Evidence review: Addressing the social determinants of inequities in mental wellbeing of children and adolescents

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Overview

The aim of this report is to provide an overview of the social determinants of inequities in mental wellbeing in children and adolescents, to provide evidence on interventions which address inequities in wellbeing and to identify the evidence and conceptual gaps. We use the VicHealth Framework for Health Equity to identify points of entry at three layers of influence: (i) individual and family health-related factors, (ii) daily living conditions and (iii) the socioeconomic, cultural and political context. Our hope is that this report will serve as a resource for policy makers and practitioners to reduce inequities by addressing the social determinants of mental wellbeing in children and adolescents.

Background

What is mental wellbeing?

Mental wellbeing is a multifaceted and broad concept (Barry 2009). The term is used interchangeably with mental health, positive mental health, complete mental health, emotional wellbeing, social wellbeing and even simply wellbeing. In this report we use these terms interchangeably, and draw on the definition of the World Health Organization (WHO), which defines mental health as ‘a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community’ (WHO 2001b p. 1). The WHO definition encompasses the following three essential features of mental wellbeing:

1. Wellbeing is a positive state that is related to, but distinct from, being free of mental illness. The term mental wellbeing implies success across emotional, cognitive, psychological, social, physical and spiritual domains of life (Keyes 2002; Keyes 2007; Friedli 2009).

2. Wellbeing is a multidimensional term that is more than an emotional state. Wellbeing is conceived as having at least two dimensions (Keyes 2002; Huppert and Whittington 2003): positive affect (hedonic wellbeing) and positive functioning (eudemonic wellbeing). Wellbeing implies achieving one’s potential and includes, but is not limited to, a feeling of happiness or life satisfaction.

3. Mental health (wellbeing) is indivisible from the concept of health. There is no health without mental health (Prince, Patel et al. 2007).

Such a broadly defined and multifaceted concept requires a diverse set of indicators to measure and operationalise the term. We understand the concept of mental wellbeing to include elements of resilience, mental assets and resources, capabilities, social wellbeing, self-esteem, self-efficacy, optimism, life satisfaction, hopefulness, self-coherence, a sense of meaning in life, social integration, social acceptance, social actualisation, social contribution, social coherence, and social integration and self-actualisation (Keyes 2007; Barry 2009). These indicators draw attention to a distinctive feature of mental wellbeing: what it is and how it is operationalised embed social, relational as well as individual processes.
Mental illness

Mental illness (or mental disorder) is usually conceived as a negative state, in contrast to positive wellbeing. Mental illness refers to the spectrum of cognitive, emotional and behavioural disorders that interfere with people’s lives. Mental illness is characterised as ‘a diagnosable illness that significantly interferes with an individual’s cognitive, emotional or social abilities’ (Commonwealth Department of Health and Aged Care 2000b p. 3). Mental illness encompasses a range of disorders, varying in type and severity. Those considered to be public health issues include depression, anxiety, substance abuse disorders, psychosis and dementia (Commonwealth Department of Health and Aged Care 2000b p. 3). A mental health problem is conceptually closely related to mental illness, but differs in that it interferes with a person’s cognitive, emotional or social abilities to a lesser extent than mental illness, and is of shorter duration. Mental health problems are more common than mental illness and include mental complaints which are experienced temporarily in reaction to life stressors (Commonwealth Department of Health and Aged Care 2000b p. 3).

Mental illness and mental wellbeing tend to be studied as distinct but related concepts, forming two separate continua under the umbrella term of mental health (Keyes 2002; Keyes 2005). From a mental health promotion perspective however, mental wellbeing and mental illness are generally seen as part of the same continuum (Herrman, Saxena et al. 2005): mental wellbeing is promoted, while mental illness is prevented and subject to early intervention and treatment. In this report, we recognise the overlap between mental wellbeing and mental disorders and focus our attention on the promotion of mental wellbeing and the prevention of mental illness.

For children, mental illness (or child psychopathology) is somewhat different to adult symptomology or diagnoses. The research tends to consider childhood mental illness in terms of developmental disorders (such as autism spectrum disorders), internalising disorders (e.g., the experience of distress, anxiety, depressive symptoms and mood disorders) and externalising disorders (e.g., conduct difficulties or oppositional behaviours disorders) or in terms of a global concept of emotional and behavioural difficulties. The classification and approach to diagnosis also vary by child developmental age. Infants or very young children (aged three or less) are rarely diagnosed as mentally ill. During adolescence the patterning and symptomology of psychopathology begin to resemble adults’. It is not until mid to late adolescence that more adult concepts of mental illness are diagnosed in clinical practice or measured in research, and it is during this time that most mental illness is first diagnosed (Kessler, Amminger et al. 2007).

Like mental illness, mental wellbeing in children is expressed, measured and diagnosed in ways that are developmentally sensitive. The term ‘wellbeing’ in childhood refers to a global concept, encompassing optimal physical, cognitive, social and emotional development. We recognise the strong reciprocal relationships between these domains of development in children, but focus on social and emotional wellbeing.
Why address mental wellbeing?

Addressing mental wellbeing challenges the assumption that the absence of illness is a sufficient social, health or policy goal. Wellbeing draws attention to the quality of people’s lives, their capabilities and potential, contributions and opportunities. These, in turn, draw attention to the social contexts in which people live. Focusing on wellbeing, therefore, moves away from a conventional focus on mental illness, which is largely individually focused and targets only the extreme outcome and relatively small numbers of people, towards investing in the evidence and policy that support positive mental health. While individual characteristics such as coping and resilience are important to wellbeing, social contexts and processes are also integral (Keyes 2007; Huppert 2009). Furthermore, wellbeing is a construct that is not confined to the extreme or severe population subgroup, but is relevant to all people within a population. This represents, potentially, a paradigm shift.

Mental wellbeing has been described as a ‘global public health good’, a fundamental human right and essential ingredient for sustainable and functional society (WHO 2002; Jané-Llopis and Anderson 2005; Jané-Llopis, Barry et al. 2005; Barry and Friedli 2008; Friedli 2009). Mental wellbeing is required for individuals to ‘cope, flourish and experience good health and social outcomes’ (Friedli 2009, p. 38) and to live life to the full (WHO European Declaration on Mental Health, 2005). However, some authors argue that rapid social change, together with a societal preoccupation with economic growth at the cost of social and individual health outcomes, has eroded mental wellbeing, sparking the need for reinvestment (Lehtinen, Ozamiz et al. 2004; Friedli 2009). Population health approaches that ‘shift the curve’ of mental wellbeing, by addressing access to opportunity and the building of capabilities within population groups and subgroups (not only individuals), could thereby improve the overall distribution of mental health and wellbeing (Huppert 2009).

In addition to being a goal in its own right, wellbeing has also been associated with numerous social and economic benefits (Keyes 2007). Research has linked positive mental health in adults with: longevity (Danner, Snowdon et al. 2001); improved overall health (Benyamini, Idler et al. 2000); protection from stroke (Ostir, Markides et al. 2001) and cardiovascular disease (Keyes 2004); improved sleep, physical activity and diet (Pressman and Cohen 2005); healthier lifestyles (Watson 1988); reduced absenteeism (Pelled and Xin 1999; Keyes 2005); fewer chronic diseases and lower health-care utilisation (Keyes 2007); and increased pro-social behaviour (Diener and Seligman 2002; Lyubomirsky, King et al. 2005; Pressman and Cohen 2005). A review article studying prospective research on the topic found evidence of a temporal (and therefore potentially causal) relationship between wellbeing, health and longevity (Diener and Chan 2011).

In children and adolescents, wellbeing is associated with higher educational attainment (Becker and Luthar 2002), protection from teenage pregnancy and unsafe sexual behaviour, improved social relationships and better outcomes across a broad set of indicators later in life (Rutter 1987). These beneficial outcomes create social and economic prosperity within societies (Lehtinen, Ozamiz et al. 2004; Barry 2009). Investment in positive mental health in children can increase social inclusion and economic productivity over the lifetime, creating societies that are healthier and less reliant on social welfare (WHO 2004; Herrman, Saxena et al. 2005; Jané-Llopis and Anderson 2005).

In contrast, mental illness is associated with a range of adverse health, social and economic outcomes. The presence of mental illness is associated with higher unemployment and poverty
Addressing the social determinants of inequities in mental wellbeing

Mental wellbeing in children and adolescents

A life course approach to the study of mental health and wellbeing is fundamental (World Health Organization and Calouste Gulbenkian Foundation 2014). Infancy and childhood are seen as the formative years for the acquisition of mental capital (Graham and Power 2004; Barry and Friedli 2008) where patterns of thinking, feeling and behaving are established through neural embedding, emotional regulation and gene expression (Taylor 2010). A review of neurobiological differences in children revealed significant plasticity in children’s brains in regard to emotional and cognitive connections (Huppert 2009). Early developmental factors, such as early attachment, warm parenting, and supportive family and learning environments influence the way a brain develops and, therefore, affect lifetime patterns of behaviour and trajectories of capabilities. Childhood experiences create neurobiological and behavioural ‘chain reactions’ (Rutter 1987), establishing life course trajectories of social and emotional prosperity, or social and emotional disadvantage. Interventions that promote the acquisition of positive mental health and prevent mental illness are crucial in children’s early years.

Furthermore, many outcomes in adulthood have their roots in childhood wellbeing. Childhood mental health has been established as a positive predictor for educational attainment, employment and economic security later in life (Reynolds, Temple et al. 2007). In contrast, children with behavioural problems (an important indicator of mental ill-health in children), are up to three times more likely to develop a personality disorder, more than four times more likely to be involved in violence and almost 17 times more likely to attempt suicide (Caspi, Moffitt et al. 1996). A life course approach to mental health recognises that investment in the early years to promote wellbeing and prevent mental illness is crucial to a cost-effective method of reducing inequities in childhood development and has the added benefit of providing complementary positive outcomes that persist throughout the life course (Graham and Power 2004; Jané-Llopis and Anderson 2005; Irwin, Siddiqi et al. 2007; Doyle, Harmon et al. 2009).

The prevalence and social patterning of wellbeing

Despite the wealth of evidence on the benefits of positive mental health and the harmful effects of mental illness, there is little Australian evidence, particularly in regard to children, on the prevalence of positive mental health outcomes. A study of mental health and wellbeing in American adults found that approximately 20% were completely mentally healthy, about one half were moderately mentally healthy, 10% were languishing and a further 20% had some form of mental disorder (Keyes 2007). When the same assessment was applied to American adolescents (ages 12-17), results found that nearly 40% of young people were mentally healthy, 55% had moderate mental health and 6% were mentally unhealthy or ‘languishing’ (Keyes 2006). Currently, there are no available statistics on the prevalence of mental wellbeing in Australian adults; best available evidence on mental illness reports that 14% of children report a mental disorder (Sawyer, Arney et al. 2000) and almost 10% (Schofield, Callander et al. 2012), lower educational attainment (Leach and Butterworth 2012), and poorer physical health status and more chronic health conditions (Scott, Burke et al. 2012). Mental disorders are a leading cause of disability burden in Australia, accounting for 24% of the total years lost due to disability (Begg, Vos et al. 2007). Mental health problems are also related to reliance on social welfare, with 31% of people on the Disability Support Pension reporting mental disorder as their main condition, the highest percentage of any condition (Department of Social Services 2013).
are considered developmentally vulnerable in regard to emotional maturity (Centre for Community Child Health and Telethon Institute for Child Health Research 2009).

National wellbeing indicators also provide evidence for how individuals are faring. These measures, despite not exactly representing mental wellbeing, often are comprised of constructs highly correlated with wellbeing, such as happiness. Evidence suggests that, in general, wellbeing trends in high-income countries are stable; however, some indicators are showing deterioration. American wellbeing data from 2008-2013 demonstrated that trends in emotional health and healthy behaviours remained stable, but basic access, physical health and work environment declined (Gallup-Healthways 2013). The Canadian Index of Wellbeing revealed that national wellbeing in Canada generally improved over the past 15 years, although three of the eight domains showed score deterioration. Declining wellbeing trends were recorded for leisure and culture, time use and environment (Michalos, Smale et al. 2011). An Australian wellbeing index, the Australian National Development Index (ANDI), is currently being developed.

National surveys also point to severe inequities in mental wellbeing outcomes between and within societies. An assessment of wellbeing and flourishing in a representative sample of 22 European countries in the European Social Survey (2006/2007) found marked differences between European regions, with the highest rates found among Nordic countries, and very low rates among Eastern European countries (Huppert and So 2013). For example, approximately 40% of Danish adults met the criterion for flourishing compared to less than 10% of Russian adults. Similarly, the New Zealand Sovereign Wellbeing Index showed that when compared to 22 European counties, New Zealand consistently ranked near the bottom of the ranking in both Personal and Social Wellbeing (Human Potential Centre 2013). There were also small but consistent differences within New Zealand society, and it was found that social position was a powerful indicator of wellbeing (Human Potential Centre 2013). Older, female and wealthier New Zealanders on average showed higher flourishing scores as did New Zealanders from European backgrounds.

The social determinants of and inequities in mental wellbeing

There is growing understanding of the social determinants of health (Marmot, Friel et al. 2008), including for mental health and wellbeing outcomes (World Health Organization and Calouste Gulbenkian Foundation 2014). There is now strong evidence that mental health is produced by a combination of individual factors (such as genes and psychological makeup) and the condition in which people are born, grow, live, work and age (Marmot, Friel et al. 2008; Huppert 2009). These daily living conditions are generated by broader sociopolitical, socioeconomic and sociocultural environments, and produce unjust and avoidable inequities in health and wellbeing (Marmot, Friel et al. 2008; World Health Organization and Calouste Gulbenkian Foundation 2014).

What defines inequities in health is the social gradient. Not only is there a ‘gap’ in health outcomes between the most well-off in society and the most disadvantaged, there is also a graded effect, whereby increasing social position is associated with improved health outcomes. The social gradient is clear for mental wellbeing outcomes in adults, and is evident in children as young as three years old (Kelly, Sacker et al. 2011). The factors associated with disadvantage begin to stratify individuals before birth and only accumulate throughout the life course (World Health Organization and Calouste Gulbenkian Foundation 2014).
The position that people occupy on the social hierarchy directly affects exposure and accumulation of risk and protective factors (Marmot 2007). People at the bottom of the gradient are likely to experience more life stressors and have fewer resources to deal with the situation (World Health Organization and Calouste Gulbenkian Foundation 2014). Addressing the social determinants and allowing everyone in society, regardless of their position on the hierarchy, to achieve their full health potential has become a key public health goal (Marmot, Friel et al. 2008). Not only will this deliver instrumental benefits to society, it is the fair and just thing to do (Marmot 2007).

Consensus within researchers is strong; reductions in health inequities will be achieved only through action to improve daily living conditions and the inequitable distribution of power, money and resources (Marmot, Friel et al. 2008). Interventions will require cross-sector cooperation, strong leadership and the involvement of all members of society, and must address the gradient in health (Marmot, Friel et al. 2008). This means that action must be universal, but proportionate to need or level of disadvantage (the principle of proportionate universalism). Creating interventions that address only the poor all too easily become ‘poor services’, and they are easily discontinued and may exclude those who fall outside arbitrary cut-offs (World Health Organization and Calouste Gulbenkian Foundation 2014 p. 39).

Many high-quality research projects have investigated and theorised the social determinants of physical health, yet there still remains a scarcity of research which theorises the social determinants of mental health and wellbeing (Huppert 2009). While mental health is most often included in the broader discussion of health (see, e.g., (Marmot, Friel et al. 2008)), understandings of its unique determinants, the groups at most risk and the broader social patterning remain largely untested and under theorised (Huppert 2009). There is unequivocal evidence for the social gradient in mental health, but there is also unequivocal evidence of other axes of disadvantage linked to gender, ethnicity, discrimination, exclusion and the quality of people’s relationships. In his study of wellbeing in American adults, Keyes (Keyes 2007) demonstrated that African Americans reported higher percentages of flourishing compared to white Americans. These differences only strengthened after adjustment was made for sociodemographic characteristics, signalling the importance of norms, cultural expectations, social bonds and psychosocial factors in mental health and wellbeing. Rarely are these factors addressed in social determinant frameworks.

The Fair Foundations Framework

Mental wellbeing is determined by complex interplay between individual factors such as biology and psychology, societal structures, and cultural and political values (WHO 2004; Barry and Friedli 2008; Friedli 2009; Huppert 2009), and therefore requires social investment and social solutions. Addressing mental wellbeing inequities in children requires recognition of the broader system of determinants, removing the long-standing emphasis on the importance of individual factors that persists in the field of psychology and mental health treatment.

‘Fair Foundations: The VicHealth framework for health equity’ (herein referred to as the Framework) (Figure 1) is a health promotion tool which identifies three layers of influence on health: socioeconomic, political and cultural contexts; daily living conditions; and individual health-related factors. The Framework draws on the conceptual framework developed by the WHO’s Commission on Social Determinants of Health, emphasising the role of multiple factors across different layers in
Addressing the social determinants of inequities in mental wellbeing. This framework will be used in this report to systematically analyse the system of determinants of inequities in mental wellbeing in childhood and adolescents.

Figure 1. Fair Foundations: The VicHealth framework for health equity

The social determinants of health inequities: The layers of influence and entry points for action
Report aims and objectives

The aim of this report is to present an overview of the social determinants of inequities in mental wellbeing in children and adolescents and to identify successful approaches to reducing inequities at each layer of the Framework.

Specifically, we have three aims:

1. to summarise the evidence on the social gradient in mental wellbeing and common mental illness of children and adolescents;
2. to identify best or promising practice at each layer of the Framework, including a focus on interventions that promote the development of resilience, the acquisition of mental capital and the prevention of common childhood mental illness; and
3. to identify limitations and gaps in the evidence base and make recommendations for future research.

Methods

A rapid review of the literature was conducted in May-July 2014 with the aim of identifying information on the social determinants and inequities in mental wellbeing in children and adolescents, including interventions. We searched for research which examined:

1. mental wellbeing in children and adolescents, including one or more of the social determinants of mental wellbeing;
2. inequities in mental wellbeing outcomes in children and adolescents; or
3. the effect of programs, policies, interventions and services related to promotion of mental wellbeing or mental illness prevention in children and adolescents.

Search strategy

The search strategy was conducted in two phases. The first phase identified peer-reviewed publications, including meta-analyses, systematic reviews, reviews, and evaluations of interventions. Our strategy included developmentally sensitive search terms (available in Appendix 1) to capture outcomes relevant at each stage of child development. Search terms were entered into six bibliographic databases: Web of Knowledge, Scopus, Google Scholar, psycINFO, MEDLINE and Cochrane Library. This strategy successfully identified research on individual factors and daily living conditions, but revealed few studies operating within the socioeconomic, political or cultural context.

The second stage of our search strategy involved scanning relevant government websites, including those of Australian federal and state government departments, and key national and international institutions and research centres, for grey literature on interventions on mental wellbeing in children and adolescents, with a particular focus on identifying interventions operating at the socioeconomic, political or cultural layer of the Framework.
Inclusion and exclusion criteria

Our search strategy focused on identifying relevant high-quality peer-reviewed research, including meta-analyses, systematic reviews, reviews and original research articles, favouring meta-analyses, systematic reviews and reviews, drawing on original research only where reviews were not available. Documentation on interventions was included only when a formal evaluation of the program had occurred. Furthermore, studies were excluded if they were:

1. purely theoretical or conceptual in nature;
2. conducted in low- or middle-income countries;
3. published in a language other than English;
4. not applicable to children or adolescents;
5. relevant only to the treatment of mental illness or disorders; or
6. relevant only to mental illness with strong biological causes, such as autism or mental retardation.

Data analysis

Two reviewers searched, screened and coded the studies for inclusion in this review. Quality of the research was assessed according to study design, data quality, research transparency and the outcome measures used. Intervention studies were included in a literature table and synthesised according to their layer of the Fair Foundations Framework.

Summary of the evidence on the social determinants of inequities in mental wellbeing in children and adolescents

Review of the literature

We identified only a small number of reviews directly relevant to the social determinants of mental wellbeing in children and adolescents. However, the results also revealed that there is growing emphasis, particularly in the field of health promotion, on the need to recognise that mental health is determined by biological, psychological, social and environmental factors (Friedli 2009). Much of the research in this area is focused on childhood adversity and mental illness (Patel, Flisher et al. 2007), with limited research on positive mental health outcomes (the exceptions being (WHO 2002; Keyes 2007; Barry 2009; Huppert 2009)). Moreover, substantially more information was available on adult mental health, although children and adolescents were almost always discussed as a group of high importance.

Most research on positive mental health was, unsurprisingly, identified in the mental health promotion literature. Research in this field highlighted the wide-ranging benefits of wellbeing, stressed the importance of the social determinants of wellbeing (particularly in children) and was primarily concerned with promoting health through connections between layers of the Framework (WHO 2004; Barry and Friedli 2008). However, there was little direct evidence on known risk and protective factors for childhood mental wellbeing (as opposed to mental illness) (Huppert 2009), or inequalities in the way these factors are distributed across society. Instead, this research favoured a more universal approach to mental health promotion, and relied on evidence from wider literatures.
on factors associated with childhood adversity, childhood mental illness or the known social
determinants of (adult) health more generally.

The social determinants of inequities in child and adolescent mental health

Patel and colleagues summarise the available evidence on risk and protective factors associated with
child mental health (Patel, Flisher et al. 2007). Most research on social determinants of mental
wellbeing emphasises material dimensions, especially socioeconomic status (SES). There is a clear
and consistent graded relationship between mental health in children and most measures of SES
(Bradley and Corwyn 2002; Patel 2005; von Rueden, Gosch et al. 2006; Reiss 2013; Becchetti and
Pisani 2014). Children in the poorest households, in the poorest neighbourhoods and in societies
with the highest level of income inequality (Pickett, James et al. 2006) experience the highest rates
of mental illness and the lowest rates of wellbeing. Material deprivation is often ongoing, chronic
and daily in nature, and is associated with poorer outcomes as it accumulates (Reiss 2013).

However, when considering children’s wellbeing outcomes, research is unequivocal that both
material and psychosocial dimensions are critical (Bradley, Whiteside et al. 1994; Elstad 1998; Barry
and Friedli 2008). Quality of care, parent availability and wellbeing, family relationships and
interactions, and supportive learning environments are also important determinants of child
wellbeing (Bradley and Corwyn 2002; Evans 2003; Parke 2004; Gunnar and Quevedo 2007; Sylva,
Melhuish et al. 2007; Kelly, Sacker et al. 2011; Zajicek-Farber, Mayer et al. 2012). Evidence from
Australia suggests that psychosocial factors relating to family might be more powerful predictors of
child mental health than measures of SES (Spurrier, Sawyer et al. 2003). This research suggests that
psychosocial factors should be more explicitly theorised in social determinant frameworks relating to
mental health, particularly child mental health, widening the emphasis to include other axes of
disadvantage, and by adding relationships and their social determinants alongside the material.

Furthermore, there are dynamic and complex interactions between material and psychosocial
factors and across layers of the Framework, creating a system of mutually reinforcing determinants.
For example, a policy favouring the needs of business over the rights of employees creates poor
working conditions and job insecurity, which are powerful predictors of adult health and family
resources, which in turn affect child wellbeing (Strazdins, Shipley et al. 2010; Butterworth, Leach et
al. 2011). The extent employment supports or conflicts with family care and relationships shapes
parental capacity to engage in employment (and therefore earn income) and shapes parental
availability, parenting, daily stresses and children’s care (Strazdins, O’Brien et al. 2013).

Similarly, transport and urban design policy, for example, can encourage poor parent health,
influencing the quality of care and parenting interactions while also constraining capacity to
generate income. For example, depressed parents are more withdrawn, angry and sad (Downey and
Coyne 1990; Lovejoy, Gracyzk et al. 2000), and their children are more likely to have emotional or
behavioural difficulties, poor physical health, and impaired social or cognitive performance (Lovejoy,
Gracyzk et al. 2000). Poor-quality jobs can have crossover effects between partners, affecting the
quality of parents’ relationships with each other (Matthews, Del Priore et al. 2006). Parental conflict
and marital distress, as well as irritable or hostile parenting, are strong determinants of child mental
health (Repetti, Taylor et al. 2002; Cummings, Goeke-Morey et al. 2004; Parke 2004).
In Australia, disadvantage in mental wellbeing also follows gendered, cultural and geographic lines. Aboriginal and Torres Strait Islander children, as well as children from many culturally and linguistically diverse (CALD) communities and refugee communities, report poorer wellbeing and higher rates of mental illness (Sawyer, Arney et al. 2000; Centre for Community Child Health and Telethon Institute for Child Health Research 2009; Jorm, Bourchier et al. 2012). Indicators also show linear decreases in wellbeing indicators from major city centres towards remote Australia, with children in rural and remote communities reporting the poorest social and emotional functioning and the highest rates of mental illness (Sawyer, Arney et al. 2000; Centre for Community Child Health and Telethon Institute for Child Health Research 2009). Cultural and geographical disadvantage often intersect with material and psychosocial disadvantage, compounding problems for many children. Australian girls and boys show distinct trends in mental health; girls report higher internalising disorders while boys report more externalising behaviours (Sawyer, Arney et al. 2000).

**The limits of investing in childhood wellbeing**

Even with improvements to the conditions that shape childhood mental wellbeing, best available evidence suggests that socioeconomic situation continues to be more important than mental wellbeing in isolation (Bartley 2006). Children with very high resilience in low-income environments still report poorer outcomes than children with very low resilience in high-income settings (Masten, Best et al. 1990). Investment in childhood mental wellbeing without simultaneous improvements in the material and economic resources needed for optimal development will continue to produce health inequities over the lifetime of an individual.

**Equity implications**

Children’s wellbeing is shaped by social factors, daily living conditions and individual and family-related factors, and there is a social gradient in mental wellbeing outcomes (World Health Organization and Calouste Gulbenkian Foundation 2014). Children living in families with less money, enrolled in poorly resourced schools, living in poor housing, surrounded by crime in inequitable societies with poor social policy can expect poorer wellbeing outcomes than children who do not. Acting alongside material deprivation in children’s mental wellbeing are psychosocial inequalities: children from families with harsh parenting practices or unsupportive learning environments can also expect poorer wellbeing. Evidence for the importance of psychosocial factors is strong, yet they remain largely opaque in the social determinants framework. Material and psychosocial determinants will co-occur, compounding inequities in children, but will also occur separately, requiring a reconceptualisation of which children are ‘at risk’ for poor mental health and what population subgroups interventions and campaigns should target.

This evidence makes clear that mental health promotion to reduce inequity in children’s wellbeing will succeed only when the underlying system of drivers is addressed (World Health Organization and Calouste Gulbenkian Foundation 2014). Reducing inequities requires action across all layers of the Framework: social policy in multiple sectors which supports vulnerable children and their families; improvements to parents’ working conditions, housing, neighbourhoods and schools; and the creation of environments which support good parenting practices and access to the material resources needed for good health and wellbeing (Marmot, Friel et al. 2008). Interventions that seek to improve one determinant in isolation will be less effective than a series of interventions on the
system of determinants as a whole. Furthermore, interventions which seek to improve the circumstances of only the most disadvantaged children will not help to improve the overall gradient observed in mental wellbeing outcomes: interventions must be universal but proportionate to need (World Health Organization and Calouste Gulbenkian Foundation 2014).

However, these findings also pose real challenges for intervention design. A school-based intervention which promotes self-esteem may be beneficial for some, but for children who return home to hostile family environments the effects will be small. Similarly, promoting wellbeing in Indigenous children might produce a desirable effect in a program evaluation, but does little to address the serious disadvantage experienced by this group, or the inequities in exposure to risk and protective factors. Adequate family resources, especially income, are central to how children fare. However, other resources also matter to children’s wellbeing, such as parent time (Strazdins, Shipley et al. 2012). Interventions that generate time burdens on families who are at risk for poor mental health are much less likely to succeed than those which can offset time burdens – for example, by providing childcare and meals at parent training in behavioural interventions (Dumka, Garza et al. 1997; Foster, Johnson-Shelton et al. 2007). Without change occurring across all layers, and without universal interventions that ensure that parents are not excluded in terms of income or time, there is potential for mental health promotion programs to be ineffective, and to distribute the benefits of programs unequally among children, further engraining inequities in children’s wellbeing.
Interventions that address the social determinants of inequities in mental wellbeing in children and young people

The next section examines the effectiveness of interventions which aim to improve mental wellbeing and prevent mental illness in children at each layer of the Framework. A summary document of the interventions that met our criteria is included in Appendix 3.

An overview of the interventions to address inequities in mental wellbeing

We found relatively few interventions that aimed to improve the mental wellbeing of children. There were far more interventions aimed at prevention and early intervention of mental illness. Across all three layers of the Framework, there was a mix of universal, selected and targeted interventions. The majority of the interventions occurred at the individual and family, or the daily living conditions layer of the Framework. The use of universal, selective and targeted programs in family and education settings to promote wellbeing and prevent illness was strongly supported. The volume of information available on these topics was substantial, and program evaluations were generally positive. There was less evidence regarding physical activity, public awareness campaigns, online tools and the physical or social environment as interventions to improve wellbeing. While we would consider the evidence base to be relatively weak, this weakness is due to the relative lack of interventions that have been applied not the outcomes of evaluation.

We found almost no interventions that specifically addressed the socioeconomic, political or cultural layer of the Framework. At this layer, we did find a number of research and non-government organisations, as well as government departments advocating for improved wellbeing, and a number of policies and strategic documents which aimed to promote mental wellbeing and prevent mental illness. However, assessing the extent to which advocacy work or high-level strategic documents translate into action was difficult: rarely did documents outline funding targets or specific performance indicators, and these documents were rarely subject to evaluation. These documents did reflect a population health approach (universal policies to improve wellbeing for the population as a whole), and principles of equity were usually discussed. However, without information on the extent to which these documents are translated into action or national data on wellbeing indicators in children and adolescents, evaluation of these documents in regard to equity is extremely difficult.

Individual and family factors

Actions at the individual layer aim to improve the knowledge, attitudes and behaviour of parents through providing support and education to families to better child development and care. Public awareness campaigns have also been used as an intervention to improve attitudes towards, and knowledge of, mental health issues. Finally, physical activity has been used at this layer to improve the mental wellbeing of young people. Compared to the number of interventions that address daily living conditions, there is a paucity of interventions which specifically consider inequity at this layer of the Framework.

Parenting and family

Interventions to change the knowledge, attitudes and behaviours of parents and children have been used to improve mental wellbeing in the family environment. These interventions have various
equity implications and can be categorised into four groups: (1) training or education programs for parents of children with a conduct disorder, behavioural problem or mental health issue; (2) child- and family-targeted interventions for families where a parent has a mental illness; (3) targeted parent and family support for other families who are at risk; and (4) universal parenting programs.

Systematic reviews have shown that group-based parenting interventions can be effective in improving emotional and behavioural adjustment, conduct problems and anxiety disorders in children (Barrett 1998; Tennant, Goens et al. 1999; Furlong, McGilloway et al. 2012). However, not all research supports the efficacy of parenting interventions for children with emotional or behavioural problems. One systematic review of cognitive-behavioural therapy with a parenting component found that randomised controlled trials have not shown support for its efficacy, and another intervention evaluation found no significant intervention effects on temperament (Rapee, Kennedy et al. 2005; Breinholst, Esbjørn et al. 2012). However, when these types of interventions are successful, evidence suggests that parenting programs for early onset conduct problems appear to be effective, regardless of socioeconomic status.

The Parent-Child Interaction Therapy intervention, which includes both child-directed and parent-directed interaction, has been widely studied and been shown to lead to positive behaviour changes in diverse populations, including disadvantaged young African American children, Puerto Rican preschool children and Chinese families (Leung, Tsang et al. 2008; Matos, Bauermeister et al. 2009; Fernandez, Butler et al. 2011). The Incredible Years Parent Program has been shown to increase effective parenting and improve children’s behaviour (effect sizes for behaviour problems: child training vs control, 0.38; parent and child training vs control, 0.73; and parent training vs control, 0.89) (Scott, Spender et al. 2001; Patterson, Barlow et al. 2002; Webster-Stratton and Reid 2003; Gardner, Burton et al. 2006; Jones, Daley et al. 2007; Menting, Orobio de Castro et al. 2013), including in disadvantaged community-based settings (McGilloway, Ni Mhaille et al. 2012). In this program, food, childcare and transport are provided for parenting sessions in an attempt to break down access barriers. The Family Check-Up, a family-centred parenting intervention, was found to improve social behaviour and emotional adjustments in children and adolescents, and was found to be beneficial in low-income, distressed and disadvantaged families (Moore, Dishion et al. 2012; Fosco, Frank et al. 2013; Weaver, Shaw et al. 2014). Drawing this together, evidence suggests that these programs not only improve children’s behaviour, but can also reduce inequities through their proven success in disadvantaged and culturally diverse populations.

Targeted parenting programs can also be combined with universal parenting programs. For example, the Triple P – Positive Parenting Program includes several levels of intervention, with the first level using universal methods and subsequent levels working with targeted parents and families. A systematic review and meta-analysis of the effects of the program on a broad range of children, parent and family outcomes found significant short- and long-term effects for children’s social, emotional and behavioural outcomes (short term: d=0.473; long term: d=0.525), parenting satisfaction and efficacy (short term: d=0.519; long term: d=0.551), parenting practices (short term: d=0.578; long term: d=0.498), parental adjustment (short term: d=0.340; long term: d=0.481) and parental relationship (short term: d=0.225; long term: d=0.230) (Sanders, Kirby et al. 2014). The flexibility of the program was found to be particularly useful for families living in rural and remote areas. Where access to parenting services was limited, translated materials, culturally relevant examples and the opportunity for questions appeared to be sufficient changes to the program to be
effective in an Indonesian-Australian population of parents (Sanders, Kirby et al. 2014; Sumargi, Sofronoff et al. 2014). The Parent-Child Interaction Therapy intervention has also been used universally in preschool, low-income, urban and ethnic minority settings (Gershenson, Lyon et al. 2010). Further research is needed on the effects of universal parenting programs and the implications for equity.

Maternal mental health

Maternal mental health is a powerful predictor of child mental health (Goodman, Rouse et al. 2011). The Children of Parents with a Mental Illness (COMPI) initiative aims to support families, individually or through community services, who have at least one parent affected by mental illness. Programs aimed at children in these families have shown significant improvements in children’s feelings of hope, connections outside the family, personal strengths and contribution to others’ wellbeing, as well as improvements in children’s mental health symptoms (Reupert, Cuff et al. 2012; Foster, Lewis et al. 2014; Foster, McPhee et al. 2014). Differences in effect by age have been observed (Matthews and Nicholls 2012), however, and although strategies for professionals working with Indigenous or culturally diverse populations are included on the website, evaluations of the initiative in these populations were not found.

Similarly, the Prevention Intervention Project in the US, which included a family lecture intervention or a clinician-facilitated intervention, was shown to improve child-related behaviours, attitudes and understanding of parental illness (Beardslee, Gladstone et al. 2003). Participants in the evaluation of this project were all of high SES, and although the Prevention Intervention Project has been adapted to inner city and Latino populations, an evaluation of the efficacy of the project in these populations was not found.

Parenting programs for Indigenous Australians

Parenting programs have also been developed in Australian Indigenous communities to support parents to improve the wellbeing and development of their children. Hey Dad! and the Aboriginal Dads Program are two examples of programs supporting Aboriginal fathers. While no formal evaluations were found, the Aboriginal Dads Program has contributed to an increase in the number of Aboriginal children participating in playgroups and preschools, and the number of Aboriginal fathers getting involved in their children’s learning and development (Child Family Community Australia 2010). If effective, targeted parent interventions such as these can reduce wellbeing inequities in children by helping disadvantaged parents and families who do not have the same access to support as others. Many challenges exist in engaging with disadvantaged communities, and programs should be developed and led by the local community (Haswell, Blignault et al. 2013).

Public awareness campaigns

Stigma and a lack of awareness of mental illness and mental health issues can have a serious impact on those affected. Stigma can prevent people from getting help and it can cause difficulties in finding a decent place to live, a job or a mortgage (SANE Australia 2013). Children of parents with mental illness are therefore at a greater risk of disadvantage if their parents are unable to obtain a good-quality job or housing due to stigma. Moreover, because three-quarters of people with mental illness first experience symptoms between the ages of 16 and 25 years, reducing stigma in schools,
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colleges and universities is important for the promotion of help-seeking behaviour and reducing inequities that mental illness may cause throughout the life course (SANE Australia 2013).

Individual knowledge, awareness and behaviour can be affected by public awareness campaigns. Public awareness campaigns can be targeted to specific, potentially high-risk groups, or to a whole population level. Using structured and systematic messages through various communication media (such as traditional mass media, online and social media, outdoor advertising and community promotional events), public awareness campaigns have been used in Australia and overseas to reduce stigma and raise awareness of mental health issues and suicide. To reduce inequities in awareness, the Australian Government emphasises that public awareness campaigns on promotion, prevention and early intervention across a range of profiles should include a targeted approach to high-risk groups. These groups in particular include young people, people in remote areas, men, Indigenous populations, lesbian, gay, bisexual, transgender and intersex people, and CALD communities (Department of Health 2010).

Public awareness campaigns to reduce stigma and raise awareness in Australia include Say No to Stigma, Be Kind to your Mind, the Compass Strategy, and campaigns run by beyondblue and headspace. An evaluation of the Compass Strategy, a community awareness campaign targeted at young people aged 12-25, found that the campaign had significant effects on a number of outcomes, including self-identified depression, increased awareness of suicide risk and a reduction in perceived barriers to help seeking (Wright, McGorry et al. 2006). The comparison group was 33% less likely (Odds Ratio 0.67; 95% Confidence Intervals 0.47-0.96) to have self-identified depression, 43% less likely (OR 0.57; 95% CI 0.38-0.84) to perceive suicide risk, 233% (OR 2.33; 95% CI 1.03-5.23) times more likely to think that nothing can help and 186% (OR 1.86; 95% CI 1.13-3.06) more likely to see what others might think as a barrier to help (Wright, McGorry et al. 2006). Online media was the most frequently used source of information and was most effective at attracting young people (Wright, McGorry et al. 2006). Findings from an evaluation of the beyondblue national depressive initiative suggest that national awareness campaigns may be effective in improving mental health knowledge, with the proportion of people recognising depression increasing by 24.6-31.3% from 1995 to 2004 (Jorm, Christensen et al. 2005), but analysis on the effects of these campaigns by subgroups was not reported. No evaluations could be found for the other Australian campaigns identified in this review.

Internationally, campaigns using social marketing and social contact, publicity campaigns, public education and user-based programs have been found to be effective in reducing stigma and discrimination, improving attitudes, and increasing awareness, knowledge and understanding of mental health issues (Vaughan and Hansen 2004; Dunion and Gordon 2005; McArthur and Dunion 2007; Mehta, Kassam et al. 2009; Evans-Lacko, London et al. 2010; Evans-Lacko, London et al. 2012; Patten, Remillard et al. 2012; MacCarthy, Weinerman et al. 2013). However, few campaigns specifically targeted young people. Those studies that did include young participants did not report outcomes by age, socioeconomic status, geography or cultural background.

Although the effect of mental health public awareness campaigns on inequities in the general population was not examined in any evaluation, reducing barriers to help-seeking, changing attitudes and reducing stigma towards individuals with mental illness may improve the health and
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Social environments of those who have previously experienced prejudices due to their mental illness and barriers in treating that illness.

**Physical activity**

Research has shown that exercise, particularly vigorous activity, can reduce anxiety, depression and negative mood, and improve self-esteem, sleep and cognitive functioning. Following this finding, physical activity has been used as an intervention to improve mental health (Ekeland, Heian et al. 2005; Sharma, Madaan et al. 2006; Gerber, Brand et al. 2014). Some systematic reviews confirm that physical activity and sports have potentially beneficial effects for reducing anxiety and depression and improving self-esteem, cognitive functioning and academic achievements in children and adolescents. However, evidence is limited and associations are usually small and inconsistent (Janssen and Leblanc 2010; Biddle and Asare 2011; Eime, Young et al. 2013). Participation in team sports, rather than individual physical activity, is associated with better mental health outcomes (Eime, Young et al. 2013) and provides an opportunity to involve disadvantaged populations in physical activities. Inequities in physical activity exist, with the poorest population groups usually being the least active in leisure time and often having unequal access to facilities and environments that support physical activity (Cavill, Kahlmeier et al. 2006).

From a gender equity perspective, physical activity may have different effects for boys and girls. A cross-sectional study investigating the association between physical activity and resilience in relation to depressive symptoms in Norwegian adolescents (13-18 years old) used multiple hierarchal regression analysis and found higher levels of physical activity associated with lower levels of depressive symptoms for girls, but no significant association for boys (Moljord, Moksnes et al. 2014). However, the evidence on this is mixed, with a study examining the associations between physical activity and mental health in Hispanic and non-Hispanic children finding no significant interactions between physical activity variables and sex and ethnicity (Brosnahan, Steffen et al. 2004). Further research is needed on the associations between physical activity and mental health in different subgroups to evaluate its effectiveness in diverse populations.

**Daily living conditions**

Interventions in this section of the Framework aim to directly improve the conditions where children and young people are born, develop, play and study, as well as potential intervention settings. We found the highest number of interventions at this layer, including mental health promotion and prevention programs in playgroups, childcare centres, schools, neighbourhoods, communities and online settings.
Early childhood and education

Inequities in learning experiences as a determinant of mental wellbeing

Early childhood care and education can influence the social, emotional and cognitive development of children. Childcare and preschool settings, as well as home learning environments, play a critical role in early development, second only in importance to immediate family factors (Sylva, Melhuish et al. 2007; Davis, Priest et al. 2010). Education, in both formal and informal settings, can help children and adolescents acquire resilience, self-esteem, social, emotional and behavioural skills, and material security. The provision of quality education pathways has been associated with health and wellbeing outcomes later in life (Feinstein, Sabates et al. 2006; Friedman-Krauss and Barnett 2013), as is demonstrated in interventions in early childhood and primary schools that have had lifetime effects on the wellbeing of participants (Schweinhart, Montie et al. 2005; Kellam, Mackenzie et al. 2011).

Given that family income and poverty are powerful determinants of wellbeing in children (Duncan, Brooks-Gunn et al. 1994), interventions promoting social and emotional wellbeing in early childhood and schools settings targeting disadvantaged children and adolescents may help in reducing inequities. Evidence is consistent with this, finding that interventions to improve educational pathways are particularly successful at improving wellbeing outcomes for children from low SES backgrounds (Toumbourou, Hemphill et al. 2007).

Universal, selective or indicative school-based interventions

Interventions to improve mental health and wellbeing in early childhood and school settings can be universal, selective or indicated. Universal interventions are applied to the general student body and do not identify individuals with behavioural or emotional difficulties. Selective interventions target individuals and groups exposed to known risk factors (Commonwealth Department of Health and Aged Care 2000). Indicated interventions identify and work with students who are displaying early signs of behavioural or emotional problems (Payton, Weissberg et al. 2008). All three intervention types have been shown to be effective in various disadvantaged populations (Mifsud and Rapee 2005; Doley, Sibly et al. 2008; Stopa, Barrett et al. 2010).

Universal school-based interventions have shown positive effects in improving mental wellbeing, attitude, behaviour, self-esteem and resilience in students in Australia and other high-income countries (Sayger and McDonald 1999; Slaven and Kisely 2002; Barrett, Sonderegger et al. 2003; Webster-Stratton and Reid 2003; Webster-Stratton and Reid 2004; Hutchings, Bywater et al. 2007; Worsley 2008; Ellis, Marsh et al. 2009; Slee, Lawson et al. 2009; Kellam, Mackenzie et al. 2011; Antich, Barrett et al. 2013). Most interventions identified in this review are based in, or have been evaluated in, primary school settings. One intervention was found to be more effective in younger children (Kellam, Mackenzie et al. 2011), while another intervention was more effective in late primary students (Stopa, Barrett et al. 2010). In contrast to this evidence in primary school and early childhood settings, the evidence is mixed on the effectiveness of these interventions on emotional wellbeing in secondary schools (Bond, Patton et al. 2004; Evans, Mullett et al. 2005; Rowling 2007; Wyatt Kaminski, Valle et al. 2008; Franze and Paulus 2009).

A number of universal school-based interventions have shown to be effective in improving mental wellbeing in diverse groups, including low-income, disadvantaged, non-English-speaking and refugee
student populations (Barrera, Biglan et al. 2002; McDonald, Paul Moberg et al. 2006; Webster-Stratton and Reid 2008; Stopa, Barrett et al. 2010; Kellam, Mackenzie et al. 2011). Differential effects in boys and girls have been observed in both the short and long term, and some intervention effects may not be generalisable to other locations and populations (Barrett, Farrell et al. 2006; Ellis, Marsh et al. 2009; Kellam, Mackenzie et al. 2011).

The evidence is mixed for universal and selective or indicated interventions in schools targeting specific behaviours and skills such as depression, stress management, post-traumatic stress disorder or conduct problems (Rones and Hoagwood 2000; Kraag, Zeegers et al. 2006; Calear and Christensen 2010; Merry, Hetrick et al. 2012; Tyrer and Fazel 2014). In a Cochrane review, both universal and indicated interventions for preventing depression in children and adolescents were found to be effective post-intervention (risk difference -0.12; 95% CI -0.20 to -0.05 and risk difference -0.07; 95% CI -0.12 to -0.02, respectively), with universal programs more effective in the short term, but with larger effect sizes for selective or indicated programs (Merry, Hetrick et al. 2012). Universal programs were seen as easier to implement, especially as selective or indicated programs may not adequately identify all individuals at risk for poor mental health (Merry, Hetrick et al. 2012).

In Australia and other high-income countries, studies have shown that universal, selective or indicated interventions targeting mental health conditions may improve symptoms in disadvantaged and regional populations. However, not all studies have shown significant results, and one study suggests that some selective interventions may not be transferable to less selective disadvantaged groups (Cardemil, Reivich et al. 2002; Mifsud and Rapee 2005; Cardemil, Reivich et al. 2007; Doley, Sibly et al. 2008; Weems, Taylor et al. 2009; Roberts, Kane et al. 2010; Stopa, Barrett et al. 2010). Other studies have shown mixed results, and further research is needed for evaluation of effects in different populations (Jaycox, Reivich et al. 1994; Pattison and Lynd-Stevenson 2001; Quayle, Dziurawiec et al. 2001; Kumpfer and Alvarado 2003; Roberts, Kane et al. 2003; Berridge, Hall et al. 2011).

Other systematic review findings suggested that the quality of the universal program may be more important than the universal delivery style itself. Factors affecting quality were duration; consistent implementation; the use of multiple modalities; the inclusion of parents, teachers or peers; developmentally appropriate program components; and the integration of the program content into general classroom curriculum (Rones and Hoagwood 2000; Calear and Christensen 2010). There was no reported evidence of differential effects of interventions by gender, and programs were more effective for those at high risk than those at low risk (Rones and Hoagwood 2000; Kraag, Zeegers et al. 2006; Merry, Hetrick et al. 2012).

**Play-based settings**

Playgroups in early childhood settings have been used as an intervention in children. A systematic review and meta-analysis found that play therapy is effective for children suffering from emotional and behavioural difficulties (Bratton, Ray et al. 2005). Play therapy appears to be effective across different ages, genders and presenting conditions (Bratton, Ray et al. 2005). In Western Sydney, an evaluation of supported playgroups for children and their parents showed that children’s interactions in the playgroups influenced their developmental outcomes (Bratton, Ray et al. 2005; Jackson 2013). Parent involvement in early childhood playgroups seems to produce more successful interventions for both children and parents.
Early childhood settings

The evidence of early childhood interventions in childcare and preschool settings on psychosocial conditions, cognitive development and mental wellbeing is mixed and limited, with most intervention effects on psychosocial conditions being negligible, diminishing and non-transferable to locations other than where the evaluation was conducted (Wise, da Silva et al. 2005; Davis, Priest et al. 2010). One Australian program, however, has been shown to improve wellbeing. The KidsMatter Early Childhood program, a national initiative that uses a whole-service framework and provides resources to early childhood education and care service educators and families, has been shown to improve child temperament, reduce mental health difficulties, and increase knowledge, competence and confidence in early childhood education and care staff (Slee, Murray-Harvey et al. 2012). Across the period of the KidsMatter Early Childhood program, staff and parents reported 2% and 3.3% fewer children experiencing borderline or abnormal mental health difficulties, respectively (Slee, Murray-Harvey et al. 2012). Furthermore, Sure Start and Head Start, which are early childhood interventions for disadvantaged children five years and younger, have shown benefits in increasing social behaviour, cognitive or social development, school readiness and independence.

The Let’s Start program, which helps Aboriginal and Torres Strait Islander children transition to school by supporting parents through networks of local community organisations, may also benefit disadvantaged children through a reduction in problem and risk behaviours, child anxiety and aversive parenting (Robinson, Zubrick et al. 2009). The evaluation showed positive results, but could not definitively attribute these outcomes to the program due to a lack of randomisation and of a control group in the study design.

Evidence on the effectiveness of interventions in early childhood settings in reducing inequities is mixed. The KidsMatter Early Childhood program has been implemented and generally endorsed in settings with a high proportion of Aboriginal and Torre Strait Islander children (Slee, Skrzypiec et al. 2012). An evaluation of Head Start participants showed that they were still behind their peers in terms of absolute cognitive levels after one year in the program, and Sure Start has varying effects by degree of social deprivation, with the relatively less disadvantaged benefitting more than the most disadvantaged children (Lee, Brooks-Gunn et al. 1988; Love, Kisker et al. 2005; Belsky, Melhuish et al. 2006; Melhuish, Belsky et al. 2008; Peck and Bell 2014). Despite these findings, there is cause for optimism, with benefits found in adults aged 40 who had participated in the Head Start program (Schweinhart, Montie et al. 2005), suggesting long-term and lasting effects of programs like these.

The extent to which early childhood settings improve mental wellbeing might depend on the quality of the care that children experience in these settings. The promotion of social and emotional wellbeing in childcare and preschool settings is largely the responsibility of the childhood education and care workforce. Childcare workers need to have access to support services and networks, and be knowledgeable, skilled and competent in influencing children’s social and emotional wellbeing (Davis, Priest et al. 2010; Hunter Institute of Mental Health and Community Services & Health Industry Skills Council 2012). The Connections program is currently trying to build capacity in this workforce, and to identify features of a cohesive staff team. Important in this regard are an open door policy for parents; the ability to communicate with parents; and peer support for directors as key ways to facilitate the promotion of social and emotional wellbeing in childcare and preschool.
settings (Davis, Priest et al. 2010). The development of communication booklets and extra staff showed further improvements.

**Universal social and emotional learning interventions**

Universal, social and emotional learning (SEL), and early interventions programs in schools, can be used to develop protective factors in children. Those that have a sustained focus on mental health promotion, self-esteem building and coping mechanisms, and those with a whole-school approach have achieved greater effectiveness results than programs aiming to reduce existing mental health problems. However, the effectiveness of these programs has been shown to vary by age, gender and ethnicity (Wells, Barlow et al. 2003; Browne, Gafni et al. 2004; Green, Howes et al. 2005).

Systematic literature reviews and meta-analyses have shown that both universal and indicated programs in schools targeting SEL are effective in improving SEL skills, attitudes, behaviours and academic performance in diverse geographic, ethnic and socioeconomic populations, although further subgroup analysis would be beneficial in order to provide stronger evidence outcomes between populations in universal interventions (Payton, Weissberg et al. 2008; Durlak, Weissberg et al. 2011). One systematic review suggests that universal and early intervention programs are more likely to be successful if they have multiple, integrated elements and a continuing presence of appropriate adult staff to deliver the school-based programs (Browne, Gafni et al. 2004).

**The school-to-work transition**

Adolescence can be viewed as a developmental period that prepares children for adulthood, straddling a transition from childhood dependency to the assumption of adult roles. The transition is complex and its timing varies, as adolescent transitions are embedded within and contoured by multiple contexts, including those encountered in daily life (family, school, peers, media, jobs, neighbourhoods) and those set by wider social structures (social, economic, political). Identity development sits alongside other bio-psycho-social maturations, and the two key institutional sites of socialisation encountered by the pre-adolescent child (the family and the school) expand to include a third – paid work – as employment becomes common during adolescence (Crosnoe and Johnson 2011).

There is strong research interest in the role employment plays in adolescent attitudes to work, to other outcomes such as school achievement and, eventually, to later career choices and achievement. Most of this research centres on the assumption that the time demands of paid employment may interfere with other important activities such as study or physical exercise. Few studies focus on the quality of the jobs held or on the adolescent experience of work (Loughlin and Barling 2001). Key dimensions to jobs that may shape later, positive work trajectories (and health) include the opportunity to develop autonomy and skills, security and predictability, and positive co-worker or management interactions (Loughlin and Barling 2001).

While personality and aptitude are important contributors to career choices, recent theorising takes a life course approach and views career choices as developmental and mutable (Fouad 2007). From this perspective, past experiences and hoped-for future states and aspirations coalesce in adolescent choices. These choices are not set but develop and shift, adjusting to, and influenced by, the adolescent’s particular contexts and options. Pre-adult career aspirations are therefore shaped by parental expectations, parent educational and occupational backgrounds, school achievement,
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options and economic circumstances, and by adolescents’ own aspirations. Family SES is a key context for how adolescents frame their work futures, as is parental gender role expectations (Stevens, Puchtell et al. 1992).

Children’s first understanding of work is based on observations of their parents (Loughlin and Barling 2001). For example, Loughlin and Barling cite research showing that children as young as seven or eight years can fairly accurately report on parent job satisfaction, and some evidence that parents’ work attitudes and experiences shapes children’s expectations (e.g., adolescents whose parents have been laid off display increased cynicism and alienation in their own work attitudes). Galinsky’s (1999) study of American children uncovered a surprising awareness of parents’ jobs and work stress. This research suggests that parent work experience, and how adolescents view their parents’ experience, influence future work orientations and expectations.

As well as being shaped by family experience and SES (Caspi, Wright et al. 1998), adolescents’ transition from school to the workplace is also affected by systemic education barriers, such as schools’ limited flexibility in catering to students who have caring responsibilities and to those who have health difficulties or different needs, and the undersupply of wellbeing support (Bond 2011). Support in the school, community and family settings are important to a successful transition, especially as social support throughout the school-to-work transition has been shown to be protective against depression in early adulthood in a study of young Canadians (Colman, Zeng et al. 2014). In addition to social support, adolescents’ self-confidence, self-esteem, self-efficacy and resilience influences and is affected by their ability to complete school and transition to the workforce (Pinquart, Juang et al. 2003; Ng and Feldman 2007; Barrett 2012a,b).

The transition as a setting

Interventions targeting adolescents who are at risk of not completing school and/or successfully transitioning to the workforce have been implemented in school and community settings. These interventions aimed to improve student educational engagement and retention, employment and training opportunities, and enterprising skills. Interventions in Australia, such as those in the National Youth Attainment and Transition Partnership and the School to Work Program, have benefited young people who are disengaged and/or at risk, and have been effective in building persistence, resilience, social skills, self-confidence and self-esteem in participants (NSW DET and Hollier & Hart 2007; Barrett 2012). However, there is evidence that these interventions may not be able to completely mitigate the negative impact of earlier life experiences on adolescents’ self-esteem and self-confidence (Barrett 2012). A whole-of-community intervention in the National Youth Attainment and Transition Partnership, which connects schools, businesses and community organisations to support young people finishing school in the local area, has shown promise in creating partnerships to support young people’s mental health (Social Ventures Australia Consulting 2013). No evidence could be found on the effectiveness of this intervention in improving mental wellbeing throughout the school-to-work transition.

Interventions focusing on the school-to-work transition address equity by providing services to those at risk. A multi-partner community program in the US that aims to help adolescents in public housing transition to the workforce has shown higher employment rates for program participants compared to other low-income and minority young people in the US (Harvard Kennedy School 1990). Interventions targeted at Indigenous young people in Australia, including the Indigenous Youth
Mobility Program and the Black Chicks Talking Program, endeavour to address barriers to school completion and employment facing young Indigenous people. There is evidence that these programs are useful to participants and increase self-esteem, confidence and life skills (Auseinet; Department of Finance and Deregulation 2009). These individual interventions may not be transferable to other populations, but the success of the programs suggests that school-to-work transition programs can reduce inequities in daily life settings for low-income and Indigenous young participants by increasing self-esteem and self-confidence, and helping adolescents to finish school and successfully transition to the workforce.

The transition for young people with disabilities or serious mental health conditions can be more problematic than for nondisabled young people. Dropout rates for young people with disabilities or emotional and behavioural difficulties far exceed those of nondisabled students, and when students with disabilities do find employment, their earnings tend to be only slightly above the minimum wage (Phelps and Hanley-Maxwell 1997). There are a number of current interventions in Australia to help students with disabilities transition from school to post-school activities that have not been formally evaluated. Transition programs in New South Wales and South Australia have been shown to improve employment outcomes and resilience for young people with disabilities (Miles Morgan Australia Pty Ltd and Innov8 Consulting Group 2009; National Disability Coordination Officer Program, TAFE SA et al. 2009). A systematic review of interventions for secondary school students with disabilities found that student-focused planning and student development should be the focus of interventions for transitioning disabled young people, as they were effective in improving outcomes for young people with disabilities (Cobb and Alwell 2009). A multi-site community-based intervention for young people with severe mental health conditions showed improvement in educational advancement and employment progress, but improvements varied by age, sex and ethnicity (Haber, Karpur et al. 2008). These interventions strive to improve equity in the school-to-work transition for young people with disabilities and severe mental health conditions.

The social and physical environment

Community-based interventions aim to build social capital through the development of relationships and partnerships in order to improve the social environment and reduce health inequities. Adults (Almedom 2005; De Silva, McKenzie et al. 2005) and children (Drukker, Kaplan et al. 2003) living in communities with high levels of ambient social capital have better mental health compared to those who live in socially disorganised, isolated, disadvantaged or high-crime neighbourhoods (Morgan and Swann 2004; Lehtinen, Sohlman et al. 2005; McKenzie and Harpham 2006). Social connections improve levels of social support (Kawachi and Berkman 2001), decrease levels of stress and increase the amount of collective resources available to people. Consequently, interventions to build social capital and reduce violence and crime might protect and promote mental health.

Community activities

Organised sport, arts and community activities have been found to improve mental wellbeing, reduce emotional and behavioural difficulties and improve confidence and self-esteem (VicHealth 2008). Good Sports, Read the Play and AllPlay are programs in sports clubs across Australia which aim to raise mental health awareness and community capabilities, and foster inclusive club environments (Bapat, Jorm et al. 2009; Pawsey, Gilbert et al. 2013; Australian Drug Foundation, 2014). An evaluation of Read the Play suggests that it was associated with improved mental health
literacy, and an evaluation of AllPlay found a 40% increase in participants’ beliefs that they could recognise when someone is potentially experiencing mental health issues (Bapat, Jorm et al. 2009; Pawsey, Gilbert et al. 2013). However, participation in organised sports is inequitable, with a much lower proportion of children born in non-English-speaking countries and children with a disability participating in organised sports than children born in Australia or migrating from English-speaking countries and children without a disability (VicHealth 2008). Therefore, interventions in sports clubs may not reach these groups.

Community arts interventions have been shown to increase self-confidence or self-esteem, especially among those on the social margins and at risk for poor mental health, and have been shown to provide social support, build social capital and encourage urban renewal. Further research is needed on community arts initiatives, however, to make stronger generalised claims of efficacy (McQueen-Thomson and Ziguras 2002). Interventions such as Communities that Care and the Community-Middle School Consortium, which promote community partnerships, planning and activities, have been shown to improve community social environments and mental health awareness, and reduce delinquent behaviour and alcohol and drug use among young people (Morrison, Howard et al. 1997; Williams and Smith 2007; Hawkins, Brown et al. 2008). Interdisciplinary relationships, the proximity of services and trust between staff and young people over the long term have been identified as important attributes of community-based programs (Schorr 1988; Lerner 1994; Morrison, Howard et al. 1997).

As Aboriginal young people are among the most disadvantaged groups in Australia (Lindeman, Flouris et al. 2013), several interventions have been implemented in Indigenous communities to improve the health and wellbeing of children and adolescents. The Let’s Start program, which helps children transition to school by supporting parents through networks of local community organisations, may have resulted in a reduction in problem and risk behaviours, child anxiety and aversive parenting (Robinson, Zubrick et al. 2009). The evaluation showed positive results, but could not definitively attribute these outcomes to the program due to a lack of randomisation and of a control group in the study design.

A review of programs for young people in Indigenous communities promoting social and emotional wellbeing found that the overall evidence base is limited, but that there are some strong, resourceful and resilient Indigenous programs for young people operating in Australia (Haswell, Blignault et al. 2013). Important characteristics of programs for young people in Indigenous communities include the ability to address the upstream social determinants of social and emotional wellbeing as well as current issues; recognising and building on the strengths of Indigenous culture; involving older family members and the community; employing skilled youth workers; being developed and led by local people and having an impact on multiple levels; and including sport or recreational activities (Haswell, Blignault et al. 2013; Lindeman, Flouris et al. 2013).

The physical environment

The physical environment can have an impact on inequities in mental health through inequities in housing, the quality of the built environment, transport and access to services in the neighbourhoods and communities in which children and adolescents live. An international review summarises the impacts of the physical environment (e.g., toxins, pollutants, noise, crowding, chaos, and housing, school and neighbourhood quality) on children and adolescents’ cognitive and social
development across the life course (Ferguson, Cassells et al. 2013). Other research has linked
neighbourhood deprivation to children’s development and mental health as an environmental
effect, with neighbourhood problems of material poverty, poor living conditions, and social stressors
such as violence and victimisation identified as risk factors of common mental health disorders (e.g.,
anxiety, depression, conduct or behavioural problems) in children and adolescents aged 10-20 years
(Caspi, Taylor et al. 2000; Curtis, Pain et al. 2013). Interventions aimed at improving the physical and
social characteristics in children and adolescents’ everyday environments may help reduce mental
health problems (Ivert and Levander 2014).

Dawes and Donald (2000) recommend interventions aiming to improve the quality of
neighbourhood facilities, such as sport centres, to draw children into constructive activities.
However, they acknowledge that interventions to change the physical environment can often be
very expensive. The Neighbourhood Renewal program in Victoria, which aimed to improve the
amenity and social relationships in disadvantaged neighbourhoods, improved services and increased
the health and life satisfaction of people in neighbourhood renewal areas (Kelaher, Warr et al. 2010;
Shield, Graham et al. 2011). An urban rejuvenation of three US neighbourhoods that included
community-designed street murals, public benches, hanging gardens, planter boxes and information
kiosks with bulletin boards showed statistically significant improvements in depressive symptoms
after the rejuvenation (Semenza, March et al. 2007). While children and adolescents were not
included in the evaluation of these programs, positive effects on adults may trickle down to the
wellbeing of children.

Similarly, the effects of Rental Voucher programs in the US, which assist families to move to less
impoverished or less racially segregated areas by subsidising the cost of housing, have been
evaluated in young people. The evaluations found a 7% decrease in risky behaviours and behavioural
problems, and an 8% decrease in depression and anxiety, but authors of a systematic review would
not conclude on the program’s effect on the behaviours and mental health of young people because
there are too few evaluations of adequate design and execution reporting these outcomes
(Anderson, St. Charles et al. 2003). In addition, a randomised controlled trial of one voucher program
found differential effects of the program in girls and boys (Osypuk, Tchetgen et al. 2012; Kessler,
Duncan et al. 2014).

Physical access to health, social and community services helps individuals maintain good health
(VicHealth 2008). Research has shown that people in low socioeconomic areas receive shorter
general practice consultations. Furthermore, refugees, recent immigrants and people with
disabilities face access issues to health services and procedures (VicHealth 2008). Several
interventions in Australian health-care settings have aimed to increase access to mental health-care
services in order to reduce inequities and improve wellbeing. By offering no-cost services and
accessible treatment locations, these programs addressed access barriers amongst those most in
need (Morley, Pirkis et al. 2007; Pirkis, Bassilios et al. 2011; McCann and Lubman 2012; Bassilios,
Nicholas et al. 2014). Despite these interventions, barriers still remain to accessing health services,
such as adequate access to transportation and knowledge of the services themselves.

**Online settings**

Online resources aimed at young people have been developed to create easily accessible
information on mental health promotion and resources. Over 95% of young Australians use the
internet, with 91% of 12-17 year olds indicating that the internet is a highly important part of their life (ACMA 2008; Ewing, Thomas et al. 2008). A nationally representative cross-sectional survey of Australian young people revealed that approximately 77% used the internet to connect with other people, 39% used the internet to seek information about a mental health problem, regardless of whether or not they had a problem themselves. Furthermore, 31% of people who had personally experienced a mental health problem in the previous five years reported searching the internet for information regarding mental health (Burns, Davenport et al. 2010). Females and young people aged 18-25 were more likely to use the internet to seek information for mental health problems compared to those aged 12-17 years. Internet access is required to use these resources and factors such as not being able to afford a computer or mobile phone, limited resources at school, or a lack of mobile telephone reception or internet connection can prevent young people from using them (Campbell and Robards 2013).

One online mental health service for young people, ReachOut.com, has been shown to effectively engage young Australians, enhance knowledge about mental health issues and increase help-seeking behaviour (Burns, Durkin et al. 2009; Nicholas 2010; Collin, Metcalf et al. 2011). Another Australian web and app-based program to improve child and youth mental wellbeing, Smiling Mind, uses mindfulness meditation to bring balance to young people’s lives. Mindfulness training, which involves strategies to enhance individuals’ ability to be aware of their feelings, has also been shown to be an acceptable and accessible online intervention to reduce stress, anxiety and depression, although the majority of evidence is in adult populations (Monshat, Vella-Brodrick et al. 2012; Cavanagh, Strauss et al. 2013; Krusche, Cyhlarova et al. 2013). Further research is needed on mental health promotion resources available online for adolescents (Edwards-Hart and Chester 2010). In particular, subgroup analysis of users is needed to see which groups are using and benefiting from online resources.

**Socioeconomic, political and cultural contexts**

The aim of interventions at this layer is to create structural changes to social, economic or cultural factors to maximise wellbeing and prevent mental illness. Action on the social determinants of health at this layer is usually driven by governments (at all levels) or by leading international and national organisation (such as WHO), and is often highly politicised. However, the notion of investing in child and adolescent mental health is generally supported by both sides of government, regardless of political ideology, limiting action on reducing inequities in mental health and wellbeing to constraints on economic and human resources, and political will.

Regardless of the bi-partisan support that child mental health receives, intervening at this layer of the Framework continues to be the most difficult. Creating action that results in meaningful and lasting change to social and economic factors or to longstanding cultural norms is an ambitious challenge. So too are evaluations of such actions; the results of interventions can take years to be visible and disentangling the effects from ongoing social change is sometimes not possible. These difficulties are reflected in the lack of interventions that were found in this layer. Our searches revealed a number of policy documents, frameworks and reports on the topic; but there were no examples of intervention programs that aimed to manipulate social, economic or cultural factors.
Policy initiatives

Policies in relation to child and adolescent mental health and wellbeing appear in two distinct arenas: mental health and early childhood policies. The distinction between these two sets of policies is stark: mental health policies are produced by health departments and are directed towards adults with a focus on mental illness prevention, early intervention and treatment. In contrast, early childhood policies aim to promote wellbeing across multiple developmental domains in young children, and tend to be grounded by education policy.

Mental health policy

A review of mental health policies in Australia reveals a clear evolution towards mental health promotion (including a wellbeing perspective) and recognition of the need to address social determinants of mental health. In the first National Mental Health Strategy (1993-1998), the overwhelming emphasis was on treatment and reducing the impact of mental illness on individuals, families and the community. With the Second National Mental Health Plan (1998-2003) (Commonwealth Department of Health and Aged Care 2000) came a separate plan for promotion, prevention and early intervention (PPEI) of mental health. This plan aimed specifically to improve social and emotional wellbeing and to increase the effectiveness of promotion strategies. In addition to taking a life course approach (which recognised the differing needs of infants, toddlers, children and young people), this plan identified a number of groups at risk for poor mental health, including rural and remote communities, Indigenous people and CALD communities. The third (2003-2008) and fourth (2008-2014) plans have continued the PPEI approach to mental health in Australia, and have added a whole-of-government approach and continue to highlight the importance of meeting the needs of high-risk groups (Council of Australian Governments 2012).

The only example of a specific plan to address equity issues relating to mental health policy is the National Strategic Framework for Aboriginal and Torres Strait Islander Peoples’ Mental Health and Social and Emotional Wellbeing (2004-2009) (Social Health Reference Group for National Aboriginal and Torres Strait Islander Health Council and National Mental Health Working Group 2004). This framework recognises the specific needs and strengths of Aboriginal and Torres Strait Islander people and identifies culturally appropriate programs, treatments and services for mental health. It provides stronger commitment to equity issues, acknowledging the higher rates of social and emotional wellbeing problems and mental illness in this population and the need for culturally sensitive initiatives and programs. An updated version of this plan is currently being drafted.

Evaluations of mental health policies are encouraging. Funding targets are being met, service provision is improving, and in some cases, the prevalence of mental illness is decreasing (Department of Health and Ageing 2013). From an equity perspective, it is encouraging to see the evolution of these documents. Principles of equity are beginning to enter the discourse in these frameworks, particularly in the form of stigma reduction to allow all individuals to participate fully and meaningfully in the community. However, only rarely are inequities in mental health and wellbeing, particularly in children, specifically addressed.

Despite a growing recognition of social, cultural and geographical diversity, and increasing importance of accountability in measuring and reporting, rarely are performance indicators (including in regard to equity) included in the major policy initiatives, and it is not often that these
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documents are evaluated. Without this information it is difficult to assess the extent to which these policies translate into effective action that addresses the social determinants of inequities in mental wellbeing. This difficulty is compounded by the lack of Australian data on wellbeing outcomes, and limited national information available on the changing status of mental illness outcomes in specific groups of Australians. However, there is some data gathered on the mental health of Aboriginal and Torres Strait Islander people and the evidence so far does not indicate it is improving (De Leo, Sveticic et al. 2011).

Early childhood policy

The wellbeing of young children is a global concept, broadly encompassing optimal physical, social, emotional and cognitive development. Early childhood policies do not discriminate between domains of optimal development, and aim to improve development across all dimensions, including social and emotional wellbeing. Early childhood policies aim to provide all children with the best start to life, regardless of socioeconomic position, cultural or linguistic background or geographical location.

In 2009, the Council of Australian Governments (COAG) endorsed the National Early Childhood Development Strategy to improve early childhood outcomes from birth to five years (Council of Australian Governments 2009). This strategy ‘levels the playing field’ in children’s wellbeing and is guided by principles of equity. The framework uses a ‘whole service system’ and stresses ‘system effectiveness and capacity’ to address early childhood development, highlighting the role of multiple government sectors in improving wellbeing outcomes. This framework provided universal support for all Australian children, but additional support in efforts to reduce inequities was flagged for children with the highest need, reflecting principles of proportionate universalism. This strategy has been translated into national- and state/territory-level policies. As is the case with mental health policy, it is difficult to assess the extent to which these documents translate to meaningful commitment to action, although national data is collected on the wellbeing of young children.

The social and emotional benefits of attending high-quality early childhood services, such as childcare and playgroups, are well known. However, it is also known that disadvantaged families are less likely to access these services; without correcting for the differences in the uptake of these services, early childhood frameworks might exacerbate inequities in child wellbeing. However, we were unable to locate evaluations of these policies, and no information was found on the uptake, use or benefits of these policies by disadvantaged groups.

Governance

International organisations

A number of leading organisations have significantly improved the visibility of mental health in our communities and continue to stress the importance of investing in wellbeing. WHO, World Federation for Mental Health, and UNICEF are all active in the area of child mental health promotion; however, by far the most active in this area is the WHO. The WHO has set mental health and wellbeing in the centre of the public health agenda. As the global burden of disease due to mental illness increases, the importance and the legitimacy of their causes strengthen. The WHO has released a number of high-level and influential reports on mental health, including the Comprehensive Mental Health Action Plan (2013-2020) (WHO 2013), which included targets for
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mental health promotion worldwide. An action plan for the mental health of Europe has also been developed by the WHO (Regional Committee for Europe 2013), based on the assertion that everyone has ‘equal opportunity to realise mental wellbeing throughout their lifespan, particularly those who are most vulnerable or at risk’.

The WHO has also been involved in a number of publications on mental health promotion. These publications detail the best available evidence on mental health and mental health promotion (WHO 2001; WHO 2002; Herrman, Saxena et al. 2005), as well as evidence on successful interventions for mental health promotion (WHO 2004). The recognition of social determinants of health and the importance of addressing inequities in health is evident in the documents. Equity is a key point of focus for these organisations. However, often these documents are in response to the severe inequities that exist between developing and developed countries and they rarely address inequities that exist within countries.

The Australian Government

The Australian Government has also been a leading example for improving the wellbeing of children and ‘levelling the platform’ for children’s development. The COAG agreement to invest in the early years of children’s lives (including social and emotional development (Council of Australian Governments 2009)), together with the shift towards mental health promotion, are promising steps towards the reduction of mental health inequities in children. These policies are complimented by plans for perinatal mental health (beyondblue 2008) the National Breastfeeding Strategy (Australian Health Ministers’ Conference 2009) and the recent introduction of Australia’s Paid Parental Leave Scheme. Within the Early Childhood framework, there is growing recognition of the inequities that exist in childhood development and wellbeing, the types of children who are at risk for poor mental health and the cross-sector services needed to address them.

Furthermore, the Australian Government has invested in a number of measures and indicators of childhood development, which serve as sources of information on inequities in child development. The Australian Early Development Index (AEDI) is a national measure of how Australian children are faring across a number of developmental areas, including social competence and emotional maturity (Atelier Learning Solutions 2010). This index is used as a planning tool for government, but can also be used to quantify inequities in childhood and measure progress in reducing them. Snapshots of the AEDI have revealed stark inequities in development by socioeconomic status and urban/rural regions (Centre for Community Child Health and Telethon Institute for Child Health Research 2009). The Australian Institute of Health and Welfare also reports on children’s development (Australian Institute of Health and Welfare 2001), providing specific data on a number of groups at risk for poor mental health, including by different CALD communities, family type, Indigenous status, remoteness, sex and socioeconomic status.

The government’s commitment to high-quality and national-level data signals a commitment to monitoring progress and addressing the longstanding inequity in childhood development. However, the full extent to which government statements and policy documents are translated into meaningful action remains hard to assess.

State and territory governments
VicHealth and the Tasmanian Department of Health and Human Services have both developed evidence-based mental health promotion action plans and early development frameworks which include an equity focus (Australian Network for Promotion Prevention and Early Intervention for Mental Health (Auseinet) 2009; Department of Human Services 2009; Patterson 2009). In their Framework, VicHealth included an equity reform area on responding to vulnerable people (Department of Human Services 2009). Targets in this area included addressing cultural and structural barriers which produce health inequities experienced by Aboriginal people and people from CALD communities, particularly refugees. Other vulnerable groups identified in this plan are gay, lesbian, bisexual, transgender and intersex people, and women. Through the development of a universal program that recognised the need for added services and support for traditionally marginalised groups, these plans reflected principles of proportionate universalism.

Tasmania’s strategic mental health framework Building the Foundations for mental health and wellbeing also included a priority of reducing mental health inequities (Australian Network for Promotion Prevention and Early Intervention for Mental Health (Auseinet) 2009). In this framework, the unique features of some Tasmanian populations are acknowledged and addressed to reduce inequities that exist in mental health and wellbeing. Target populations included drought-affected farmers, Aboriginals, CALD communities, children with a parent experiencing mental illness and those involved in justice, corrections, child welfare, and drug and alcohol services. Strategies to address inequities were developed in relation to each specific group.

Actions towards addressing inequities in mental wellbeing are evident in the action plans for most states and territories. Queensland, Western Australia and South Australia all have identified high-risk groups in their action plans, with particular attention to Indigenous, CALD communities and those in the justice system (South Australian Social Inclusion Board 2007; Government of Western Australia 2011; Queensland Government 2011). These plans appear to be moving towards greater recognition of the social determinants of mental health and the need to address inequities. No evaluations of changes to mental health inequities were found at any level of government, but these organisations are leading the way in evidence-based action that addressed health inequities in mental wellbeing, and provide examples for other governments to follow.

As was the case with the Federal Government, our evaluations of the extent to which these documents translated to improved services remain limited. Evaluations and data which tracks trends and social gradients of mental wellbeing within specific policy catchments would help address this evidence gap.

**Policies external to health and education**

Policies in a broad range of government portfolios, at all levels of government, are likely to impact on the mental wellbeing of children. As is noted in the earlier section of this review, the social determinants of health occur across a range of areas relating to daily living conditions, for example employment and housing (Marmot, Friel et al. 2008). It is not possible to assess the extent to which all policies act as successful or detrimental interventions to promote child and adolescent mental health, particularly in a review of this size. However, it is worth noting that there are tools available to policy makers and researchers which assist in assessing the extent to which policies might be impacting health and health equity. For example, health impact assessments can be used to assess the expected health outcomes of policies and practice. The Equity Focused Health Impact
Assessment Framework (Mahoney, Simpson et al. 2004) is one such tool, which was purposefully designed to determine ‘potential differential and distributional impacts of a policy or practice on the health of the population as well as on specific groups within that population’ (Mahoney, Simpson et al. 2004 p. 3). These frameworks should be used to evaluate the extent to which all government policies are reducing or exacerbating health inequities.

Non-government organisations

The leading organisation for adolescent mental health in Australia is headspace, the National Youth Mental Health Foundation, which aims to improve the mental, social and emotional wellbeing of young people in Australia (headspace 2012). headspace provides advice, support and information on mental health issues for young people aged 12-25 years and their parents and carers. The focus of this organisation and its resources is primarily directed towards the awareness and treatment of mental illness, but many of their materials relate to general wellbeing and life skills for young people (e.g., information on how to get a job). Without specifically addressing inequities in mental wellbeing, headspace recognises the unique needs of young people, is guided by the idea that all young people need access to high-quality and effective services, and has a vision for improving access for hard-to-reach groups, such as young men and Aboriginal and Torres Strait Islander young people. This organisation serves as an advocacy body and a source of high-quality information for the community on adolescent mental wellbeing.

Young and Well Cooperative Research Centre is an organisation which aims specifically to improve the mental wellbeing of Australian Young People (http://www.youngandwellcrc.org.au/). This research organisation examines the role of digital technologies to prevent mental health problems, promote mental wellbeing and new modes of mental health-care delivery. A number of research projects are currently underway, including projects which investigate technologies as settings for mental health promotion and enablers for mental wellbeing. A key feature of this organisation is the focus on mental wellbeing, the capacity building in young researchers and the application of key wellbeing theories in the development of their work. One current research project aims to directly test the validity of measures of wellbeing in Australian young people and collect national baseline data on young people’s mental health and wellbeing. This data has the potential to fill the need for national-level indications of child and adolescent mental wellbeing.

Two more organisations serve the community by advocating for those affected by mental illness. beyondblue, an independent national initiative designed to prevent depression and improve the quality of life for those who are affected by it. An evaluation of this organisation demonstrated that where information is available, beyondblue had made significant advancements towards improving community awareness of depression and reducing stigma in the community (Pirkis 2004). Similarly, the Black Dog Institute (http://www.blackdoginstitute.org.au/) aims to improve the lives of people (including children) affected by mood disorders through research translation, clinical expertise and national education programs. These organisations do not specifically address issues relating to inequities in mental health, nor do they focus on children. However, both beyondblue and the Black Dog Institute take a life course approach to mental health, recognising the importance of childhood
for early intervention and successful treatments of mental illness, and providing an invaluable contribution to community understandings of mental illness.

**Dominant cultural and societal norms and values**

**The media**

The media can be used as a way to influence and change dominant understandings about mental health and reduce the stigma and discrimination associated with mental illness. The frequency and type of information reported in the media, as well as the representation of people with mental illness, can adversely affect those in our community who are suffering from mental illness. The visibility of suicide in the media can lead to imitation and perpetuate the stigma and discrimination experienced by those who are mentally ill.

*Mainframe* was an initiative of the Australian Government aiming to encourage responsible, accurate and sensitive reporting of mental illness and suicide in the Australian media (http://www.mindframe-media.info/home). Starting in 2001, this program sought to build collaborative relationships with the media and other sectors (such as universities delivering journalism courses and the police) to provide resources that improved the way mental illness was reported in the media. An evaluation of the program carried out on Australian media items in 2006-2007 revealed that there had been numerous improvements in the way that mental illness and suicide was reported in Australia (Pirkis, Blood et al. 2008). There had been increases in the number of suicides reported in the media, but there were reductions in the number of items which used language that was inappropriate, negative or outdated. Furthermore, there were improvements to the stereotypes of people with mental illness used within media items: people with mental illness were less likely to be characterised as violent, unpredictable, unable to work, weak or untrustworthy than they were in baseline measures (Pirkis, Blood et al. 2008).

What is seen in the media can also positively influence behaviours. While there have been no broad-scale interventions which study the effect of the content of media in regard to children’s mental wellbeing, random control trials using TV as a behavioural intervention show positive results (Sanders, Montgomery et al. 2000). In one study, families watched the TV series developed to represent the challenges of being a parent and improve parents’ expectations of children’s behaviour. Significant improvements to parental confidence and reductions in disruptive child behaviour were observed (Sanders, Montgomery et al. 2000). These findings suggest that the types of information delivered in mass media can have positive influences on parent and child behaviour, and can improve wellbeing.
Conclusions and recommendations

*Mental health promotion and prevention have a key role to play in enhancing the capacity of individuals and communities to respond to, and positively shape, the future direction of their lives and those of their families and communities (Barry and Friedli 2008, p. 9).*

Mental wellbeing in children is shaped by material and psychosocial factors associated with individual and family circumstances, the conditions in which children live, grow and learn, and the broader socioeconomic, political and cultural context. This report has reviewed the available literature on these determinants and the inequities they produce in childhood mental health. Our review reveals that children living in the poorest families with access to the fewest resources, in the poorest neighbourhoods and schools, living in societies with the least communal health, economic and social resources report the poorest wellbeing and the highest rates of mental illness. Socioeconomic disadvantage intersects with gendered, psychosocial, geographical and cultural disadvantage, compounding inequities in some children and producing new forms of disadvantage for others.

A review of mental health promotion at each layer of influence of the Framework revealed that at all layers there were more interventions which aimed to prevent mental illness than to promote wellbeing. Most interventions took place within the daily living conditions layer of the Framework, with the majority of studies set in education and community contexts. The evidence on the effectiveness of these interventions in family and education settings is strong and encouraging; mental health promotions activities had positive effects, and in most cases seemed able to improve mental wellbeing in disadvantaged children. At the socioeconomic, political and cultural context layer of the Framework, policy documents and strategic plans emphasise the importance of social determinants and aim to recognise and address the specific needs of groups at high risk for mental health. The recent investments in early child development signal a political willingness to improve developmental outcomes for all children. However, without evaluations it is difficult to assess the extent to which these policies are effectively reducing inequities.

When considering children’s wellbeing, the evidence is unequivocal that both material and psychosocial dimensions are critical (Bradley, Whiteside et al. 1994; Elstad 1998; Barry and Friedli 2008). Quality of care, parent availability and wellbeing, family relationships and interactions, and supportive learning environments are critical to child wellbeing but are yet to be explicitly theorised within a social determinant framework. Efforts to boost the wellbeing of children and young people must therefore extend beyond the material sources and drivers of wellbeing to also consider how political, social and economic contexts and policies may shape the quality of relationships, the strength of social bonds and the experience of care that are fundamental to wellbeing, especially in childhood.

A vast number of interventions were identified, yet almost none reported a specific equity focus, making it difficult to drawing conclusions about the equity implications. Many interventions were applied to traditionally disadvantaged groups, such as Indigenous Australians or children in low-income settings, allowing us to gauge the extent to which programs were effective in marginalised groups; however, this approach continues to make equity opaque. Only delivering programs to disadvantaged groups does not address the gradient in health outcomes, is not well aligned with the proportionate universalism approach and it does not promote wellbeing at a population level.
Prompts for planning

Outlined in Appendix 2 are our suggested prompts for planning at each layer of the Framework.

Given the evidence reviewed in this report, we make the following recommendations:

1. Increase the emphasis placed on promoting wellbeing, rather than treating or preventing mental illness in interventions, particularly in middle childhood and adolescents. Despite the increasing emphasis on promoting wellbeing and the known benefits of it in children and adults, we identified few interventions to promote wellbeing specifically. Evidence suggests that illness prevention or early intervention programs alone will not result in better wellbeing.

2. Recognise the importance of sustained interventions for children at all layers of the Framework. Evidence presented in this review demonstrated that long-term interventions achieve better results for children and their families compared to short-term ones.

3. Ensure interventions are designed to offset or reduce time costs as well as financial costs to parents and families to improve uptake and equity. US-based evidence has shown that the time costs of interventions, as well as income costs, can limit the extent to which some families are able to participate. Eliminating time costs for families to participate in interventions may improve uptake and retention rates.

4. Explicitly recognise the importance of psychosocial risk factors and their social patterning, in the acquisition of mental wellbeing for children. This may require moving beyond traditional understandings of who is disadvantaged to consider geographical, gendered, cultural and ethnic dimensions. Along with income and education, resources such as time are also fundamental to building the relational and social bonds important for child wellbeing. Research on the importance of psychosocial factors is strong and there is evidence that these factors might be stronger determinants of mental wellbeing in children than markers of SES. Evidence from the US suggests that these psychosocial risk factors do not always co-occur with socioeconomic factors.

5. Apply principles of proportionate universalism to interventions. Interventions should be universal, but the level of support should be designed to match the level of disadvantage experienced. Best available evidence on social determinants of health has demonstrated that for interventions to effectively reduce the steepness of the social gradient, interventions must reflect principles of proportionate universalism.

6. Within the individual and family layer of the Framework:
   a. Develop group-based family and parent education in accessible locations for families, and provide greater support for children at higher risk for poor mental health, including families affected by mental illness. This review has shown that there is strong evidence for the efficacy of these types of programs, and that these programs can be effective in families with children at risk of low wellbeing.
   b. Invest in interventions which increase the physical activity of children and young people. Preliminary evidence suggests that exercise might be associated with components of wellbeing, including improved self-esteem, sleep and cognitive function.

7. Within the daily living conditions layer of the Framework:
   a. Invest in interventions in education-based settings (including play-based therapies) and involve parents in the interventions as often as possible. There was strong
evidence that interventions to promote wellbeing in education settings were highly effective, and that the efficacy improved when parents were also involved.

b. Use online settings as a medium with which to improve wellbeing. The vast majority of young Australians have access to and use the internet regularly to connect with their peers and to seek information. Evidence on this was comparatively scarce but preliminary research suggests that the internet is an important setting for young people’s wellbeing.

c. Develop interventions which improve the physical and social environment. We identified evidence which demonstrated that community activities and improvements to the physical environment are important to children’s wellbeing.

d. Acknowledge the importance of the school-to-work transition and provide support to adolescents making this change through interventions that address the quality of work, especially insecurity, pay and work hours/schedules. Our review revealed that this is a critical period in the lives of young people but that there were few interventions which sought to support people through this period. Previous research suggests that having access to good-quality jobs is likely to improve wellbeing.

8. Within the socioeconomic, political and cultural context layer:

a. Develop performance measures relating to mental wellbeing inequities in strategic frameworks and action plans. It was clear in the policy documents that we reviewed that the content was promising; however, it was unclear to what extent these documents translated into meaningful action. The development of metrics (e.g., funding targets, program delivery targets, targets for improvement to wellbeing) against which performance can be evaluated would make more transparent the extent to which these documents translate into action.

b. Consistently and regularly evaluate performance in regard to equity indicators embedded within high-level strategic documents. All of the strategic documents we reviewed adopted a universal approach but recognised the specific or added need of particular groups within society (reflecting the principle of proportionate universalism); however, none evaluated their performance against equity indicators.

c. Use health impact assessments and the Equity Focused Health Impact Assessment Framework to evaluate public policy, including policies external to health and education.

Recommendations for future research

Our report also highlights areas for future research. Following our analysis of the literature, we make the following recommendations for future research:

1. Conduct more research on mental wellbeing (in contrast to mental illness) in children and adolescents. Rich information is available on wellbeing outcomes in children’s early years, but almost no information is available on positive mental health outcomes (including interventions) in middle to late childhood or adolescents, particularly in Australia.

2. Collect more data on positive mental health indicators, particularly in middle to late childhood and adolescents, to inform research and policy planning. Little is known about the prevalence of mental wellbeing in Australian children or adults, or the way that it is distributed across Australian society.
3. Theorise the role of psychosocial factors, including relationships and family, in frameworks to address the social determinants. Despite evidence that psychosocial factors are of central importance in mental health and wellbeing, the extent to which the quality of relationships is also socially determined is yet to be explored and conceptualised in the social determinants field.

4. Develop and implement more universal health promotion interventions for children, applying principles of proportionate universalism. More research is needed specifically on the extent to which mental health promotion works to reduce inequities in child mental wellbeing and what methods are most effective.

5. Implement more interventions with a wellbeing (as opposed to prevention) focus in children and adolescents. Research suggests that prevention and early intervention strategies do not necessarily help to improve wellbeing.

Improving population mental wellbeing is an important policy goal. Investing in mental wellbeing will improve people’s lives, their capabilities and potential, contributions and opportunities. The foundations for mental wellbeing are established in children, making childhood and adolescent years critical for the acquisition of mental capital. This report has reviewed the available literature on the social determinants of mental wellbeing in children and the inequities they produce. We found that both socioeconomic and psychosocial factors are integral to the development of wellbeing in children and that interventions across all three layers of the Framework have been used, and are effective, in improving wellbeing. The growing shift towards acknowledging and addressing the social determinants, as well as the greater emphasis on improving positive mental health outcomes, is an exciting paradigm shift within public health. Meaningful improvements to population wellbeing will occur only through investments which improve the broad context within which children grow and develop.
Appendices

Appendix 1: Search strategy

Search terms:
1. (1-22) AND [(23-43) OR (44-79) OR (80-101) OR (102-108)] AND (109-142) AND (143-151) AND (152-157)
2. (1-22) AND [(23-43) OR (44-79) OR (80-101)] AND (109-142) AND (143-151) AND (152-157)
3. (1-22) OR (23-43) OR (44-79) OR (80-101) OR (102-108)] AND (109-142) AND (143-151) AND (152-157)

Individual Search Terms

**Intervention**
1. health promotion 35. gender
2. policy 36. indigenous
3. legislat* 37. ethnic*
4. regulat* 38. sexual*
5. law 39. Aborigin*
6. program* 40. refugee
7. intervention 41. migrant
8. advocacy 42. CALD
9. service 43. non-English
10. initiative 44. income
11. media 45. resources
12. review 46. housing
13. public awareness 47. poverty
14. prevent 48. neighbourhood
15. mental health promotion 49. neighborhood
16. online, internet, web 50. work*
17. workplace 51. employment
18. community-based 52. unemployment
19. school-based 53. jobless
20. family-based 54. job quality
21. parenting 55. early child*
22. social marketing 56. social protection

**Socioeconomic, political and cultural context**
23. politic* 57. social determinant
24. policies 58. safety
25. economic* 59. trauma
26. cultur* 60. abuse
27. social 61. peer*
28. socio* 62. childcare
29. norm 63. preschool
30. value 64. school*
31. education 65. bully*
32. housing 66. education
33. welfare 67. parent*
34. health care 68. care
35. health care 69. parent mental health
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70. famil*
71. job stress
72. job security
73. job control
74. social network*
75. social support*
76. social participation
77. cohesion, connectedness, social capital
78. rural
79. remote

Individual-related factors
80. literacy
81. knowledge
82. attitude
83. awareness
84. behaviour
85. behavior
86. risky behaviour
87. risky behaviour
88. self-esteem
89. self-image
90. stress
91. resilienc
92. disability
93. illness
94. risk factors
95. protective factors
96. self-efficacy
97. optimisc
98. risk factors
99. protective factors
100. self-efficacy
101. optimis*c

Life course
102. biological embed*
103. latent*
104. critical period
105. trajectory
106. prenatal
107. development*
108. life course

Mental health and wellbeing outcomes
109. mental health
110. mental wellbeing
111. depressi*
112. anxiety
113. post-traumatic stress disorder
114. temperament
115. emotional
116. difficulties
117. internalizing
118. internalising
119. externalising
120. externalizing
121. prosocial
122. psychopathology
123. stress
124. risky behaviours
125. eating disorders
126. conduct disorders
127. oppositional defiant disorder
128. ADHD
129. ADD
130. vitality
131. suicide
132. self-harm
133. resilienc
134. Australian early development index
135. mental capital
136. positive development
137. Mental illness
138. mental disorder
139. affective disorders
140. mood disorders
141. behavioural disorders
142. delinquen*

Equity
143. affordab*
144. access*
145. availab*
146. equit*
147. inequit*
148. inequalit*
149. equalit*
150. disparit*
151. cost

Population
152. Australia
153. high income countr*
154. child*
155. youth
156. adolescen*
157. young
Appendix 2: Summary of interventions on the social determinants of mental wellbeing in children and adolescents

Table 1. Promoting equity in mental wellbeing: an overview

<table>
<thead>
<tr>
<th>LAYERS OF INFLUENCE</th>
<th>EXAMPLES OF PROMISING ACTIONS AT THIS LAYER</th>
<th>PROMPTS FOR PLANNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual and family health-related factors</td>
<td><strong>Knowledge, attitudes and behaviours</strong></td>
<td><strong>Knowledge, attitudes and behaviours</strong></td>
</tr>
<tr>
<td></td>
<td>• Parent and family education and therapy</td>
<td>• Conduct group-based parent and family education and therapy in accessible locations and provide more support to children from disadvantaged backgrounds, including families affected by mental illness</td>
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<td></td>
<td>• Public awareness campaigns</td>
<td>• Use online media in public awareness campaigns to best reach young people</td>
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<tr>
<td></td>
<td>• Physical activity (through school and community settings)</td>
<td>• Promote sustained interventions targeted at young people over the long term</td>
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<tr>
<td>Daily living conditions</td>
<td><strong>Early childhood development</strong></td>
<td><strong>Early childhood development</strong></td>
</tr>
<tr>
<td></td>
<td>• Playgroups</td>
<td>• Involve parents in interventions</td>
</tr>
<tr>
<td></td>
<td>• Promotion of social and emotional learning</td>
<td>• Positive early childhood environments, such as preschools and home learning environments, can greatly affect development</td>
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<tr>
<td></td>
<td>• Education of early childhood education and care workforce</td>
<td>• Ensure interventions are designed to offset both financial and time costs</td>
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<tr>
<td></td>
<td><strong>Education</strong></td>
<td>• Provide universal interventions but acknowledge the greater need for support to children from disadvantaged backgrounds</td>
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<tr>
<td></td>
<td>• Social and emotional learning curriculum</td>
<td><strong>School-to-work transition</strong></td>
</tr>
<tr>
<td></td>
<td>• Group-based learning programs</td>
<td>• The quality of the intervention may be more important than the type of intervention</td>
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<tr>
<td></td>
<td>• Cognitive behaviour-therapy programs</td>
<td>• Use mental health promotion curriculum to change the school culture</td>
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<td></td>
<td>• Classroom behaviour management</td>
<td>• School-based initiatives may have differential effects by SES, ethnicity, age and gender</td>
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<td></td>
<td><strong>School-to-work transition</strong></td>
<td><strong>School-to-work transition</strong></td>
</tr>
<tr>
<td></td>
<td>• Assistance with transition planning and management</td>
<td>• Address the systemic barriers to successful transition in interventions</td>
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<tr>
<td></td>
<td>• Information, resources and services (e.g., job placement, mentoring, tutoring, work readiness training, work experience)</td>
<td>• Ensure programs are inclusive of Indigenous students, students that come from a language-other-than-English background, and students with disabilities</td>
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<td></td>
<td>• Community partnerships</td>
<td><strong>Physical and social environments</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Physical and social environments</strong></td>
<td>• Interventions to renew and improve neighbourhoods appear promising, but it can require a significant amount of resources to change physical environments</td>
</tr>
<tr>
<td></td>
<td>• Neighbourhood renewal and urban development</td>
<td>• Improving access to health services and treatment can reduce inequities</td>
</tr>
<tr>
<td></td>
<td>• Housing relocation</td>
<td>• Community engagement and partnerships are vital for success</td>
</tr>
<tr>
<td></td>
<td>• Improving access to health services</td>
<td>• Consider including sports and recreational activities in community interventions, if appropriate</td>
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<tr>
<td></td>
<td>• Community-based mental health promotion</td>
<td><strong>Online settings</strong></td>
</tr>
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<td></td>
<td><strong>Online settings</strong></td>
<td>• A possible way to reach a large number of young people with messages of mental health promotion</td>
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<td></td>
<td>• Online resources (e.g., fact sheets, stories, videos, guides, apps)</td>
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<td>• Online mindfulness training</td>
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<td>• Online networks</td>
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<tr>
<td>Socioeconomic, political and cultural context</td>
<td>Policy initiatives</td>
<td>Policies</td>
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<td></td>
<td>Policy packages which provide accessible, affordable and culturally appropriate mental health promotion and treatment services</td>
<td>Consider targeting messages at those most at risk for poor mental health</td>
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<td></td>
<td>Universal early childhood services which cross sectors and provide the best start to life for all children</td>
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<tr>
<td>Governance</td>
<td>No interventions</td>
<td></td>
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<tr>
<td>Media regulation</td>
<td>Responsible media reporting on mental illness and suicide</td>
<td>Consider developing equity indicators within these frameworks and report on progress towards equity in evaluations</td>
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<td></td>
<td>Media as a medium to deliver mental health promotion activities</td>
<td>Ensure that policies adopt principle of proportionate universalism</td>
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<td></td>
<td>Media as a way to reduce stigma and discrimination around mental illness</td>
<td>Encourage whole-of-government approaches to mental wellbeing in children, stressing the importance of employment, social, health and education policy</td>
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<td></td>
<td></td>
<td>Consider that there will be social, economic and cultural differences in the rate of uptake of services and programs. Use health impact assessments and equity focused impact assessments to evaluate programs and policies</td>
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<td></td>
<td></td>
<td>Be aware of cultural variations in understandings of mental health and wellbeing</td>
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<td>Governance</td>
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<td>Media</td>
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