Social Policy Evaluation and Research Unit

superu

Youth Mental Health Project

RESEARCH REVIEW

MAY 2015

quigley and watts

Our purpose

The purpose of the Social Policy Evaluation and Research Unit (Superu) is to increase the use of evidence by people across the social sector so that they can make better decisions – about funding, policies or services – to improve the lives of New Zealanders, New Zealand communities, families and whānau.

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Executive summary

Purpose

The aim of this research review is to provide Superu with:

- an evidence-based overview of the key factors that contribute to mental wellbeing and resilience in young people aged 12–19, with a particular focus on rangatahi Māori and Pacific youth
- an overview of current best practice in adolescent mental health promotion, prevention and early intervention at a state or national level
- an overview of national and international research on projects that seek to integrate mental health services for youth from different disciplines and sectors.

Scope

This high-level review is intended to inform the evaluation of the Youth Mental Health Project **as a whole**, rather than to review the evidence base for each of the 26 initiatives. It is based primarily on review-level material and provides a snapshot of the current evidence base, focusing on robust and well-documented empirical findings.
The scope excludes:

- literature on suicide, suicidal ideation/attempt, self-harm, psychosis, schizophrenia and severe mental disorder
- literature with an exclusive focus on secondary/specialist mental health services/treatments; however, some broader papers that included this material were part of our review.

The findings are presented in six sections, corresponding with the research questions.

Limitations

The timeframe and budget for the review were modest and demanded a rapid approach to identifying and summarising key findings from the literature.

The majority of the research findings are from United States school-based interventions and longitudinal studies. The applicability of these and other international findings to the New Zealand context is not well established.

It is important to note that a lack of robust empirical evidence does not necessarily mean that an intervention is ineffective, and conversely well-researched interventions are not necessarily the most effective.

Definitions

Mental wellbeing is more than the absence of mental disorder, and has two key elements – feeling good and functioning well. **Resilience** can be defined as: 'the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability or development'. As this definition suggests, the resilience of an individual cannot be viewed in isolation from key relationships and settings.

Mental health promotion considers the mental health needs of the population as a whole, not only people who experience (or are at risk of) mental health problems. It aims to increase the mental wellbeing of the population by strengthening individuals, families and communities, and reducing barriers to mental wellbeing such as social isolation and discrimination.

Prevention means interventions intentionally designed to reduce the future incidence of mental, emotional or behavioural disorders in currently normal populations, or those showing early signs or symptoms of problems. Prevention interventions may target factors at individual, family, school, community and societal levels.

Early intervention means identifying adolescents who are showing early signs or symptoms of mental, emotional or behavioural problems and providing them with (or linking them to) appropriate programmes, supports or treatments. Early intervention initiatives may involve staff who are not mental health specialists (eg teachers, school nurses, general practitioners [GPs]), and may include referral pathways to specialist services.

Findings

A. What are the key risk and protective factors for mental disorder in young people aged 12–19? What are the key risk and protective factors for Māori and Pacific youth in particular?

There is well-established evidence on multiple risk and protective factors for adolescent mental disorders. Key factors are outlined in the table below.

TABLE 1

Major risk factors and protective factors for mental disorders in young people aged 12–19

	Risk factors	Protective factors
Individual	• Stressors, especially associated with relationships • Aggressive social behaviour • Low educational achievement • Low commitment to school/ disengagement from school • Times of transitions	• High-quality interpersonal relationships, especially with parents but also other adults, teachers, peers
Family	• Childhood maltreatment/abuse • Family history of mental illness • Family conflict or dysfunction • Controlling, harsh or neglectful parenting style • Family poverty; social disadvantage • Witnessing or experiencing violence • Times of transitions	• Healthy attachment between parent and child in infancy and early childhood • Parenting characterised by warmth, firm and consistent limit-setting, monitoring and open communication patterns
School/ Neighbourhood	• Negative peer influence; bullying • Adverse neighbourhood conditions, eg fear, distrust, violence • Perceptions of relative disadvantage • Discrimination and racism • Lack of access to services	• Connectedness to school • Positive school ethos and environment
Societal	• Economic factors, eg high unemployment, inequality • Social and cultural norms • Accessibility and availability of alcohol and other drugs	

Māori and Pacific youth are more likely than their peers to be exposed to many of the risk factors above, including: discrimination and racism; witnessing or experiencing violence; lack of access to services; family poverty or social disadvantage; and low educational achievement. In addition, Māori and other indigenous peoples are affected by historical and contemporary injustices and marginalisation.

Whānau or extended family support, cultural connectedness and cultural identity/pride have been identified as protective factors for Māori and Pacific youth in longitudinal, cross-sectional and qualitative research.

Exposure to several risk factors increases the likelihood of negative outcomes. Risks have a cumulative effect over the life course, and early problems tend to 'snowball' over time. Risk factors cluster in two distinct patterns: 'early accumulation' (in early life) and 'adolescent onset'. This suggests the importance of intervening both in childhood and during adolescence.

B. What are the key competencies, assets and environmental factors that are associated with positive outcomes (particularly mental health outcomes) for young people aged 12–19, and in particular, Māori and Pacific youth?

There is growing evidence that mental wellbeing and mental disorder are not opposite ends of a single continuum, but are two distinct dimensions. While some factors affect both wellbeing and disorder, there are other drivers that influence wellbeing alone.

The most widely reported contributors to resilience in young people, based on international literature, include positive relationships with caring adults and with peers, effective caregiving and parenting, and effective teachers and schools.

Individual-level assets include an easy-going temperament, cultural knowledge and competence, and skills such as self-regulation, coping and problem-solving.

Community-level factors associated with positive outcomes include early prevention and intervention programmes, relevant support services, recreational facilities and programmes, access to adequate health services, economic opportunities for families, and religious and spiritual organisations. In addition, the normative climate and social cohesion in a neighbourhood or community affect young people's development and mental wellbeing.

There is growing interest in policy measures that may promote positive mental health, eg parenting education and strategies to build social capital within localised settings.

New knowledge about brain plasticity suggests that interventions that alter environmental factors in adolescence can produce long-term changes in brain structure and function. This highlights the potential of environmental-level changes in reducing the negative impacts of early adverse experiences.

According to emerging evidence, factors that promote positive outcomes for Māori and Pacific youth include whānau support, cultural connectedness and policies and structures that support indigenous development.

C. What are the evidence-based principles of effective mental health promotion, mental disorder prevention and early intervention for young people aged 12–19? What works in terms of content and design?

There is strong and growing evidence that interventions delivered in home, school and community settings can improve adolescent mental health outcomes across the spectrum of promotion, prevention and early intervention.

Evidence-informed principles for the design and content of effective initiatives include:

- the use of a developmental framework
- a focus on key risk and protective factors, both individual and environmental
- a dual focus on prevention and promotion, using a strengths-based approach
- a socio-ecological model
- a cross-sectoral approach
- adequate dosage and timeframe
- informed by theory and evidence
- cultural appropriateness.

There is empirical evidence that mental health and other outcomes can be improved by interventions aimed at supporting positive family functioning, supporting nurturing school environments, and developing skills such as social problem-solving, communication and social skills in the adolescent years.

Experts also see evidence-informed policy-level interventions (eg to reduce poverty, child abuse, discrimination) as important, and there is some evidence of effectiveness for certain policy approaches.

There is some evidence that comprehensive and co-ordinated programmes that use a range of strategies in different settings (eg school, community, family) are more effective than those that use classroom-based activities alone.

In order to improve mental health outcomes in adolescence across the spectrum of promotion, prevention and early intervention, attention needs to be given to creating nurturing environments and supporting social and emotional development in infancy, childhood and pre-adolescence, as well as intervening during the adolescent years.

Effective interventions at the individual level are those that focus on the promotion of protective factors, skills and competencies in young people. At family, school, community and societal levels, interventions should aim to both reduce risk factors (eg punitive approaches to behaviour management) and enhance protective factors (eg respectful relationships, a positive school climate).

D. What is considered 'best practice' at the state or national level for the implementation of youth mental health promotion, mental disorder prevention and early intervention?

There is no agreed 'best practice' for the implementation of youth mental health promotion, prevention and early intervention initiatives at state or national level.

There is clear evidence that implementation quality has a significant effect on programme success and outcomes for young people.

At the programme level, the following key dimensions of implementation quality and success are widely agreed in the literature:

- organisational factors, eg culture, capacity and leadership
- programme selection, eg good fit with needs and preferences of community
- training and support, both initial and ongoing
- fidelity, ie delivering the programme as it was designed
- monitoring and feedback, eg fidelity assessment, supervision and outcome monitoring.

Security of funding is a key implementation challenge, and is one of many contextual factors that can help or hinder implementation.

More research is needed to identify the active ingredients of effective programmes, so that those elements are preserved when programmes are adapted or scaled up.

E. What does the literature say about best practice in youth mental health promotion/prevention/early intervention programmes for Māori and Pacific youth?

There is a small but growing empirical evidence base to support interventions to improve Māori and Pacific youth mental health outcomes.

Emerging evidence and/or evidence-informed expert opinion supports the use of whānau-centred and relationship-focused approaches, for example:

- Whānau Ora approaches
- whole-school interventions that improve the school culture and improve how teachers work with Māori and Pacific students.

Empirical research suggests that some generic early intervention programmes can improve mental health outcomes for Māori and Pacific young people – for example group programmes aimed at increasing social and emotional skills.

Experts also recommend interventions at the societal level, especially policies to reduce poverty and discrimination. There is some evidence to support the use of policy interventions, especially reducing the availability and accessibility of alcohol, in order to reduce substance use disorders. However, more research is needed at policy and societal levels.

Evidence-informed principles for the design, content and implementation of interventions include:

- strengths-based and cross-sectoral approaches, with a focus on whānau and relationship-building
- cultural relevance and involvement from Māori and Pacific communities, including young people
- intervention at the societal level
- the provision of both ethnic-specific (eg kaupapa Māori) and culturally responsive generic programmes
- cultural competence
- a focus on reducing barriers to accessing interventions and services, and a focus on sustainability and capacity-building.

F. What evidence exists, if any, on: a) the most effective mix of or balance between intervention initiatives, and b) effective service integration across multiple settings and sectors?

Little evidence is available about the most effective mix of services, or the most appropriate balance between intervention initiatives. For example, universal, selective and integrated interventions are all necessary as part of a comprehensive approach to promotion and prevention; however, the literature has little guidance about the most appropriate balance between these intervention types. A 'stepped care'-type approach based on individual need is a promising model for achieving an appropriate balance between universal and more intensive group and individual interventions, at least at the school level.

There is universal agreement that greater integration is desirable for achieving mental health promotion, prevention and treatment outcomes. Based on evaluation studies and qualitative research, the key factors associated with effective service integration across multiple settings and sectors are:

- pre-existing (and ongoing) relationships characterised by trust and mutual respect
- a shared vision; common goals
- a strong client focus
- strong leadership support for change
- clear roles and responsibilities
- stakeholder buy-in
- staff engagement
- ongoing monitoring and evaluation
- investment in people and systems
- enabling legislation
- enabling funding and accountability arrangements
- a long-term funding commitment
- the creation of a high-level co-ordinating body.

Key themes in the literature on improving mental health services are: the need for developmentally appropriate, youth-friendly, accessible services that are designed to meet the mental health needs of young people, and the need to provide continuity of care during times of transition.

Internationally, new models of integrated care for young people are emerging. For example, 'headspace' is an enhanced primary care model in Australia demonstrating positive mental health outcomes and increased access to services. Key success factors identified in the literature are: the provision of a highly visible and youth-friendly 'shop-front' for a range of existing services; better co-ordination of services; and including physical healthcare in the model to provide a stigma-free entry point.

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01

Introduction

The Social Policy Evaluation and Research Unit (Superu) is leading an evaluation of the Youth Mental Health Project (YMHP). Initiated in April 2012, the YMHP consists of a set of 26 initiatives focused on 12- to 19-year-olds. The initiatives aim to help prevent the development of mental health problems, increase resilience, and improve young people's access to services if concerns are identified. The project seeks to reach young people in the key settings of families and communities, schools, health services and online environments.

Superu contracted Quigley and Watts Ltd to conduct a research review on youth mental health promotion, prevention and early intervention to inform and support the evaluation. The work will provide background information for the evaluation as a whole, and may be used in various ways to inform the evaluation.

1.1_ Purpose of this research review

The aim of this research review is to provide Superu with:

- an evidence-based overview of the key factors that contribute to mental wellbeing and resilience in young people aged 12–19, with a particular focus on rangatahi Māori and Pacific youth
- an overview of current best practice in adolescent mental health promotion, prevention and early intervention at a state or national level
- an overview of national and international research on projects that seek to integrate mental health services for youth from different disciplines and sectors.

This rapid, high-level review is intended to inform the evaluation of the YMHP as a whole, rather than to review the evidence base for each of the 26 initiatives. It provides a snapshot of the current evidence base, focusing on robust and well-documented empirical findings.

1.2_ Research questions

After this Introduction, this report is presented in six sections (numbered 02 to 07), corresponding to the research questions we were asked to address:

A. What are the key risk and protective factors for mental disorder in young people aged 12–19? What are the key risk and protective factors for Māori and Pacific youth in particular?

B. What are the key competencies, assets and environmental factors that are associated with positive outcomes (particularly mental health outcomes) for young people aged 12–19, and in particular, Māori and Pacific youth?

C. What are the evidence-based principles of effective mental health promotion, mental disorder prevention and early intervention for young people aged 12–19? What works in terms of content and design?

D. What is considered 'best practice' at the state or national level for the implementation of youth mental health promotion, mental disorder prevention and early intervention? (Focusing on the 'how')

E. What does the literature say about best practice in youth mental health promotion/prevention/early intervention programmes for Māori and Pacific youth? (Both the 'what' and the 'how')

F. What evidence exists, if any, on: a) the most effective mix of or balance between intervention initiatives, and b) effective service integration across multiple settings and sectors?

1.3 Scope

The scope for the review was developed in consultation with Superu and key stakeholders from the YMHP Evaluation Advisory Group.

This rapid review focuses on high-level findings relevant to mental health promotion, prevention and early intervention in young people at the population level. Key terms are defined in section 1.4. The review is based primarily on review-level literature, although single studies have been drawn on to address Māori and Pacific questions. The emphasis is on recent literature (from 2007), and robust and well-documented empirical findings.

The scope excludes:

- literature on suicide, suicidal ideation/attempt, self-harm, psychosis, schizophrenia and severe mental disorder
- literature with an exclusive focus on secondary/specialist mental health services/ treatments; however, some broader papers that included this material were part of our review
- a discussion of the prevalence of various disorders
- a focus on adolescent precursors to adult mental disorder
- an analysis of cost effectiveness or value for money
- empirical findings from developing countries and non-Western nations
- literature published prior to 2000
- theses and dissertations.

1.4 Definition of key terms

The methods used to conduct the review are detailed in the appendix to this report. Key terms used in the review are defined below. These definitions frame the scope of our report. Please note that, for consistency, New Zealand spellings have been used throughout the report, including direct quotes from United States and Australian papers.

Population health. This report is based on a population health perspective. Population health attends to the health status and health needs of whole populations. "It is based on the premise that health and illness at personal, local, national and global levels result from a complex interplay of biological, psychological, social, environmental, economic and political factors. It is an approach that assesses needs at the population level, and develops and implements interventions to promote health and reduce ill health across whole population groups, supported by appropriate monitoring and evaluation" (Commonwealth Department of Health and Aged Care, 2000, p 9).

Mental disorder. The terms 'mental, emotional and behavioural disorder' and 'mental disorder' are used interchangeably in this report and refer to diagnosable disorders such as depression, anxiety disorders and substance abuse disorders. These are the three most common types of mental disorder affecting young people in late adolescence according to the Christchurch Health and Development Study and Te Rau Hinengaro: The National Mental Health Survey (Oakley Browne, Wells & Scott 2006). Behavioural disorders such as conduct disorder and attention deficit hyperactivity disorder (ADHD) are also relatively common in childhood and early adolescence, and are predictive of poor outcomes in a number of domains. Mental disorders are classified and defined in the Diagnostic and Statistical Manual 5th Edition (DSM-V), published by the American Psychiatric Association in 2013.

Our review also uses the terms 'mental health problems', 'emotional problems' and 'behavioural problems', meaning problems in those domains that do not necessarily meet clinical thresholds for diagnosis. Research shows that the first symptoms of behavioural problems typically precede a diagnosable mental, emotional or behavioural disorder by two to four years (The Royal Australian and New Zealand College of Psychiatrists 2010). Therefore initiatives aimed at addressing behavioural problems are highly relevant to the current review.

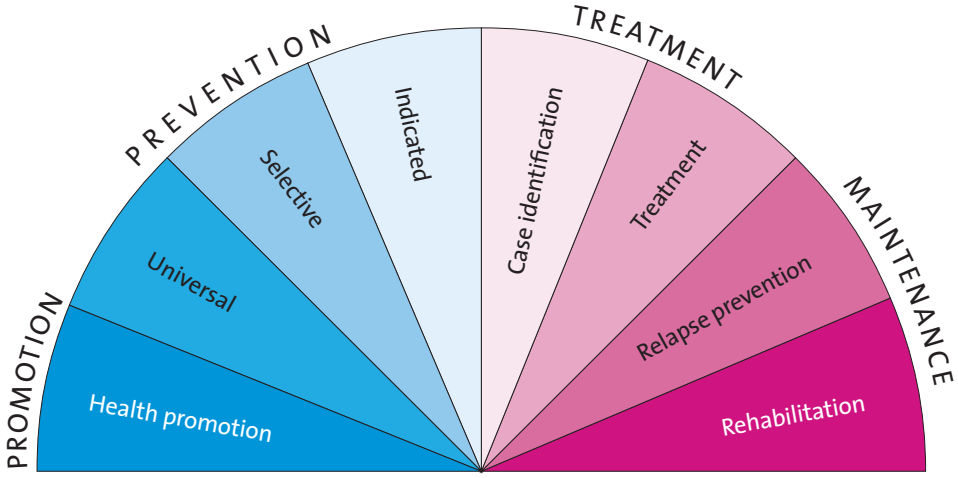
Mental health. There is no universally agreed definition of 'mental health' or 'mental wellbeing'; what these terms mean is very much bound up with values, cultures and worldviews. However, it is widely agreed that mental wellbeing is more than the absence of mental disorder, and has two key elements – feeling good and functioning well (Aked, Marks, Cordon & Thompson 2008). In this report the terms 'mental health' and 'mental wellbeing' are used interchangeably. Because the term 'mental health' often has connotations of mental disorder, we have used 'mental wellbeing' when wanting to denote unambiguously the positive sense of the term.

Resilience. Within the field of psychology, resilience researchers have sought to understand why some people do not develop mental disorders despite exposures to significant adversity. Early research into resilience (1960s–1980s) generally focused on the characteristics of the individual (eg coping style, optimism), but contemporary definitions place more emphasis on dynamic systems and processes, and interactions between individual, family and environmental factors (Khanlou & Wray 2014; Sapienza & Masten 2011). A current definition of resilience is: "The capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability or development" (Sapienza & Masten 2001, p268). Resilience defined in this way can be applied to many kinds of system, from the level of cells to whole individuals, families, communities, societies, ecosystems or broad social-ecological systems. Findings from resilience research have been used to inform interventions aimed at the prevention of mental disorders and social problems. It is important to note, however, that 'resilience' and 'mental wellbeing' are distinct concepts, not synonymous. Research shows that the relationships between resilience, mental health and social outcomes are complex and non-linear (Khanlou & Wray 2014).

The strengths perspective assumes that all young people, including those diagnosed with mental disorders or behaviour problems, have strengths and the ability to draw on them. Strengths refer to the specific competencies and characteristics that are key to a young person's development and wellbeing (Brownlee et al 2013), and may be understood at various levels – individual, family or community. Importantly, strengths-based approaches have greater reach than resilience frameworks, because they are not restricted to conditions of actual or potential adversity. In contrast, they are relevant to all young people – and encourage optimal functioning irrespective of disadvantage or adversity (Brownlee et al 2013).

Spectrum of intervention. Figure 1 illustrates a population health framework for mental health intervention. This 'spectrum of intervention' was originally developed in the US in the 1990s, and has been adapted for use in various countries including Australia. The current review focuses on promotion, prevention (universal, selective and indicated) and early intervention, which are defined below.

Figure 1 _ Institute of Medicine-National Research Council mental health intervention framework



Source: Institute of Medicine & National Research Council 2009.

Mental health promotion. Mental health promotion considers the mental health needs of the population as a whole, not only people who experience (or are at risk of) mental health problems. It aims to increase the mental wellbeing of the population by strengthening individuals, families and communities, and reducing barriers to mental wellbeing such as social isolation, discrimination and lack of appropriate services. Actions that promote mental health encompass a range of strategies at individual, family, community and policy levels, in a variety of sectors and settings.

Prevention of mental disorders. For the purposes of this report, 'prevention' means an intervention intentionally designed to reduce the future incidence of mental, emotional or behavioural disorders in currently normal populations, or those showing early signs or symptoms of problems. Prevention initiatives may be undertaken in (or across) a range of sectors and settings, and may target risk and protective factors at individual, family, school, community or whole society levels. Prevention efforts are often categorised into 'universal', 'selective' and 'indicated'.

- **Universal prevention** is provided to entire populations, or to a whole school or year group for example. This concept overlaps mental health promotion, and uses broadly the same strategies.
- **Selective prevention** focuses on groups at higher risk of developing mental problems, eg youth living in high-deprivation neighbourhoods and children of parents with mental disorders.
- **Indicated prevention** targets those with early signs or symptoms of mental, emotional or behavioural problems. This concept overlaps 'early intervention' (see below).

Findings from the wider 'prevention science' literature (eg covering drug and alcohol prevention, teen pregnancy prevention, violence prevention) are also relevant to the current review, inasmuch as there are common causes underlying many youth health and social problems, and overarching prevention principles that have been found to underlie effectiveness.

Early intervention. For the purposes of this review, 'early intervention' means identifying youths who are showing early signs or symptoms of mental, emotional or behavioural problems and providing them with (or linking them to) appropriate programmes, supports or treatments aimed at prevention and reducing the impacts. Early intervention encompasses 'indicated prevention', 'case identification' and 'treatment' on the diagram above. Early intervention initiatives may involve staff who are not mental health specialists (eg teachers, school nurses, general practitioners [GPs]), and may include referral pathways to specialist services.

It is important to note that in the fields of human development and prevention science, 'early intervention' generally means intervening early in the life course (prenatally, in infancy or in early childhood). This is not the meaning used in the current report.

In the mental health treatment literature, 'early intervention' generally refers to early intervention for psychosis specifically – a major field of research and practice improvement in recent decades. Note that literature pertaining to psychosis is specifically excluded from the current review.

1.5_ Limitations

The timeframe and budget for the review were modest and demanded a rapid approach to identifying and summarising key findings from the literature. The base of potentially relevant literature was vast, spanning a number of disciplines. With such a 'review of reviews' there is a risk of over-simplification or over-generalisation, since nuance and detail are inevitably lost when findings are synthesised. Despite our best efforts, it is also possible that key material has been omitted.

Empirically based knowledge about 'what works', although increasing, remains limited. Where an outcome evaluation has been undertaken, the focus is generally on the extent to which outcomes were achieved, not on the active ingredients for success. The literature available on indigenous and ethnic minority populations is especially limited, although growing. The development of research in this area has been affected by a relative lack of research funding and capacity.

It is important to note that the evidence base (and especially the content of systematic reviews) is heavily skewed towards interventions that are amenable to testing via randomised controlled trials. Interventions that are methodologically challenging to evaluate and those not linked to mainstream academic institutions are underrepresented in the literature. Readers should be mindful that a lack of robust empirical evidence does not necessarily mean that an intervention is ineffective, and conversely well-researched interventions are not necessarily the most effective.

The majority of research findings are from US school-based interventions and longitudinal studies. The applicability of these and other international findings to the New Zealand context is not well established.

Some included reviews covered 'children and adolescents' (aged 0–19) and other wider and narrower age ranges. In those instances it was difficult to separate out findings specifically for youth aged 12–19. It is possible that some of the aggregated findings reported do not hold for the 12–19 age group specifically. It should also be noted that 'adolescence' has varying definitions in the literature, but research typically focuses on those aged 13-plus. For this reason, research on 12-year-olds may be underrepresented in our review.

More specific strengths and limitations of the literature are noted in each section of the report.

1.6_ International context for this research review

Mental disorder is acknowledged as a pressing problem globally. Depression, for example, is the leading cause of all-age disability worldwide (World Health Organization [WHO] 2012) and depressive episodes now occur at a younger age than previously (Woods & Jose 2011).

Robust evidence shows that many adult psychological problems have their origins in childhood and adolescence (Institute of Medicine & National Research Council [IOM & NRC] 2009; The Royal Australian and New Zealand College of Psychiatrists 2010). Mental, emotional and behavioural disorders are as common among young people, affecting up to 20 percent of children and adolescents worldwide (Brown, Pearson, Braithwaite, Brown, & Biddle 2013; Kieling et al 2011; IOM & NRC 2009).

Yet the mental health needs of children and adolescents have often been neglected. There is growing recognition internationally of the importance of prioritising the health and wellbeing of adolescents and young people (Haswell, Blignault, Fitzpatrick & Pulver 2013). "Mental, emotional, and behavioural issues among young people – including both diagnosable disorders and other problem behaviours, such as early drug or alcohol use, antisocial or aggressive behaviour, and violence – have enormous personal, family, and societal costs" (IOM & NRC 2009, p 1). Governments are increasingly seeing youth mental health as a national priority.

02

Risk and protective factors

What are the key risk and protective factors for mental disorder in young people aged 12–19? What are the key risk and protective factors for Māori and Pacific youth in particular?

Key findings

There is well-established evidence on multiple risk and protective factors for adolescent mental disorders. Key factors are outlined in the table below. This is not an exhaustive list, but focuses on the most important and/or modifiable factors.

TABLE 1

Major risk factors and protective factors for mental disorders in young people aged 12–19

	Risk factors	Protective factors
Individual	• Stressors, especially associated with relationships • Aggressive social behaviour • Low educational achievement • Low commitment to school/ disengagement from school • Times of transitions	• High-quality interpersonal relationships, especially with parents but also other adults, teachers, peers
Family	• Childhood maltreatment/abuse • Family history of mental illness • Family conflict or dysfunction • Controlling, harsh or neglectful parenting style • Family poverty; social disadvantage • Witnessing or experiencing violence • Times of transitions	• Healthy attachment between parent and child in infancy and early childhood • Parenting characterised by warmth, firm and consistent limit-setting, monitoring and open communication patterns
School/ Neighbourhood	• Negative peer influence; bullying • Adverse neighbourhood conditions, eg fear, distrust, violence • Perceptions of relative disadvantage • Discrimination and racism • Lack of access to services	• Connectedness to school • Positive school ethos and environment
Societal	• Economic factors, eg high unemployment, inequality • Social and cultural norms • Accessibility and availability of alcohol and other drugs	

Māori and Pacific youth are more likely to be exposed to many of the risk factors above, including: discrimination and racism; witnessing or experiencing violence; lack of access to services; family poverty or social disadvantage; and low educational achievement. In addition, Māori and other indigenous peoples are affected by historical and contemporary injustices and marginalisation.

Emerging evidence identifies whānau or extended family support, cultural connectedness and cultural identity/pride as protective factors for Māori and Pacific youth.

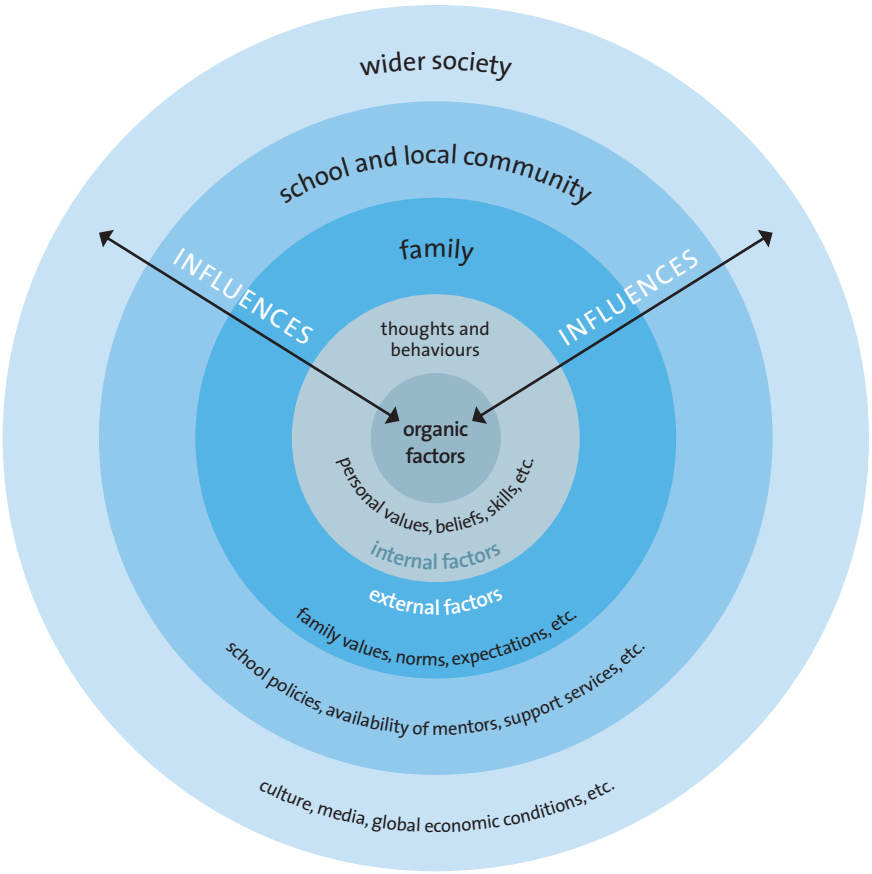
Exposure to several risk factors increases the likelihood of negative outcomes. Risks have a cumulative effect over the life course, and early problems tend to 'snowball' over time. Risk factors cluster in two distinct patterns: 'early accumulation' (in early life) and 'adolescent onset'. This suggests the importance of intervening both in childhood and during adolescence.

2.1_ Introduction

To shed light on the best strategies for prevention and early intervention, we need to understand what influences and contributes to mental disorders in young people. **Risk factors** are variables that have been shown by research to be associated with an undesirable outcome (IOM & NRC 2009). **Protective factors** are characteristics associated with a lower likelihood of negative outcomes like mental disorder (IOM & NRC 2009).

Mental disorder and wellbeing are influenced not only by individual attributes, but also by social circumstances and the environments in which people live (WHO Secretariat for the Development of a Comprehensive Mental Health Action Plan 2012). A wide set of influences interacts, and may threaten – or protect – an individual's mental health. Thus a socio-ecological frame of reference is appropriate for understanding the influences on youth wellbeing and the dynamic interrelations of various personal and environmental factors. This model is illustrated in the diagram below.

Figure 2 _ Socio-ecological model illustrating influences on mental health at various levels



Source: www.embracethefuture.org.au/resiliency/index.htm

The multi-level nature of risk and protection means that high-risk groups can be pinpointed according to indicators of risk or protection at the various levels. Similarly, preventive interventions can be developed to change risk and protective factors **across** levels – individual, family, community, society (IOM & NRC 2009).

Risk and protective factors may be modifiable (eg attitudes, behaviour and policies) or non-modifiable (eg gender, ethnicity). Some risk factors (eg abuse and neglect) and protective factors (eg healthy relationships with adults) have general effects on multiple outcomes such as depression, substance abuse, adolescent pregnancy and violence. Other risk and protective factors appear to have more specific effects; for instance, parental depression in childhood is a key risk factor for developing depression in adolescence (Catalano et al 2012; IOM & NRC 2009).

Multiple risk and protective factors for adolescent mental disorder have been identified from a well-established research base (IOM & NRC 2009). Traditionally the focus has been on risk factors but there has been a recent shift in emphasis towards the identification of protective factors. Major risk and protective factors are discussed below.

2.2_ Major risk factors for adolescent mental disorders

2.2.1 _ Individual and family levels

The New Zealand and overseas literature consistently identifies **family style and stressors** as major risk factors for youth mental disorders (Edwards, McCreanor, & Moewaka Barnes 2007; Greenberg & Lippold 2013; IOM & NRC 2009). Family conflict, insufficient monitoring of youth by parents and family poverty were specific risk factors emphasised in a comprehensive US review of high-quality studies (IOM & NRC 2009).

The longitudinal Christchurch Health and Development Study highlighted childhood sexual and physical abuse and parental separation, divorce, violence and alcohol problems. Researchers noted that while young people were influenced by family structure (eg separation or remarriage) and the quality of marital relationships, negative effects could be mediated, eg through parenting style (Greenberg & Lippold 2013; Swedish National Institute of Public Health 2009).

Both experiencing and witnessing violence are risk factors (Ministry of Health [MOH] 2008; IOM & NRC 2009). Physical illnesses and injuries, eg traumatic brain injury in early life, can also affect mental health in adolescence (Elder 2013).

Lower socio-economic status and family poverty are well established in the literature as risk factors for mental disorders (Fisher & Baum 2010; Marie, Fergusson & Boden 2008; IOM & NRC 2009). Social disadvantage and childhood adversity are risk factors for youth mental health disorders in a wide range of cultural settings (Marie et al 2008; WHO Secretariat 2012). However, the identification of specific pathways between family income and poverty levels (and other social conditions) and youth mental disorders requires further research, especially longitudinal studies (Curtis et al 2013; Fisher & Baum 2010).

Other major risk factors for mental disorder in adolescence include parental mental disorder, negative influence from peers and aggressive social behaviour (IOM & NRC 2009; The Royal Australian and New Zealand College of Psychiatrists 2010).

2.2.2 _ Community and societal levels

School-related risk factors for behavioural and mental disorders include **low educational achievement, low commitment to school** and **bullying** (Jackson, Henderson, Frank & Haw 2012; WHO Secretariat 2012).

Contemporary research also shows higher rates of various health and social problems associated with particular social conditions such as insecure housing, limited education, recent unemployment, high-demand or low-control work, poor neighbourhood conditions, and low social support. Growing up in concentrated poverty and living in disadvantaged communities has been associated with greater rates of delinquency, school failure and dropout (Greenberg & Lippold 2013). Emerging longitudinal research also suggests that **adverse material or social neighbourhood conditions** are associated with a subsequent increased risk of common mental disorders in adolescence (Curtis et al 2013).

A recent review of quantitative research concluded that a growing body of multidisciplinary evidence suggested that neighbourhood problems (eg material poverty, poor living conditions and social stressors such as violence and peer victimisation) were risk factors for common mental disorders (eg anxiety, depression, conduct disorder) in young people aged 10–20 years (Curtis et al 2013). The same review found that **perceptions of disadvantage** and fear or distrust of the social environment were also associated with youth mental disorders.

There is sound international evidence that unemployment is a risk factor for mental disorders in the working-age population, particularly anxiety and depression. Because very unsatisfactory or insecure jobs can be as harmful as unemployment, merely having a job will not always protect physical and mental health: job quality is also important (Fisher & Baum 2010; Wilkinson & Marmot 2003).

Unemployment has effects at the collective as well as the individual level; the risks are higher in regions where unemployment is widespread (Wilkinson & Marmot 2003). At a country level, research suggests that **income inequality** (the size of the income gap between rich and poor) is associated with a wide range of negative health outcomes, including the prevalence of mental disorders (Wilkinson & Pickett 2009).

Wider societal factors that influence substance abuse and other high-risk behaviours include social and cultural norms (eg drinking culture), laws favourable towards substance use, and the availability, accessibility and marketing of substances (Griffin & Botvin 2010; Jackson et al 2012; IOM & NRC 2009).

Social marginalisation, where individuals or groups find themselves excluded from the mainstream of society, can pose significant risks in adolescence (Kirkwood, Bond, May, McKieth & Teh 2008). Emerging literature in New Zealand also links institutional racism with a higher risk of depression (eg Crengle, Robinson, Ameratunga, Clark & Raphael 2012).

2.2.3 _ Risks for depression

The most common risk factors for adolescent depression are a **family history of depression** and exposure to **psychosocial stress** – acute stressful events like injury and bereavement, and chronic adversity, eg child maltreatment, family conflict, peer victimisation and poverty (Thapar, Collishaw, Pine & Thapar 2012). Offspring of parents with depression tend to have rates of depression that are three or four times higher than offspring of parents without depression. Risks appear to be greater for adolescents who have multiple negative life events compared with those exposed to one event.

Ongoing, severe stresses that affect relationships are considered the most important (Thapar et al 2012). The risk of depression associated with stressful life events is much greater for girls than it is for boys. Robust evidence shows that female gender is a strong risk factor for depression; the incidence of depression among adolescent girls after puberty is twice as high as that for boys (Thapar et al 2012).

2.2.4 _ Gender differences

Gender differences in adolescent social behaviour have been well documented. For example, young adolescent females are reported to be much more likely than males to use social forms of aggression (eg ostracism) while males tend to use physical aggression, although recent trends suggest increasing physical aggression among females (Kirkwood et al 2008). Additionally, teenage girls who have negative self-concepts (eg self-hate, self-neglect and self-blame) are more likely than boys to engage in 'internalising' behaviours, ie depression, anxiety and withdrawn behaviour, while boys tend to engage in more outwardly aggressive externalising behaviours (Kirkwood et al 2008).

Key findings from the Youth'12 survey of New Zealand secondary school students on risks to young women's mental health[1]

Despite facing a higher risk of depression, female secondary students report worse access to healthcare than male students. There was a decline since the previous survey in the proportion of female students reporting that they spent enough time with their parents, an indicator of family connectedness. In 2012 only 55 percent of female secondary students reported that they had enough time with at least one parent (compared with 62 percent of male students, who showed no decline) (Clark et al 2013).

2.3_ Major protective factors for youth mental disorders

The evidence base on protective factors in adolescence is less well developed than that on risk factors. Studies of protective factors for depression have tended to focus on correlates of resilience, and the underlying mechanisms remain poorly understood (Thapar et al 2012). Nonetheless, existing research highlights various key protective factors, outlined below.

The most consistent findings in contemporary literature indicate that **high-quality interpersonal relationships** have a strong protective effect against mental disorders in adolescence. Children and adolescents with a high familial risk of depression, for example, tend to have better mental health if their relationships with their parents are characterised by warmth, acceptance and low hostility (Thapar et al 2012). Positive parent-child relationships are highly protective against a range of adolescent problem behaviours and outcomes (Greenberg & Lippold 2013).

Parenting practices have a strong influence on children and young people. Protective parenting practices include firm and consistent limit-setting, monitoring, nurturing and open communication patterns (Greenberg & Lippold 2013). An authoritative parenting style that is high in warmth and effective discipline is also highlighted as protective (Greenberg & Lippold 2013).

[1] Youth'12 was the third Youth2000 national survey of the health and wellbeing of secondary school students in New Zealand.

While family relationships are fundamental, the evidence suggests that good relationships with other adults, peers and schools (and other institutions) are also protective (Greenberg & Lippold 2013; Brooks, Magnusson, Spencer & Morgan 2012; Griffin & Botvin 2010). **School and teacher connectedness** is especially critical, but evidence also supports the protective effect of engagement with church and other settings such as sports groups. A cross-sectional study of United Kingdom adolescents found that having a positive connection with a teacher was protective against various risk behaviours related to substance abuse and sexual activity – and had an especially protective effect when family connectedness was low (Brooks et al 2012).

A supportive school culture is also a significant protective factor. Research in 24 Scottish schools, for example, showed that variations in students' substance use across schools were explained by school-level characteristics such as the schools' focus on caring and inclusiveness (Jackson et al 2012). New Zealand researchers have also found that more positive school climates are associated with fewer health risk-taking behaviours, and fewer depressive symptoms among students (Denny et al 2011).

A sense of **community cohesion**, especially trust and support between community members, has been associated with a lower risk of multiple problem behaviours (Brooks et al 2012). Research indicates that feelings of **ethnic group solidarity and identity**, especially facilitated in geographic concentrations of particular ethnic groups, may protect against the negative effects of material disadvantage (Curtis et al 2013).

There is emerging evidence for the protective effect of **good nutrition** and **being physically active** (Aked et al 2008). A meta-analysis of nine studies suggests a small but significant protective effect of physical activity interventions in preventing and reducing depression among young people (Brown et al 2013). The authors suggest possible explanations for the protective effect, including neurobiological mechanisms that mediate changes in depressive symptoms and mood, and psychosocial mechanisms that lead to improved mastery and elevations in self-worth. However, they note further high-quality outcome studies are required to confirm the finding.

2.4_ Risk factors for Māori and Pacific youth

The risk and protective factors identified above are likely to apply to Māori and Pacific youth in New Zealand. In addition, New Zealand research has identified ethnic-specific factors associated with health and social outcomes for Māori and Pacific youth. The evidence base specific to mental health is small but increasing.

2.4.1 _ Individual and family level

There are well-established, persistent disparities in the prevalence of mental disorders, with Māori and Pacific youth at increased risk compared with New Zealand European adolescents (Crengle et al 2013; Gluckman 2011; Marie et al 2008; Robertson, Boyd, Dingle & Taupo 2012; Siataga 2011). Ethnicity is therefore a key risk factor to note, although our report focuses on modifiable risk and protective factors.

The Christchurch Health and Development Study found that from the ages of 16–18 years, 54 percent of Māori individuals had experienced mental disorders (The Royal Australian and New Zealand College of Psychiatrists 2010). The national health and wellbeing survey of secondary school students shows inequalities between Māori and New Zealand European young people on several mental health indicators. Māori students are significantly more vulnerable than Pākehā youth to substance use and to suicide attempts (Crengle et al 2013; Helu, Robinson, Grant, Herd & Denny 2009). However, the latest survey found no differences between Māori, Pacific and Pākehā youth in significant depressive symptoms.

The **health and wellbeing of the wider whānau** affect the mental health and development of Māori children and adolescents. As with the overall youth population, the influence of parental experiences of mental illness on the wellbeing of young Māori can be significant, for example.

As noted, **experiencing or witnessing violence** is associated with increased rates of depression, anxiety and substance abuse for young people of all ethnicities (MOH 2008). Māori and Pacific young people tend to be at greater risk of violence than New Zealand European young people (Crengle et al 2013; Helu et al 2009).

Risks may also arise in the development of **identity**. For example, many Pacific youth face challenges in reconciling traditional values and expectations with New Zealand values and expectations. This can result in disconnection from support structures in critical periods (MOH 2008).

2.4.2 _ Community and societal level

The higher rates of mental health problems of Māori and other indigenous young people can be linked to **injustices**, both past and present, and the **socio-economic disadvantages** experienced by these groups (Edwards et al 2007; The Royal Australian and New Zealand College of Psychiatrists 2010). Māori and Pacific youth are more likely than New Zealand European youth to be raised in poverty and living in disadvantaged neighbourhoods. The Christchurch Health and Development Study provided evidence that social disadvantage and childhood adversity were associated with mental disorder in Māori young people aged 18–25 years (Marie et al 2008). However, research suggests that even when social and economic circumstances are taken into account, Māori individuals still fare worse than non-Māori. As noted, "simply 'being Māori' introduces a risk factor that cannot be entirely explained by social or economic disadvantage" (Durie, Cooper, Grennell, Snively & Tuaine 2009).

Literature on the origins of Māori over-representation in mental health problems has discussed a range of socio-historical contributors:

- historical oppression
- institutional racism
- acculturation stress arising through rapid urbanisation
- unequal access to treatment services
- lack of ethnic matching between clinician and client leading to clinical biases
- inadequate and incomplete collection of ethnicity information (Marie et al 2008).

The experience of **discrimination and racism** has been associated with depression in New Zealand research (Crengle et al 2012). Māori and Pacific students are significantly more likely than their New Zealand European peers to report experiencing ethnic discrimination from health professionals and police – and being bullied at school because of their ethnicity. Student participants who report ethnic discrimination are more likely to have experienced significant depressive symptoms, binge drinking and cigarette smoking (Crengle et al 2012).

Given the importance of school-related factors, **negative experiences of school** are a major risk factor for Māori youth. According to the national youth health and wellbeing survey, there has been no improvement in the past decade in the low proportion of Māori youth perceiving that people at their school care about them or that people expect them to do well (Crengle et al 2013).

Lack of access to services is a major risk factor for Māori and Pacific youth. Māori and Pacific youth are more likely than their peers to live in areas that lack essential health services (MOH 2008). Even where services are available, compared with their peers more Māori and Pacific youth fail to access care when needed. Reported reasons for foregoing essential healthcare include 'not wanting to make a fuss', cost, concerns about privacy and trust, fear, stigma associated with mental disorder, and feeling uncomfortable with the health provider (Helu et al 2009; MOH 2008).

2.5_ Protective factors for Māori and Pacific youth

Whānau and aiga (the extended family network) are considered fundamental to the mental wellbeing of Māori and Pacific youth (Williams & Cram 2012; Fa'alau & Jensen 2006). The national youth health survey indicates, however, that compared with New Zealand European students Māori are less likely to feel close to their parent/s or to report spending adequate time with them (Crengle et al 2013). Given that family connectedness is a key protective factor against youth mental disorders, this finding is of concern. The role of the extended family as a key asset is discussed in more detail in section 3.

Overseas and New Zealand research suggests that **cultural connectedness** is a key protective factor for Māori and Pacific youth. In overseas research, participation in cultural activities and indigenous language competence have been shown to be protective against mental disorders among Indigenous Sami youth, for example (Bals et al, cited in Crengle et al 2012).

Cultural identity and pride is thought to protect against adverse outcomes including mental disorders (Marie et al 2008). Drawing on the Christchurch Health and Development Study's longitudinal data, Marie and colleagues found that youth who identified solely as Māori had rates of mental disorder that were 1.3 times higher than those of non-Māori, and those of mixed Māori/other identity had rates that were 1.6 times higher (Marie et al 2008). Based on these findings, Marie and colleagues hypothesised that a secure cultural identity may be protective against mental disorders and mitigate against the negative effects of childhood adversity (Marie et al 2008).

New Zealand's youth health survey found that more than 70 percent of Māori youth survey participants said they were 'very proud' to be Māori and more than half reported it was important to them to be recognised as Māori (Crengle et al 2013).

Pacific youth also report high levels of pride in their ethnic identity. In the national youth health survey, 87 percent of the Pacific students were 'very proud' of their specified ethnicity and 81 percent reported that its values were either important or very important to them (Helu et al 2009). However, associations between cultural pride and mental health indicators were not reported.

There is some evidence to suggest that, compared with Māori youth, Pacific youth may feel more connected to school, according to the Youth'12 survey cited above. In contrast to Māori students, almost all Pacific students felt that people at school cared about them (Helu et al 2009).

2.6_ Accumulation and clustering of risk and protective factors

The effects of risk and protective factors are correlated and cumulative. Risk factors tend to be positively correlated with each other and negatively correlated with protective factors. Exposure to several risk factors, and a lack of exposure to protective factors, increases the likelihood of negative outcomes. However, preventive interventions that successfully reduce risk and enhance protective factors can have the reverse effect, making positive development more likely (Catalano et al 2012).

The literature on risk and protective factors identifies two distinct patterns in the development of adolescent problems, which require different preventive approaches. Risk and protective factors emerge at particular periods of development, and risks 'cluster' across development to produce an 'early accumulated risk cluster' in early childhood and a more pervasive 'adolescent-onset risk cluster' in early to late adolescence (Catalano et al 2012).

In childhood, environmental and individual risk factors tend to accumulate as developmental challenges are not met and problems begin to cascade. Early family adversity, for example, such as low income, poor parenting and child maltreatment, hinders the development of nurturing relationships. This affects children's cognitive and social development and thus readiness for school and early educational achievement (Catalano et al 2012). Interventions in the early years to counteract family risk factors and avoid school problems have been shown to be successful. However, if early problems are not addressed, risks can continue to accumulate into adolescence, with low school achievements, negative influences from peers, and the development of behavioural and emotional problems (Catalano et al 2012).

The adolescent-onset risk pattern can affect all adolescents, including those without accumulated earlier risk. This evidence implies that effective adolescent health programmes should include a mix of preventive policies and programmes **before and during** adolescence (Catalano et al 2012; The Royal Australian and New Zealand College of Psychiatrists 2010).

Early adolescence may be an especially important stage for preventive intervention. Attitudes towards health-related behaviours may be particularly malleable in late childhood and early adolescence when decisions on risky behaviours, such as binge drinking and drug initiation, are being made (The Royal Australian and New Zealand College of Psychiatrists 2010).

03

Factors associated with positive outcomes

What are the key competencies, assets and environmental factors that are associated with positive outcomes (particularly mental health outcomes) for young people aged 12–19, and in particular, Māori and Pacific youth?

Key findings

There is a growing emphasis on mental wellbeing, positive youth development and strengths-based approaches in research and policy on youth.

Evidence increasingly suggests that mental wellbeing and mental disorder are two distinct dimensions. While some factors affect both wellbeing and disorder, there are other drivers that influence wellbeing alone.

The most widely reported contributors to resilience in young people, based on international literature, include positive relationships with caring adults and with peers, effective caregiving and parenting, and effective teachers and schools.

Individual-level assets include an easy-going temperament, cultural knowledge and competence, and skills such as self-regulation, coping and problem-solving.

Community-level factors associated with positive outcomes include early prevention and intervention programmes, relevant support services, recreational facilities and programmes, access to adequate health services, economic opportunities for families, and religious and spiritual organisations. In addition, the normative climate and social cohesion in a neighbourhood or community affect young people's development and mental wellbeing.

There is growing interest in policy measures that may promote positive mental health, eg parenting education and strategies to build social capital within communities.

New knowledge about brain plasticity suggests that interventions that alter environmental factors in adolescence can produce long-term changes in brain structure and function, highlighting the potential of environmental-level changes in reducing the negative impacts of early adverse experiences.

Based on emerging evidence, factors that promote positive outcomes for Māori and Pacific youth include whānau/extended family support, cultural connectedness and supportive policies and structures, eg indigenous development.

3.1 Introduction

In the past 20 years research and policy on youth – internationally and in New Zealand – has shifted away from a focus on deficits towards a more positive, optimistic view of youth development. Consistent with a socio-ecological approach, positive youth development and mental wellbeing have roots in multiple settings and contexts. There is growing interest in policy measures that may promote resilience and positive mental health, such as parenting education and strategies to build social capital within communities and neighbourhoods (Fisher & Baum 2010).

There is growing evidence that mental wellbeing and mental disorder are not opposite ends of a single continuum, but two distinct dimensions (Aked et al 2008). A major UK review concluded that "while some factors affect both well-being and ill-being, there are other drivers which influence well-being alone" (Aked et al 2008, p 2).

Strengths and resilience are two related, but distinct, dimensions of positive mental health and positive youth development (Brownlee et al 2013). Resilience has a long history in the literature, across diverse populations and outcomes and drawing on numerous longitudinal studies (Sapienza & Masten 2011; Zolkoski & Bullock 2012), whereas strengths-based approaches are relatively new.

3.2 Individual competencies, assets and behaviours

High-quality evidence indicates that the following individual-level competencies are associated with positive development in adolescence (IOM & NRC 2009):

- physical development (eg positive health habits and health-risk management skills)
- intellectual development (eg life, school, vocational skills; critical and rational thinking; cultural knowledge and competence)
- psychological and emotional development (eg self-esteem, self-regulation, coping, problem-solving, responsibility, motivation and achievement, ethics and values)
- social development (connectedness to peers, family and community and attachment to institutions, eg school, sport, cultural institutions, church).

A review of resilience literature in the past 40 years highlighted self-regulation and an easy-going temperament as fundamental assets for children and young people (Zolkoski & Bullock 2012). Other recent reviews also emphasised self-regulatory skills as well as good thinking skills (intelligence, judgement), perceived efficacy and control, achievement motivation, spirituality or faith and belief that life has meaning (Murphey, Barry & Vaughn 2013; Sapienza & Masten 2011). The positive youth development model highlights the 'Five Cs' of Competence, Confidence, Connection, Character and Caring (Boyd & Barwick 2011).

Behavioural factors found to enhance mental wellbeing in people of all ages are mindfulness (the state of being attentive to and aware of what is taking place in the present) and acts of kindness, generosity and social contribution (Aked et al 2008).

These individual factors have been found to be the outcomes of functionally and developmentally appropriate interactions between young people and their social environments (Kirkwood et al 2008). Thus individual and environmental factors are intertwined, and are best understood within a systems framework.

3.3_ Environmental factors

3.3.1 _ Environmental factors linked with positive youth development

At the broader levels of the socio-ecological model (family, community, societal), research links the following assets and environmental factors with positive youth development:

- supportive relationships and physical and psychological safety
- appropriate structure in family and community/school settings (eg limits, rules, monitoring, consistency)
- opportunities to belong (socio-cultural identity formation, inclusion)
- positive social norms (expectations, values)
- opportunities for skill-building (IOM & NRC 2009).

Studies suggest that young people who are involved in contexts that provide positive resources from important others (eg family, schools and communities) are more likely to show evidence of positive development (Youngblade et al 2007).

The most widely reported environmental contributors to resilience in young people, based on international literature, are positive relationships with caring adults and with peers, effective caregiving and parenting, and effective teachers and schools (Sapienza & Masten 2011; Zolkoski & Bullock 2012). The Christchurch and Dunedin longitudinal studies, for example, point to the family as a core asset that influences young New Zealanders' life experiences and decisions (Edwards et al 2007).

Despite the family's key role, other significant adults are also important. Recent research, and the longstanding resilience literature, point to the importance of young people having one or more adult who provides caring support (Murphey et al 2013; Sapienza & Masten 2011). Role models outside the family can act as buffers for children and youth experiencing adversity or disadvantage. Examples of such role models include teachers, school counsellors, sports coaches, religious leaders, mental health workers and neighbours.

A seminal longitudinal study identified an 'authoritative' parenting style to be associated with optimal competence in children and adolescents (cited in Zolkoski & Bullock 2012). Features of this style of parenting are responsive (supportive, warm, loving) and demanding (firm, rational, consistent, but not controlling).

Community-level factors that promote resilience and positive outcomes for youth include early prevention and intervention programmes, safety in neighbourhoods, relevant support services, recreational facilities and programmes, access to adequate health services, economic opportunities for families, and religious and spiritual organisations (Zolkoski & Bullock 2012).

In addition, the normative climate, relationship atmosphere, social cohesion and informal social control in a neighbourhood or community can affect young people's development and mental wellbeing (Swedish National Institute of Public Health 2009).

3.3.2 _ Implications of research into brain plasticity

New knowledge about the maturation and plasticity of the adolescent brain provides key learning to inform the development of effective interventions (Sapienza & Masten 2011). Neural systems can adapt to support and refine positive behaviours, eg learning, social skills and self-regulation, which contribute to healthy development and positive mental health.

This implies that while the early years are crucial, it is never too late to intervene, and environmental changes in adolescence have the potential to make a significant difference. Indeed, evidence indicates that interventions that alter environmental factors can produce long-term changes in brain structure and function, highlighting the important potential of environmental-level changes in reducing the negative impacts of adverse experiences prior to adolescence (Sapienza & Masten 2011).

3.4_ Factors associated with positive outcomes for Māori and Pacific youth

Across countries, mental health research on indigenous youth has traditionally studied the negative, eg prevalence of, and risk factors for, mental disorders. In the past decade a small but growing body of research has begun to redress the imbalance, providing insights into the factors that protect and strengthen indigenous mental health and wellbeing (MacDonald, Ford, Willox & Ross 2013).

Although we lack literature on positive youth development in relation to Māori and Pacific youth specifically, the socio-ecological approach aligns with Whānau Ora and Māori models of health such as Mason Durie's Te Whare Tapa Whā. Māori youth live, work and play in diverse environments, eg whānau, community, education settings, marae, whenua (the natural environment), that have the potential to sustain, strengthen and validate Māori development and wellbeing (Moewaka Barnes 2010).

New Zealand research has explored Māori perceptions of flourishing – "a state where people experience positive emotions, positive psychological functioning and positive social functioning most of the time" (Blisset 2011). Blisset found that the ability to flourish was inextricably linked to the values, practices and communities in which individuals and collectives existed and interacted. Flourishing, for these participants, was inseparable from the health of the land and environment.

3.4.1 _ Whānau support

There is strong agreement in the Māori literature on the importance of whānau to Māori wellbeing (Edwards et al 2007; Moewaka Barnes 2010; Williams & Cram 2012). Māori-specific findings from the national youth health surveys in 2007 and 2012 reveal the whānau as a key asset and environmental factor that positively influences the wellbeing of young Māori (Crengle et al 2013; Edwards et al 2007).

Likewise, qualitative research from South Auckland shed light on young Māori experiences of family life and points to whānau as a fundamental contributor to wellbeing (Edwards et al 2007). The sample was purposely selected to consist of diverse young people considered to be 'managing well' in their lives (eg attending school or work, living at home, not engaged with social or justice services). Themes of the research included:

- young people valued and expressed the desire to spend more time within the whānau environment
- the nurturing – but also fragility – of the whānau role in the lives of young people
- a closeness with mothers but emotional remoteness from and inconsistent bonds with fathers
- the importance of tuakana/teina sibling relationships and extended kin networks (eg as safety nets and enabling a wider range of social exposures)
- criticism of parents and wider whānau networks for having low expectations and aspirations for themselves and their children
- understanding that deficiencies in parenting were linked to environmental factors such as financial stress and pressures on the family from the parent/s working long hours at perhaps an unsatisfactory job (Edwards et al 2007).

These researchers noted that although all participants expressed some dissatisfaction with their whānau (especially paternal absence – actual or emotional), the overall picture was not of dysfunction or lack of caring as often painted in the media (Edwards et al 2007). Instead, the young people emphasised support and nurture from whānau members across generations (and from cousins).

Pacific literature also points to the fundamental role of the family in supporting young Pacific people's development: "The essential social group and most important component of the Samoan social structure, for example, is the aiga" (Fa'alau & Jensen 2006, p 19).

Research with Samoan adolescents living in New Zealand found that because of the greater geographic spread of family members in New Zealand, compared with Samoa, some traditional roles are changing. For example, many Samoan youth in a qualitative research study said that interactions with their aiga were focused on special occasions rather than everyday interactions. They reported that, to a certain extent, the traditional closeness with aiga was being replaced with friends at church and school, and connections with friends' families (Fa'alau & Jensen 2006).

3.4.2 _ Cultural values, practices and communities

Engagement with cultural values, practices and communities is important for indigenous youth development. The first systematic review of factors that promote positive mental health for indigenous circumpolar youth (living in diverse contexts including Canada, Alaska, Greenland and Norway) found a range of culturally specific protective factors (MacDonald et al 2013). These included learning and practising culture, positive cultural/ethnic identity and shared heritage, ethnic socialisation and use of native language. A central environmental contributor to indigenous youth mental wellbeing was a supportive, caring and connected community. Research demonstrates that indigenous youth, in turn, want to be useful and to contribute to their communities (MacDonald et al 2013).

Opportunities for youth to develop and foster positive, healthy relationships with adults was also key (MacDonald et al 2013). Many articles in the review stressed the importance of youth feeling connected to their culture through relationships with elders and other adults, suggesting the protective nature of informal communication, mentoring and having positive role models.

3.4.3 _ Policies and structures that support indigenous development

Policies and societal structures have a major influence on the extent to which whānau thrive or struggle (Moewaka Barnes 2010). The Whānau Ora policy is viewed as a way to address societal structures and responsibilities (Moewaka Barnes 2010).

Similarly, international indigenous literature suggests that policies play a fundamental role in facilitating positive outcomes for indigenous youth. Some Sami populations in Norway, for instance, have low levels of suicide (unlike most indigenous circumpolar groups) and disparities in youth mental health outcomes have "almost disappeared". This achievement has been attributed to societal-level measures that have occurred in Norway in the past 30 years, for example:

- a high degree of self-governance and support for the Sami culture
- positive socio-cultural development
- good living conditions and socio-economic status
- the preservation of traditional language
- overall cultural revitalisation (MacDonald et al 2013).

04

Principles for effective interventions

What are the evidence-based principles of effective mental health promotion, mental disorder prevention and early intervention for young people aged 12–19? What works in terms of content and design?

Key findings

There is strong and growing evidence that interventions delivered in home, school and community settings can improve adolescent mental health outcomes across the spectrum of promotion, prevention and early intervention.

Evidence-informed principles for the design and content of effective initiatives include:

- the use of a developmental framework
- a focus on key risk and protective factors, both individual and environmental
- a dual focus on prevention and promotion, using a strengths-based approach
- a socio-ecological model
- a cross-sectoral approach
- adequate dosage and timeframe
- informed by theory and evidence
- cultural appropriateness.

There is empirical evidence that mental health and other outcomes can be improved by interventions aimed at supporting positive family functioning, supporting nurturing school environments, and developing skills such as social problem-solving, communication and social skills in the adolescent years.

Experts also see evidence-informed policy-level interventions (eg to reduce poverty, child abuse, discrimination) as important, and there is some evidence of effectiveness for certain policy approaches.

There is some evidence that comprehensive and co-ordinated programmes that use a range of strategies in different settings (eg school, community, family) are more effective than those that use classroom-based activities alone.

In order to improve mental health outcomes in adolescence across the spectrum of promotion, prevention and early intervention, attention needs to be given to creating nurturing environments and supporting social and emotional development in infancy, childhood and pre-adolescence, as well as intervening during the adolescent years.

Effective interventions at the individual level are those that focus on the promotion of protective factors, skills and competencies in young people. At family, school, community and societal levels, interventions should aim to both reduce risk factors (eg punitive approaches to behaviour management) and enhance protective factors (eg respectful relationships, a positive school climate).

4.1_ Introduction

4.1.1 _ Overview of the evidence base

This section is based primarily on the findings of intervention studies aimed at improving mental wellbeing or resilience, preventing mental disorder, or reducing problem behaviours and/or symptoms of emotional distress in adolescents. Such intervention studies have been conducted for more than 50 years, and a large number of reviews, and reviews of reviews, are available.

Historically, the literature focused mainly on prevention and early intervention for youth problems such as delinquency and drug and alcohol use. Research on prevention and early intervention for youth depression also goes back several decades. As discussed in section 2, it is now known that there are common risk factors underlying mental, emotional and other health and social problems in young people, and such problems often co-occur with, or precede, full blown mental disorders (IOM & NRC 2009). Consequently there has been a recent movement towards understanding the co-occurrence of adolescent problems and the overlap in predictors across many health and social outcomes (Catalano et al 2012). There has also been growing research interest in the promotion of positive youth development and mental wellbeing, as an end in itself and as a strategy for reducing youth problems.

Although the evidence base on mental health promotion and prevention has expanded greatly in the past two decades, interventions for adolescents are still under-researched compared with interventions for younger age groups (IOM & NRC 2009). Other significant gaps are empirical research on the 'active ingredients' of successful programmes, and the comparative efficacy of different prevention strategies (Catalano et al 2012; IOM & NRC 2009; Tennant, Goens & Barlow 2007). There is also a lack of evidence about differential effects on subgroups, for example by gender, ethnicity or socio-economic status (Catalano et al 2012; Greenberg & Lippold 2013; Kavanagh et al 2009). A recent review concluded, "The field needs to understand better for whom current programmes are most effective to create the next generation of more effective and efficient programmes" (Greenberg & Lippold 2013, p 253). Another noted that more research is needed on the strategic timing and targeting of interventions (Sapienza & Masten 2011).

The majority of high-quality studies are from the US, and the applicability of these and other international findings to the New Zealand context is not well established. In fact, even applicability to 'real life' settings in the US is uncertain, since effectiveness studies (as opposed to efficacy studies conducted under research conditions) are uncommon (Catalano et al 2012).

As well as empirical research, there is evidence-informed literature providing expert opinion on how youth mental health services should be redesigned or improved (eg Hickie 2011; McGorry 2013); or outlining strategic frameworks for addressing mental health promotion, prevention and early intervention at the state or national level (Department of Health and Human Services 2009; Swedish National Institute of Public Health 2009; The Royal Australian and New Zealand College of Psychiatrists 2010).

4.1.2 _ Evidence for effective interventions

Despite the significant knowledge gaps discussed, there is clear evidence that interventions can make a positive difference to youth wellbeing. There is strong evidence that a range of interventions can produce the following outcomes in young people aged 12–19:

- Promote positive mental wellbeing and resilience (Brownlee et al 2013; Khanlou & Wray 2014; Sapienza & Masten 2011)
- Reduce key risk factors for mental disorders in children and young people (Tennant et al 2007)
- Reduce the prevalence of depression, anxiety disorders and substance use (Beardslee, Chien & Bell 2011; IOM & NRC 2009)
- Reduce the symptoms of depression, anxiety and substance-related disorders (Kavanagh et al 2009; Merry et al 2011).

Many interventions that produce positive mental health outcomes also benefit other domains such as school engagement, academic achievement, criminality and teen pregnancy. It is widely agreed that preventive interventions in childhood and adolescence can significantly reduce the human and economic costs of mental disorders and social problems (IOM & NRC 2009; Sapienza & Masten 2011).

Overall, the evidence is stronger and effect sizes tend to be larger for interventions targeting younger children and their families. There is clear evidence that such interventions can have long-term effects, influencing outcomes in adolescence and early adulthood (Beardslee et al 2011). However, certain interventions targeting adolescents, and the settings in which they live, have evidence of effectiveness (IOM & NRC 2009).

Although some interventions for young people aged 12–19 have demonstrated positive outcomes compared with control groups, effect sizes are generally modest and some interventions have been shown to be ineffective or even harmful (Catalano et al 2012). This finding points to the importance of using evidence-informed interventions based on sound prevention principles.

4.1.3 _ Overarching principles for promotion and prevention

A major US report on preventing mental, emotional and behavioural disorders (IOM & NRC 2009, p 120) identified common prevention principles that can be adopted in home, school and community environments and need not be attached to specific prevention programmes:

- reduce young people's exposure to biologically and psychologically toxic events, such as harsh discipline, abuse and neglect
- an emphasis on supportive environments or 'nurturance' and positive reinforcement for pro-social behaviour
- acceptance and encouragement in family, school and community environments are more effective and desirable than confrontation or coercion
- such techniques as praise notes, peer-to-peer tutoring and caregiver training can help facilitate the creation of nurturing environments
- adequate sleep, diet and exercise, and television viewing limits can contribute to positive physical and mental health outcomes.

Note that these principles are relevant to infants, children and young people of all ages – not only adolescents. The need to raise awareness of mental health promotion and prevention among parents, educators, health workers and society in general is a theme in the literature (IOM & NRC 2009; The Royal Australian and New Zealand College of Psychiatrists 2010)

4.2_ Principles for programme design and content

The literature suggests that, in order to be effective, mental health promotion, prevention and early intervention programmes should be underpinned by the following principles. These principles are evidence-informed (ie based on systematic reviews comparing the characteristics of successful with unsuccessful programmes), but as noted above there has been little direct research on the 'active ingredients' of effective programmes, or the relative effectiveness of different approaches.

4.2.1 _ Developmental framework

A common theme in the literature is the need to consider mental health promotion and prevention within a developmental framework (Beardslee et al 2011; Catalano et al 2012; IOM & NRC 2009). This means recognising that how well a child's emotional needs are met and how well their competencies are developed at one stage determines how well they will cope with the challenges of the following stage. It implies an emphasis on developmentally appropriate risk and protective factors at each stage, and a consideration of the question: "What does a child need, one, three, five years down the line?" (Beardslee et al 2011, p 248).

Mental health problems in adolescence often have their roots in infancy and early childhood, when protective competencies and assets such as positive relationships with caring adults, self-regulation skills and self-efficacy are established. It has long been recognised that 'developmental cascades' amplify the consequences of early hardship or behaviour problems across the life course (Sapienza & Masten 2011). For example:

> **Behaviour problems can spread across domains over time through interactions of a person and other social systems, such as when a child's disruptive, aggressive behaviour alters learning, peer acceptance and relationships with authority figures, and increases risk for later substance abuse or internalising symptoms [eg depression, anxiety]**
> (Sapienza & Masten 2011, p 268).

For this reason it is generally more cost effective (in terms of human cost as well as monetary cost) to intervene early in the life course "before the negative consequences of cascading effects occur" (Sapienza & Masten 2011, p 268). As discussed in section 3, there is now emerging evidence that positive behaviour may also spread.

This does not mean that interventions in adolescence are 'too late' and cannot be effective. Indeed, adolescence is a key developmental phase, and all young people have particular mental health needs at this time, regardless of assets or deficits in early life:

> **Adolescence introduces significant new biological and social factors that affect developmental competencies, particularly related to behavioural decision making. A solid foundation of developmental competencies is essential as a young person assumes adult roles and the potential to influence the next generation of young people**
> (IOM & NRC 2009).

Prevention science has identified two distinct patterns of risk clustering: "a so-called early accumulated risk cluster and a so-called adolescent-onset risk cluster" (Catalano et al 2012, p 1655). The latter "can affect all adolescents, even those without accumulated early risk" (Catalano et al 2012, p 1655). This suggests a dual approach to preventing adolescent problems, addressing both patterns of risk clustering.

One of the key messages from a recent review by Catalano et al (2012) on the application of prevention science in adolescent health was: "Early intervention [ie in infancy and early childhood] might be best to forestall the accumulation of risk, but investments are also needed during adolescence to offset the pattern of adolescent-onset risk and to work with those whose accumulated risk now needs indicated prevention" (p 1653). Another review also suggested this dual approach, concluding "addressing underlying determinants of risk behaviour early in childhood may have a greater impact than only intervening in adolescence" (Jackson et al 2012).

In summary, the evidence suggests that in order to improve mental health outcomes in adolescence across the spectrum of promotion, prevention and early intervention, attention needs to be given to creating nurturing environments and supporting the development of age-appropriate skills in infancy, childhood and pre-adolescence, as well as during the adolescent years.

4.2.2 _ Focus on key risk and protective factors

The literature suggests that effective interventions at the individual level are those that focus on the promotion of protective factors, assets, skills and competencies in young people. At family, school and societal levels, interventions should aim to both reduce risk factors (eg punitive approaches to behaviour management) and enhance protective factors (eg respectful relationships, economic wellbeing). Further detail about the key risk and protective factors associated with the effectiveness of intervention is provided below.

Address both individual and environmental factors

Experts agree that a focus on key risk and protective factors is essential, and that programmes should address both individual and environmental factors:

> **Interventions should focus on key protective factors associated with resilience such as improving parenting, teaching, and promoting executive function[2] in children**
> (Khanlou & Wray 2014).

> **The most effective [substance abuse prevention] programmes target salient risk and protective factors at the individual, family, and/or community levels**
> (Griffin & Botvin 2010, p 506).

The majority of intervention studies are aimed at directly improving young people's skills or behaviour. However, some of the most effective interventions for improving youth outcomes seem to be those aimed at changing **parents'** and **teachers'** skills and behaviour, and improving their interactions with young people. This is discussed in more detail later in this section, and in section 6.

Common risk factor approach

There is strong evidence that enhancing supportive environments in the pre-teen and teenage years (eg through whole-school interventions and parenting interventions) can improve a range of outcomes for young people, including improved mental health and reduced teen pregnancy, substance use and behaviour problems (Jackson et al 2012; IOM & NRC 2009).

Programmes aimed at enhancing generic skills in adolescents, in particular **social problem-solving**, have also demonstrated positive outcomes in a wide range of domains including substance use, life skills, sexual health, depression and anxiety, and violence prevention (Boustani et al 2014). One review found that a range of **behavioural** and **cognitive-behavioural interventions** was effective in reducing problems and increasing competencies in children and adolescents. The largest effect sizes were achieved by **interpersonal problem-solving** interventions (Tennant et al 2007).

A review of 177 interventions targeted at reducing behavioural and social problems in children and adolescents, including both prevention and mental health promotion interventions, found significant mean effects for programmes that **modified the school environment, helped children negotiate stressful transitions**, and **provided individually focused mental health promotion** (IOM & NRC 2009).

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[2] Executive function is an umbrella term for the management of cognitive processes, including working memory, reasoning, problem-solving, planning and impulse control. It is thought to be important for managing novel situations and decision-making.

There is evidence that adolescents' physical health and mental health are inseparable, and are underpinned by many common risk and protective factors (Miller, Gilman & Martens 2008). For example, a recent US longitudinal study found that low self-control was the strongest single predictor of problem behaviours and adverse physical health outcomes in adolescents (Kim, Guerra & Williams 2008). There is growing evidence that changes in 'lifestyle factors', including **sleep, diet, physical activity and fitness, sunshine and light,** and **television viewing**, can promote mental as well as physical health (Kieling et al 2011; IOM & NRC 2009). Physical fitness and exercise are widely recognised as important modulators of stress, and there is evidence of their effectiveness for preventing and treating depression (IOM & NRC 2009). For example, a recent systematic review found that physical activity interventions – particularly when combined with other strategies – significantly improved depressive symptoms in children and adolescents (Brown et al 2013). Another review found that exercise had positive short-term effects in self-esteem, for both healthy children and children with defined problems (age range not reported) (Tennant et al 2007).

Individual-level factors

At the individual level, effective mental health promotion, prevention and early intervention programmes generally focus on **skill development**, a **positive sense of self** and **pro-social connectedness** (Boyko 2007; Kim et al 2008). The resilience and youth development literature also emphasises the importance of **respectful relationships** and **opportunities to contribute** and develop a sense of **personal competency** and **cultural identity** (Brownlee et al 2013; Wayne Francis Charitable Trust 2011). The promotion of **help seeking** is also seen as a key component (Power 2010; Wilson, Bushnell & Caputi 2011) of individual-level programmes in recent literature.

By far the most researched approaches to the prevention of and early intervention for mental health problems in adolescents are **cognitive behavioural therapy** (CBT) and related interventions. Interventions based on CBT have been used with considerable success in various settings (eg classroom, small group, primary care and internet-based) to promote healthy functioning, prevent depression and anxiety disorders, and treat early symptoms of mental, emotional and behavioural problems (Merry & Stasiak 2012; Merry et al 2012; Thapar et al 2012). Examples of international school-based skill-building programmes based on CBT are provided in the box below. New Zealand examples are provided overleaf.

International examples of effective adolescent skill-building programmes

'FRIENDS for life' is an example of a cognitive-behavioural intervention that aims to teach social and emotional learning and build strengths by developing protective factors. A high-quality controlled clinical trial found that high school students reported reduced levels of anxiety, depression, anger, post-traumatic stress and disassociation after completing the programme, with emotional resiliency sustained at six-month follow up (Brownlee et al 2013).

Another example is the Penn Resiliency Programme, which has been shown to cut the rate of moderate to severe depressive symptoms in half (Beardslee et al 2011). It uses a cognitive-behavioural and social problem-solving approach delivered through schools, with students learning techniques for assertiveness, negotiation, decision-making, social problem-solving and relaxation in 12–24 sessions. The skills taught in the programme can be applied to many contexts of life, including relationships with peers and family members and achievement in academic and other activities.

Meso level – family, school and peers

A common feature of most validated programmes aimed at fostering positive development and preventing the development of problems is the emphasis on supportive environments or 'nurturance' (IOM & NRC 2009, p 207). Research suggests that effective programmes are those that enhance and support strong positive relationships, particularly between young people and their families and peers (Nation et al 2003). A recent paper hypothesised that developmental relationships were the key 'active ingredient' of interventions with young people, and that "the presence or absence of developmental relationships distinguishes effective and ineffective interventions for diverse populations across developmental settings" (Li & Julian 2012). According to these authors, "Developmental relationships are characterised by reciprocal human interactions that embody an enduring emotional attachment, progressively more complex patterns of joint activity, and a balance of power that gradually shifts from the developed person in favour of the developing person" (Li & Julian 2012, p 157).

New Zealand examples of effective adolescent skill-building programmes

We identified three positively evaluated early intervention programmes for New Zealand young people with depressive symptoms or experiencing emotional distress: Travellers (Robertson et al 2012), Kiwi ACE (Woods & Jose 2011) and SPARX (Merry et al 2012). All emphasise skill development.

Travellers is a school-based programme generally run in Year 9 by an external provider (Skylight Trust) and aimed at enhancing protective factors for young people experiencing change loss and transition events and early stages of emotional distress. The programme is funded by the Ministry of Health under the New Zealand Suicide Prevention Strategy 2006–2016. An evaluation found moderate-level effectiveness across a wide range of short- and medium-term wellbeing-related outcomes – in general and for Māori and Pacific students (Robertson et al 2012). Students rated the programme highly and reported that it had helped them to learn a range of strategies for navigating changes and challenges, build positive relationships and seek help when needed.

Kiwi ACE is a cognitive-behavioural programme run in schools with a focus on social problem-solving, targeted at those with depressive symptoms. It is group-based and delivered in eight 90-minute sessions. A randomised controlled trial with Māori and Pacific participants showed that Kiwi ACE significantly reduced depressive symptoms, with results sustained after one year. Students reported positive changes in managing emotions and problem-solving, reductions in high-risk behaviours and better ways of thinking and communicating (Woods & Jose 2011).

SPARX is a CBT-based interactive fantasy game developed in New Zealand to treat adolescents presenting with depressive symptoms in primary care settings (including school counselling, youth clinics and general practice). A randomised controlled trial showed that this computerised self-help programme was at least as effective as (if not more effective than) 'usual care' for reducing depressive symptoms, and equally effective for all ethnicities, genders and ages within the 12–19 range (Merry et al 2012). SPARX has been adapted for 'rainbow youth' (same-sex or both-sex attracted youth) and found to be effective for this subgroup.

Family setting

The efficacy of interventions focused on parenting skills is well established (IOM & NRC 2009; Stewart-Brown & Schrader-McMillan 2011; Tennant et al 2007). Effective programmes teach and encourage parents to: 1) use praise and rewards to reinforce desirable behaviour; 2) replace criticism and physical punishment with mild and consistent negative consequences for undesirable behaviour, such as time out and brief loss of privileges; and 3) increase positive communication and involvement with their children, such as playing with them, reading to them, and listening to them (IOM & NRC 2009).

While the majority of research and programming is focused on the early years, some parenting interventions for families of early adolescents (eg Strengthening Families, 10–14 years, New Beginnings, 9–12 years) have also demonstrated significant impacts on a range of mental health and related outcomes (Catalano et al 2012). Two separate meta-analyses have confirmed that parenting programmes can reduce depressive symptoms among youth and reduce the incidence of depressive disorders (Beardslee et al 2011). The Incredible Years parent training programme[3] is a well-validated intervention targeted at families with young children (3–8 years) who are 'high risk' or showing early signs of problems. It is supported by more than 30 years' research and "shows great promise as a preventive intervention that strengthens parenting competence and family resilience" (Sapienza & Masten 2011, p 270). An Incredible Years 'School Aged Parent Programme' for parents of 5- to 12-year-olds based on the same principles has now been developed.

Interventions for families going through difficulties (eg divorce, parental mental disorder) have been shown to have positive impacts on family functioning and youth outcomes (IOM & NRC 2009).

School setting

Preventive interventions during the adolescent stage of development are typically delivered directly to young people through schools, and the majority of interventions discussed in the literature are school-based (IOM & NRC 2009). In the school setting, universal interventions are often designed to affect school structure and ethos, improve classroom management, improve school-family relations and improve students' relationships, self-awareness and decision-making skills. Selective and indicated interventions tend to focus on skill development (IOM & NRC 2009).

Reviews have consistently found evidence of the effectiveness of whole-school interventions, and those aimed at promoting mental wellbeing as opposed to preventing mental disorders. One concluded: "Long-term interventions that promote the positive mental health of all students and involve changes to the school climate are likely to be more successful than brief, class-based mental disorder prevention programmes" (Tennant et al 2007, p 29). This finding has been confirmed by more recent reviews (Jackson et al 2012; Jané-Llopis & Braddick 2008; O'Mara & Lind 2013). New Zealand research also confirms the relationship between school climate and the prevalence of emotional problems and risk-taking in students (Denny et al 2011). A recent New Zealand report (Boyd & Barwick 2011) reviews evidence on how to build a safe and caring climate in the school setting. There is evidence that integrated whole-school initiatives (eg that include curriculum changes, teacher training and liaison with families) tend to be more effective than classroom-only programmes for a range of mental health, social, emotional and educational outcomes (O'Mara & Lind 2013; Weare & Nind 2011).

Robust New Zealand research shows that restorative practices developed as alternatives to punitive behaviour management in schools can have significant positive effects on student behaviour and academic outcomes, particularly for Māori and 'at-risk' students.

[3] The Werry Centre for Child and Adolescent Mental Health supports the implementation of the Incredible Years and Triple P parenting programmes in New Zealand, and has adapted the Incredible Years resources for Māori providers.

Research "consistently associates the introduction of restorative practices with fewer suspensions, lower incidence of misbehaviour and disruption, and an increased sense of belonging and connectedness amongst students" (Ball 2013). Behaviour problems, school exclusion and academic failure are risk factors for mental health problems in adolescence and early adulthood, so 'whole-school' initiatives to address these issues are likely to have long-term benefits for mental health.

Societal-level factors

There is clear evidence that certain risk factors (eg poverty, family dysfunction) underlie a range of mental, emotional and behavioural problems experienced in adolescence, and there are calls in the literature for greater use of policy measures as part of a comprehensive national mental health promotion and prevention strategy. For example, experts recommend policy measures to: support families and positive parenting; reduce exposure to structural risk factors such as poverty, violence, social isolation and discrimination; reduce structural barriers to help-seeking and improve service accessibility and responsiveness; and reduce access to drugs and alcohol (Beardslee et al 2011; Catalano et al 2012; IOM & NRC 2009; Stewart-Brown & Schrader-McMillan 2011; Tennant et al 2007). It is also argued that, "Policies shifting schools and the juvenile justice system away from the use of punishment and toward the use of positive methods of developing desirable social behaviour are also needed" (IOM & NRC 2009). Examples of policies to support families and communities could include "parental or family leave policies, access to quality child care, affordable transportation, recreational areas, and safe neighbourhoods" (IOM & NRC 2009, p 322).

Reducing poverty and its impacts is seen as the highest priority for policy intervention, since the potential harms associated with poverty are so far-reaching:

> **The expanding body of research on stress and early programming has generated renewed concern about the risks associated with poverty, particularly for brain development and the resulting risks to health and learning... [T]he magnitude of the threat posed by poverty to current and future generations is staggering in its scope** (Sapienza & Masten 2011, p 270).

Experts express concern that a focus on promoting resilience should **supplement** efforts to reduce exposure to trauma and poverty, not **replace** such efforts (Khanlou & Wray 2014).

Despite their recognised importance, empirical research on policy interventions and their impacts on adolescent mental health outcomes is somewhat limited. However, the available evidence suggests that modifications to economic risk factors can lead to reductions in emotional and behavioural problems in children (IOM & NRC 2009). There is also evidence of the importance and effectiveness of policies to reduce child abuse and neglect and improve access to high-quality early childhood education (IOM & NRC 2009). Another area where the success of policy and legislation is well documented is in reducing access to and the use of alcohol by young people (Catalano et al 2012; Jackson et al 2012).

4.2.3 _ Dual focus on prevention and promotion, using a strengths-based approach

In the past 10–20 years there has been an increasing emphasis in the literature on the promotion of mental, emotional and behavioural wellbeing. It widely recognised that mental wellbeing is more than the absence of mental disorder, and that maximising mental wellbeing has benefits for the individual and for society as a whole (Aked et al 2008). There is also clear and growing evidence that strengths-based mental health promotion initiatives can affect both promotion and prevention outcomes (Ball 2010; O'Mara & Lind 2013; Tennant et al 2007). "Furthering developmental competencies improves mental health and simultaneously serves as a protective factor against the onset of mental disorder" (Beardslee et al 2011, p 248).

For the past decade, various prevention researchers have argued for a synthesis of prevention and promotion approaches. For example, Greenberg and colleagues (2003) have maintained that "problem prevention programmes are most beneficial when they are co-ordinated with explicit attempts to enhance [young people's] competence, connections to others and contributions to their community" (quoted in IOM & NRC 2009).

4.2.4 _ Socio-ecological model

Development occurs in the nested contexts of family, peer group, school, neighbourhood and the larger culture. Therefore, prevention and promotion interventions can occur in a range of settings and at various levels (Boyko 2007; Nation et al 2003; IOM & NRC 2009). It is widely agreed that interventions should be based on a socio-ecological model and address environmental factors, rather than focusing solely on individual factors. A dynamic systems approach should inform interventions, addressing the interrelationships of individuals and the settings in which they live (Khanlou & Wray 2014).

This frame of reference is compatible (in a general sense) with indigenous models of wellbeing (eg Mason Durie's Te Whare Tapa Whā and Pacific understandings of bio-psycho-social-spiritual health). It can be contrasted with the 'medical model' in which mental health problems are viewed as disorders of the brain and interventions are focused solely on treating the individual.

Community-wide interventions (for example, those that incorporate components targeting families and schools as well as local policies and regulations and community-wide awareness-raising campaigns) have the potential to address a wider set of common risk factors comprehensively, but such interventions are under-researched and much remains to be known (IOM & NRC 2009). However, there is some evidence that multicomponent interventions that address multiple dimensions of influence (eg in school, family and community settings) are more effective than curriculum-only school programmes for changing adolescent behaviour and outcomes. For example, the multidomain approach has successfully reduced adolescent substance use at the community level (Jackson et al 2012).

Despite the breadth of factors and settings known to influence resilience, the majority of resilience interventions still focus on influencing individual factors and are delivered in the school setting. Although 'whole-school' approaches go some way to influencing environmental factors as well as individual factors, some authors argue for an increasing focus on upstream interventions (eg to address poverty, violence, discrimination) and on settings other than school (Khanlou & Wray 2014). Notwithstanding this critique, there is wide agreement that an emphasis on the school setting is appropriate and necessary.

4.2.5 _ Cross-sectoral approach

A key theme in the literature is the idea that mental health promotion, prevention and early intervention is 'inherently interdisciplinary' and requires co-ordination across different parts of the health system and other sectors including the education, social welfare and justice sectors (Beardslee et al 2011; Kieling et al 2011; The Royal Australian and New Zealand College of Psychiatrists 2010). According to Australian and New Zealand reports, "current approaches remain ad hoc and unco-ordinated" (Owen 2010; The Royal Australian and New Zealand College of Psychiatrists 2010).

Early intervention, in particular, depends on co-ordinated, community-level systems to identify high-risk and symptomatic children and link them with appropriate support and/or treatment (The Royal Australian and New Zealand College of Psychiatrists 2010). An Australian report on models for collaborative care concludes:

> **Successful early intervention requires clear access pathways, an approach that is tailored to individual life stages and situations and the multiple environmental and social influences on mental health and well-being. In addition, due to the complex nature of the issues presenting in childhood, adolescence and young adulthood, and the variety of effective interventions available, a comprehensive, multidisciplinary, and collaborative approach that is integrated across all sectors of care and all levels of society is required**
> (National Advisory Council on Mental Health 2011, p 5).

School-based screening programmes may be counterproductive if there is insufficient service capacity to respond to the needs identified. "Models are needed that partner screening with implementation of evidence based interventions" (IOM & NRC 2009, p 9). Implementation issues and integration of services are discussed further in sections 5 and 7 respectively.

4.2.6 _ Adequate dosage and timeframe

Aspects of dosage include the session length, number of sessions, spacing of sessions and duration of the total programme (Nation et al 2003). Sufficient intervention intensity and duration is important for achieving long-term positive outcomes (IOM & NRC 2009). Interventions lasting several months or years tend to have more enduring impacts that one-off or short, intensive interventions (Ball 2010). Another well-established principle is that young people with greater needs require interventions of greater intensity (Nation et al 2003).

A long-term commitment to developing, implementing and evaluating interventions is necessary (Boyko 2007). The Communities that Care model suggests that, at the

community level, it takes two to five years to observe changes in risk and protective factors targeted by interventions, and five years to observe changes in youth behaviour (eg substance use, delinquency) (IOM & NRC 2009). A long-term approach is therefore required to effect lasting change.

4.2.7 _ Informed by theory and evidence

At both national and programme levels, interventions should be underpinned by appropriate and up-to-date theory and evidence (IOM & NRC 2009; The Royal Australian and New Zealand College of Psychiatrists 2010). In the New Zealand context, this includes drawing on the work of Māori and Pacific theorists.[4] One of the key conclusions of the Gluckman (2011) report was that the "application of the international and domestic evidence base to policy formation and programme development in this area will lead to better outcomes for our young people".

The importance of increasing the adoption of proven programmes is emphasised in the literature. Some programmes with 'common-sense' appeal (eg, the Drug Abuse Resistance Education programme [DARE]) have been proven to be ineffective or even harmful (IOM & NRC 2009). Ineffective strategies are discussed at the end of this section.

In New Zealand, The Werry Centre for Child and Adolescent Mental Health has published guidance for child and adolescent mental health services on evidence-based age-appropriate treatment interventions for young people with moderate to severe mental disorders (The Werry Centre 2010). We are not aware of equivalent New Zealand guidance (for social workers and counsellors in schools, Group Special Education, GPs, practice nurses etc) on early intervention programmes for young people with mild to moderate mental health problems.

4.2.8 _ Cultural relevance

Research suggests that programmes are more likely to be effective if they are aligned with the norms, values and languages of the participants and include the target groups in programme planning and implementation (Ball 2010; Boyko 2007; Nation et al 2003). For example, different ethnic groups have different ways of conceptualising wellbeing and mental disorders. Culturally appropriate programmes make use of language and concepts that are familiar and acceptable to the target groups (The Royal Australian and New Zealand College of Psychiatrists 2010). Cultural appropriateness for Māori and Pacific programmes is discussed further in section 6.

Because of the stigma associated with mental disorders, the use of language that is meaningful and acceptable is an issue not only for programmes targeting indigenous and ethnic minority groups, but also for generic audiences. For example, a UK review found that young people equated the term 'mental health' with 'mental disorder' and did not see it as relevant to their own lives (Ball 2010). This points to the importance of pre-testing programme materials with target audiences and building youth participation into programme planning and design (Hagen et al 2012; Monshat, Vella-Brodrick, Burns & Herrman 2012).

[4] Examples of relevant Māori theorists are Mason Durie, Angus Macfarlane, Hinemoa Elder and Graham Hingangaroa Smith. Pacific theories related to health promotion and mental health include work by Sitaleki Finau, Sione Tu'itahi and Philip Siataga.

4.3_ Other considerations for content and design of interventions

4.3.1 _ Health equity

Reducing inequalities is a key priority of the New Zealand Health Strategy (MOH 2000), and inequity in mental wellbeing indicators and mental health outcomes for young people in New Zealand is well documented (eg Clark et al 2010; Clark et al 2013; Crengle et al 2013; Gluckman 2011). Gender differences and ethnic differences are apparent, and there are also associations between socio-economic status and mental health status.

It is well known that health promotion, particularly universal interventions, can increase inequalities. This is because socially advantaged people are often better placed to benefit. For example, universal healthy eating campaigns will have fewer impacts on poor households, since their food choices are more financially constrained.

Despite this, health equity is not a strong theme in the mental health promotion and prevention literature; however, it is emphasised by some authors (eg Boyko 2007). Only one review was identified that focused specifically on whether interventions were likely to increase or decrease inequalities (Kavanagh et al 2009). The findings were not conclusive due to the paucity of evidence, but the authors concluded, "there are suggestions that [CBT-based interventions provided in high schools] might be less effective for people who are more socio-economically disadvantaged" (Kavanagh et al 2009, p 3).

4.3.2 _ Interventions for high-risk young people

There is considerable literature on mental health promotion and prevention interventions for particular groups of young people known to be at high risk of mental, emotional and behavioural disorders, eg children of parents with mental disorders (Owen 2010; Thapar et al 2012); youth who have been suspended or expelled from school (Clark et al 2010; Goldenson 2011); and foster children and other young people with high and complex needs (Greenberg & Lippold 2013; Mitchell 2011). There is also emerging literature on the mental health needs of gay, lesbian, bisexual, transgender and intersex people, and recognition that this is a high-risk group (Kalra et al 2012; Kavanagh et al 2009; Te Pou o Te Whakaaro Nui 2012). The key target groups for prevention and early intervention identified by The Royal Australian and New Zealand College of Psychiatrists are: "children with conduct disorders, anxiety disorders, depressive disorders, children who self-harm or who are at risk of suicide, children of parents with a mental disorder, and indigenous children" (2010, p 3).

Apart from a focus on Māori and Pacific youth (see section 6), our review does not look in detail at high-risk groups since our evaluation is of overarching principles for national-level youth mental health promotion and prevention. However, it is important to note that there are particularly high-risk groups within the youth population who may be underserved by generic or universal programmes, and are likely to require more intensive and/or tailored interventions.

4.3.3 _ Online interventions

A small but rapidly growing body of research suggests that mental health education, prevention, early intervention and treatment programmes for adolescents can be delivered effectively via electronic media (Calear & Christensen 2010; Merry et al 2012; IOM & NRC 2009).

The development and implementation of interventions delivered via the internet offer the promise of an approach that makes interventions available on a continual basis to a wide range of young people at minimal cost, while addressing several dissemination and implementation challenges, eg fidelity, scalability, sustainability, accessibility and multiple languages. Because online interventions can occur anonymously, these technologies also have the potential to be less stigmatising, thus removing a major barrier to help-seeking for young people. Despite their enormous potential, internet-based interventions should not be viewed as a panacea – they "can only influence a limited range of risk and protective factors, and will not be effective in preventing all types of mental, emotional and behavioural disorders" (IOM & NRC 2009).

Given the known importance of the therapeutic alliance between counsellor and client in face-to-face counselling, there is discussion in the literature about the extent to which internet-based therapies need to be therapist guided. Initial findings suggest that internet-based treatment can be successfully delivered in a variety of settings (eg primary care, school) with differing levels of professional support. One review concluded, "only brief, if any, professional support" is necessary for effectiveness (Calear & Christensen 2010, p S14).

4.3.4 _ What doesn't work?

Programmes that only deliver information tend to be ineffective. For example, studies have shown that classroom teaching about depression (for example, about its symptoms and causes and what can be done about it in a broad sense) does not improve student outcomes such as stress, anxiety, hopelessness and depressive symptoms (Ball 2010; Merry et al 2011). A recent review concluded that curriculum-based programmes to prevent substance use and abuse have generally been unsuccessful, unless combined with other strategies, eg whole-school interventions or parenting skills (Jackson et al 2012).

Programmes aimed at preventing risky behaviour that are based on scare tactics or moralism – for example, lecturing students about the harms of smoking, alcohol and pre-marital sex – have been shown to be ineffective (Griffin & Botvin 2010; IOM & NRC 2009).

Unstructured youth activities (eg youth clubs with no particular aim or focus) are associated with poor immediate and long-term outcomes for the young people involved (Ministry of Youth Development 2009).

05

Implementation

What is considered 'best practice' at the state or national level for the implementation of youth mental health promotion, mental disorder prevention and early intervention?

Key findings

There is no agreed 'best practice' for the implementation of youth mental health promotion, prevention and early intervention initiatives at state or national levels.

There is clear evidence that implementation quality has a significant effect on programme success and outcomes for young people.

At the programme level, the following key dimensions of implementation quality and success are widely agreed in the literature:

- organisational factors, eg culture, capacity, leadership
- programme selection, eg good fit with needs and preferences of community
- training and support, both initial and ongoing
- fidelity, ie delivering the programme as it was designed
- monitoring and feedback, eg fidelity assessment, supervision and outcome monitoring.

When programmes are 'imported' rather than developed locally, there may be trade-offs between fidelity and cultural relevance.

Security of funding is a key implementation challenge, and is one of many contextual factors that can help or hinder implementation.

More research is needed to identify the active ingredients of effective programmes, so that those elements are preserved when programmes are adapted or scaled up.

5.1_ Introduction

5.1.1 _ Factors associated with successful implementation

There is no agreed 'best practice' for the implementation of youth mental health promotion, prevention and early intervention initiatives at state or national levels. However, at the programme level there has been some research into the implementation factors associated with programme sustainability and success, and these are discussed in the body of this section.

5.1.2 _ Knowledge gaps

The Institute of Medicine and National Research Council report (2009) considers in detail the causes of the substantial gap between what is known to be effective and what is done in practice, and how this problem should be addressed. A lack of empirical research is identified as a key issue:

> **One of several contributors to the relative lack of implementation is lack of empirical evidence regarding how to effectively approach implementation ... Evidence is needed on how to make implementation occur in communities, the policy directives that promote or enforce the use of evidence-based programmes and data systems, and the effective adoption and sustainability of programmes in practice**
> (IOM & NRC 2009, pp 331–332).

Implementation has only recently been identified as an area of research in its own right. Research into effective implementation has been described as "one of the frontiers of future prevention research" (IOM & NRC 2009). The report concludes:

> **There are major challenges of introducing and taking effective programmes to scale, particularly in poor and underserved communities, and clearly the current body of generalisable knowledge is inadequate to provide robust strategies for effective implementation across different populations, systems, and programmes**
> (IOM & NRC 2009).

'Implementation science' and 'translational research' are rapidly expanding fields of study, and there are a number of recent reviews outlining current evidence and knowledge gaps. Lobb and Colditz (2013), for example, provide a recent overview of implementation science as it relates to population health. However, the main theme in the literature is that more research is needed (Barry 2007; Greenberg & Lippold 2013; Kratochwill et al 2012).

5.2_ Key dimensions of implementation quality and success

There is clear evidence that implementation quality has a significant effect on programme success and outcomes for young people (Dix, Slee, Lawson & Keeves 2012; IOM & NRC 2009). For example, an Australian study on the implementation of KidsMatter – a two-year social-emotional competency programme – in 96 primary schools found a marked positive relationship between quality of implementation and children's academic performance (Dix et al 2012).

We have identified the following key dimensions of implementation quality and success that are widely agreed in the literature:

- organisational factors
- programme selection
- training and support
- fidelity
- monitoring.

These are discussed in turn.

5.2.1 _ Organisational factors

There is general agreement that certain organisational factors are predictive of the successful introduction of change, and are relevant across widely different interventions; these include system readiness for change, culture and the role of leaders (IOM & NRC 2009). Organisational climate and culture reflect the norms and values of the organisation, and they have strong influences on innovation and the adoption of new programmes or partnerships (KPMG 2013; NIOM & NRC 2009; Novins, Green, Legha & Aarons 2013).

Organisational capacity (ie the availability of skilled staff, funding, time and other resources) is also a critical factor. Time for training teachers and implementing 'bulky' school-based programmes may be limited, for example, particularly in the context of schools coming under increasing pressure to improve student achievement in the '3 Rs' (Boustani et al 2014). Research shows that programmes tend to be less effective in 'real-life' settings than in programme efficacy trials. This may be due to organisational capacity: "It may be difficult to reproduce in the community the level of expertise of staff used to deliver the intervention in the original study" (IOM & NRC 2009).

Unfortunately, the communities and organisations most in need of effective prevention programmes are often least well-positioned to adopt them, due to limited capacity (Boustani et al 2014; IOM & NRC 2009).

5.2.2 _ Programme selection

Programme selection factors include evidence of effectiveness, good fit with the needs and priorities of the community, perceived relevance, and community/ youth participation.

Evidence of effectiveness

There is wide agreement that interventions should be selected based on evidence of effectiveness (Kratochwill et al 2012; IOM & NRC 2009), and interventions known to be ineffective should not be used. Although this may seem an obvious point, the continuing implementation of ineffective programmes is widespread, and at times community preferences may conflict with scientific evidence (IOM & NRC 2009).

Ideally, cost effective programmes would be prioritised. However, although some research on the cost effectiveness of youth mental health promotion, prevention and early intervention has been conducted (Aratani, Schwarz & Skinner 2011; Zechmeister, Kilian & McDaid 2008), evidence on the relative cost effectiveness of interventions is still very limited.

Good fit with community needs and priorities

According to the literature, "selecting the right intervention for the right population requires the identification and prioritisation of community need" (Catalano et al 2012, p 1660). Models such as Communities That Care have been developed to help communities identify their needs and priorities and select appropriate evidence-based programmes (Catalano et al 2012; IOM & NRC 2009).

Perceived relevance

In order to be successful, an intervention must be perceived to be relevant by key stakeholders (Kieling et al 2011). For this reason, including young people (O'Mara & Lind 2013), families, teachers and other key stakeholders in the process of developing, selecting or adapting interventions is recommended in the literature. "Interest in an intervention is likely to be greater if it is culturally relevant and embraced by the community. Lack of relevance may contribute to interventions being implemented with limited fidelity and resultant limited outcomes" (IOM & NRC 2009, p 333).

Community and youth participation

Community participation may be particularly important in the design/selection/ adaptation of programmes for indigenous and other minority communities, to ensure cultural relevance. This is discussed further in section 6. The importance of youth participation is increasingly recognised in the literature, and input from young people has helped to guide the development of new internet-based mental health interventions in Australia (Hagen et al 2012; Monshat et al 2012).

5.2.3 _ Training and support

Intervention sites need training and ongoing technical assistance from the programme developers or other certified trainers to ensure fidelity and sustainability (IOM & NRC 2009; Novins et al 2013). Research has found that initial training and ongoing supervision and support are necessary factors for implementation success (Novins et al 2013). Similarly, mentoring programmes involving ongoing training and structured activities, especially those involving parents, have been found to be more effective than those without those components (Tennant et al 2007).

Interestingly, training of the school principal seems to be an important factor in school-based programmes (Novins et al 2013). However, research has failed to identify other important training-related variables. "Studies that examined different approaches to initial training (brief versus intensive, didactic versus experiential, in person versus by videoconference) were unable to demonstrate significant differences in their impacts on implementation success" (Novins et al 2013, p 1018).

5.2.4 _ Fidelity

There is wide agreement in the literature that, when adopting an existing evidence-based programme, fidelity is crucial (Dix et al 2012; Kratochwill et al 2012; IOM & NRC 2009; Novins et al 2013). In other words, programmes need to be implemented exactly as designed in order to achieve the intended results.

'Dosage' seems to be particularly important. Research shows that when fewer, shorter or less frequent sessions are delivered, positive outcomes also tend to be watered down or non-existent (Greenberg & Lippold 2013; IOM & NRC 2009).

According to a major US report: "Priority should be given to programmes that ... are supported by tools that will help to implement key elements of the programmes with fidelity" (IOM & NRC 2009, p 333). Such implementation support tools include handbooks, curricula and manuals describing the intervention and prescribing actions to be taken; certification of trainers or an electronic training system; high-quality, data-driven technical assistance; implementation fidelity measures; and monitoring.

5.2.5_ Monitoring

External monitoring and support is one of the strongest predictors of implementation success, according to empirical research. "Ongoing fidelity assessment, supervision, and support increases the likelihood that expected intervention effects will be realised, and has important ancillary benefits including reduced staff burnout and improved staff retention" (Novins et al 2013).

Programme evaluation and monitoring of outcomes are also important, particularly if an evidence-based programme has been adapted for a new location or population.

5.2.6_ Other implementation challenges and contextual issues

Successful implementation is challenging because it is complex; it necessitates co-ordinated change at system, organisation, programme and practice levels and requires investments in people, relationships and time, as well as co-ordination around such critical issues as staffing and funding.

Considerable research has been done to identify contextual barriers and facilitators for successful implementation, which are numerous. The availability and security of funding is a key theme in the literature (Boustani et al 2014; Owen 2010), along with other wider contextual factors such as legislation, policy, client/community advocacy and inter-organisational networks and relationships (Aarons, Hurlburt & Horwitz 2011).

Particularly for programmes outside the school setting, engaging target groups and achieving good recruitment and retention rates are major challenges identified in the literature (IOM & NRC 2009). For example, family-based prevention programmes often do not reach families in greatest need (Griffin & Botvin 2010).

5.2.7_ Tension between fidelity and local adaptation

A major implementation issue is the tension between delivering an evidence-based programme as developed and adapting a programme to meet the specific needs of the community (Catalano et al 2012; IOM & NRC 2009). On the one hand there is evidence that programme fidelity is a crucial factor – "participant outcomes are stronger and sometimes only achieved when interventions are replicated as closely as possible to their original protocol" (Catalano et al 2012, p 1660). On the other hand, research shows that programmes are more likely to be effective if the content, language, examples and methods of delivery are culturally appropriate and relevant to the target populations (Ball 2010; Catalano et al 2012). As discussed above, community buy-in and perceived relevance are key factors that influence implementation success and sustainability, and therefore the adaptation of a programme to meet local needs and preferences may be advisable to increase programme effectiveness and sustainability (IOM & NRC 2009).

There is wide agreement that health promotion and prevention programmes should be culturally relevant, and this is supported by empirical evidence. Section 6 provides a further discussion of cultural relevance. A few studies have shown that making adaptations to different cultural groups while maintaining core elements of programmes implemented with fidelity can produce strong results across different cultural groups (IOM & NRC 2009), although results have been mixed (Okamoto, Kulis, Marsiglia, Steiker & Dustman 2014). However, as previously noted, empirical findings on the 'active ingredients' of successful programmes are an identified gap in the literature. This knowledge gap about core elements may have contributed to the mixed success of cultural adaptations (Okamoto et al 2014).

In summary, there is a lack of scientific consensus on the necessary balance between programme adaptation and programme fidelity when programmes are replicated in new settings or with new populations. The main conclusion to be drawn is: "More research is needed to identify the active ingredients of effective programmes, so that those elements are preserved when programmes are adapted or scaled up" (IOM & NRC 2009).

5.3_ Implementation guidelines

A recent paper Kieling et al (2011) is one of few that provides a set of recommendations to guide the design, adaptation and implementation of interventions. These include:

- establish the extent of the problem and the perceived need for intervention in the community
- promote ownership of the intervention by the community, eg by the inclusion of key stakeholders in the design or selection of interventions
- promote buy-in to the intervention by all relevant stakeholders before implementation
- assess feasibility and acceptability for staff within the setting before implementation (eg are sufficient resources and time available?)
- ensure the intervention is acceptable, perceived as relevant and fits with prevailing attitudes, beliefs and practices
- pilot and evaluate the intervention, and make necessary modifications before wider implementation
- integrate programmes into existing services and settings, using existing staff
- provide staff with training, and ongoing monitoring and support.

Although these recommendations are designed for low- and middle-income countries, they are likely to be applicable worldwide, since they strongly echo the findings in literature from the developed world discussed above.

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Best practice for Māori and Pacific youth populations

What does the literature say about best practice in youth mental health promotion/prevention/ early intervention programmes for Māori and Pacific youth?

Key findings

There is a small but growing empirical evidence base to support interventions to improve Māori and Pacific youth mental health outcomes.

Emerging evidence and/or evidence-informed expert opinion support the use of whānau-centred and relationship-focused approaches, for example:

- Whānau Ora approaches
- whole-school interventions that improve the school culture and improve how teachers work with Māori and Pacific students.

Empirical research suggests that some generic early intervention programmes can improve mental health outcomes for Māori and Pacific young people, for example group programmes aimed at increasing social and emotional skills.

Experts also recommend interventions at the societal level, especially policies to reduce poverty and discrimination. There is some evidence to support the use of policy interventions, especially reducing the availability and accessibility of alcohol to reduce substance use and associated harms. However, more research is needed on policy and societal-level interventions to reduce youth mental disorders.

Evidence-informed principles for the design, content and implementation of interventions include:

- strengths-based and cross-sectoral approaches, with a focus on whānau and relationship-building
- cultural relevance and involvement from Māori and Pacific communities, including young people
- intervention at the societal level
- the provision of both ethnic-specific (eg kaupapa Māori) and culturally responsive generic programmes
- cultural competence
- a focus on reducing barriers to accessing interventions and services, and a focus on sustainability and capacity-building.

6.1_ Introduction

This section focuses on 'best practice' mental health promotion, prevention and early intervention for indigenous youth – with an emphasis on New Zealand material. The generic principles identified in section 4 apply across ethnic groups, including Māori and Pacific. In addition, a set of particular evidence-informed principles to maximise the success of prevention and early intervention for Māori and Pacific youth can be identified.

The Māori and Pacific populations are both more youthful than the Pākehā (New Zealand European) population, and comprise a large and growing proportion of young people aged 12–19 in New Zealand.

Some of the reviewed research focused on Māori and Pacific youth collectively, and is reported as such. However, findings specific to Māori and Pacific youth are identified separately where possible. Māori and Pacific populations share some common experiences, but the diversity within and between these populations is important to note, and is discussed further below.

6.1.1_ Diversity within Māori and Pacific youth populations

Both the Māori and Pacific youth populations are diverse and complex population groups, reflecting differences as well as commonalities. Mason Durie has coined the term 'diverse Māori realities' to reflect this situation for Māori (Boulton & Tamehana 2013). A growing body of evidence suggests that the Māori population varies in its identification and level of involvement with Māori culture, for example (Marie et al 2008).

The term 'Pacific' refers to around 20 distinct ethnic groups including Cook Islands, Niue, Tokelau, Samoa, Tonga and Fiji. The importance of recognising the heterogeneity of Pacific peoples in New Zealand is a key theme in the literature. Research shows, for example, that parenting practices vary between ethnic groups and between New Zealand-born and Island-born parents (Siataga 2011).

There is growing ethnic diversity within both Māori and Pacific youth populations, with increasing numbers of young people identifying with more than one ethnicity. According to the national youth health survey, two-thirds of Pacific secondary school students identify with more than one ethnic group (Helu et al 2009).

6.1.2_ Overview of evidence base

The evidence base on indigenous and ethnic minority youth populations for our topic is in its early stages (Cunningham 2011; MacDonald et al 2013; Siataga 2011; Storck, Beal, Bacon & Olsen 2009; The Royal Australian and New Zealand College of Psychiatrists 2010). Recent comprehensive reviews of international literature on indigenous mental health promotion and social and emotional wellbeing[5] found only a small number of intervention studies (Clelland, Gould & Parker 2007; Haswell et al 2013). The authors reported that the research had increased in the past decade, yet many critical gaps in knowledge remained.

Particular knowledge gaps include:

- research into the specific protective factors that improve mental health-related outcomes for Māori and Pacific youth, including resilience and positive youth development (Haswell et al 2013; MacDonald et al 2013; Siataga 2011)
- an evaluation of the efficacy of cultural competency approaches and culturally appropriate evaluations of programmes and services for Māori and Pacific children and youth (Cunningham 2011; Siataga 2011)
- more research into the social and community dimensions of social and emotional wellbeing and socio-ecological interventions to address these dimensions (Haswell et al 2013; Siataga 2011).

Our review identified less literature on Pacific youth mental health than on Māori youth mental health. There appears to be an extremely limited amount of literature specifically on prevention and promotion for Pacific youth mental health, but there is some research, discussed below, on the effectiveness of generic early intervention programmes for Pacific young people. The wider Pacific literature on health and mental health was appraised for this review.

Although there are knowledge gaps as noted, New Zealand and overseas literature contains empirical and other evidence that supports particular interventions with indigenous youth, and demonstrates they can be effective. High-quality research in this area is emerging. For example, a rigorous community prevention trial is currently underway in Oklahoma: a partnership between the University of Florida and the Cherokee Nation, the second largest Native American tribe in the US (Komro et al 2014). The trial was designed in close collaboration with Cherokee leaders, drawing on the available evidence to enhance likely success.

Reviews of the available indigenous literature highlight that many 'outstanding' programmes exist (Haswell et al 2013) and useful information can be found in descriptive, cross-sectional and ethnographic publications (Storck et al 2009). A wealth of experience-based practice perspectives is available across diverse countries that can inform mental health interventions with both Māori and Pacific youth (Storck et al 2009). As previously noted, the limited availability of robust evaluation does not necessarily mean that interventions are ineffective.

[5] In Australian indigenous literature, the term 'social and emotional wellbeing' is preferred to 'mental health'.

6.2_ Principles for programme design and content

The following principles are drawn largely from evidence-informed literature (eg expert opinion and theoretical and practice-based literature) as there is sparse empirical research on the active ingredients of successful interventions with Māori and Pacific youth. However, empirical findings are noted where available.

6.2.1_ Strengths-based approach

New Zealand and overseas evidence supports strengths-based interventions for indigenous and ethnic minority adolescents, including in school settings (Ball 2013; Haswell et al 2013; Williams & Cram 2012). This is consistent with the general shift towards positive youth development over deficit approaches, as discussed in section 3. For example, Haswell et al (2013) identified the following features of successful programmes in promoting the social and emotional wellbeing of indigenous youth:

- a positive, non-judgemental approach
- building trust
- generating positive feelings through enjoyable interactions.

International evidence supports the use of skills training interventions targeted to indigenous youth experiencing a variety of mental health, conduct and substance abuse problems (Haswell et al 2013; Storck et al 2009). The focus is on building youth engagement and skills in general as opposed to targeting single problem behaviours (Haswell et al 2013). Particular strategies in Canada, for example, include peer mentoring with support from a community elder, and a credit-based academic course in social and emotional skills. Early evidence suggests that these initiatives increase youth engagement; however, empirical findings on other outcomes are not yet available (Haswell et al 2013).

In New Zealand, whole-school initiatives aimed at building strengths and improving relationships (eg Te Kotahitanga and Kia Whakakotahi) are associated with significant positive effects on student behaviour and academic outcomes (Ball 2013; Williams & Cram 2012). This is especially the case for Māori, Pacific and 'at-risk' students. In contrast to traditional punishment-based strategies to manage behaviour, restorative practices are a good example of a strengths-based approach.

Examples of effective whole-school programmes tailored to Māori and/or Pacific youth

As noted in section 4, 'whole-school' interventions aimed at improving the school ethos and environment can have a significant effect on student behaviour and emotional wellbeing. Programmes with demonstrated positive outcomes for Māori and/or Pacific youth include:

Kia Whakakotahi, Taita College: This programme aimed to reduce conduct problems among Māori students in a secondary school setting by targeting whānau to engage them more actively with school activities. Using 'restorative reintegration', a strengths-based approach drawn from the justice sector, the programme aimed to provide a more inclusive environment for 'hard-to-reach' whānau.

In a three-year period the initiative reported several positive outcomes for Māori and Pacific students, including increased enrolments, a 30 percent reduction in the number of Māori students stood down and a reduction in expulsions of Māori students to zero (Williams & Cram 2012). Also, there was a major shift in whānau participation in the three years, eg the number of Māori parents attending school meetings increased from 8 to 103 (Te Puni Kōkiri 2010).

Te Kotahitanga: This comprehensive initiative sought to improve the educational achievements of Māori in mainstream secondary schools. Using kaupapa Māori research and appropriate cultural metaphors, Bishop and others (2007) developed a "culturally responsive pedagogy of relations" and professional development programme. The focus was on changing teachers' practices by developing relationships of respect and caring for Māori students, making classroom interactions more interactive, and an explicit rejection of deficit theories for Māori underachievement (Bishop et al 2007, cited in Ball 2013).

Positive outcomes included improved educational achievement for Māori students, especially for those who had previously ranked poorly in achievement tests (Ball 2013; Williams & Cram 2012). Quantitative findings, for example, showed that maths and literacy achievements in Māori students of teachers in the Te Kotahitanga programme were significantly higher than in Māori students nationally (Gluckman 2011, cited in Ball 2013). These quantitative findings were based on a robust research design and were supported by qualitative findings.

Related to this work, Macfarlane and colleagues developed an evidence-based model for making schools culturally safe for Māori students. The model encompassed the kaupapa Māori approach, a "culture of care", a recognition of the importance of relationships in the classroom, and the concept of restorative practices, which included the elements of safety, accountability and competency (Williams & Cram 2012).

The following principles are drawn largely from evidence-informed literature (eg expert opinion and theoretical and practice-based literature) as there is sparse empirical research on the active ingredients of successful interventions with Māori and Pacific youth. However, empirical findings are noted where available.

6.2.2_ Importance of expectations

Our review indicates the importance of **having high expectations** for Māori youth, for example, backed by a strong commitment to supporting adolescents to achieve their goals and to deal with challenges (Hollis, Deane, Moore & Harré 2011; Williams & Cram 2012). Both the Te Kotahitanga project and Project K (a positive youth development and mentoring programme) have an explicit focus on ensuring that significant adults increase their expectations of Māori (and Pacific) youth, encouraging young people to have high expectations of themselves, and providing intensive support to address setbacks (Hollis et al 2011).

Unfortunately, research suggests that some teachers may hold relatively low expectations for Māori (and Pacific) educational achievement. The latest national youth health survey, for example, found that Māori students were less likely than non-Māori to report having teachers with high academic expectations of them (Crengle et al 2013). These findings are relevant because they relate to the risk and protective factors discussed in section 2, such as school engagement, relationships with teachers and academic achievement.

6.2.3_ Focus on whānau and relationship-building

New Zealand and international empirical literature strongly supports the central role of whānau/families and relationship-building in improving Māori (and other indigenous) youth mental health outcomes (Dobbs & Eruera 2014; Haswell et al 2013; Williams & Cram 2012; Woods & Jose 2011). This is also the case for Pacific youth (Minister of Health and Minister of Pacific Island Affairs 2010; Siataga 2011; Woods & Jose 2011).

It is important to distinguish the concept of whānau from non-Māori understandings of the nuclear family and from the Western tendency to focus on individuals rather than collectives. Whānau refers to familial ties extending over at least three generations (Durie et al 2009). Whānau members share common descent and kinship as well as collective interests, reciprocal ties and aspirations (Durie et al 2009).

Whānau structures and supports are critical in promoting youth mental health and development. Yet, as noted, access to whānau is not universally enjoyed by all Māori (or Pacific) youth, and there is diversity in whānau types and capacities (Cunningham 2011).

The Māori concept of 'whānaungatanga'[6] is fundamental to successful interventions with Māori, and relationship-building is also important for Pacific youth (Williams & Cram 2012; Woods & Jose 2011). Focusing greater attention on relationships requires an emphasis on group learning and participatory techniques.

[6] Building and maintaining relationships, being supportive and reinforcing the processes of learning and development (Williams & Cram 2012).

6.2.4_ Cross-sectoral approach

New Zealand researchers highlight the **Whānau Ora** policy as a major development that is likely to substantially improve outcomes for Māori across the board, including Māori youth (Boulton & Tamehana 2013; Durie et al 2009; The Royal Australian and New Zealand College of Psychiatrists 2010; Williams & Cram 2012). Individual-based, single-sector approaches have often failed to improve outcomes for Māori (Durie et al 2009).

Whānau Ora assumes that changes in the wellbeing of an individual can be facilitated by focusing on the whānau (or family collective) and vice versa. The social context is seen as fundamental to working effectively with people (Boulton & Tamehana 2013).

Developing over past decades, Whānau Ora is now a mandated, funded public policy approach to integrated health and social service delivery, enabling providers to work across traditional sector boundaries (Boulton & Tamehana 2013). Whānau Ora is simultaneously:

- a long-term health goal
- a philosophy
- a distinct model of cross-sector practice
- an outcome (Boulton & Tamehana 2013).

Although various Whānau Ora projects have been evaluated, eg the Whānau Ora Wellbeing Service of Te Whakaruruhau by the University of Waikato (Robertson et al 2013), we did not identify any findings specifically on the impacts of a Whānau Ora approach on Māori or Pacific youth mental health promotion or prevention.

Monitoring of Whānau Ora's overall results, however, indicates a high level of whānau engagement and satisfaction (Te Puni Kōkiri 2013). A large survey of participating whānau found that the most common improvements for whānau included whānau motivation to improve their wellbeing and knowledge of how to access services, education and training (Te Puni Kōkiri 2013).

6.2.5_ Cultural relevance

Promotion, prevention and early intervention strategies need to recognise the cultural distinctiveness of Māori youth and whānau (Dobbs & Eruera 2014; Durie et al 2009; The Royal Australian and New Zealand College of Psychiatrists 2010; Williams & Cram 2012). Although levels of cultural connectedness vary, cultural distinctiveness remains a key component of contemporary Māori experience (Durie et al 2009).

Indeed, Statistics New Zealand's survey on Māori wellbeing, Te Kupenga, showed that in 2013, 70 percent of Māori (aged 15 and over) said it was important for them to be involved in Māori culture (Macpherson 2014). Only 10 percent said it was not important. There was no significant difference by age group, although older Māori (aged 55 and over) were more likely than younger Māori to say it was 'very important'.

Te Kupenga indicates that Māori interact with their culture in various ways. This includes through traditional means like knowing and connecting with iwi, hapū and marae, but also more contemporary connectedness with culture through attending language classes, being involved in kapa haka and watching Māori television (Macpherson 2014).

Overseas indigenous literature recommends that youth mental health promotion and prevention encompass cultural beliefs and practices – and acknowledge indigenous history and self-determination (Goodkind, LaNoue, Lee, Freeland & Freund 2012; Haswell et al 2013; Storck et al 2009). As noted in section 2, trans-generational community traumas such as disconnection and racism have greatly influenced the severity of mental health challenges for indigenous youth (Marie et al 2008; Storck et al 2009).

Example of indigenous intervention addressing the effects of historical trauma

The Our Life intervention aimed to promote the mental health of American Indian youth and their families by targeting the root causes of violence, trauma and substance abuse (Goodkind et al 2012). The six-month intervention included a recognition and healing of historical trauma and reconnecting to traditional culture. Young people who completed the programme demonstrated significant increases in cultural identity, self-esteem, positive coping strategies and quality of life (Goodkind et al 2012).

Recently US researchers developed a conceptual model for the development of culturally focused prevention interventions (Okamoto et al 2014). It emphasises cultural grounding, situating prevention in cultural and regional contexts, and describing the community's role in developing programmes and achieving outcomes. With regard to the adaptation of existing programmes, these researchers distinguished between 'deep-structure' adaptations (requiring more comprehensive community involvement) and 'surface-structure' adaptations, and discussed the strengths and limitations of each.

Acceptability of interventions

Prevention and intervention strategies need to contain concepts that are familiar to Māori communities (The Royal Australian and New Zealand College of Psychiatrists 2010). A study of the appeal of the SPARX internet-based intervention, for example, found that both Māori youth and whānau especially liked the Māori elements within the programme (Shepherd 2011).

Research with Māori youth and whānau suggests that Māori prefer intervention programmes that are consistent with the Te Whare Tapa Whā model,[7] and emphasise the importance of culture and spirituality (McClintock, Tauroa, Mellsop & Frampton 2013). Pacific youth, too, are likely to relate to programmes that emphasise holistic, "bio-psycho-social-spiritual" worldviews (Siataga 2011).

[7] Te Whare Tapa Whā, developed by Mason Durie and widely used in the New Zealand health sector, sets out four dimensions of health and wellbeing as four pillars holding up a traditional whare or house: Te Taha Tinana (the physical dimension), Te Taha Hinengaro (the emotional and mental dimension), Te Taha Whānau (the community dimension) and Te Taha Wairua (the spiritual dimension).

Online interventions

Although there is limited literature available, the indigenous circumpolar literature review noted that new technology and social media may be useful mediums for improving indigenous youth outcomes (MacDonald et al 2013). Many indigenous communities are rapidly adopting social media. A successful programme was cited in the review, which used multimedia narratives to encourage sobriety among Alaska Native youth (Allen et al 2006, cited in MacDonald et al 2013).

6.2.6_ Leadership and involvement from Māori and Pacific communities, including youth

Indigenous programme development should be led and informed by indigenous communities and, where adaptation is appropriate, it should be sensitive to the culture of indigenous communities (The Royal Australian and New Zealand College of Psychiatrists 2010; Williams & Cram 2012).

Indigenous literature from the US suggests that partnerships between academics and indigenous communities are a principle for effective programme design (Goodkind et al 2012; Komro et al 2014). An intervention designed in partnership with the Cherokee Nation, for example, followed several key evidence-based principles:

- following best practice in practitioner-scientist partnerships, eg identifying common goals, developing community leadership and integrating the interventions and their evaluations into the established local institutional structures of the Cherokee Nation and involved communities
- intervention at both individual and community levels
- five key principles for community organising: 1) empowerment and leadership development of local citizens; 2) reliance on relationship-building; 3) mobilisation and action of local citizens; 4) community determination of strategies and community ownership; and 5) intentional use of evidence-based strategies for sustainable community change (Komro et al 2014).

Involving indigenous and ethnic-minority young people, in particular, is crucial. An international systematic review of protective factors for indigenous youth wellbeing highlighted the potential for indigenous youth to be leaders within their communities (MacDonald et al 2013). The review argued that youth-centred mental health resources and programmes needed to involve young people in a meaningful way. Likewise, New Zealand authors advocate for the involvement of diverse Māori and Pacific youth views and aspirations in designing programmes here (Gluckman 2011; Moewaka Barnes 2010; Siataga 2011).

'Distributed leadership' may also be important, where capable leaders and mentors facilitate a process of collective action, encompassing youth mentors. The review of what works for Māori across outcomes found that effective leadership was distributed through different levels – including young people – to help build "cultures of care" (Williams & Cram 2012), similar to the whole-school approach discussed in section 4.

6.2.7_ Intervention at the societal level

A key success factor for indigenous interventions, according to international indigenous literature, is addressing 'upstream' determinants of social and emotional wellbeing (Haswell et al 2013). In other words, tackling the sources and root causes as well as the symptoms of mental disorders is important.

Mental health prevention and interventions for both Māori and Pacific youth need to acknowledge, and be informed by, structural determinants of wellbeing, eg the impacts of historical and contemporary discrimination, and greater risks of poverty and violence (Moewaka Barnes 2010). The complexity of youth mental health calls for multilevel, theory-based interventions that focus on structural factors such as poverty and discrimination (Moewaka Barnes 2010).

There is some evidence to support the use of policy interventions to influence substance use and substance-related harm. In particular, there is strong evidence from several systematic reviews to support policies to reduce the availability and accessibility of alcohol, eg through price increases (Catalano et al 2012). Such policies are associated with reductions in alcohol consumption and alcohol-related harm; however, there is a need for further research into the specific effects of such policies on substance use disorders.

Intervention research has not yet assessed the particular impacts of poverty-reduction programmes on mental disorders among young people (IOM & NRC 2009), although socio-economic disadvantage and childhood adversity are known risk factors (see section 2). Nonetheless, a 'natural experiment' reported by Costello and colleagues provides evidence of the positive impacts of increasing family income in reducing indigenous youth mental disorders (IOM & NRC 2009). It is a key example of a structural-level intervention.

Potential for societal-level interventions in improving indigenous youth mental health

Poverty reduction: Costello and colleagues followed a population of American Indian youth and families over 10 years when, because of new tribal enterprises including casinos, tribal income and employment dramatically improved. During this time period, a clinically significant decrease in mental disorder symptoms was noted for youth in families who had moved out of poverty (IOM & NRC 2009). The Institute of Medicine and National Research Council (2009) stated that although the study was not an intervention study, it did have some features of this design, which strengthened the findings.

Alcohol reduction: A US study, with the Cherokee Nation, is currently being implemented but the findings are not yet available. Several structural-level interventions are underway, including to: 1) reduce the number of alcohol outlets that sell to young people; 2) reduce the availability of alcohol to youth from non-commercial sources, such as parents, siblings and older peers and via kegs, and/or at parties; 3) reduce community tolerance of underage drinking and the adult provision of alcohol to youth; and 4) ultimately reduce youth alcohol consumption and alcohol-related problems (Komro et al 2014).

Colonisation and racism are pathways that produce a range of disparities for indigenous people in New Zealand and overseas (Crengle et al 2012; Moewaka Barnes 2010). Researchers note that the impacts of colonisation, discrimination and racism may 'spill over' into stress, trauma, frustration and the development of mental disorders. No empirical research was found in this review that specifically studied the potential effectiveness of antidiscrimination interventions in improving mental health outcomes for Māori and Pacific youth; however, as discussed in section 2, the national youth health survey in New Zealand shows that ethnic discrimination is a risk factor for depressive symptoms (Crengle et al 2012).

6.2.8_ Literature supports both ethnic-specific and generic programmes

Overall, the literature supports both ethnic-specific and culturally-responsive generic programmes (Boulton & Tamehana 2013; Dobbs & Eruera 2014). Boulton and Tamehana (2013), for instance, state that although the development of kaupapa Māori services is vital, this does not lessen the need for mainstream services that are responsive to Māori. Some Māori prefer a mainstream service environment, or live in areas where kaupapa Māori services are not available. Examples of generic programmes that have been found to improve Māori and/or Pacific youth mental health are provided in the text box below.

Examples of generic programmes effective for Māori and/or Pacific youth

Kiwi ACE: The school-based Kiwi ACE early intervention programme has been associated with a significant reduction in depressive symptoms for Māori and Pacific youth, in both randomised controlled trials and qualitative research (Woods & Jose 2011). The effects on depression, measured by the Children's Depression Inventory, occurred straight after the programme and was sustained after one year.

Travellers: An evaluation of another secondary school-based early intervention programme, Travellers, found moderate-level effectiveness across a wide range of short- and medium-term wellbeing-related outcomes for Māori and Pacific students (Robertson et al 2012).

The programme appeared to be particularly beneficial for Pacific students and those from low-decile schools. Pacific students achieved better outcomes than other students in terms of several outcomes, including improved connectedness to school, improved help-seeking skills and increased access to appropriate support (Robertson et al 2012).

SPARX: Empirical research suggests that the SPARX computerised self-help intervention can significantly reduce depression and anxiety among Māori young people and youth attending alternative education programmes, where Māori and Pacific youth are overrepresented (Shepherd 2011). Positive findings from a randomised controlled trial have been supported by qualitative research.

Project K: A qualitative evaluation of this mentoring-based youth development programme found substantial positive outcomes from the programme for Māori youth, eg improved behaviour and focus at school. Reported success factors included high expectations of youth participants, coupled with intensive support (Hollis et al 2011).

Potential for generic programmes to reduce stigma

Participants in the Project K evaluation, above, said the programme did not particularly attend to them 'as Māori', which they generally viewed positively. The preference for a 'non-ethnic-specific' approach, as indicated by most young people in this study, appeared to be related to the potential for stigma and negative stereotypes of young Māori (Hollis et al 2011).

Similarly, some studies suggest that Pacific youth prefer to be viewed as New Zealand youth rather than being singled out (MOH 2008), suggesting the importance of recognising diversity and engaging Pacific youth in development and implementation.

The provision of generic programmes can reduce stigmatisation of Māori and Pacific youth as they are not singled out (Komro et al 2014).

6.2.9_ Cultural competence

Given the increasingly multi-ethnic nature of New Zealand society, it is vital that cultural differences in concepts of mental health and wellbeing are understood and acknowledged in developing mental health promotion activities (The Royal Australian and New Zealand College of Psychiatrists 2010). Both Māori and the various Pacific cultures (eg Samoan, Tongan, Cook Island Māori, Tokelauan) share a collectivist, holistic perspective on health and wellbeing. An individual's wellbeing is not considered in isolation from the wellbeing of the extended family (whānau or aiga in Samoan) and the wider community.

New Zealand surveys suggest that Māori and Pacific youth have higher rates of some risk factors and symptoms of mental health problems. However, it is noted in the literature that prevalence data should be treated with caution because the measures used have not been 'normed' on Māori or Pacific youth and there may be cultural differences that affect the prevalence information (Woods & Jose 2011).

The following features of cultural competence are identified in the literature. These features are emphasised in relation to Māori youth but also have relevance for Pacific youth in New Zealand.

- Working within a holistic understanding of social and emotional wellbeing, incorporating all aspects of wellbeing – physical, cultural, social, emotional and spiritual (The Royal Australian and New Zealand College of Psychiatrists 2010).
- Using skilled Māori staff as well as improving how non-Māori teachers (and clinicians) interact with Māori students and whānau (McClintock et al 2013; Williams & Cram 2012).
- Intensive training and professional development of key adults who work with young people, eg teachers, counsellors, coaches and clinicians, to work better with Māori youth (Komro et al 2014; McClintock et al 2013; Williams & Cram 2012).

A key New Zealand example that focuses on developing the cultural competence of teachers is the Te Kotahitanga education initiative (Bishop et al 2007, cited in Ball 2013, Williams & Cram 2012) referred to earlier. The initiative has a strong focus on improving how teachers work with Māori students, encompassing observation and feedback sessions on teachers' practice and performance, as well as changing the wider school climate to be more culturally competent.

The Group Triple P positive parenting programme and the Incredible Years programme (see section 4) have successfully adapted generic interventions in a culturally sensitive manner in New Zealand (The Royal Australian and New Zealand College of Psychiatrists 2010). Some Māori clinicians expressed initial reservations about the 'cultural fit' of the Incredible Years programme when it was introduced (Cargo 2008, cited in The Royal Australian and New Zealand College of Psychiatrists 2010); however, work to better adapt the programme is underway.

In Australia, the Resourceful Adolescent Programme has been adapted for indigenous youth. The adapted programme has yet to be formally evaluated, but the core programme is well supported by evidence (Haswell et al 2013).

6.2.10_ Focus on reducing barriers to accessing interventions and services

New Zealand research suggests that despite having a worse mental health status than the general youth population, both Māori and Pacific youth are less likely to access services of any kind. When they do seek help, they are more likely to approach family or culturally acceptable sources of support and assistance (Crengle et al 2013; Helu et al 2009; The Royal Australian and New Zealand College of Psychiatrists 2010). To increase the rates of access, services must be acceptable to, and perceived to be appropriate for, both Māori and Pacific youth. In addition, structural obstacles to securing care and support must be addressed, such as reducing cost and transport barriers.

In the US, work to reduce barriers to mental healthcare has included the 'systems of care' approach implemented by the Substance Abuse and Mental Health Services Administration for youth with serious mental health conditions and their families. The systems of care approach has been applied in more than 20 American Indian/Alaska Native communities and achieved positive outcomes at the child and family, practice and system levels (Miller, Blau, Christopher & Jordan 2012). It includes the following principles: comprehensive, individualised services; family-driven and youth-guided care; cultural and linguistic competence; and a well-trained and competent workforce. Although the focus of our review is on prevention and early intervention for mild to moderate rather than serious disorders, these principles may be applicable more broadly.

6.2.11_ Focus on sustainability and capacity-building

Finally, a key point highlighted throughout the literature is the need for indigenous and ethnic minority initiatives to be sustained and sustainable, and for capacity-building to be adequately supported (Haswell et al 2013; Williams & Cram 2012). Continuous learning and informing programmes with evaluation is also vital. Māori researchers, for example, highlight the need to ensure that measurement and evaluation tools are valid for use with Māori and to inform practice with research findings (Williams & Cram 2012).

An Australian review of indigenous youth social and emotional wellbeing (Haswell et al 2013) highlighted these common elements of sustainable programmes:

- embed indigenous ways of being and doing at all levels of the programme. Sustainable programmes often originated from the community in the first place
- allow enough time and space to work with the community, to experience trial and error and to learn from experiences
- embed accountability, monitoring and evaluation processes as part of everyday continuous improvement, including evaluations of community-level as well as individual-level change
- recognise the challenges of recruiting and training the workforce for indigenous youth social and emotional wellbeing – and providing essential support for this.
- enable youth mental health programmes to continue to work at upstream levels – promotion, prevention and early intervention
- fund programmes to enable growth to meet the greater needs of indigenous youth.

07

Integration

What evidence exists, if any, on: a) the most effective mix of or balance between intervention initiatives, and b) effective service integration across multiple settings and sectors?

Key findings

Little evidence is available about the most effective mix of services, or the most appropriate balance between intervention initiatives.

Universal, selective and indicated interventions are all necessary as part of a comprehensive approach to promotion and prevention; however, the literature has little guidance about the most appropriate balance between these intervention types.

A 'stepped care' type approach based on individual need is a promising model for achieving an appropriate balance between universal and more intensive group and individual interventions, at least at the school level.

There is universal agreement that greater integration is desirable for achieving mental health promotion, prevention and treatment outcomes. Based on evaluation studies and qualitative research, the key factors associated with effective service integration across multiple settings and sectors are:

- pre-existing (and ongoing) relationships characterised by trust and mutual respect
- a shared vision; common goals
- a strong client focus
- strong leadership support for change
- clear roles and responsibilities
- stakeholder buy-in
- staff engagement
- ongoing monitoring and evaluation
- investment in people and systems
- enabling legislation
- enabling funding and accountability arrangements
- a long-term funding commitment
- the creation of a high-level co-ordinating body.

Key themes in the literature on mental health service improvement are: the need for developmentally appropriate, youth-friendly, accessible services that are designed to meet the mental health needs of young people, and provide continuity of care during times of transition.

Internationally, new models of integrated care for young people are emerging. For example, 'headspace' is an enhanced primary care model in Australia demonstrating positive mental health outcomes and increased access to services. Key success factors identified in the literature are: the provision of a highly visible and youth-friendly 'shop-front' for a range of existing services; better co-ordination of services; and including physical healthcare in the model to provide a stigma-free entry point.

7.1_ The most effective mix of or balance between intervention initiatives

Although the evidence base has developed greatly in recent years, there are still important questions to be answered about how best to improve the mental wellbeing and resilience of young people. Little evidence is available, for example, on the most effective mix of services and the most appropriate balance between intervention initiatives.

7.1.1_ Relative importance of complementary interventions

As previously discussed, there is wide agreement that adolescent mental health promotion and prevention require interventions both prior to and during adolescence. There is also wide agreement that interventions should target generic competencies and skills (eg executive function, social problem-solving), should improve the supportiveness of school and home environments, and should address structural/environmental risk factors such as poverty. However, the relative importance of these complementary strategies is still unclear. Intervention research has not yet addressed this question; we did not find any empirical research aimed at testing the effectiveness of different constellations of interventions.

Nor is research on risk and protective factors yet advanced enough to shed light on the relative importance of different interventions. One review concluded, "Current limitations in our knowledge about the strength of the association between risk and protective factors and medium to long-term mental health outcomes means it is difficult to quantify which of the different preventive interventions will have the greatest effect" (Tennant et al 2007, p 31).

7.1.2_ Universal versus targeted approaches

There is debate in the literature on the merits of universal intervention approaches versus interventions targeted at 'high-risk' groups and symptomatic individuals. The general consensus is that universal, selective and indicated interventions are all necessary as part of a comprehensive approach (Catalano et al 2012; Muñoz-Solomando & Williams 2007; IOM & NRC 2009); however, the literature has little guidance on the most appropriate balance between these intervention types.

Universal interventions include classroom-based skill-building programmes offered to whole year groups and whole-of-school approaches such as restorative justice practices, along with policy, regulatory and mass media strategies that affect whole populations. Universal approaches can potentially influence the large number of young people at low to moderate risk, as well as the small number at high risk (C. A. Jackson et al 2012). Given the high prevalence of mental disorders in adolescence,[8] influencing those at low to moderate risk is of public health importance. Furthermore, Eckersley and colleagues (2006) state that, "the pace of social change has outstripped the usefulness of the idea of a 'mainstream' of young people who are 'OK' and an identifiable minority who are 'at risk' and require targeting. At some time, most individuals will face difficulties, for example, a period of depression or unemployment" (quoted in Ministry of Social Development 2011).

[8] For example, up to a quarter of young people will have experienced a depressive disorder by age 19 (Merry et al 2012).

Some authors argue that universal interventions are preferable in the school setting for practical reasons (eg the difficulty of screening) and/or because targeted approaches may stigmatise students (Kavanagh et al 2009; Merry et al 2011; Tennant et al 2007). For example, a report commissioned by the English Department of Health recommends: "Providers of preventive mental health services to young people should consider providing universal, rather than indicated, interventions. Providers implementing indicated interventions may wish to monitor any potential adverse effects due to stigma associated with mental health problems" (Kavanagh et al 2009).

However, there is evidence that universal approaches are less effective for adolescents than they are for younger children (Tennant et al 2007, p 29), and some reviews have concluded that interventions for adolescents should emphasise targeted prevention and early intervention for common disorders (IOM & NRC 2009). Certain interventions (eg CBT-based programmes) have been trialled as universal interventions (eg as part of the curriculum), as a selective intervention for young people at high risk (eg children of parents with mental disorders), and as an indicated intervention for those showing symptoms of depression and other disorders. The evidence tends to favour a targeted or indicated approach in terms of effectiveness and efficiency (Tennant et al 2007; Thapar et al 2012; Woods & Jose 2011). Effect sizes tend to be greater for indicated programmes, reflecting the fact that there is more room for improvement in those already showing symptoms (IOM & NRC 2009).

7.1.3_ Tiered or stepped approaches

A recent review providing guidance on mental health promotion stated: "In actuality, the whole population is in need of mental health promotion, and not just the ones who are either suffering from mental disorder, or those who are at risk for developing mental disorder. However, on the lines of the concept of triage, one needs to prioritise the mental health promotion activities to be delivered, keeping in mind the limited mental health resources that we have" (Kalra et al 2012).

One solution is a tiered approach based on the principles of 'stepped care', ie providing the least intrusive intervention that meets the mental health needs of the individual. Interventions are 'stepped up' to a higher intensity only if the less intensive approach is ineffective. An example of a tiered approach in the school setting is Positive Behavioural Interventions and Supports (PBIS), described here by Bradshaw et al (2012):

> PBIS is a non-curricular, universal prevention strategy that aims to alter the school environment by creating improved systems and procedures to promote positive change in staff and, consequently, student behaviours. The model draws upon behavioural, social learning, and organisational behaviour principles that have been traditionally used with individual students and extends and applies them to the entire student body consistently across all school contexts. This whole-school strategy aims to prevent disruptive behaviour and enhance the school's organisational climate by creating and sustaining primary (universal or school-wide), secondary (selective), and tertiary (indicated) systems of support. The three-tiered prevention model follows a public health approach, whereby two levels of selective/targeted group and indicated/individual programmes are implemented to complement the universal school-wide components (for a review, see Carr et al 2002; Horner et al 2005; Leaf and Keys 2005; Sugai and Horner 2002, 2006). The universal school-wide PBIS model has been widely disseminated throughout the US and has been implemented in over 16,000 schools across 44 states.

In this model, the balance between universal and more intensive group and individual interventions is based on student need, echoing the concept of 'triage' raised by Kalra et al (2012).

7.2_ Effective service integration across multiple settings and sectors

There is universal agreement that greater integration is desirable for achieving mental health promotion, prevention and treatment outcomes (Chenven 2010; Muñoz-Solomando & Williams 2007; IOM & NRC 2009). For example, a major US report states:

> **Collaboration and partnerships with health and other systems such as general practice, specialist child, youth and family mental health, schools, childcare services, community services, child protection, juvenile justice and legal services, and adult services is critical. Such collaboration would ensure the recognition, even before birth, of those who would benefit from early intervention to minimise the impact of risk factors for the onset of mental health disorders on their development. Integrated mental health and psychosocial services for prevention and early intervention would allow systematic and co-ordinated follow-up throughout the lifespan with intervention appropriately geared to the life stage, thereby potentially altering the developmental trajectory of mental health disorders**
> (National Advisory Council on Mental Health 2011, p 5).

There is also general agreement that service integration is very difficult to achieve and sustain (Callaly, von Treuer, van Hamond & Windle 2011; KPMG 2013). A recent international report on integration in human and social services concluded:

> **Integrated services delivery does not happen overnight. It requires significant planning and investment in both people and systems. While integration often generates considerable enthusiasm in its early developmental stages, implementation almost always poses tremendous challenges** (KPMG 2013, p 19).

7.2.1_ Types of integration

It can be helpful to conceptualise integration on a continuum, from information-sharing and informal co-operation at one end to fully integrated budgets, staffing and service delivery at the other (Callaly et al 2011; KPMG 2013).

We identified three types of service integration that are advocated for in the literature on adolescent mental health promotion, prevention and early intervention:

Collaboration at ministerial level for joint mental health promotion, prevention and early intervention initiatives

It is argued that addressing the underlying causes of youth problems requires high-level collaboration, and is likely to achieve positive outcomes in multiple domains including education, health, justice and social welfare. "Because the determinants of mental wellbeing are many and varied, and because possible interventions include high level policy interventions, cross-sector integration at ministerial level is vital for effective mental health promotion at the national level, according to WHO guidance" (Kalra et al 2012).

Greater integration of mental health promotion, prevention and early intervention into existing services

A theme in the literature is the need to integrate mental health promotion into existing services, as opposed to setting up new organisations and structures for delivery. "Preventive interventions have been successfully integrated into schools, healthcare settings, and community services; this integration into existing services is likely to be important for the scale-up and sustainability of interventions" (Kieling et al 2011, p 1518).

Within the mental health literature there has been a recent increase in emphasis on mental health promotion and mental disorder prevention, and calls for a 'paradigm shift' towards a more preventive model of mental health care (Muñoz-Solomando & Williams 2007). At the same time there has been greater recognition in the education sector that 'social and emotional learning' is important in itself and can support academic achievement across subject areas (Greenberg et al 2003). Workforce development for teachers and school support staff (eg guidance counsellors) is seen as an important strategy for supporting the mental wellbeing of all students, and identifying those in need of specialist support (Wei, Kutcher & Szumilas 2011).

Integration of specialist treatment services

Although it is mainly relevant to services for young people with severe (as opposed to mild or moderate) mental health problems, a key theme in the literature is the need to integrate a range of treatment and support services, to ensure continuity of care and 'seamless' support.

> **Meeting young people's needs that stem from the coexistence of mental disorders and health, education, family, and social problems requires comprehensive and well-coordinated groups of services that work together effectively ... Children, young people and families do not usually experience their lives or problems as being partitioned in the ways in which services are often organised and delivered**
> (Muñoz-Solomando & Williams 2007).

In the New Zealand context, Whānau Ora is aimed at achieving this kind of service integration, with the enhancement of extended family wellbeing the central aim. Whānau Ora is discussed in detail in section 6.

There is considerable international literature focused on the redesign or improvement of youth mental health and social services, with greater integration of services a key theme (Birchwood & Singh 2013; Chenven 2010; Hickie 2011; Illback & Bates 2011; McGorry, Bates & Birchwood 2013; Miller et al 2012; Muir, Powell & McDermott 2012; National Advisory Council on Mental Health 2011).

7.2.2_ Available literature and knowledge gaps

While there is a great deal of descriptive and prescriptive literature on service integration, empirical evidence is lacking about the relative effectiveness of various integration models for youth mental healthcare. In an introduction to a supplement on mental health service design for young people, two key authors in the field stated: "Neither the status quo nor these alternative models have clear evidence of efficacy" (Birchwood & Singh 2013).

Research gaps identified by a major US report on promotion and prevention include empirical research on intervention approaches that combine interventions at multiple developmental phases, and approaches that integrate individual-, family-, school- and community-level interventions (IOM & NRC 2009).

Knowledge gaps about integration are not specific to youth mental health; across all human and social services there is a lack of empirical evidence on many key issues. For example, key informants interviewed for the recent KPMG report pointed to a number of important gaps in the existing evidence base, including information concerning:

- the cost effectiveness of service integration
- the appropriate mixing and sequencing of interventions for different target populations
- how to scale up successful pilots
- the fidelity of implementation
- programme areas where integration may not be appropriate (KPMG 2013, p 29).

7.2.3_ What helps and hinders integration?

A number of studies and reviews have identified factors associated with successful integration initiatives and partnerships, and barriers that can thwart the integration or partnership process (Bradshaw et al 2012; Callaly et al 2011; Hunter & Perkins 2012; KPMG 2013; IOM & NRC 2009). The key factors that are widely agreed are summarised in Table 2 below.

A UK review of public health partnerships found that less formal and more organic, operational partnerships were more effective than more formal, strategic-level ones that were driven by targets (Hunter & Perkins 2012).

TABLE 2

Factors that help and hinder integration

Factors that help	Factors that hinder
Pre-existing (and ongoing) relationships characterised by trust and mutual respect	Different worldviews and priorities; competing agendas
Shared vision; common goals	Lack of common language, vision
Strong client focus	Underestimation of time and resources needed to build and maintain partnerships
Strong leadership support for change	Difficulty of changing organisational culture
Clear roles and responsibilities	Incompatible IT systems
Stakeholder buy-in; staff engagement	Concerns over client confidentiality with shared IT
Ongoing monitoring and evaluation	Competing models of service delivery
Investment in people and systems	Perception that one partner is pushing its own agenda or processes onto another
National policy context, including enabling legislation and long-term funding commitment	Stigma of association with mental health and mental health services
Creation of a high-level co-ordinating body	Structural barriers, eg legislation, funding arrangements, accountability

These generic findings are echoed in research about the integration of mental health prevention and early intervention services into school settings (Powers, Edwards, Blackman & Wegmann 2013; Stephan, Hurwitz, Paternite & Weist 2010). Based on stakeholder discussion groups in four states, Stephan and colleagues (2010) defined 10 critical factors for advancing school mental health (SMH) at the state level in the US:

1. State leaders across child-serving public sectors must establish cohesive and compelling visions and shared agendas for SMH that can inspire localities to act.
2. State public agencies need centralised organisational infrastructures and accountability mechanisms to ensure the visions' implementation across sectors.
3. State policymakers and leaders need to create feasible and sustainable funding models that maximise the use of revenue and provide categorical grants for comprehensive SMH services, including prevention and early intervention.
4. State and district education leaders must understand the connection between effective SMH programmes and students' academic enrichment and success in school.
5. Young people and families from diverse backgrounds must be engaged in all aspects of SMH policy and programme development.
6. School staff and SMH providers must recognise the needs of students from diverse cultural backgrounds and reduced disparities in access to effective programmes and services.
7. Pre-professional and in-service training should prepare educators and SMH professionals on child and adolescent development, child and adolescent mental health, and best practices related to SMH strategies.
8. State-level and community stakeholders should support practitioners in using and monitoring SMH strategies that reflect evidence-based best practice.
9. State-level and community stakeholders should co-ordinate the myriad of resources dedicated to students' academic success, mental health and wellbeing to ensure full integration and equitable distribution across schools.
10. State-level and community stakeholders should collect data that document the impacts of SMH programmes on academic indicators and integrate these indicators into evaluation efforts at the school, district and state levels (Stephan et al 2010).

For each of these 10 factors, the authors provide examples of possible actions and strategies, putting this forward as a framework for action and evaluation. "The framework promotes moving beyond the fragmented and redundant efforts of local jurisdictions, towards achieving a state-wide, comprehensive SMH agenda reflecting a vision and priorities shared between wide-ranging stakeholders. The framework can be used as a template in planning or quality assessment and improvement efforts; state agencies can assess the current or baseline status of each factor and then monitor progress in advancing a shared vision and priorities" (Stephan et al 2010).

Powers and colleagues concluded that strong relationships were the most important key to successful integration, particularly between agency leaders: "when it's all said and done, in the final analysis, it's about relationships" (Powers et al 2013).

7.2.4_ Models for integrated care

As noted above, there is a great deal of literature on existing and potential models for better integrated mental healthcare for adolescents. Key themes are the need for developmentally appropriate, youth-friendly, accessible services that are designed to meet the mental health needs of young people, and provide continuity of care during times of transition (Hickie 2011; McGorry et al 2013). McGorry and colleagues state, "We hope that service reform for young people continues to be informed by evidence, user preference and an increasing focus on preventive strategies" (McGorry et al 2013, p S34). Two early intervention models are described below.

Australia: headspace

Australia provides a leading example of mental health service redesign and integration with the 'headspace' initiative, which is discussed extensively in the literature (Callaly et al 2011; McGorry et al 2013; Muir et al 2012). Headspace is an enhanced primary care model for youth mental healthcare, established by the Australian Federal Government in 2006, to support early intervention for young people aged 12–25 years with mental health problems. A key aspect has been the establishment of "youth-friendly, highly accessible centres that target young people's core health needs by providing a multidisciplinary enhanced primary care structure or 'one-stop shop', with close links to locally available specialist services and schools and many other community-based organisations" (McGorry et al 2013, p S31). Each headspace service provides four integrated service streams integrated within a clinical governance framework: 1) mental health; 2) drugs and alcohol services; 3) primary care; and 4) vocational assistance (Callaly et al 2011). Callaly and colleagues describe in detail the success factors and challenges of establishing collaborative service partnerships under the headspace model in Geelong, Victoria. Despite the challenges of forming and maintaining headspace consortia, evaluations suggest that headspace is improving the mental and physical health of its clients, and improving access to mental health services, particularly for young men. Key success factors identified in the literature are: the provision of a highly visible and youth-friendly 'shop-front' for a range of existing services; better co-ordination of services; and including physical healthcare in the model to provide a stigma-free entry point and address co-morbidities (McGorry et al 2013).

Canada: School-based pathway to care

Wei and colleagues present an integrated model for youth services that places schools (rather than health services) at the centre:

> **The school is an ideal place to address mental health needs of youth. Most young people in Canada attend school, with the average teen spending over thirty hours per week in the classroom. Not only does the school offer a relatively focused and potentially cost-effective opportunity to reach youth, it is also a convenient place where mental health can be linked with other curricula, and programmes that address physical health, nutrition, and sexual health** (Wei et al 2011, p 216).

The Canadian model is intended to cover the promotion, prevention and early intervention spectrum and includes the following components: mental health literacy programmes for students and educators; parental/family outreach; training in the early identification, triage and referral of students with mental disorders for student support staff; programmes to enhance mental health competencies for primary care and specialty mental health service providers; and processes for co-ordination and collaboration between schools and their communities (eg, parents, health providers and policymakers).

The goals of the model are: 1) to promote mental health and reduce stigma by enhancing the mental health literacy of students, educators and parents; 2) to promote appropriate and timely access to mental healthcare through early identification, triage and evidence-supported, site-based mental health interventions; 3) to enhance formal linkages between schools and healthcare providers; 4) to provide a framework in which students receiving mental healthcare can be seamlessly supported in their educational needs within usual school settings; and 5) to involve parents and the wider community in addressing the mental health needs of youth.

According to the authors, this model is founded on the application of best-available scientific evidence; is rooted in the WHO Health Promoting Schools concept; and is consistent with the realities of Canadian education and healthcare systems. We did not find any evidence that this model has yet been implemented in Canada, or empirical findings on effectiveness.

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Appendix: Methods

Aim

The aim of this research review was to provide Superu with:

- an evidence-based overview of the key factors that contribute to mental wellbeing and resilience in young people aged 12–19, with a particular focus on rangatahi Māori and Pacific youth
- an overview of current best practice in adolescent mental health promotion, prevention and early intervention at a state or national level
- an overview of national and international research of projects that seek to integrate mental health services for youth from different disciplines and sectors.

The review is intended to inform the evaluation of the YMHP **as a whole**, rather than to review the evidence base for each of the 26 initiatives. It provides a snapshot of the current evidence base, focusing on robust and well-documented empirical findings.

Research questions

The review focused on the following questions:

A. What are the key risk and protective factors for mental disorder in young people aged 12–19? What are the key risk and protective factors for Māori and Pacific youth in particular?

B. What are the key competencies, assets and environmental factors that are associated with positive outcomes (particularly mental health outcomes) for young people aged 12–19, and in particular, Māori and Pacific youth?

C. What are the evidence-based principles of effective mental health promotion, mental disorder prevention and early intervention for young people aged 12–19? What works in terms of content and design?

D. What is considered 'best practice' at the state or national level for the implementation of youth mental health promotion, mental disorder prevention and early intervention? (Focusing on the 'how')

E. What does the literature say about best practice in youth mental health promotion/prevention/early intervention programmes for Māori and Pacific youth? (Both the 'what' and the 'how')

F. What evidence exists, if any, on: a) the most effective mix of or balance between intervention initiatives, and b) effective service integration across multiple settings and sectors?

In reviewing the literature, we were cognisant of the YMHP initiative 'clusters' and have highlighted relevant evidence (or evidence gaps) relating to these interventions in particular.

Scope

Because of the potential breadth of the review, it was necessary to draw some limits around the scope for pragmatic reasons. The authors worked with Superu and selected members of the Evaluation Advisory Group to develop the scope, which is outlined below. Our aim was to produce the most relevant and useful review possible in the time available. This required pragmatism as well as rigour.

We agreed that the review would focus primarily on recent (published 2008–2014) and seminal material. We also agreed that it would focus on New Zealand material (where it was available) and international reviews. Secondarily, we were interested in material from Australia, the UK/Europe and North America.

In scope	Out of scope
Focus is on risk and protective factors modifiable during the adolescent years	Only brief mention of factors that are not modifiable at all, or factors like infant-parent bonding that are too late to do anything about in adolescence
	Literature on prevalence of mental illnesses in this age group, or sub-groups (eg by ethnicity, gender, sexual orientation)
Mental disorder (question A) includes mild to moderate depression, anxiety disorders, substance abuse and addiction, behaviour/conduct problems and emotional disturbance	Suicide and self-harm, since the focus of the YMHP is on 'mild to moderate' problems Adolescent precursors to mental illness in adulthood
'Positive outcomes' in question B was left deliberately open because review papers in the education and youth development literature are likely to include a range of different outcomes, of which many are correlated with mental health outcomes. The primary focus will be on improved mental wellbeing; however, where factors (eg school engagement) are associated with multiple outcomes (eg academic achievement, teen pregnancy) we envisage noting these wider outcomes as well	
	The review does not detail evidence in relation to specific interventions, eg mentoring programmes, Group CBT. We are looking for literature relevant for assessing the YMHP **as a whole**
	The review will not include analysis of cost effectiveness or value for money, as that aspect of the evaluation is being covered by KPMG
Where reviews on mental health promotion/prevention/early intervention include empirical evidence on the most effective treatments for young people with mild to moderate mental health problems, these findings will be included in question C	The review will not search for or include literature specifically on the effectiveness of mental health treatment services for adolescents. This decision was due to the YMHP focus on mild to moderate rather than severe mental disorders, and a focus on community settings. It was also necessary for pragmatic reasons, to keep the scope manageable. We acknowledge that this approach potentially excludes useful material, eg practice-based evidence about Māori and Pacific Island programmes/treatments
Question F will focus on literature specific to youth mental health promotion, illness prevention and early intervention in the first instance. If little or none is available, the search will be broadened to include youth-focused interventions in general and mental health promotion/prevention/early intervention in general	

In addition, the following exclusions were agreed:

- pre-2008 papers, unless they were particularly seminal or there was a lack of more recent papers on a particular topic area
- pre-2000 material, since this would be covered in more recent reviews
- material from developing and non-Western countries
- suicide, suicidal ideation/attempt, psychosis, schizophrenia and severe mental illness
- reviews or papers with an exclusive focus on secondary/specialist mental health services/treatments (however, broader papers that included this material were in scope)
- early intervention for psychosis
- theses and dissertations.

Evidence map

The project included the development of an evidence map as part of the scoping stage. The evidence map was developed based on the authors' knowledge of the subject area and initial searching undertaken as part of the scoping process.

Search strategy

We took a multipronged approach to searching, using the following methods to identify potentially relevant material:

1. review of initial search done by Superu/Ministry of Social Development library
2. review of reference lists of recent on-topic reviews
3. Google and Google Scholar searching
4. searching of academic databases
5. searching of key websites (listed below).

We were also alerted to papers by staff of Superu and Evaluation Advisory Group members.

Key international websites

Foresight Project (UK) https://www.gov.uk/government/publications/mental-capital-and-wellbeing-making-the-most-of-ourselves-in-the-21st-century

Sainsbury Centre for Mental Health (UK) http://www.centreformentalhealth.org.uk/publications/publications_list.aspx?SortID=a

International Alliance for Child and Adolescent Mental Health and Schools http://www.intercamhs.org/

Public Health Agency of Canada: Mental Health Promotion Unit http://www.phac-aspc.gc.ca/mh-sm/mhp-psm/index-eng.php

University of Adelaide Library: Child and Adolescent Mental Health http://www.adelaide.edu.au/library/

UK Mental Health Foundation http://www.mentalhealth.org.uk/

VicHealth, Australia http://www.vichealth.vic.gov.au/

headspace: National Youth Mental Health Foundation (Australia) http://www.headspace.org.au/

What works clearinghouse: US Department of Education http://ies.ed.gov/ncee/wwc/

CASEL (Collaborative for Academic, Social and Emotional Learning) http://www.casel.org/

Blueprints for Healthy Youth Development (US) http://www.blueprintsprograms.com/

World Health Organization http://www.who.int/en/

World Federation for Mental Health http://wfmh.com/

IMHPA (Implementing Mental Health Promotion Action) www.gencat.cat/salut/imhpa/Du32/html/en/Du32/

European Network for Mental Health Promotion www.mentalhealthpromotion.net/

European Commission: Mental Health http://ec.europa.eu/health/mental_health/portal/index_en.htm

Institute of Mental Health https://www.imh.com.sg/

Key New Zealand websites

Royal Australian and New Zealand College of Psychiatrists https://www.ranzcp.org/Home.aspx

Mental Health Foundation http://www.mentalhealth.org.nz/

New Zealand Aotearoa Adolescent Health and Development (NZAAHD) http://www.arataiohi.org.nz/

Youth2000 – national youth health and wellbeing survey series https://www.fmhs.auckland.ac.nz/en/faculty/adolescent-health-research-group/youth2000-national-youth-health-survey-series.html

Dunedin longitudinal study http://dunedinstudy.otago.ac.nz/studies/assessment-phases

Christchurch Health and Development Study http://www.otago.ac.nz/christchurch/research/healthdevelopment/

www.nzresearch.org.nz

The SHORE and Whāriki Research Centre, Massey University http://www.whariki.ac.nz/

Te Pou http://www.tepou.co.nz/

Te Rau Matatini http://www.matatini.co.nz/

The Werry Centre for Child and Adolescent Mental Health http://www.werrycentre.org.nz/

NZCER (New Zealand Council for Educational Research) http://www.nzcer.org.nz/

Selection of key papers

We found a great deal of potentially relevant material. The first stage of the selection process was to apply the inclusion and exclusion criteria agreed at the scoping stage to the abstracts. Included papers were then coded by research question relevance, and divided into 'high priority' and 'lower priority' based on: 1) the status of the author/s and publication; and 2) the relevance and 'fit' with the current review. Full texts of the 'high priority' papers were retrieved if we did not already have them.

Analysis

The authors divided the work by addressing three research questions each. We reviewed full texts of the 'high priority' papers. The 'lower priority' papers were either reviewed in full, abstract only or not at all, depending on their relevance and usefulness.

The analysis was carried out in two stages: data extraction and data synthesis. Data extraction involved extracting and summarising relevant findings from the set of included reviews and studies. The aim of data synthesis was to draw the findings together and reach conclusions about the research questions. This stage involved analysing the findings across studies, identifying key areas of congruence, considering the strength of evidence, and examining possible reasons for any inconsistencies.

Reporting

The key findings were written up as a draft report, and submitted to the client and selected Evaluation Advisory Group members for review. Comments and suggestions were incorporated into the final report, which was submitted on Friday 30 May 2014.

superu

Families Commission Kōmihana ā Whānau

The Families Commission operates under the name Social Policy Evaluation and Research Unit (Superu)