggerty (1994) p.226.

Interventions enhancing the transition to parenthood reported on by Barnett (1995) include: Steps Towards Effective Enjoyable Parenting, (STEEP) (Erikson et al., 1992); home visiting programs such as **Home Start** and **Newpin** (Mills and Pound, 1985), and interventions for those vulnerable to child abuse such as Kemp (1976); Gray et al. (1979). Other interventions include targeting particular risk factors that increase vulnerability such as premature and low birthweight groups (Minde et al., 1980; Nurcombe et al., 1984; Als et al., 1986; Field, 1992), and those at risk as a result of maternal mood disorder, particularly postnatal depression (Holden et al., 1989).

Interventions targeted to highly anxious mothers showed that when high levels of anxiety continued for prolonged periods, the mothers and their children experienced problems (Barnett and Parker, 1985; Barnett, 1995). A reduction in maternal anxiety could be demonstrated post intervention. According to Barnett (1995), appropriate facilitation of the transition to parenthood requires a team approach including the parent(s), friends and extended family, midwife, family doctor, obstetrician and mental health liaison staff. Good management of this transition period also requires adequate communication skills and social support as well as technical competence.

3.4 Multicomponent programs for the perinatal and infancy period

The **Infant Health and Development Program** (Ramey et al., 1990; see Table 5), is an example of a multicomponent intervention program for preterm infants. This eight-site randomised trial is one of the largest early selective intervention programs in the USA. The program examines the effectiveness of an intervention targeting the first three years of life in reducing the incidence of developmental delay in low-birthweight, preterm infants with specific emphasis on cognitive and behavioural scores.

The design of the program includes stratification by clinical sites into birth groups with one-third of participants within each weight group randomised to the intervention group and two-thirds to the follow-up group. The intervention consisted of three components:

1. Home visits focused on child development activities and problem solving, weekly for the first year and biweekly thereafter;
2. Infants participated in a weekly child development program from the age of one year to three years in a child development centre; and
3. Parent group meetings providing information and social support were conducted bimonthly beginning when the infant was 12 months old.

The significant outcome for this multicomponent program was on cognitive development. The infants had better cognitive development and fewer behavioural problems at age two and three compared to the follow-up group (Ramey et al., 1990).

The **Carolina Abecedarian Project** (Horacek et al., 1987; see Table 5) is also an example of a multicomponent intensive selective intervention utilising centre-based full-time day care for children beginning at 8–12 weeks of age, home visits and a parent group. The project identified 111 high-risk children from African American families by weighted indices such as: parents' educational level; family income; absent father; absent local maternal relatives; siblings with low school achievement tests or behind a grade; welfare payment receipt; parental and/or sibling IQ< 90; counselling for the family in the last three years; and special circumstances contributing to disadvantage.

These high-risk infants were randomly assigned to one of four groups:

1. a control group with no intervention;
2. a group with only preschool intervention activities aimed to enhance cognitive and linguistic development and to provide mastery opportunities;
3. a group with only school-age intervention where a home/school resource teacher was appointed for the first three years of public school for each child aged from 5–8 years. Fifteen home visits per family per year provided an individualised set of home activities to supplement the basic curriculum in reading and maths and parents were taught how to use the activities in the home. Eighteen school visits per family were coordinated in line with the school curriculum and a liaison between school and the family; and
4. a group with both preschool and school-age intervention.

The outcomes demonstrated that children at risk of school failure could be identified before birth. Children who participated in the early intervention program had higher cognitive test scores, better academic achievement in reading and mathematics, enhanced language development and were more likely to remain at school. Better results were evident in the preschool childcare intervention component than in the school-age intervention alone. There has recently been a follow-up of these children at 21-years-of-age that indicates that the positive effects of the intervention are still evident (Ramey et al., 2000).

Brooks-Gunn and Paikoff (1993) and Byrne, Kelly and Fisher (1993) suggest that it may be more cost-effective for prevention intervention for children with multiple risks to provide quality day care than to intervene directly with the parents. The importance of daycare as a necessary intervention must also be emphasised for some children and its costs borne as part of the education or social welfare system (cited in Marshall and Watt, 1999).

3.5 Home visiting programs

Home visiting programs encompass a diverse range of interventions and approaches including parent education, parent psychosocial support, infant stimulation and infant/maternal health surveillance. Most programs have several components aimed at enhancing: infant development and health; parent-child interaction; parenting knowledge and skill; parents' social support; and preventing child abuse and/or neglect.

Roberts, Kramer and Suissa (1995) conducted a meta-analysis of eight randomised trials of home visiting programs and concluded that there was a significant reduction in the occurrence of child injury.

In 1990, Olds and Kitzman reviewed randomised trials of antenatal and infancy home visiting programs for socially disadvantaged women and children. They reported that some home visiting programs were effective in:

- Improving women's health-related behaviours during pregnancy, the birth weight and length of gestation of babies born to parents who smoke and young adolescents, parents' interaction with their children and children's developmental status.
- Reducing the incidence of child abuse and neglect, childhood behavioural problems, emergency department visits and hospitalisations for injury and unintended subsequent pregnancies.
- Increasing mother's participation in the work force.

The more effective programs employed nurses who began visiting during pregnancy, who visited frequently and long enough to establish a therapeutic alliance with families. They also addressed the systems of behavioural and psychosocial factors influencing maternal and child outcomes and targeted families at greater risk for health problems due to the parents' poverty and lack of personal and social resources (Olds and Kitzman, 1990).

Olds and his colleagues conducted the **Pre-natal/Early Infancy Project** in Elmira, New York (Olds, 1986, 1988, 1990, 1994, 1997). This project is reviewed in Raphael (1992), Mrazek and Haggerty (1994), Barnett (1995) and again by Mrazek (1998) as one of the stars of prevention research. As such it will be helpful to examine the program to understand the essential components.

The Prenatal/Early Infancy Project is an example of a comprehensive program intended to prevent a wide range of maternal and child problems often associated with poverty (Olds, et al., 1988, 1986). It is a **selective intervention program** targeting a high-risk community, with high rates of poverty and child maltreatment, in the semirural Appalachian region of New York (Mrazek and Haggerty, 1994).

The program targeted young pregnant women who had no previous live births, could register in the study prior to the 25th week of gestation, and had at least one of the following sociodemographic risk characteristics: young age (<19 years at registration), unmarried, or low socioeconomic status (SES). To avoid creating a program stigmatised as being exclusively for the poor, any woman who asked to participate and had no previous live birth was accepted into the study (Olds et al., 1997).

The specific goals were to reduce the mother's prenatal health damaging behaviours, enhance parenting skills, give social support to mothers, encourage the use of existing community resources, help the mothers achieve desired educational and occupational goals, and reduce unwanted or inappropriate additional pregnancies.

The intervention was a randomised clinical trial and women were randomly assigned to one of four groups:

1. developmental screening of the children at one and two years of age and referral for services;
2. developmental screening and transportation to well-child care clinics;
3. home nurse visitation during pregnancy (average of nine visits); and
4. home nurse visitation commencing during pregnancy (average of nine visits) and continuing until children were two years old (cited in Mrazek and Haggerty, 1994; Mrazek, 1998).

The program was provided by nurses, who were also parents, delivering a structured program that promoted health, education and personal development with activities for the mothers to follow between visits. The program was based on theoretical foundations (cognitive development theory of Piaget, attachment theory as proposed by Bowlby and social learning theory as proposed by Bandura and Walters). The program can be described in terms of three major categories:

1. educating the parent, involving informal support systems, and encouraging links with health and welfare services;
2. parent education included two major components: prenatal education and infancy education; and
3. encouragement for parents to make decisions concerning their own education or job training, employment and future child bearing.

The design of the program permitted evaluation of the relative effects of the specific elements of intervention for the whole sample and for those subsets defined as being at risk. The results of the evaluations showed that during pregnancy, women who received home visits had more informal supports, improved their diets, and smoked less. The very young mothers had significant increases in infant birth weight and there were fewer critical incidents in preterm delivery for those who smoked. Of particular significance was the fact that for those women with all three risk characteristics (poor, unmarried, teenage), there was a reduction in verified cases of child abuse and neglect (from 19 per cent to 4 per cent). Important changes were also obtained in areas of adult social behaviour.

The program had the greatest benefits for the women who were most disadvantaged, that is, low-income, unmarried women, and there were substantial reductions in child abuse and injuries for these families.

A 15-year follow-up study found that children born to the nurse home visited group had fewer incidences of running away (primarily girls) and fewer arrests and convictions (primarily boys). The study also found nurse-visited children had decreased consumption of cigarettes, alcohol and other drugs, and fewer sexual partners than the children from the comparison group (Olds et. Al., 1998).

Few studies of cost effectiveness are available for prevention programs. However, one of the few was conducted on the Olds study. In an analysis of the net cost of the home visiting program from the perspective of government spending, Olds et al. (1993) found by the time the children were four years of age, government savings were $1,772 for the sample as a whole, and $3 per family for low income families. Two years after the program ended, the net cost of the program (program minus savings) was $1, 582 per family and for low income families, the cost of the program was recovered with a dividend of $180 per family.

The program demonstrated statistically significant benefits that were maintained into adolescence including:

Lower:
- incidence of child abuse and neglect
- fetal exposure to tobacco
- incidence of pyelonephritis
- intellectual impairment and irritable behaviour in their babies
- number of subsequent pregnancies
- reliance on welfare

Improved:
- quality of the prenatal diet
- parenting styles
- informal social supports
- educational and employment opportunities
- amount of time between subsequent pregnancies

Adolescents born to the nurse home visited mothers were found at 15-year follow-up to have:

Fewer:
- episodes of running away from home
- police arrests or convictions
- behavioural problems related to drug use
- sexual partners

Lower:
- alcohol and tobacco consumption
- vulnerability to impulsivity
- neurological impairment

(Olds et al., 1998).

The program was replicated in Memphis, Tennessee, with a sample of predominantly low-income, unmarried African-American mothers and their families. The findings of the replication are congruent with the Elmira trial for the two-year period after birth of the first child and indicate that the benefits of the program, at least through the first child's second birthday are not limited by time, geography or the sociodemographic characteristics of the families served. The Memphis study varied from the New York trial in that the participants from Memphis had lower tobacco consumption but higher incidence of sexually transmitted diseases. The results of these two trials now provide sufficient evidence to form a rationale for preliminary stages of program dissemination (Olds et al., 1997).

Another trial of the Olds program has commenced in Denver. The Ohio State Health Board has adopted a statewide implementation of the Program, adhering to the essential criteria as outlined by the Olds Team. Results from these initiatives are not yet published.

Healthy Start in Hawaii is another selective intervention program for families at risk of child abuse and has been implemented not as a research project, but as a statewide service project.

Program components include early identification of at-risk families, community-based home visiting by volunteers (not nurses as in the Prenatal/Early Infancy Project), links to primary health care services and coordination with community services.

The goals of the program are to provide:

- adequate prenatal and primary health care for children;
- quality child care in infancy and early childhood;
- parental competence and promotion of child development through parent education, infant stimulation, volunteer home visitors, and social support;
- links to medical and community services; and
- sustainable funding so that clients and providers both experience reliability of service (Department of Health and Family Services, 1996).

Since the inception of the program, the rates of child abuse and neglect in Hawaii have been slowly decreasing, but it is impossible to determine how much of this is due to the program. A rigorous evaluation is needed. Such an evaluation should provide a detailed analysis of the screening factors that best detect high risk, the implementation, cost-effectiveness, and the child outcomes, including developmental progress, language proficiency, school readiness, and an array of behavioural outcomes, as well as data on rates of child abuse and neglect (Mrazek and Haggerty, 1994, p.241).

The Australian report, *An Audit of Home Visitor Programs and the Development of an Evaluation Framework* (Department of Health and Family Services, 1996) provides an introduction to the diversity of home visiting programs, a literature review and an evaluation framework.

The following points have been selected from the key recommendations for home visitor programs that:

- home visiting programs should be widely promoted in the general community in a non-stigmatising manner.
- the National Child Protection Council support the development of *Best Practice Guidelines* for home visiting programs and case studies and a collaborative approach be used in achieving this. *Best practice guidelines* should include that:
  - home visiting programs provide appropriate training, supervision and support to workers employed or attached to them;
  - attention be given to the qualifications of the coordinators of home visiting programs. Coordinators should be graduates in social work or psychology or other human service disciplines which have a clear understanding of the importance of professional supervision to protect the safety of children and workers;
- home visiting programs give careful consideration to the appropriate matching of knowledge and skills of the worker with the client that includes the severity and complexity of the client's problems be taken into account;
- home visiting programs be encouraged to recognise the importance of a whole system of services collaborating and complementing each other and work to enhance collaborative service delivery;
- home visiting programs pay more attention to the needs of male partners in service planning, provision and evaluation (Department of Health and Family Services, 1996);
- attention be given to the development of culturally appropriate home visiting programs for Aboriginal and Torres Strait Islander families which are linked to a whole of community approach;
- attention be given to the development of culturally appropriate home visiting programs for families with a language other than English;
- attention be given to ensuring that families in rural and remote areas have access to home visiting programs particularly as other resources may not be easily available; and
- all home visiting programs should have an evaluation component built into the program plan and funding.

(The complete list of recommendations is available in: Vimpani, et al., 1996)

3.6 Families First

Families First is a coordinated strategy sponsored by the NSW Government to increase the effectiveness of early intervention and prevention services in helping families raise healthy well adjusted children. *Families First* focuses on providing support and assistance to families who have children under eight years of age.

Families First will link early intervention and prevention services and community development programs to form a comprehensive service network to support parents and carers raising children and help them to solve problems early. The Families First service network will:

- support parents who are expecting or caring for a new baby;
- support parents who are caring for infants and young children;
- assist families who need extra support; and
- strengthen the connections between communities and families.

Service networks will be developed as a result of the Families First coordinated, interagency planning process to reflect the

differing needs of each area. Appropriate strategies and service models for Aboriginal families and families from culturally and linguistically diverse communities will be developed in consultation with communities.

The Families First service networks will have the following key features:

- universal and targeted services;
- home visiting; and
- volunteers supporting families.

Government departments, health and welfare services and non-Government agencies will be partners in the implementation of the Families First initiative.

4. PREVENTION INITIATIVES FOR TODDLERS AND PRESCHOOLERS

4.1 Rationale

The review, *Healthy Families Healthy Nation* by Sanders (1995) states the period of early childhood from age three to the commencement of formal schooling is a significant phase of development. Hawkins and Catalano (1992) (quoted in Mrazek and Haggerty, 1994) identified two important developmental tasks that must be achieved to lower risk for adverse mental health outcomes as the:

- acquisition of language skills to prepare the child to read and write; and
- development of impulse control.

Mrazek and Haggerty (1994) provide a systematic review and discuss recent preschool prevention interventions that address several risk factors related to the above developmental tasks, as well as to the development of mental and behaviour problems. The risk factors include:

- economic deprivation;
- poor family management or parenting practices;
- cognitive or developmental delays;
- preschool difficulties; and
- early behaviour problems.

The prevention efforts that address these risk factors during early childhood have adopted a number of approaches, including:

- centre-based early childhood education, in which preschool programs are designed to enhance social competence and cognitive development;
- home visiting to provide a variety of support and educational services;
- parenting training and education to teach skills in caregiving and effective behaviour management;
- family support services, which provide survival-focused support; and
- policy initiatives that address issues of child safety, health, and education.

Most programs have combined two or more of these approaches in multicomponent interventions (see Table 6) (Mrazek and Haggerty, 1994).

Table 6. Programs to improve parenting and enhance child development

Programs Note: all studies were randomised control trials	Targeted population group/sample size when project began	Risk factors addressed	Outcomes (for total intervention group or subgroups)	Principle investigator(s) and year(s)
Houston Parent-Child Development Centre	Selective/N=~700	Economic deprivation, academic failure, early behaviour problems, poor family management practices	Better family management practices, fewer behaviour problems	Johnson, 1991, 1990
Mother–Child Home Program of Verbal Interaction Project	Selective/N=156	Academic failure, economic deprivation, poor family management practices, early behaviour problems	Better family management practices, better cognitive competence	Levenstein, 1992, 1984
Parent–Child Interaction Training	Indicated/N=105	Economic deprivation, early behaviour problems, poor family management practices, maternal depressive symptoms	Lower rates of attention deficits and conduct problems	Strayhorn and Weidman, 1991
High/Scope Preschool Curriculum Comparison Study (including Distar)	Selective/N=68	Academic failure, early behaviour problems, economic deprivation	Better cognitive competence	Weikart and Schweinhart, 1992, 1986
Perry Preschool Program (using High/ Scope curriculum)	Selective/N=123	Academic failure, economic deprivation, early behaviour problems, low commitment to school	Better cognitive competence, greater achievement and school completion, better vocational outcomes, fewer conduct problems and arrests	Weikart and Schweinhart, 1987, 1984
I Can Problem Solve: Interpersonal Cognitive Problem-Solving Program	Selective/N=219 (N=60 in pilot study)	Economic deprivation, poor impulse control, early behaviour problems	Better cognitive problem-solving skills, fewer behaviour problems	Shure and Spivack, 1982, 1979

Source: Mrazek and Haggerty (1994) p.227.

4.2 Key outcomes of preschool programs

The **Consortium for Longitudinal Studies** by Lazar and Darlington (1982) evaluated 11 preschool programs (selective interventions). Overall, the studies found that the programs significantly:

- improved the ability of low-income children to meet their school's requirements for performance;
- lessened the need to repeat a grade;
- lowered the need for special education services which were independent of short-term impact on IQ tests; and
- increased achievement orientation in children.

Parents of the children in the intervention group had higher education and occupational aspirations than did the parents of control children.

Seitz, Rosenbaum and Apel (1985) argue that it is probably best to conclude that if children are at enough risk for education and other failures to need intervention, they probably need more than a cognitive enrichment program. The main effect appears to be to make the child feel more confident and competent and have positive attitudes toward school and schoolwork.

The **High/Scope Perry Preschool Program** (Weikart et al., 1986; Weikart and Schweinhart, 1991) (see Table 6) is a selective intervention program targeting African-American families on low incomes with children aged 3–5 years with IQ scores between 70 and 90. Fifty-eight children were randomly assigned to a preschool group and 65 children to a control group by program evaluators. The High/Scope Early Childhood Curriculum was implemented by four well-trained teachers and the classes consisted of 25 children. Five 90-minute classes were provided each week for seven months per year over a two-year period. Teachers also made additional weekly 90-minute home visits to involve mothers as partners in their child's education. The aim of the program was to provide intellectual, physical and emotional development in an open framework where children initiated their own learning with teacher support.

Longitudinal follow-up data on children up to age 28 indicated that children participating in the program:

- had improved cognitive ability at primary school entry;
- had fewer placements in special education;
- were less likely to be retained in a grade;
- were more committed to success at school;
- had better high school graduation rates;
- had fewer arrests;
- had lower rates of diagnosis of mental disorders; and
- had fewer self-reports of delinquent offending at age 15 and, at age 19, were half as likely to have been involved in serious fights, gang fights, and fights resulting in injury that required hospital treatment (Weikart and Schweinhart, 1991).

Marshall and Watt (1999) commented that although these early intervention projects were conceptualised as programs to help children at risk for school failure, their results have implications in mental health. Weissberg et al. (1991) indicated that many school variables, for example poor achievement and poor school performance, are risk factors for a variety of later behaviour problems, including substance abuse, unwanted teenage pregnancy, conduct problems, depression and suicide. The authors argue that early childhood education could be viewed as an innovative mental health strategy that affects many risk and protective factors for diverse problem behaviours.

The program developed in America by Shure and Spivack (1988, 1982), **I Can Problem Solve: An Interpersonal Cognitive Problem-Solving Program** (ICPS) provides empirical support for the efficacy of enhancing social competence in childhood. The program provided curriculum training in interpersonal problem-solving skills to a target group of economically disadvantaged 4- and 5-year-old African-American children in inner-city Philadelphia. The interventions are based, in part, on Shure's and Spivack hypothesis that aggressive and disruptive children are deficient in basic, teachable, interpersonal skills and that acquiring these skills can reduce the risk of childhood psychopathology. The study results suggest that providing a social competence curriculum to disadvantaged inner-city children before first grade can help to reduce aggressive and socially inappropriate behaviours predictive of later mental health problems (Mrazek and Haggerty, 1994).

Multiple components of preschool programs include:

- enhanced skills through preschool curriculum or groups such as interpersonal problem solving skill development;
- enhanced education: centre-based early childhood education;
- parent training in behaviour management and care giving; and
- support programs.

Many areas across Australia are setting up programs for children that promote improved parenting practices for vulnerable or at risk families, such as the **Triple P Program** (Positive Parenting Program). Therefore, it is timely to examine the components of this Australian program (see Table 7). The Triple P Program originates from a team at the University of Queensland under the leadership of Professor Matt Sanders. This program derives from 15 years of experimental clinical research and is described as a multilevel family intervention program for children with disruptive behaviour disorders.

The Triple P program includes low-cost, self-help programs (Level 1), brief supported interventions (Level 2), parent training programs (Level 3 and 4) and intensive behavioural family intervention programs (Level 5), which address additional family problems such as marital conflict, parental depression, and parenting stress (Sanders and Markie-Dadds, 1996).

Table 7. A multilevel family intervention model for disruptive behaviour disorders

Level of intervention	Intervention methods	Program materials	Possible target behaviours	Evaluation studies
1. Self-help: Information and advice only	Anticipatory well-child care involving the provision of brief instructions on how to solve developmental and minor behaviour problems. No therapist contact provided. May involve mass media strategies.	Positive parenting booklet/ Parenting tip sheets/ Parent training videotape programs Every Parent and Every Parent's Workbook/ Practitioner's manual for Levels 1 to 5	Toilet training/ Independent feeding/ Dressing self	Markie-Dadds & Sanders (1994)
2. Information plus minimal therapist contact	Instructions combined with brief therapist contact to support parents in using the positive parenting strategies. May involve telephone or face-to-face therapist contact.	Level 1 materials Developmental wall chart/ Practitioner's flip chart/ Telephone counselling manual	Temper tantrums Sibling rivalry Thumb-sucking	Sanders, Connell & Markie-Dadds (1994) Christensen & Sanders (1987) Sanders, Bor, & Dadds (1984)
3. Information plus active skills training	Brief therapy program (1–3 clinic sessions). Combining instructions, modelling, rehearsal, and feedback to teach parents to manage discrete child problem behaviours.	Level 1 and 2 materials Practitioner resource kits	Bedtime disruption/ Mealtime behaviour problems/ Shopping trips	Dadds, Sanders, & Borr (1994) Turner, Sanders, & Wall (1994)

Level of intervention	Intervention methods	Program materials	Possible target behaviours	Evaluation studies
4. Intensive behavioural parent training	Intensive individual or group program consisting of 8–10 weekly sessions, including telephone consultations or home visits. Focus is on parent–child interaction and the application of parenting skills to a broad range of target behaviours. Includes generalisation enhancement strategies.	Level 1 to 3 materials Practitioner's standard behavioural family intervention manual/ Group facilitator's manual/ Practitioner resource kits	Oppositional defiant disorder/ Conduct disorder Aggressive disorder	Sanders, Borr, & Markie-Dadds (1994)
5. Enhanced behavioural family intervention	Intensive therapist-directed program for families with major child behavioural management problems and family dysfunction. The program modules include parenting skills, marital communication skills, mood management strategies, and stress coping skills.	Level 1–4 materials Practitioner's enhanced behavioural family intervention manual/ Practitioner resource kits	Concurrent child and parent problems/ Severe conduct disorder	Dadds, Schwartz, & Sanders (1987) McFarlane & Sanders (1993) Sanders, Borr, & Markie-Dadds (1994)

Source: adapted from Sanders and Markie-Dadds (1996) pp. 64–65.

4.3 Components of the Triple P Program

The rationale for the Triple P Program identified that disruptive behaviour disorders are the most common, significant, and costly of childhood adjustment problems (Sanders and Markie-Dadds, 1996). Prevalence rates are increasing with substantial costs to the community, for example, juvenile crime (car theft, burglary, shop-stealing, vandalism, arson, violent crime).

The program showed that children with disruptive behaviour disorders are at risk of experiencing learning problems, low self-esteem and low frustration tolerance, poor social skills and interpersonal relationships, depressive symptoms, abuse by their parents, developing later problems such as marital, social and occupational adjustment. They are also more likely to develop adult personality disorder, alcohol abuse and other mental health problems and disorders.

The program aims to improve parenting skills, increase parents' sense of competence in their parenting abilities, improve marital communication about parenting, and reduce parenting stress. It is assumed that these changes will result in improved mental health outcomes for both children and parents.

The program features include:

- tailoring the level of the intervention to the assessed requirements of parents and children;
- promoting social competence and self-control in children;
- enhancing parental competence and self-sufficiency; and
- scientific evaluation of each of the five levels of intervention.

The program draws on four contemporary theoretical perspectives in psychology:

1. applied behaviour analysis (Baer, Wolf and Risley, 1968);
2. developmental models of social competence in children (White, et al., 1990);
3. social learning theory (Bandura, 1977); and
4. research on developmental psychopathology (Rutter, 1989).

The program is evolving from clinical management to a population health model, for example, future applications of Triple P include community-wide programs delivered by primary health care staff, group parent-training programs, and media strategies (cited in Sanders and Markie-Dadds, 1996).

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In Western Australia a modified version of Triple P has been developed to examine the feasibility and effectiveness of a two-tiered approach in reducing the prevalence of childhood conduct disorder. The program is delivered through primary care services and made universally available to families with pre-school children within areas of high socio-economic disadvantage in the Perth East Metropolitan Health Region (Williams et al., 1996; Williams et al., 1997).

There are two levels of program delivery.

- **Level 1:** All families participate in a brief behavioural family intervention (BFI) consisting of a two-hour parenting workshop with 10 parents per workshop, delivered weekly for four weeks. The workshops include homework, parent manual, videotape, as well as follow-up telephone support calls for 15 minutes per week for four weeks. This equates to nine contact hours per family at this level.

- **Level 2:** Families identified as high-risk during level 1 are offered additional support through an enhanced BFI clinic program. A clinical psychologist visits the family at home and provides the intervention over 12 sessions.

The preliminary results of this large-scale community trial are encouraging. The results indicate that, based on 180 families, compared with the control group, all levels of intervention are effective in significantly reducing child oppositional and aggressive behaviours. Parents in the intervention groups have reported lower use of coercive and overactive discipline strategies and lower levels of depression, compared with the control group (Marshall and Watt, 1999).

Sanders (1997) states that although effective interventions have been developed, few children receive these services. There is particular concern about the needs of children in rural and remote areas, Aboriginal and Torres Strait Islander children, children of migrants and children with chronic physical illnesses. He notes that a major challenge is to continue research that examines more cost-effective ways of delivering interventions to defined populations. He highlights instances where his research team found that information-based strategies for parents of conduct problem children have been more effective than initially anticipated. For example, Connell, Sanders and Markie-Dadds (1997) found the evaluation of a 10-session self-help program for parents of preschoolers with disruptive behaviour problems living in rural and remote areas produced highly significant reductions in measures of child disruptive behaviour, parenting behaviour and parent adjustment, and was associated with high levels of consumer satisfaction (Sanders, 1997).

4.4 Schools as Community Centres Program

The Schools as Community Centres Program is a joint initiative of the NSW Departments of Education and Training, Community Services, Health and Housing. The program addresses the needs of families with children under 5 years of age in disadvantaged communities to prevent disadvantage at school entry. A community development model has been used as the basis for the project and the importance of the role of parents in the education of their children is emphasised. This program was established in 1995.

This program was piloted in four community centres located in Curran (Macquarie Fields), Redfern, Chertsey (Central Coast) and Coonamble (near Dubbo). Each initiative was tailored to individual community needs. Common elements across these projects were:

- a community centre located in the local primary school, staffed by a facilitator–the community centre was the central place of project activity, with the rationale of establishing early links between home and school;
- community based advisory group and local management committee;
- the facilitator working with the local community and above advisory and management structures to: identify needs; identify and implement relevant local initiatives and increase access to existing services;
- project activities to minimise disadvantage at school entry at each site, including play groups, parenting information and groups (including Triple P in Chertsey), transition to school programs (including Head Start in Chertsey), information days and interagency forums, and a school bus (in Redfern).

An evaluation of this initiative was undertaken in 1997 assessing progress against project objectives. Evaluations of community development initiatives are generally complex and difficult. The emphasis was on qualitative information, with some quantitative data. It should be noted that the research design did not include matched controls and data analysis did not include tests of significance. Results showed that:

- families felt supported in their parenting role;
- children's participation rates in transition-to-school-type programs increased by 260 per cent. (with increased participation among Aboriginal children);
- recommended child health surveillance and screening programs were completed;
- gains occurred in school readiness, attendance at school and on Early Learning Profiles in school;
- age-appropriate immunisation rates increased among kindergarten students;
- school image was enhanced; and
- interagency cooperation improved.

Critical success factors for projects included:

- a local approach
- the choice of facilitator
- the community centres being properly accommodated and resourced
- local management and advisory committees
- a community development approach
- consultation preceding the decision to locate a school community centre
- the project structure.

5. PREVENTION INITIATIVES FOR CHILDREN OF PRIMARY SCHOOL AGES

5.1 Rationale

Children in primary school generally range from 5–12 years of age. These are the years where children learn to read and gain social approval from their peers. Mrazek and Haggerty (1994) emphasise that children who cannot perform academic tasks at grade level by grade 4 and/or who develop social incompetence, impulsivity, and aggressive behaviour are at high risk during this period for developing mental health problems and disorders, especially substance abuse, conduct disorder, and depressive disorders. Other high-risk factors for children during this period include poor parenting practices, high levels of conflict in the family and a low degree of bonding between children and parents.

Marshall and Watt (1999) commented that the education system offers the most efficient and systematic means available to promote the psychological, social and physical health of school-aged children and adolescents. In 1979, Rutter and his colleagues emphasised the importance of positive school environments and commented that many psychological disorders and problem behaviours may be either exacerbated or ameliorated by a child's school experiences (Rutter, 1979; 1985).

Most effective programs for the primary school age groups aim to enhance social competence. This is because as children mature there is an increased focus on supporting their successful cognitive and social development. Social competence interventions seek to enhance children's capacities to coordinate cognition, affect and behaviour so that they can respond adaptively to social tasks and challenges (Weissberg, Caplan and Sivo, 1989).

Social competence interventions have focused on four skill areas below:

1. self-management or self-control;
2. communication;
3. decision making and problem solving; and
4. resisting negative and limiting social influences (cited in Mrazek and Haggerty, 1994).

5.2 Programs aimed at enhancing social competency, academic achievement and improving parenting skills

Multicomponent programs using a range of strategies have the potential to influence several risk factors which may impact on a range of mental health problems including disruptive behaviours, depression, anxiety and associated alcohol and other drug use. Successful multicomponent programs have also incorporated strategies to improve protective factors, such as resilience, competence and optimism.

Multiple components include elements that address:

- cognitive skills;
- social problem-solving skills;
- parent training; and
- teacher training.

Mrazek and Haggerty (1994) reviewed programs aimed at enhancing social competence, academic achievement and improving parenting skills for parents of primary-school-age children (see Table 8).

Table 8. Programs aimed at enhancing social competence, academic achievement and improving parenting skills for parents of primary-school-age children

Programs Note: all studies were randomised control trials	Targeted population group/sample size when project began	Risk factors addressed	Outcomes (for total intervention group or subgroups)	Principle investigator(s) and year(s)
Assertiveness Training Program (program 1)	Universal/N=343	Early behaviour problems, academic failure	Improved social assertiveness, improved academic performance	Rotheram, 1982
Assertiveness Training Program (program 2)	Indicated/ N=101	Early behaviour problems, academic failure	More assertive behaviour, better school achievement, fewer behaviour problems	Rotheram, 1982
Social Skills Training	Selective/N=28	Peer rejection, early conduct problems	Less peer rejection, better interpersonal skills	Bierman, 1986
Montreal Longitudinal-Experiment Study	Indicated/N=172	Poor family management practices, peer rejection, academic failure, early behaviour problems, violence on television	Less aggressive behaviour, less delinquent behaviour, better school achievement	Tremblay, 1992, 1991
Seattle Social Development Project	Universal/N=908	Poor family management practices, early behaviour problems, low commitment to school, academic failure	Better family management practices and family bonding, greater attachment to school, lower rates of delinquency and drug use initiation	Hawkins and Catalano, 1988

Source: adapted from Mrazek and Haggerty, (1994) p.228–229.

The **Assertiveness Training Program** (Rotheram, 1982, see Table 8) is a multicomponent indicated intervention that evaluated the assumption that interpersonal competence is related to both academic and social skills. The author examined the relative impact of a training program in social skills for children who varied in both their academic and social skills. Children (101 fourth, fifth, and sixth-grade students) attending a Southern Californian elementary school, including those who were disruptive, underachievers and exceptional, were randomly assigned by classroom either to a social skills program or a no treatment control group. A graduate psychology student was assigned to direct each group. A drama simulation game was conducted for a one-hour sessions twice weekly for 12 weeks. Each session followed a specific sequence such as didactic information, role play, nonverbal behavioural focus, interpersonal problem-solving and emotional self-care.

The study found that training in social skills leads to improvement in interpersonal problem solving ability, assertiveness, teachers' perceptions, grades and peer popularity as well as improvement in areas not identified as a problem behaviour. For example, underachievers improved significantly in social relationships, while disruptive children increased in academic skills, and exceptional children increased in both areas. From the initial evaluation the authors concluded that social skills training aids in strengthening areas in which few problems exist. Also the students who underachieved had made some gains in their academic skills at the one-year follow-up (Rotheram, 1982).

A universal intervention aimed at reducing childhood risk factors for delinquency and drug abuse is the **Seattle Social Development Project** (Hawkins and Catalano, 1992, see Table 8). This multicomponent program focused on effective classroom interventions by teachers and added the **Interpersonal Cognitive Problem Solving Curriculum** (Shure and Spivack, 1988) for children, as well as interventions with parents. The targeted risk factors were poor family management practices, early behaviour problems, low commitment to school and academic failure. Four hundred and fifty-eight children in 21 classes in eight Seattle public schools were randomly assigned to experimental and control classrooms at entry into the first grade and assessed at the end of the second grade (Hawkins, Von Cleve and Catalano, 1991).

The components of the program include:

- A parent training program in monitoring and supervising the child's behaviour, which includes the use of:
  - appropriate rewards and punishments;
  - consistent discipline practices;
  - effective communication skills and involving the child in family activities; and

- A teacher training program in:
  - proactive classroom management;
  - cognitive social skills; and
  - interactive teaching methods (Hawkins, Von Cleve and Catalano, 1991).

The **Montreal Longitudinal–Experimental Study** is a further example of a multicomponent program (Tremblay et al., 1991, 1992, see Table 8). This intervention targeted children who were identified as having aggressive behaviour on entry to primary school. At the end of kindergarten, teachers used a 38-item questionnaire to identify boys who had disruptive behaviours (fighting, oppositional behaviour and hyperactivity). The program combined:

- home-based training for parents in family management skills, offered once every two weeks for a two year period–parents received an average of 17 parenting sessions over two years; and
- school-based social skills training to disruptive boys within small groups of prosocial male peers–children received an average of 19 sessions over two years.

Sessions for the children focused on initiating social interaction, improving interpersonal skills, making verbal requests, following rules, handling anger, and mastering "look and listen" techniques for regaining self-control. Parent and teacher training was conducted by a multidisciplinary team that included a social worker, a psychologist, two university trained childcare workers and a part-time coordinator. Parents were visited on average every second week but some families had fewer or more sessions depending on need.

A sample of 172 boys from low-socioeconomic areas of Montreal assessed by their teachers as being highly disruptive were assigned to one of three groups.

1. Experimental: 46 boys were randomly selected from this sample to test the effects of the prevention program and followed up until mid-adolescence.
2. Observational: 84 boys received attention but no intervention.
3. Control: another 42 boys were selected as controls.

The program evaluation for three years of follow-up at ages 9–12 found that disruptive boys who participated in the two-year intervention program were less physically aggressive in school, were more often in age-appropriate regular classrooms, had less serious school adjustment problems and reported fewer delinquent behaviours (Tremblay et al., 1991, 1992).

Another example of a multicomponent primary school program is the **FAST Track** (Families and Schools Together) Program which begins in first grade and integrates components designed to promote competence in the family, child and school and thus prevent conduct problems, poor social relations and school failure. The components include parent training, home visiting, social skills training for children, academic tutoring in reading skills and teacher-based classroom intervention. To date there are no published results available (cited in Marshall and Watt, 1999).

5.3 Other effective primary-school-based programs

In Australia and overseas, there are examples of an array of effective school-based programs. In addition to those identified in Table 8, programs aimed at altering school organisation include The **Yale–New Haven Primary Prevention Project (YNHPPP)** (Comer, 1985) and programs aimed at changing school systems include **Campaign Against Bully–Victim Problems** (Olweus, 1991).

The **Yale–New Haven Primary Prevention Project (YNHPPP)** conducted by Comer (1985) takes a systems approach and aims to strengthen schools in socially disadvantaged communities through establishing a representative school governance and management group, a parent participation program, mental health team, and curriculum development program. This multidisciplinary team focused on changing the social environment of the school by integrating school activities and evaluating the results. The multiple components of this intervention provided coordinated, collaborative partnerships to improve communication, understanding and respect between staff, parents and students (Comer, 1985).

Evaluation of the program at three and seven years has found an improvement in school academic results and fewer serious behaviour problems. The program has also been successfully replicated in another school in a different geographical area.

The longitudinal studies connected with **anti–bullying campaigns in Norwegian schools** conducted by Olweus (1991) provide an example of a universal intervention directed towards all school children within certain grades and aimed at changing school systems.

Multiple components include workshops for teachers and parents, booklets and videos for schools and parents, problem-solving and social skills training for students. The program involving 2,400 students in grades 4–7 (age 10–13 years) was evaluated using self reports with peers and teachers. The results showed that there was a reduction in truancy and an increase in satisfaction with school life as well as a reduction in antisocial behaviour, vandalism, fighting, pilfering, and drunkenness. There was also a marked improvement in the social climate of the class, improvement in order and discipline, more positive social relationships, more positive attitude towards school work and school (Olweus, 1991).

5.4 Prevention programs for antisocial behaviours

Problem behaviours such as aggression, fighting and lying often begin early in life and may lead to the development of conduct disorder in adolescence and predict an antisocial personality and vulnerability to mental health disorders in adulthood. Without intervention, problem behaviours may become integrated into the behaviour patterns of children and young people (Mrazek and Haggerty, 1994).

Grossman et al. (1997) reported on the effectiveness of a violence prevention curriculum among children in elementary school. This prevention curriculum uses 30 specific lessons to teach social skills related to anger management and impulse control. Systematic observation has shown effectiveness in decreasing physical aggression and increasing prosocial behaviour for a duration of six months.

The **Campaign Against Bullying Victim Problems** developed by Olweus (1991) across Norwegian schools has led to a 50 per cent reduction in bully–victim problems, fewer reports of antisocial behaviours, and greater satisfaction with school life. This universal prevention intervention fits across the primary and secondary-school-age groups.

Hyndman and Thorsborne (1994) reported on **Taking action on bullying in Queensland schools,** implemented in two educational regions. The authors used their knowledge and experience with systems approaches to devise a three-stage process to assist schools to take immediate action on bullying and to systematically plan the intermediate and long-term steps that are required to maximise the potential for real change.

The three-stage model consists of:

1. short-term action such as awareness raising for all staff, establishing outcomes, establishing a working party and teacher training to develop the necessary skills;
2. medium-term action (working party has responsibility for undertaking the tasks in this phase) such as data gathering, immediate response to data, intervention steps for individual cases, awareness raising for students, parents and community members, policy development; and
3. long-term action such as sustaining awareness, curriculum development, peer mediation, training and development and review.

5.5 Primary-school-based programs to prevent depression and anxiety and promote resilience and optimism

Much less attention has been paid to the development of programs to prevent internalising mental health problems, such as anxiety and depression. A recent program conducted by Jaycox et al. (1994), the **Penn Optimism Program**, focuses on 10-year-old children who are showing early symptoms of depression, but who do not yet meet the criteria for major depressive disorder. The aims of the intervention are to modify the children's cognitive styles to a more optimistic rather than pessimistic style of interpreting information. Children are also trained in social skills to facilitate peer relationships. The results at six-month follow-up showed that participants were significantly better adjusted psychologically on measures of depression than a control group of children that was monitored but did not receive assistance (Spence, 1996a).

In 1996, **Promoting Optimism WA (POWA)** was established to oversee the development of research into the effectiveness of the **Aussie Optimism Program** (an Australian version of the Penn Optimism Program coordinated by Professor Martin Seligman and colleagues) in the prevention of depression in upper primary rural students in Western Australia. In late 1997, the POWA Steering Committee decided that the organisation should become an incorporated body, allowing interested professionals and members of the public to participate in fulfilling its vision, "*… that no child should be denied the opportunity of acquiring cognitive life and social problem solving skills …*". This builds on Seligman's model of encouraging self-competence.

The Aussie Optimism Program targets rural children aged 10 to 13 years living in the central coastal and wheatbelt region of Western Australia. In Australia, rural populations have been identified as having very limited access to mental health services. The Western Australian Child Health Survey found that children from several rural regions had higher rates of mental health problems than the State average. Hence, it was felt that this group of children would derive the most benefit from the prevention program.

The study is a school-based depression prevention program with the goal to reduce the incidence of depression and associated behavioural and educational problems in rural children, by the use of a cognitive-behavioural intervention. School and community mental health staff are trained to implement the program. It has the potential to be a cost effective way to promote access to services for more children.

The program teaches coping skills and is delivered in 12 two-hour sessions which involve instruction, discussions and the opportunity for children to practise what they learn by role-plays and short homework exercises. The long-term effects of the program will be assessed at 12 and 24 months. It is expected that results will be similar to the study conducted by Jaycox et al., (1994) which demonstrated short term effectiveness in reducing depressive symptoms, changing pessimistic personal styles and improving classroom behaviour, compared to control groups up to six months after intervention.

Implementing the program has required collaboration between the Education Department of WA, the Health Department, Curtin University and the Australian Psychological Society. The program is funded by Healthways. School psychologists, school nurses, community nurses, and community psychologists from rural areas of WA have received intensive training in the intervention techniques by the authors of the program and will be supervised by registered clinical psychologists. Local research coordinators have also received training to collect data from students aged 10 to 13 and their parents (POWA, 1998).

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Associate Professor Sue Spence (University of Queensland) and Professor Mark Dadds (Griffith University) in association with the Catholic Education Office are examining the effectiveness of the **Friends Program** to prevent anxiety disorders in children aged 7–12 years. This indicated intervention targets children identified as at risk of developing an anxiety disorder by showing mild levels of anxiety and fearfulness. The aim of the project is to reduce anxiety symptoms and enhance protective factors, such as child coping skills and appropriate parenting skills in order to reduce the development of anxiety disorders.

Components of the program include a two-hour group session once per week for 10 weeks. The prevention intervention is based on the Coping Cat program developed by Philip Kendal in the USA and adapted as **Coping Koala** by Paula Barrett for Australian children. Children are taught a variety of skills for coping with anxiety, such as relaxation, positive self-talk, skills for approaching feared situations and self-reinforcement for courage. There is also a parent focus which involves parents attending a two-hour session each month to learn a range of parenting skills for managing child behaviour, encouraging parent participation in homework tasks and examining ways that parents can deal successfully with their own anxiety (Spence, 1996b).

The **Early Intervention and Prevention of Anxiety Project** evaluated the effectiveness of a cognitive-behavioural and family-based group intervention in 1996. One thousand, seven hundred and eighty-six 7-to 14-year-olds were screened using teacher nominations and children's self-reports for anxiety problems. From this group, 128 children were selected and assigned to a 10-week school-based child and parent-focused psychosocial intervention, or a monitoring group. Immediately postintervention, both groups showed improvement that was maintained at six-month follow-up in the intervention group only, reducing the rate of existing anxiety disorders and preventing the onset of new anxiety disorders. Overall the study found that anxiety problems and disorders that are identified using child and/or teacher reports can be successfully targeted via this indicated intervention school-based program (Dadds et al., 1997).

This project has developed nationally as the Griffith Early Intervention Program (GEIP) and is coordinated from the Psychology Department, Griffith University, Queensland. The aims of the program are to:

- increase awareness of the need for early intervention programs targeting anxiety and depression in children and teenagers;
- encourage schools and other agencies to set up early intervention programs; and
- consult with, and train, schools and other agencies to implement early intervention programs.

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6. PREVENTION INITIATIVES FOR YOUNG PEOPLE

6.1 Rationale

Mrazek and Haggerty (1994) discuss how puberty is associated with the transition from childhood to adolescence. Sanders (1995) comments that adolescence is a difficult concept to define, particularly at its boundaries. The transitions from primary to secondary school, and from secondary school to work or tertiary study, are the lower and upper boundaries (Sanders, 1995).

Adolescence is a period of opportunity and challenge for young people. It is characterised by rapid biological, social and psychological change. The onset of puberty is associated with sexual maturation, relationships, experimenting with new behaviour, increasing independence from family and developing ones self-identity.

Specific factors have been identified that can assist adolescents to negotiate these changes and prevent the development of mental health problems. These involve family, school and individual factors. Resnick et al. (1997) identified two main factors that were protective against health risk behaviours:

- parent–family connectedness (closeness, perception of caring and relationship satisfaction to parents); and
- perceived school connectedness (feeling a part of the school, close to people at school and that teachers treat students fairly)

Adolescents who experience difficulty in adapting to developmental changes are at increased risk of developing mental health problems and disorders. These difficulties may be expressed externally through problem or risk taking behaviours, or internally through disturbances in affect. Early initiation of substance use and delinquent behaviours indicative of conduct disorder (from ages 12–15 years) are risk factors shown to be strongly predictive of antisocial personality disorder or hazardous use of alcohol and other drugs.

When Mrazek and Haggerty (1994) reviewed prevention interventions for adolescents they remarked that few interventions focused on the prevention of depression or related disorders in adolescence despite the fact that these depressive disorders become more common during this period. Petersen et al. (1993) also suggested that many professionals ignore adolescent depression because they assume it is a normal and transient consequence of adolescent development. Many prevention interventions that target adolescents tended to focus on specific disorders such as substance abuse and conduct disorder (see Table 9) (Mrazek and Haggerty, 1994).

However, since this time several interventions have been developed and evaluated for the prevention of adolescent depression and a number of multicomponent programs have been developed.

Table 9. Prevention interventions for adolescents

Intervention	Targeted population sample size	Risk factors addressed	Outcomes	Principle investigator year
Changing Teaching Practices	Selective N=116	Academic failure, low commitment to education, behaviour problems	Greater attachment and commitment to school lower rates of school suspension for misbehaviour	Hawkins, 1988
Positive Youth Development Program	Universal N=282	Early drug use onset, favourable attitudes towards drugs, social influences to use	Better coping skills, stress management strategies, conflict resolution and impulse control, less excessive alcohol use	Caplan and Weissberg, 1992
Adolescent Alcohol Prevention Trial	Universal N=3011	Favourable attitudes towards drug use, social influences to use, early onset of drug use	Lower rates of tobacco, alcohol and marijuana use, lower prevalence of problem alcohol use and drunkenness	Hansen and Graham, 1991
ALERT Drug Prevention	Universal N=6527	Social influences to use, early onset of drug use, favourable attitudes towards drug use	Lower rates of tobacco, alcohol and marijuana use	Ellickson and Bell, 1990
Alcohol Education Project	Universal N=2536	Favourable attitudes towards alcohol consumption, early onset of alcohol use, association with alcohol consuming friends, community norms favourable to alcohol use	Less initiation of alcohol use, increased knowledge about alcohol, decreased use among those drinking prior to study	Perry et. Al., 1989
Midwestern Prevention Project	Universal N=5065	Social influences to use, early onset of drug use, favourable attitudes towards drug use	Lower rates of tobacco, alcohol and marijuana use	Pentz, 1989
Behaviourally Based Prevention Intervention	Indicated N=80	Academic failure, early behaviour problems, alienation from family low commitment to school	Less conduct disorder and delinquency	Bry, 1992
Intervention Campaign Against Bully–Victim Problems	Universal N=2400	Aggressive behaviour, poor family management practices, favourable attitudes towards bullying /aggression	Less bullying, less delinquent behaviour, more attachment to school	Olweus, 1991

Source: Mrazek and Haggerty, 1994 pp.229–230. Note: all studies were randomised control trials

6.2 Multicomponent programs for the prevention of antisocial behaviours

During adolescence, conduct disorders increase in prevalence and this increase is predictive for poorer functioning and opportunities in adulthood. At this age there is greater exposure to alcohol and other drugs, peer influences that support antisocial behaviour and less family supervision and monitoring. Adolescents who start offending early may be on a life course trajectory for criminal behaviour and at increased risk for mental health problems and disorders such as mood disorders and schizophrenia (Mrazek and Haggerty, 1994; Olds et. Al., 1997).

A study conducted by Bry (1982) looked at reducing the incidence of adolescent problems with the use of weekly interventions over two years. Children in grade 7 were classified as being at risk if they had low academic achievement, a disregard for rules and a feeling of distance from their families. The intervention that was initiated over two years included: weekly teacher consultations, weekly group meetings about behaviours and periodic contact with parents. At the one-year follow-up, the evaluation showed that the intervention group had significantly fewer school-based problems, higher employment rates, less drug abuse and criminal behaviour than the control group. At the five-year follow-up there was evidence of long-term reduction in delinquency.

Dishion and Andrews (1995) conducted a study that targeted young adolescents with problem behaviours. This study examined alternative intervention strategies based on the **Adolescent Transitions Program (ATP)**, to reduce escalation in problem behaviours among 158 families with high-risk (male and female) young adolescents, aged 11–14 years. One hundred and nineteen families were randomly assigned to selective interventions with either a:

- parent focus (targeted parent family management practices and communication skills);
- teen focus (targeted early adolescents self-regulation and prosocial behaviour in the context of parents and peer environments);
- parent and teen focus (consisted of newsletter and five brief videos); or
- self-directed change focus (received material that accompanied the parent and teen focus).

Thirty-nine families were recruited as a quasi-experimental control.

The ATP program is designed to provide a supportive and prevention intervention for high-risk families to promote adaptation in the adolescent years and uses both parent and child interventions involving 12 weekly 90-minute sessions to be completed in three to four months. The therapist from the group initially visited all families. The study found immediate beneficial effects in observed and reported family conflict. In the parent focus and teen focus groups, mothers and teenagers reduced their coercive behaviour. The parent focus group showed immediate beneficial effects on externalising behaviour (Dishion and Andrews, 1995).

A modified program for use with delinquent adolescents was conducted by Bank et al. (1991). This program further emphasised the importance of parental monitoring and supervision, especially of school attendance as well as targeting behaviours believed to place adolescents at risk for further offending behaviours.

6.3 Multicomponent programs for the prevention of hazardous use of alcohol and other substances

Mrazek and Haggerty (1994) reviewed programs aimed at preventing alcohol and substance abuse for adolescents and young people. Many researchers focused largely on preventing the initiation of substance use or reducing use among those who have initiated early use. The programs have involved reviewing school curricula that focused on enhancing social competence, providing social influence resistance training and promoting norms against drug use.

The risk factors addressed by these programs include the early age of onset for alcohol and other substance use, social influences that promote drug use, including drug-using peers and attitudes and norms promoting alcohol and other drug

use. Adolescents and young people have also been assessed on interventions to change laws and norms regulating alcohol and other drug behaviours (cited in Mrazek and Haggerty, 1994, p.263).

Consistently effective interventions for drug abuse prevention in schools have included at least two components:

- classroom-based training in skills to identify and resist influences to use drugs; and
- encouragement to adopt norms against drug use during adolescence (see Table 10).

A review of the past 10 years of adolescent substance abuse prevention programs by Weinberg et al., (1998) states that school-based interventions remain the mainstay of prevention research. In a study designed to overcome previous methodological criticisms, Botvin et al. (1995a) showed significant reductions in both drug and polydrug use, enduring for six years after implementation of a classroom-based intervention.

The key features of the intervention include:

- teaching a combination of social resistance and general life skills;
- proper implementation; and
- sufficient length and (at least) two years of booster sessions.

Botvin et al. (1995b) also adapted the intervention for use with an inner city, minority adolescent population and were able to demonstrate positive outcomes.

6.4 Prevention programs for depression and anxiety

A comprehensive review on reducing the cost and burden of depression across the lifespan has been conducted by Zubrick (1998). Two significant effective prevention programs are highlighted as directly impacting on depression. The programs conducted by Jaycox et al., (1994) (see 5.5) and Clarke et al. (1995) are based on randomised trials that show that indicated prevention of unipolar depression is effective. In both studies, subjects have been selected through screening as having symptoms of depression that would suggest higher risk, but not an identified diagnostic syndrome (Zubrick, 1998).

In the Clarke trial all (1,652) ninth and tenth grade students in three high schools were screened for depressive symptoms using a standard screening instrument. Nearly half (222 of 471) of the students who received high scores agreed to participate in a structured diagnostic interview. From this group, 46 met the criteria for current major depression and/or dysthymia and were referred for treatment. Of the remaining 172 students, 150 agreed to participate in the prevention study and were randomly assigned to a 'usual care' control group or to a cognitive group intervention. Trained school psychologists and counsellors provided the intervention group with 15 after-school sessions focused on helping the students reduce negative thoughts and develop new and more effective coping mechanisms (Zubrick, 1998).

At 12 months post intervention, an analysis revealed a significant advantage for the intervention group with a 14.5 per cent prevalence of unipolar depressive disorder compared to 25.7 per cent in the control group. These findings demonstrate there is some good evidence to show that Cognitive Behavioural Therapy (CBT) is as efficacious as a prevention intervention as it is for the treatment of unipolar depression (Zubrick, 1998).

The Griffith Early Intervention Program (GEIP) referred to in Section 5 developed the **Resourceful Adolescent Program (RAP),** a universal school-based program designed to prevent depression among adolescents aged 12–15 years.

The aims of the Resourceful Adolescent Program (RAP) are to:

- assist young adolescents to develop life skills to increase resilience and prevent the onset of depression;
- encourage young people to acknowledge their existing strengths as a basis for developing self-esteem; and
- promote harmony in social situations, in particular peer and family settings.

The program consists of the following material:

- RAP-Adolescent–Group Leader's Manual, Participant Workbook and Video
- RAP-Parent–Group Leader's Manual, Parent Workbooks and Video
- RAP-P Indigenous–Group Leader's Manual, Parent Workbook and video

Brochures and a video describing the major features of the RAP depression prevention program are available.

RAP-A–for adolescents is a universal program for ages 12–15 years, designed to run in school class time and consists of eleven 45-to 60-minute sessions (one to two school periods). The program is run with groups of 8 to 16 students. RAP-A attempts to integrate cognitive behavioural approaches and an interpersonal approach within the context of adolescent development. The program is delivered by mental health workers, school counsellors and teachers.

The following techniques form the basis of the program: recognising personal strengths and maintaining good self-esteem; challenging distorted thoughts and developing positive self-talk; keeping calm, learning self-management and self-regulation strategies; developing a support network and appropriate help-seeking behaviour; interpersonal problem solving and the importance of empathy and perspective taking.

RAP has been evaluated with a controlled trial in a Brisbane secondary school with psychologists as group leaders. Adolescents receiving the RAP program reported significantly lower levels of depressive symptomatology and hopelessness postintervention than a monitoring-only group. Preliminary results from a larger study in Sydney schools support the Brisbane findings.

RAP for Parents **(RAP-P)** involves three parent sessions, each lasting three hours. The program focuses on:

- building parents' resources, recognising their own needs and learning techniques for effective parenting;
- building self-esteem in adolescents, understanding adolescent development and role transitions pertinent to this age group, for example balancing the need to be nurtured in a stable environment, with the desire for developing independence; and
- promoting harmony in interpersonal relationships, positive approaches to limit setting and discipline, preventing conflict and moving on.

At the time of writing, the program is being evaluated. The RAP-P program for indigenous communities has also been developed by GEIP and is yet to be evaluated.

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Adolescents Coping with Emotions (ACE) is an indicated school-based prevention program for adolescents, aged 14–15, aimed at preventing depression and promoting resilience, problem solving and coping skills. The program was developed by Macquarie University and Northern Sydney Area Health Service and uses a cognitive behavioural approach. All students in the selected years are screened using a self-report depression scale. Students who report high levels of depressive symptomatology are offered an eight session small group program led by school counsellors and adolescent mental health workers.

Students from five Sydney high schools who trialed the program reported significantly lower levels of depressive symptoms and better coping skills and problem solving. Contrary to expectations about stigmatisation, there was a high level of acceptance of the program and all students completed the groups. Randomised controlled trials in 11 high schools were initiated during 1998 and further evaluations are being conducted for students in rural areas and students with co-morbid conduct disorder and depression (ACE Program, 1999).

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6.5 NHMRC Depression in young people: Clinical Practice Guidelines

The *Depression in young people: Clinical Practice Guidelines* developed by the NHMRC comprise a comprehensive reference document and four supplementary publications: *A guide for general practitioners; A guide for mental health professionals;* and, for consumers, a comic book, *Blue Daze,* and an information booklet, *Getting up from feeling down*. The guidelines include identification, assessment, diagnosis, management and prevention of depression in young people aged between 13 and 20 years.

The guidelines for depression in young people are based on a systematic evaluation of the scientific evidence including that relating to prevention. For each recommendation made in the guidelines the strength of the evidence is evaluated and documented. The strongest recommendations are based on the highest levels of evidence.

Based on the evidence, the guidelines recommend the following principles for prevention of depression in young people:

- Prevention programs are best when based on evidence from risk factor research.
- Prevention programs should be integrated and comprehensive, including such components as individual counseling, training in cognitive skills and the modification of social or economic risk factors.
- Prevention programs may be more effective when directed at protective factors and resilience.

The guidelines outline confirmed probable and possible risk and protective factors associated with depression in young people (see Table 10).

Table 10. Risk and protective factors for depression in young people

Confirmed risk factors for adolescent depression:

- conditions/symptoms such as anxiety, conduct disorder, substance abuse, eating disorder
- being older (15–19 years) as opposed to younger adolescents
- being female
- having a depressed parent
- previous history of clinical or subclinical depression earlier in life

Probable risk factors for adolescent depression:

- having a close biological relative with depression
- stressful life events
- living in later decades of the century

Possible risk factors needing further investigation:

- poor self-esteem/vulnerability because of negative thinking, poor self-control, social incompetence, neuroticism/vulnerable temperament or personality
- parents divorced, separated or in marital conflict and controlling parental style
- early childhood sexual and physical abuse
- Aboriginal or Torres Strait Islander descent, residing in rural areas, low socioeconomic status, being homeless or in custody, being from a culturally and linguistically diverse background or refugee status, intellectual disability
- poor peer relationships
- decreasing school performance, having learning difficulties
- prior history of suicide attempt
- hormonal changes of puberty, sleep dysfunction
- medical and physical conditions and ailments

Unlikely risk factors but requiring further investigation:

- parental death during childhood

Protective factors:

There are factors that may provide protection against depression, including:

- good peer relationships
- a good relationship with at least one parent
- being employed

Source: National Health and Medical Research Council. (1997) pp.xii–xiii.

Contact information:

The *NHMRC Clinical practice guidelines: Depression in young people* may be purchased from the:

Australian Government Publishing Service, (AusInfo)
GPO Box 84
Canberra ACT 2601

Telephone: 132 447 (freecall).

The two (free) consumer publications are available by phoning:1 800 020103.

For information about the implementation of the Depression Guidelines in NSW, contact:

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6.6 Early intervention and prevention for first onset psychosis

Early intervention and prevention are new fields in first onset psychosis. Early intervention refers to intervening at the earliest possible phase of an illness. In first onset psychosis, early intervention should commence during the "something is not quite right" phase. Intervention during the prodromal phase may help to prevent the onset of psychosis (Mrazek and Haggerty, 1994;Yung et al., 1996).

It has been estimated that approximately nine young people per 10,000 population (aged 15 to 24 years) experience first onset psychosis each year. Further there is often a delay of one to two years between a young person experiencing the first symptoms of psychosis and their receiving effective treatment. If treatment commences in the early stages in the development of a psychotic illness, the severity of the illness can be reduced.

In Australia, the Early Psychosis Prevention Intervention Centre (EPPIC), directed by Professor McGorry, has made a significant contribution to the understanding and treatment of first episode psychosis. The Centre's focus on research and training has attracted national and international attention (McGorry et al., 1996).

The EPPIC program is based on extensive research and evaluation of outcomes. The components of the program include the Early Psychosis Assessment Team, an in-patient unit, and an outpatient and day program. At the time of writing, the EPPIC model was being evaluated for evidence demonstrating the effectiveness of the program components.

The Institute of Medicine (IOM) review (Mrazek and Haggerty, 1994) concluded that while more research was needed to show that prevention interventions can reduce the incidence of diagnosed psychosis, there is robust evidence to demonstrate that risk factors associated with disorder onset and subclinical symptom levels can be reduced.

Further research is required to identify the risk factors specific to first onset psychosis in young people. Currently, it is difficult to differentiate between young people who develop non-specific symptoms and do not go on to develop first-episode psychosis and young people experiencing a prodrome. EPPIC is contributing research to this new field with the Personal Assessment and Crisis Evaluation (PACE). A prospective study of a group of young people with at-risk mental states commenced in 1993 with the aim of identifying specific markers of psychosis (Yung et al., 1995).

The rationale for this service is based on research that showed that early intervention significantly improves both recovery and outcomes for individuals experiencing a first psychotic illness. The aims of the service are to identify young people who are at this early stage, monitor their progress and improve their outcomes.

The National Early Psychosis internet site provides information about early psychosis programs around Australia: http://ariel.unimelb.edu.au/~nepp

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Centre for Mental Health
NSW Health Department
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6.7 Prevention and early intervention for eating disorders

The results of programs that have focused on school-based education to prevent eating disorders have been generally disappointing (Neumark-Sztainer et al., 1995). However, O'Dea (1997) and O'Dea and Abraham (1999) report positive outcomes from a program based upon self-esteem and, thus, satisfaction with body and body image, and on improving attitudes to eating. This Australian intervention **Everybody's Different** was successful in improving body satisfaction, eating and weight control behaviours of young adolescents. Young females in the control group tended to lose weight while those who participated in the intervention tended to gain weight.

O'Dea and Abraham (1999) have examined the effects of an interactive, school-based, education program in the first large, randomised controlled trial demonstrating that promoting the self-esteem of young people improved attitudes and eating behaviours. Four hundred and seventy eligible students (63 per cent female) aged 11 to 14 years volunteered to participate in the intervention; the control group received normal personal development and health classes. The program was found to significantly improve body satisfaction and enhance student's self esteem. These changes in students' attitudes were found to be maintained when a follow-up was conducted one year later (O'Dea and Abraham, 1999).

This is an important area for positive development and research. Onset is often insidious and the disorder is usually well established with significant disability before it is recognised. Thus, models of early intervention, as for depression and early psychosis, should be developed. At the time of writing, the Department of Psychological Medicine at the New Children's Hospital in Westmead, Sydney, is developing an early intervention model for children and young people with eating disorders.

6.8 Suicide prevention interventions

On average more than 700 people die from suicide each year in NSW. Suicide rates for young men aged between 15 and 24 years more than doubled from 1964–1965 to 1996–1997, but have remained at or about the same level for young women. However, young men and women are at equal risk of attempting suicide.

Several risk factors have been associated with suicide. It is valuable to review these, as they can influence the suicide prevention intervention undertaken. Individual, family and community risk factors for suicide are outlined in Table 11.

Not all suicide prevention programs address suicide directly, some address risk or protective factors, such as depression, school failure, delinquency, family conflict, gun control and resilience. Suicide prevention programs may also target younger children, many years before they are likely to attempt suicide, when the risk factors for suicide begin to develop. Many examples of these programs are referred to elsewhere in this manual and include programs aimed at: pre-school-aged children to enhance parenting practices and lessen family conflict; primary-school-aged children to reduce the risk of school failure; and prevention of depression and related disorders in young people. The study of adolescent wellbeing conducted by Resnick et al. (1997) highlighted the need to include strategies to enhance protective factors.

A range of programs can address suicide prevention and associated risk factors; however, not all programs targeting risk factors have included suicidal behaviours in their outcome measures. Therefore, the impact of risk factor reduction programs on suicidal behaviour (ideation, attempts and death) is still being debated. Various models such as the one proposed by Beautrais (1998) have been developed to help ascertain the effect of these programs on suicidal behaviour.

A selection of suicide prevention programs is described below; not all of these studies focus on young people.

Specific suicide awareness education programs in schools have had little impact and may contribute to increased feelings of hopelessness among vulnerable young people and a view of suicide as an acceptable solution to problems. Shaffer et al. (1991) conducted a randomised controlled study of 2,000 teenagers to examine the impact of three school-based suicide awareness programs. These included a four-hour program delivered by health professionals, and two teacher-administered programs emphasising social support and problem solving skills. They found that there was no significant reduction in suicidal ideation or attempts at the 18-month follow-up. Moreover, some males came to regard suicide as an acceptable solution to their problems. A nonrandomised controlled trial of a school-based suicide awareness program delivered by teachers found that boys reported feelings of increased hopelessness and maladaptive coping (Spirito et al., 1988; Overhosler et al., 1989).

Restricting access to the means of suicide has had some success. However, there is debate as to whether reduction in one means of suicide results in the uptake of other means, or results in an overall reduction in suicide. Generally, studies have used interrupted time series analyses in which the lethal method has become less widely available. Due to the nature of these interventions and research methodology, studies using control groups have not usually been possible or ethical.

Oliver and Hetzel (1973) reported a reduction in method-specific and all-causes suicide rates following changes to the availability of barbiturates in Australia, although the longer-term effects have been questioned. In Britain, the detoxification of domestic gas in the 1960s resulted in a reduction in suicide (Office of Health Economics, 1981). Gunnell and Frankel (1994) reviewed the available evidence and summarised the following potentially beneficial measures for restricting access to means:

- improved prescribing: such as limiting the dose of antidepressant in a single tablet and using medication of lower toxicity such as selective serotonin re-uptake inhibitors;
- controls on over the counter medications: such as limiting the quantity of paracetamol available at a single purchase, the addition of methionine to paracetamol to limit its toxicity in overdose;
- safety measures: on underground railway systems, at suicide hotspots;
- redesign of commonly used appliances such as car exhaust outlets, stricter licensing and restricted availability of firearms.

Influencing the way media report suicides may also have an impact. In Vienna, several suicide deaths in the underground railway system received considerable media attention. In mid 1987, Etzersdorfer and colleagues examined the effect of introducing media reporting guidelines on railway suicides using an interrupted time series analysis. The reduction of suicides from railway injury was sudden and dramatic at a time when suicide rates were relatively stable. Age-specific data are not available, but overall suicide rates reduced by 20 per cent over a four-year period.

The media reporting guidelines outlined the benefits of the media providing few details of the method and eliminating romantic portrayals; removal of the story from the front page; removal of the term "suicide" from the headline; not including photographs of the victim; describing alternative solutions to suicide; and including in the reports a crisis that did not lead to suicide (Etzersdorfer et al., 1992).

The Commonwealth Mental Health Branch has released *Achieving the balance: A resource kit for Australian media professionals for the reporting and portrayal of suicide and mental illness* to assist the media in the reporting of suicide. A strategy is being established to measure the impact of this kit on the Australian media.

Recognition, followed by effective treatment, for depression in young people, is likely to reduce suicide attempts. Rutz et al. (1989, 1992) evaluated the effectiveness of educating general practitioners in the diagnosis and treatment of depression. General practitioners from Gotland, Sweden attended two educational programs of two days duration. Suicide rates and other measures of psychiatric morbidity were reduced in the year after the intervention. The suicide rates for females with depression were reduced; however, there was no little effect on male suicide rates.

Evaluations have been conducted on the effect of crisis centres or hotlines in assisting distressed people to access emergency help. However, the evidence shows little reduction of overall suicide rates. Increased support to identified subgroups of high-risk callers to a suicide prevention centre in Los Angeles was assessed by Litman (1976) using a randomised controlled trial. However, there were no reductions in suicide rates as a result of the intervention.

Some interventions are aimed at reducing suicide re-attempts. Silburn et al. (1998) examined the effectiveness of enhanced clinical intervention for people presenting to Emergency Departments who had attempted suicide. The intervention included: comprehensive assessment; liaison with community carers and services; and follow-up. The study found lower readmission rates for suicide attempts. Morgan et al. (1993) evaluated the impact of offering a 'Green Card' to people who had harmed themselves for the first time. The Green Card enabled rapid, easy access to on-call trainee psychiatrists in the event of further difficulties. The intervention resulted in a significant reduction of actual and seriously threatened deliberate self-harm in the experimental group compared to controls. The authors caution that strict exclusion criteria are needed for persons who are offered this intervention.

Several resources have been developed by the NSW Health Department to support suicide prevention initiatives:

- *NSW Suicide prevention strategy: We can all make a difference* (full strategy, booklet and information sheet)
- *Family Help Kit,* information sheets on mental health issues for children and young people
- *Care and Support Pack for families and friends bereaved by suicide*
- *Local management of media reporting on suicide deaths*
- *Preventing and managing reported increases in suicide in local communities*
- *NSW Health Circular 98/31*, Policy guidelines for the management of patients with possible suicidal behaviour for NSW health staff and staff in private hospital facilities
- Mental health fact sheet in: *Young people's health: Our future* issues paper

Copies of these materials are available from the Better Health Centre,
Telephone: (02) 9816 0452
Fax: (02) 9816 0492.

Table 11 Estimates of suicide risk factors for high-risk groups*

Individual risk factors	
Sex	Males are 3–4 times more likely to die from suicide than females. Males represent between 78% to 81% of all suicides in NSW (ABS 1986/87–1995/96).
Age	Young and older males are at greatest risk (ABS 1986/87–1995/96).
Rurality	Suicide rates are higher for young males living in non-urban settings (Harrison et al., 1997). Suicide rates of 15–24-year-old males living in remote Australia are close to twice those of males living in capital cities (Patton and Burns, 1998).
Aboriginality	Suicide rates in Aboriginal males between the ages of 15 and19 years are 4 times higher than those for non-Aboriginal young people (Patton and Burns, 1998).
Culturally and linguistically diverse backgrounds	There is great diversity in the risk of suicide to immigrants. While immigrants of non-English speaking backgrounds up to the age of 64 years had lower or similar rates of suicide than the overall community, immigrants aged 65 years and over had significantly higher rates. Higher risks were also found for immigrants from English-speaking countries, Western, Northern and Eastern Europe, the former USSR and Baltic States (McDonald and Steel, 1997).
Current or former mental health clients	Current or former mental health clients have a suicide risk 10 times that of the general population (Gunnell and Frankel, 1994; Chipps et al., 1995).
Psychiatric patients in 4 weeks post discharge	Where people have been discharged from a psychiatric facility, the suicide risk in the first four weeks after discharge increases to 100–200 times population (Gunnell and Frankel, 1994; Chipps et al., 1995).
Previous suicide attempts	People who have made previous suicide attempts have a 10-to 30-fold risk of suicide population (Gunnell and Frankel, 1994).
Substance use/misuse	People who misuse substances (alcohol and other drugs) have a suicide risk 20 times that of the general population. (Gunnell and Frankel, 1994).
People with serious physical illness or disability	People who have a serious physical illness or disability are also at higher risk; people who have AIDS have a 36-fold higher risk of suicide than the general population (Gunnell and Frankel, 1994).
Family risk factors for youth suicide	
Child sexual abuse	Medically serious suicide attempts were reported 4 times more commonly in those who had been sexually abused as children (Beautrais et al., 1996).
Not living with the original family; communication problems with parents	Children and young people who are not living with their original family, and also those children who have communication problems with parents, carried a 2-fold higher risk of suicide (Gould et al., 1996; Patton and Burns, 1998).
Stressful life event	Young people experiencing stressful life events such as disciplinary crisis, the loss of a parent, relative or relationship breakup, may experience a 6-fold increase in suicide risk (Gould et al., 1996).

Relatives of people who have died by suicide	A recent suicide or suicide attempt by a peer or a relative is also associated with a higher risk (up to 5-fold) (Patton and Burns, 1998).
Social, or community and peer risk factors for suicide	
Occupational groups	Certain occupational groups are at higher risk of suicide such as farmers and doctors, which both have a 2-fold risk (Gunnell and Frankel, 1994).
Homeless people	People who are homeless or living in refuges have higher rates of mental health problems than the general population (Hodder et al., 1998).
People in custody	People in prisons have a 5-fold risk of suicide (Gunnell and Frankel, 1994).
Gay or lesbian young people	Studies of gay and bisexual young people consistently report high attempted suicide rates (lifetime rates of 20 to 50 per cent) (Bagley and Tremblay, 1997). There are limitations in these studies which currently prevent drawing accurate conclusions about the relationship between suicide and sexual orientation (Moscicki et al., 1995).
Unemployed people	People who are unemployed have twice the risk of suicide compared to the general community (Gunnell and Frankel, 1994).
Gun ownership	Having a firearm in the home is associated with a higher likelihood of shooting as the method of suicide therefore there is a higher risk of fatality (Patton and Burns, 1998).

* Estimates are based on best available scientific evidence from several studies.

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6.9 MindMatters: National mental health in schools project

In Australia, **MindMatters: National mental health in schools project** commenced pilot projects in 1997. This initiative uses a universal intervention with a whole-of-school approach to promote mentally healthy environments for young people. MindMatters is based on the health promoting schools philosophy. Pilots were conducted in 24 schools across Australia, involving government, independent and Catholic schools. The material developed includes a framework for a whole school approach to mental health, steps to action for mental health promotion and curriculum materials for use by teachers. The program is taught by teachers as part of the curriculum so it is integrated into the school rather than relying on the involvement of health professionals to support implementation. MindMatters also provides a framework for selective inclusion of other targeted programs and initiatives.

The aims of the project are to:

- promote the physical health of young Australians;
- develop a comprehensive school-based mental health promotion program using the health promoting schools framework; and
- improve the quality and breadth of education for and about mental health.

Classroom curriculum units have been developed in the following areas:

- Changes and Challenges—processes schools can use to support students in coping with change and challenge particularly during transition periods;
- Enhancing Resilience—increasing coping skills, positive self talk and help seeking;
- Bullying and Harassment—a whole-school approach that includes school policy and practices, defining bullying, speaking up and problem solving;
- Understanding Mental Illness—increasing awareness of stigma, myths and facts about mental illness, seeking help and coping with mental illness; and
- Grief and Loss—management of stressful incidents and support for grieving young people, future help seeking and supporting others.

Preliminary evaluations have been undertaken showing positive qualitative results. Providing professional development for teachers was identified as a critical component to assist teachers' competence in using MindMatters curriculum materials. Another important aspect of the MindMatters program is that schools can select areas of focus, such as bullying or enhancing resilience or transition periods, based on the needs of the school. Further evaluations are planned. A national dissemination strategy for MindMatters is also being planned.

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6.10 The Innovative Health Services for Homeless Youth Program

The Innovative Health Services for Homeless Youth (IHSHY) program was a four-year pilot commenced in 1989–90 under the Commonwealth Youth Social Justice Strategy. The IHSHY services provided primary health care for vulnerable young people including those out-of-home, who may be reluctant to contact mainstream health services. Each of the nine services funded adopted a different model of service delivery based on local needs. The first evaluation of the program was conducted in 1993 (Berg and London, 1993). Funding for the program has continued and in 1999 the IHSHY services were funded for an additional four years.

A second evaluation of the program was conducted in 1996–97 using qualitative methods. The evaluation reported that the youth health services funded under the IHSHY program were effective in: attaining a high degree of acceptability with vulnerable young people; providing primary health care services for homeless young people; encouraging young people to return to use the variety of services available; and advocating for young people to assist them to access mainstream services.

Service utilisation trends could not be identified due to a lack of a comprehensive data collection system for reporting IHSHY services. One of the recommendations of the evaluation was the need to improve data collection systems for IHSHY services to enable statistical analysis of service usage and outcome monitoring (Collins, 1997).

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7. PREVENTION INITIATIVES FOR BEREAVEMENT, SEPARATION, DIVORCE, VIOLENCE AND TRAUMA AND CHILDREN OF PARENTS WITH MENTAL ILLNESS

7.1 Rationale

As well as the challenges from major life transitions and developmental tasks, children, young people and their families can experience unexpected and adverse life events. Adversity is narrowly defined in the Oxford dictionary as misfortune. The lives of children, adolescents and young people are often exposed to events such as the untimely death of one or both parents or the death of a sibling or another family member or friend. They also experience vulnerability and loss through marital distress, conflict, abuse and violence in the home, break-up and divorce of their parents.

Divorce in western society is now increasingly common. Around 50 per cent of marriages end in divorce; young and older children not only experience direct loss but may also be at risk or disadvantaged when their parents are not coping. For instance, Gold (1995) quoting from Bloom's 1978 paper states that divorce may also amplify pre-existing psychopathology or result in reactive symptomatology, or even the development of disorder, including adjustment reactions, anxiety and depressive syndromes or substance abuse. Often there is a change in the standard of living and financial problems are common for many single-parent families. Problems also arise for children and young people when either parent or both parents choose a new partner. Anxiety is usually heightened if stepchildren become part of this new family.

It is widely recognised that socio-economic and physical environments are principle factors affecting the health (physical and mental) and wellbeing of individuals and populations. Poverty, unemployment, poor housing, stigma and discrimination have a profound impact on the lives and health of many children, adolescents and young people. A recent editorial highlighted that physical violence in the family probably blights the lives of more people than all genetic disorders put together. Hall and Lynch (1998) state that children in violent households are three to nine times more likely to be injured or abused, either directly or while trying to protect their parent. Children from such environments often have other problems, such as involvement in endemic street and playground violence, bullying in school, educational failure, and exclusion from or dropping out of school and an increased incidence of attention deficit hyperactivity disorder (Woodward et al., 1998, cited in Hall and Lynch, 1998).

Sanders (1995) also reinforces that individuals living in families with frequent unresolved conflict, poor communication and problem solving skills, and lack of emotional warmth and support are at increased risk for problems as diverse as antisocial behaviour, academic underachievement, teenage pregnancy, alcohol and drug abuse, eating disorders, personality disorders, sexual and marital difficulties, anxiety, depression, as well as greater risk of relapse for people with schizophrenia.

Children and young people can also be the victims of violent crime and abuse such as rape, torture, and sniper attacks. They can also be the innocent victims of the atrocities of war and natural disasters.

Children of parents with mental illness are another vulnerable population group. In Australia, the Burdekin Report (1993) drew attention to this group–such children are vulnerable to stigma, rejection, loss, disruption, lack of understanding, depression, grief and fear. These children may also have to take premature responsibility for a parent with a mental illness and care for younger siblings, especially if the partner has left (Burdekin, 1993, pp.852, 853).

What can be done about prevention?

Such adversity or acute life crisis can make children and young people vulnerable to mental health problems and disorders. Since the 1980s, there have been more opportunities for prevention interventions and programs. It is possible to identify individuals and population groups that are vulnerable to mental health problems due to poor social environments or severe adverse life events. Effective universal, selective and indicated interventions can help to promote mental health and prevent mental health problems for those at risk.

7.2 Bereavement related intervention programs

There are several effective programs for prevention interventions targeting loss and bereavement. A number of controlled studies based on population samples have confirmed that bereaved children have a significantly higher risk of developing mental health problems and disorders. They may suffer considerable psychological and social difficulties throughout childhood and even later in adult life (Elizur and Kaffman, 1983; Black and Urbanowicz 1985,1987; Raphael et al., 1980; Van Eerdewegh et al., 1985; cited in Black and Young, 1995).

It should also be noted that programs which improve outcomes for adults who are bereaved are likely to have beneficial effects for children in such families. There is a range of established effective interventions for bereaved adults. For children to effectively deal with their loss the continuity of a family environment of attachment and care is important. The ongoing sense of family security can greatly assist the child to deal with loss (Raphael, Dobson and Minkov, 1999).

Black and Young (1995) also promote education in school curricula and public education concerning children's reactions to bereavement should be encouraged. Prevention programs that anticipate and prepare children for bereavement include:

- recruiting both parents in prevention child-centred counselling (Rosenheim and Reicher, 1985);
- prevention psychoeducational program to help families attending a cancer centre (Siegel et al., 1990); and
- whole-family approach (Black, 1989).

However, none of these interventions for families dealing with a death has been evaluated regarding the outcomes for children (Black and Young, 1995).

The **Family Bereavement Program** (Sandler et al., 1992) focused on the family environment with a three-session family grief workshop and 13 highly structured sessions from a family adviser who had personally suffered a similar bereavement. Families who experienced the death of one parent were targeted and the children and young people ranged from 7 to 17 years. The results of this intervention indicated increased parental perceptions of warmth in their relationship with their children and reduced reports of depression and conduct disorder for their older children.

A brief family intervention of six counselling sessions was evaluated by Black and Urbanowitz (1992) and found beneficial at the initial follow-up. However, no differences in outcomes were shown at the two-year follow-up, suggesting that the intervention may simply facilitate earlier resolution.

The Australian bereavement program, **An Ache In Their Hearts**, (Murray 1996; Murray et al., 1998), shows significant benefits from a prevention intervention, for families affected by the death of a baby as a result of stillbirth, neonatal death or sudden infant death syndrome (SIDS). The effectiveness of the program in relieving the psychological distress of parents has been evaluated. Parents (65 fathers, 79 mothers) were assessed in terms of their psychiatric disturbance, depression, anxiety, physical symptoms, dyadic adjustment and coping strategies.

The intervention group (n=84) was given a resource package on dealing with the loss, including aspects for the self and family, as well as information for those providing support. A control group (n=60) was given routine community care available to families affected by infant death. Parents were also allocated to groups according to their degree of risk thus allowing for consideration of the effects of the program on both low- and high-risk parents. The parental reactions were assessed at four to six weeks post loss (prior to intervention) and again at six and 15 months.

The study found positive benefits for parents' overall mental health, with lessened depression among mothers and lessened anxiety among fathers. There was also less decline with mothers' overall satisfaction with their relationships and fathers' marital cohesion. Fathers in the intervention group also reported that they relied less on avoidance as a means of coping and less need to talk about the loss in the longer term than did fathers in the control group (Murray et al., 1998).

This intervention program has several components, and is being implemented in urban and rural community settings. The complete resource package contains all the training and resources necessary to implement the support program for families in local areas who might be affected by miscarriage, stillbirth, neonatal death, or SIDS.

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Seasons for Growth, a school-based program for children experiencing loss, through death or divorce, has been implemented in several of schools across Australia. While reports are positive to date, systematic evaluation is pending.

7.3 Divorce intervention programs

School-based programs such as the **Children of Divorce Intervention Program (CODIP)** have been developed to assist school-age children to deal with negative feelings such as the distress and maladaptive behaviour associated with divorce. This program was a selective intervention and has been evaluated by Pedro-Carroll and Cowen (1985). The critical components included 10 one-hour weekly sessions for children in grades four to six with divorced parents. These sessions were led by trained facilitators to communicate feelings, provide emotional support and develop the skills needed to resolve interpersonal problems. The results showed lessened anxiety for the intervention group and greater gains in terms of sociability and adjustment.

Alpert-Gillis, Pedro-Carroll and Cowen (1989) evaluated the effectiveness of an extension of the CODIP. The program consisted of a 16-week prevention intervention for 52 second and third grade urban children of divorced parents. The curriculum was revised to reflect the sociocultural population of participants and the definition of divorce was expanded to include common-law relationships (defacto) or long-standing live-in partnerships. The results of this relatively brief social competence intervention suggest that the children's ability to cope with stressful experiences that are often associated with recent parental separation or divorce are enhanced although long-term the effects have not been investigated.

Another divorce intervention project by Bloom et al. (1982) also produced positive findings for parents and, potentially, for their children. This six month selective prevention intervention (n=100 for the intervention and n=50 for the control) was designed to provide general support and to build specific competencies relative to people experiencing marital separation and disruption. The program components consisted of group and individual contacts with a study group organised to deal with career planning and employment; legal and financial issues; child-rearing and single parenting problems; housing and home-making issues; socialisation and personal esteem. A para-professional support person was assigned to each program participant and provided crisis intervention, links to the program and emotional support. The long-term follow-up results showed that the intervention participants had achieved better psychological adjustment than members of the control group (Raphael, 1992).

Other impressive programs that do not focus directly on children but are likely to have an impact upon the development of psychological problems in children are **premarital counselling interventions** for the prevention of marital break-up that are being carried out by Markman et al. (1993) in the USA and Professor Kim Halford and colleagues, School of Psychology, Griffith University, Brisbane (Spence, 1996b).

7.4 Trauma intervention programs

Pfefferbaum (1997) conducted a review of the past 10-years of **Post-traumatic Stress Disorder (PTSD) in Children**. Various modalities are used to treat PTSD such as individual, family, group, behaviour and psychopharmacological interventions, but very little research documents the effectiveness of various treatments or the comparative advantages of therapeutic modalities. However, Deblinger and colleagues (1990) reported positive responses to a cognitive behavioural intervention in sexually abused children (Pfefferbaum, 1997). While this is after the trauma occurs, it may have the potential to prevent the development of post trauma morbidity whereas generic counselling does not.

Other significant programs include the studies conducted by Pynoos and Nader (1990) in a group of children following a sniper attack at school, and an Australian study that showed the prevention benefits of providing children with a workbook after bushfires (Storm, 1995).

7.5 Prevention and early intervention for children of parents with mental illness

Children of parents with a mental illness have also been identified as a group with increased vulnerability to developing mental health problems and disorders. For instance, postnatal depression affects 10–15 per cent of mothers and may lead to chronic mental health problems in a significant proportion of women, which can also adversely affect their children. Barnett (1995) summarised the major risk factors for mood disorders in pregnancy and post partum as: previous mental health problems, particularly depression (especially if it was postnatal); marital conflict or lack of a partner; high current level of anxiety; previous losses; lack of support; severe blues; and breast feeding problems. Effective screening for postnatal depression and counselling for those at risk improves outcomes and is likely to have protective benefits for children. There are strong indications that various forms of professional home visiting and support programs such as the **Prenatal/Early Infancy Program** (Olds and colleagues), referred to in Section 3, may be appropriate for this priority target group.

Interventions for children of parents with affective disorder require not only the prompt recognition and treatment of the disorder in the individual but also mobilising of effective family psychoeducational components of treatment. Such interventions have shown positive effects for the outcome of the parent with the illness and the family. Beardslee et al. (1993) reported a trial of psycho-educational intervention that had beneficial effects for the children (Raphael and Sprague, 1996; Raphael, 1998).

South Western Sydney Area Health Service has established a family day and outreach program for women experiencing postnatal depression and their families. The South Western Sydney **Gaining Ground program** has piloted a mothers' playgroup and an adolescent peer support program for young people with a relative affected by mental health problems and disorders. Other examples of programs to support children and adolescents whose parents are affected by mental health problems include: peer support programs such as the program targeting adolescents in South Western Sydney and the **Interventions to help Mentally ill Parents And their Children stay Together Program (IMPACT)** in Wentworth Area Health Services.

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