Economic & Social Attack

# Social Inclusion of Youth with Mental Health Conditions



Division for Social Policy and Development

#### **Department of Economic and Social Affairs**

## Social Inclusion of Youth with Mental Health Conditions

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#### **EXECUTIVE SUMMARY**

#### **Background**

Mental-health conditions, which include behavioural and mental-health problems e.g. depression, anxiety disorders (including post-traumatic stress disorder), and disruptive behavioural disorders (such as attention deficit hyperactivity disorder, mood disturbances, substance use, suicidal behaviour, and aggressive/disruptive behaviour) are the leading causes of adjustment problems in adolescents and young people worldwide. Mental-health conditions have a significant impact on the development of over a billion youth and their social and economic integration, including employability.

Recently, mental-health conditions have attracted global attention. The 2007 Lancet Series on Global Mental Health (Horton, 2007) led to the launch of a coordinated Movement for Global Mental Health, comprising over 95 institutions and 1,800 individuals worldwide. In 2010, the World Health Organization (WHO) produced a Report on Mental Health and Development, highlighting people with mental illnesses as a vulnerable group subject to stigma and social isolation, human-rights violations and exclusion from policies and decision-making that affected them. Later that year, in its Resolution on Global Health and Foreign Policy, the United Nations General Assembly recognized the need to target mental health in development, reinforcing previous international commitments toward mainstreaming disability issues in development. The World Health Organization has developed the Mental Health Gap Action Programme, along with technical tools to support non-specialist mental-health service capacity in low- and middle- income countries. This international momentum to acknowledge and address the global burden of mental-health conditions is critical to the addressing of this issue at a global level.

Yet, it is also critical that attention to global mental health move beyond treatmentoriented programmes in health-care settings to include broader approaches inspired by publichealth and social-inclusion considerations.

#### **Objectives of the present report**

The primary purpose of the present report is to draw on available research to raise awareness of youth mental-health conditions among relevant stakeholders and to start a global conversation regarding strategies for addressing the challenges faced by young people, with the overarching goal of fostering their economic and social integration. Specifically, the objectives of the present report are to:

- a. Disseminate information on the needs of youth with mental-health conditions.
- b. Raise awareness of the cultural and contextual dimensions related to the mental-health conditions of youth.
- c. Identify the critical skills to be developed among youth with mental-health conditions to overcome challenges to their self-development and social integration.
- d. Increase understanding of support systems and raise awareness of access issues relating to youth with mental-health conditions.

e. Summarize research and provide case studies of effective programmes and approaches for preventing and addressing youth mental-health conditions.

#### **Key findings**

Mental-health conditions are prevalent among young people. Nearly one fifth of the global population is comprised of youth aged 14-24 years, with 85-90 per cent of this group living in low-income countries (Fisher and Cabral de Mello, 2011; Sawyer and others, 2012). In high-income countries, it is estimated that about 5 per cent of the population have a serious mental illness. On a global level, it is estimated that approximately 20 per cent of youth experience a mental-health condition each year (Patel, Flisher, Hetrick and McGorry, 2007; UNICEF, 2012). Young people are at greater risk of a range of mental-health conditions as they transition from childhood to adulthood (Kessler, Berglund, Demler, Jin, and Walters, 2005).

There is considerable burden and disability associated with mental-health conditions, particularly among those for whom the problems start during youth. Although much of the epidemiological research supporting these estimates comes from high-income countries, studies from low- and middle- income countries provide similar prevalence estimates (Kieling and others, 2011). Up to 30 per cent of disability-adjusted life years (DALY) among young people up to age 30 have been attributed to mental-health conditions (Kieling and others, 2011; Lopez, 2006). Mental-health conditions in young people impact negatively their development, quality of life and ability to participate fully in their communities (Fisher and Cabral de Mello, 2011). Mental and behavioural conditions are the leading causes of health problems in young people in both high- and low- resource countries, accounting for one third of all years lost productivity due to disability (WHO, 2008).

Mental-health conditions have a significant impact on youth development and social and economic integration. Mental-health conditions during adolescence and young adulthood can have a significantly negative impact on the development of safe and healthy relationships with peers, parents, teachers, and romantic partners. Many mental-health conditions affect negatively youths' ability to form supportive and healthy relationships successfully and manage conflict in relationships, which is particularly disconcerting given that adolescence is a critical time for identity formation and taking on roles, especially with peers. Disruptions in the ability to form and sustain interpersonal relationships can have lasting impacts on youths' social and emotional functioning. Mental-health problems increase the likelihood of poverty, limit employment opportunities severely, and impact work performance negatively (Kessler and Frank, 1997).

Traumatic experiences, including adverse childhood events (e.g. the death of a parent, abuse, being a refugee) affect youth worldwide, but are particularly common in post-conflict or disaster settings. The accumulation of these, and other, risk factors give rise to the greater likelihood of developing mental-health conditions. Many studies of mental health among youth in low- and middle-income countries have documented the elevated risk of mental-health conditions in post-conflict or disaster settings. Post-traumatic stress disorder

(PTSD) is particularly common in these settings, and contributes to subsequent adjustment problems and considerable disability.

Certain youth are at particular risk of mental-health conditions. This includes youth who are homeless and street-involved, orphaned youth and those involved with the juvenile justice and mental-health systems. The accumulation of these, and other, risk factors contributes to the increased likelihood of impairment and disability.

Stigma is a considerable barrier to mental-health service delivery, particularly among young people. Help-seeking behaviour comes less readily to young people who may be even more impacted by stigma, embarrassment and the lack of basic knowledge about mental health (Saxena, Thornicroft, Knapp, and Whiteford, 2007). The issue of stigma is further challenged by the lack of quality mental-health services in low- and middle-income countries.

A public-health approach to the prevention of behavioural and mental-health conditions is instrumental in addressing this issue at a global level. This approach includes a range of preventive interventions spanning mental-health promotion, universal prevention, selective interventions and indicated interventions, each of which map onto different levels of risk. A number of effective prevention models have been developed to address a range of risk factors at the level of the family, school, peer group, community and workplace. Specific models that are likely to prove effective in low- and middle-income countries include nurse home-visitation programmes for young parents, which benefit both the young parents and their offspring, in the short and long term. Multi-tiered prevention models for addressing behavioural and mental-health needs have also demonstrated promise in several countries by targeting parents and the community. A number of school-based programmes focused on promoting competencies – such as emotion-regulation, social skills, behavioural inhibition and conflict resolution – also hold promise for implementation in lowresource settings. Community-wide frameworks that draw upon community partnerships and are guided by local data have also demonstrated significant impacts on a range of mentalhealth outcomes. Workplace-based programmes have been shown to reduce stress and mental health problems.

#### Recommendations

More defined policies and programmes have the potential to improve youths' access to a full range of services. This includes services for youth with mental-health conditions, as well as those who struggle with learning disabilities, which often occur in tandem with mental-health conditions. Yet, less than one third of low- and middle-income countries have a designated youth mental-health entity and most lack youth-focused mental-health policies. This produces negative impacts, not only on service coordination and delivery, but also on resource allocation and accountability (Kieling and others, 2011). Such policies must require schools both to implement preventive programming, such as training in social-emotional learning and positive behaviour supports, and to promote the integration of the full continuum, from promotion to indicated intervention and mental-health services.

Efforts are needed to overcome stigma regarding mental-health conditions in youth across their life course. Increased education and awareness of mental-health conditions is likely to reduce the perceived stigma associated with seeking treatment and disclosing symptoms to professionals and other adults in positions to help. Social-marketing campaigns and national programmatic efforts aimed at raising social awareness of the issues of mental health are a critical next step in the effort to reduce the stigma among young people with mental-health conditions.

Improved surveillance and programme monitoring and evaluation will aid in the identification of both the risks and protective factors to be targeted through preventive interventions. It is critical that data be collected regularly regarding a broad range of risk and protective factors and mental-health outcomes. Although surveillance efforts have been developed in various countries, few initiatives have been sustained or broad enough in scope to guide practice.

**Additional research is needed** to document the impact of promising programmes in lowand middle-income countries. Although a large number of programmes and policies have been identified as effective, the vast majority of the research has been conducted in highincome countries. As such, little is known about the extent to which these findings are appropriate to other settings. For example, relatively few systematic studies have been conducted on the post-conflict setting to determine the effectiveness of interventions with such vulnerable populations.

## SOCIAL INCLUSION OF YOUTH WITH MENTAL HEALTH CONDITIONS

#### INTRODUCTION

Although youth are generally considered a healthy age group, 20 per cent experience some form of mental-health condition (Kessler Berglund, Demler, Jin, and Walters, 2005; Patel, Flisher, Hetricks and McGorry, 2007). Mental conditions, which include behavioural and mental-health problems (e.g. depression, anxiety, substance abuse, aggressive-disruptive behaviour, attention-deficit and hyperactivity problems, and post-traumatic stress disorder) are the leading causes of adjustment problems in adolescents and young people. They contribute heavily to disability and lost productivity across the life course (Gore and others, 2011).

Given the numerous health issues affecting people in developing and low-resource countries, the issue of mental health has often been considered a lower priority; yet even high-income countries have similarly de-prioritized mental health and dedicated far fewer resources to mental than to physical health. The vast majority of countries allocate less than 1 per cent of their health budgets to mental health (Saxena, Thornicroft, Knapp and Whiteford, 2007), leading to a treatment gap of more than 75 per cent in many low- and middle-income countries (Saxena and others, 2007; World Federation for Mental Health, 2011; World Health Organization, 2011). Moreover, youth with mental-health conditions face considerable stigma, which serves as a major barrier to help-seeking. A recent study in one European country estimated at 70 per cent the proportion of people affected by mental illness who experienced some form of discrimination at some point during their illness (Chambers, 2010). Discrimination was likely to be greater in developing countries where these was less recognition and awareness of mental health. Help-seeking behaviour came less readily to young people even more likely to be impacted by stigma, embarrassment and the lack of basic knowledge about mental health (Saxena and others, 2007).

Only recently have mental-health issues attracted global attention for, historically, the focus has been on physical health and economic development. There have been some efforts by research groups, organizations and agencies to increase recognition and understanding of the issues affecting those youth at risk for, and experiencing, mental-health conditions. In 2010, the World Health Organization (WHO) launched its report on *Mental Health and Development* and, later that year, the United Nations General Assembly adopted a Resolution on Global Health and Foreign Policy highlighting mental health as a major area for attention in development. <sup>1</sup> There

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<sup>&</sup>lt;sup>1</sup> A/RES/63/33

has been a significant increase in the amount of global research conducted on youth mental health, much of which has focused on identifying risk and protective factors, and on promising approaches for preventing and stemming these concerns (Bass, Eaton, Abramowitz, and Sartorius, 2012).

#### **Objectives**

The primary purpose of the present report is, by drawing on the available research, to raise awareness of youth mental-health conditions and start a global conversation regarding strategies for addressing the challenges faced by young people, with the overarching goal of increasing the social integration of youth with such conditions. Specifically, the objectives of this report are to:

**Disseminate information on youth with mental-health conditions:** Dissemination of scientifically-based information is critical to promoting successful development and socialization of adolescents and youth, as well as for challenging misconceptions and eliminating stigma. This information empowers the relevant stakeholders – including youth, families, youth care providers, educators, communities and mental-health agencies – for effecting change.

Raise awareness of the cultural and contextual dimensions of mental-health conditions in youth: Cultural elements, including social attitudes, peer group norms, religious beliefs, family values and other socio-cultural factors, are strongly related to the behaviour of youth. Awareness, and respect, for these—and other—cultural factors, as well as the underlying social circumstances of individuals, must be considered when addressing youth mental-health concerns.

Identify critical skills to be developed among youth with mental-health conditions to overcome challenges to their self-development and social integration: Building skills relates to the promotion of competencies to facilitate the transition process for youth with mental-health conditions from dependent to independent living. Life skills, social-emotional competencies and social skills, coupled with cognitive and occupational skills, are instrumental for the successful transition to adulthood and social integration.

Increase understanding of support systems and raise awareness of access issues among youth with mental-health conditions: Well-coordinated, comprehensive programmes and support services are necessary to prevent mental-health conditions, as well as to aid youth who already have mental-health conditions. Yet, there are many service barriers – like service tunnels, transition cliffs and stigma – that limit youths' access to resources, even when the resources do exist. A central aim of the present report is to increase awareness of these issues, thereby engaging educators, peers, parents and others in addressing these concerns in their daily interactions with youth and youth-focused policies and programming.

Summarize research and provide case studies of effective programmes and approaches for preventing and addressing youth mental-health conditions: The report identifies

programmes, policies and strategies which have been successful in promoting the social integration of youth with mental-health conditions. There are examples of various intervention approaches from each geographical region, from both developing and developed countries.

## THE MENTAL-HEALTH CONDITION OF YOUTH IS AN EMERGING GLOBAL CONCERN

The opportunities for the social and economic integration of young people affected by mental-health conditions are severely limited. This section examines the impact of mental-health conditions in young people on developmental outcomes and on the quality of their own lives. Mental-health conditions lower the self-esteem of young people, and limit not only their social interactions and academic performance, but also their economic potential and wider engagement with their communities. The overall disease burden of mental-health conditions expressed as the number of years lost due to ill-health, disability or early death, known as disability-adjusted life years (DALYs),<sup>2</sup> has been on the rise. This section considers various factors – such as cultural and contextual circumstances, poverty, homelessness, street life, juvenile justice systems, mental-health care systems, and the impact of orphaning by HIV/AIDS – that affect young people's emotional and mental health.

#### Prevalence and relevance

Nearly one fifth of the global population is comprised of youth between the ages of 14-24, with 85-90 per cent of this group living in low-resource countries<sup>3</sup> (Fisher and Cabral de Mello, 2011; Sawyer and others, 2012). In high-resource countries, it is estimated that about 5 per cent of the population have a serious mental illness. On a global level, it is estimated that approximately 20 per cent of youth experience a mental-health condition each year (Patel, Flisher, Hetrick and McGorry, 2007; United Nations Children's Fund (UNICEF), 2012). In fact, young people are at the greatest risk of a range of mental-health conditions during their transition from childhood to adulthood (Kessler and others, 2005), due, in large part, to the host of physical, psychological and emotional changes which occur during this vulnerable period. Epidemiological research suggests that the majority of individuals with mental-health conditions first experience symptoms prior to age 24 (Kessler and others, 2005).

There is also considerable burden and disability associated with mental-health conditions. Although much of the epidemiological research supporting these estimates comes from high-income countries, studies from low- and middle-income countries provide similar prevalence estimates (Kieling and others, 2011). Mental-health conditions in young people impact

<sup>2</sup> The World Health Organization defines disability-adjusted life years as "One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability." For more, please see [online]: <a href="http://www.who.int/healthinfo/global\_burden\_disease/metrics\_daly/en/">http://www.who.int/healthinfo/global\_burden\_disease/metrics\_daly/en/</a>

<sup>&</sup>lt;sup>3</sup> The World Bank classifies countries into three categories (low, middle, or high income) based on the gross national income per capita. See [online]: <a href="http://data.worldbank.org/about/country-classifications">http://data.worldbank.org/about/country-classifications</a>

negatively their development, quality of life and ability to participate fully in their communities (Fisher and Cabral de Mello, 2011). Mental and behavioural conditions are the leading causes of ill-health in young people in both high- and low-resource countries, accounting for one third of all years lost in productivity due to disability (WHO, 2008). Suicide is the fifth highest cause of death in this age group globally, and second highest in high-income countries (Blum and Nelson-Mmari, 2004). Among youth between the ages of 15-24, 17 per cent of all disability-adjusted life years are due to mental and behavioural disorders, with an additional 4.5 per cent due to self-harm and 5 per cent due to other neurological disorders (Murray and others, 2012). Table 1 shows the main causes of disability by mental-health condition among youth.

Table 1
Main causes of disability-adjusted life years (DALYs) for 15-24 year-olds globally

	Causes for males	Cause for females	Cause for total population
Aged	15-19 years		
1	Unipolar depressive disorders	Unipolar depressive disorders	Unipolar depressive disorders
2	Road traffic accidents	Schizophrenia	Schizophrenia
3	Alcohol use	Bipolar disorder	Road traffic accidents
4	Schizophrenia	Abortion	Bipolar disorder
5	Bipolar disorder	Panic disorder	Alcohol use
6	Violence	Maternal sepsis	Violence
7	Drug misuse	Self-inflicted injuries	Self-inflicted injuries
8	Asthma	Road traffic accidents	Panic disorder
9	Self-inflicted injuries	Chlamydia	Asthma
10	Drowning	Iron-deficiency anaemia	HIV/AIDS
Aged	20-24 years		
1	Road traffic accidents	Unipolar depressive disorders	Unipolar depressive disorders
2	Violence	HIV/AIDS	Road traffic accidents
3	Unipolar depressive disorders	Abortion	Violence
4	Alcohol use	Schizophrenia	HIV/AIDS
5	Self-inflicted injuries	Bipolar disorder	Schizophrenia
6	Schizophrenia	Maternal sepsis	Bipolar disorder
7	Bipolar disorder	Tuberculosis	Tuberculosis
8	HIV/AIDS	Self-inflicted injuries	Self-inflicted injuries
9	Tuberculosis	Panic disorder	Alcohol use
10	War	Road traffic accidents	Abortion

Source: Gore and others (2011).

Across all age groups, the proportion of DALYs due to mental disorders has increased by an estimated 38 per cent since 1990, and it is expected that this burden will continue to rise (Murray and others, 2012). Mental-health conditions are associated with behavioural health risks such as substance use, unsafe sexual behaviour and violence (Patel, Araya and others, 2007), increased risk of communicable and non-communicable diseases, injury and all-cause mortality (Prince and others, 2007). Mental-health conditions perpetuate a negative cycle of poverty and social exclusion (Lund and others, 2011). They impact work-related performance negatively, including employability, work performance, hours worked and overall work-related productivity (Kessler and Frank, 1997). Taken together, these data illustrate the significant impairment, disability and disease burden associated with mental-health conditions (Muñoz, Le, Clarke, and Jaycox, 2002). Therefore, the prevention of mental-health conditions must be a global publichealth priority.

### Impact of mental-health conditions on the development and social integration of youth

Mental-health conditions have a significant impact across a wide range of developmental outcomes, limiting opportunities for social integration. One area that can be impacted by mental-health conditions during adolescence and young adulthood is the development of safe and healthy relationships with peers, parents, teachers and romantic partners. In fact, adolescence is the developmental period that is critical for identity formation and taking on roles, especially with peers. Many mental-health conditions affect negatively youths' ability to form supportive and healthy relationships successfully and manage conflict within these relationships. For example, at least one in four adolescents experiences symptoms of depression (Kessler and others, 2005), which commonly includes irritability, anger and avoidance of social interaction. These symptoms can lead youth to withdraw from others as well as be rejected by their peers, which can exacerbate depressive symptoms further and limit opportunities for social skills development. Similar social challenges occur for youth with anxiety, whereby they tend to avoid social interaction and may be rejected by their peers because of their anxious behaviour.

Aggressive youth and those with attention deficit disorder/hyperactivity problems often experience rejection by peers because their behaviour is perceived as aversive by pro-social peers (Stormshak, Bierman, Bruschi, Dodge and Cole, 1999). This often results in a cascade process, whereby the rejected aggressive youth associate differentially with delinquent peers and become disengaged from the academic process, which exacerbates their behavioural and mental-health conditions (Lynne-Landsman, Bradshaw and Ialongo, 2010; Patterson, DeBaryshe and Ramsey, 1989).

Another common mental-health concern among youth is substance use. A recent study of students attending the eighth to the tenth grade in South Africa (Reddy and others, 2010) indicated that 10 per cent of youth who had tried cannabis were introduced before they were 13 years old, with roughly 30 per cent smoking daily. It was found that substance use was strongly correlated with repeating a school grade and a range of other negative outcomes, such as physical injury, crime, sexual violence and risky sexual behaviour (Reddy and others, 2010).

Mental-health conditions affect youths' self-esteem, social interaction, and even, their chances of personal injury and harming themselves and others (Bradshaw, Rebok and others, 2012). Youth with untreated mental-health conditions struggle to succeed in school. Academic problems include low engagement, poor academic performance, learning disabilities, discipline

problems (e.g. suspension), poor attendance and, eventually, school dropout (Bradshaw, O'Brennan and McNeely, 2008). This trajectory of poor academic engagement leads to diminished workforce readiness and inability to transition to work and employment which, in turn, impacts independent living and social integration negatively (Bradshaw, Koth, Bevans, Ialongo and Leaf, 2008). As they near, and enter, adulthood, youth with mental-health conditions face poor transition outcomes, especially into the world of work. Integration into society, including the workplace, is key to their successful transition to working life (Bradshaw, Rebok and others, 2012).

#### **Cultural and contextual considerations**

Consideration of the mental-health needs of youth globally must include the cultures and contexts in which youth live. The way people experience life emotionally and the way in which they behave in relation to other people, differs from one culture to another. Culture affects mental health by providing content for its expression, yielding different forms of expression in different cultures even for the same mental-health conditions. Cultural differences affect the risk and resiliency factors that relate to mental-health conditions, thereby influencing prevalence and incidence rates across cultures. Culture should thus have an impact on the selection and adaptation of appropriate prevention and intervention strategies (Bass and others, 2012).

Locally-based, culturally-defined descriptions of symptoms, definitions and social impacts provide understanding of the ways in which populations assign meaning to mentalhealth conditions; likewise, cross-cultural, global studies provide an understanding of the manner in which conditions occur, vary and respond to intervention across populations. An example of how the expression and understanding of mental-health conditions can vary by culture can be found within research on variations of panic attack, or episodes of extreme anxiety. In the United States of America, panic attacks are often characterized by heart palpitations and shortness of breath – two signs that indicate to the person, and others around them, that they are panicked. In a study of Khmer refugees, the researchers found that the most prominent symptoms of panic attack included dizziness and neck tension (Bass and others, 2012). Research from Nigeria found that the feeling of 'extreme heat' in the head was a common way of describing a panic attack. In some Latin American cultures, the trembling of limbs, or feeling of 'nerves', is most common (Bass and others, 2012). This is not to suggest that these different symptoms show up only in each of these cultures: many people experiencing panic attacks have heart palpitations, dizziness and nervousness. Rather, the point is that it is necessary to recognize that different cultures may describe the presenting symptoms differently. This is relevant to all domains of public mental health, including talking to people about these problems (i.e. psychoeducation), adapting and advertising services, and designing appropriate assessment tools for epidemiologic and services research (Bass and others, 2012).

Culture also plays an important role with respect to mental-health conditions. It is particularly important during the period of later adolescence and early adulthood, for understanding the difference between appropriate, relevant, social functioning roles and social behaviour, and those considered problematic. When confronted with individuals suffering from mental-health conditions in their communities, local friends, relatives and neighbours often know at an intuitive level that the sufferer is not well, but know neither exactly what the problem is nor the source of the symptoms. In fact, mental-health conditions often sit on the social line between the normal and the abnormal.

Culture can also influence the mechanisms by which different risk and resiliency factors affect the prevalence, course and outcome of different mental-health conditions and the ways in which cultural conditions create circumstances that promote mental health (Bass and others, 2012). One way in which culture has a direct impact on the experience of mental-health conditions is in its interaction with factors such as gender, age, marital status and poverty.

Yet, there are some universals. Gender has been repeatedly shown to be important when investigating mental-health conditions. Across cultures, it has been shown that females experience higher rates of mood and anxiety conditions while males show higher rates of substance use, conduct- and aggression-related problems (Bradshaw, Rebok and others, 2012). Age, like gender, acts as an important predictor across cultures for variations in mental illness, but there is considerable local specificity in the types of mental illness that occur in different age groups. For example, in poor, urban, non-Western settings, youth often report increased depression and aggressive behaviour as a result of the lack of—real or perceived—life chances due to poverty and unemployment. In contrast, youth within middle-class communities in the United States of America are being diagnosed increasingly with depression, ADHD and drug dependency for an entirely different—and not entirely clear—set of culturally-mediated reasons (Bass and others, 2012).

#### Poverty and mental health

The WHO report on *Mental Health and Development* (2010a) highlighted the risks of a cyclical relationship between vulnerability and poor mental health, in which people with mental-health conditions are a vulnerable group subject to stigma, discrimination, violence, marginalization and other violations of their human rights. However, these same contextual factors that support the designation of those with mental-health conditions as a vulnerable group also indicate a heightened risk for exacerbation or development of further mental and emotional problems, through an injured sense of self, increased isolation, exposure to violence and other violations of human rights (WHO, 2010a).

Similarly, the relationship between poverty and poor mental health appears to be cyclical in both high- and low-resource settings. People living in poverty experience high rates of stress and trauma, social exclusion, malnutrition and poor health care, which heighten the risk and severity of common mental disorders. Those with mental-health conditions may also be at higher risk of poverty due to the cost of care, stigma and social exclusion, and fewer opportunities for employment and education (Lund and others, 2010). In addition to these general factors exacerbating poor mental health, there are more specific circumstances—often overlooked—which have great negative impacts on youth mental well-being. For example, youth who are homeless, orphaned or abandoned, youth in the juvenile justice system or youth in care systems are all more likely to experience the aggravation of an existing mental-health condition. Each is considered in greater detail below.

#### Homeless, street-involved youth and mental health

Homeless youth often have more risk of mental-health conditions than their resident counterparts. Youth may undergo chaotic and violent home lives before they become homeless and may be distrustful of authority and adults (Sherman, 1992). Many of the factors leading to young people becoming homeless or street youth – such as poverty, discrimination, disability,

domestic violence or abuse, drug use, lack of educational opportunities, armed conflict or other incident leading to mass migration and loss of caregivers – are the same factors that already elevate the risk of mental-health conditions (Beazley, 2003). In addition to the factors contributing to the youth's initial homeless status, the stress of being homeless can exacerbate pre-existing mental-health conditions. Once on the street, youth with mental-health conditions continue to experience discrimination, marginalization, violence and exploitation. They also encounter barriers to accessing education and health care, may suffer from learning disabilities, police harassment and risk being institutionalized (West, 2003). While recognized as victims by many, homeless youth are often viewed as a plague on society not only by community members but also by legal and social systems. In the worst cases, this may lead to persecution and murder of homeless street youth by vigilante groups with little reprisal from the authorities (Scanlon, Tomkins, Lynch and Scanlon, 1998; Wernham, 2004).

As a result of the hardships of street life, homeless youth may experience problems with identity and self-esteem, symptoms of trauma and difficulty integrating into society (West, 2003). These children, lacking positive adult relationships and socialization, are at risk of developing maladaptive coping strategies, antisocial survival behaviour and poor mental health (Wallace, 2009). In low- and middle-income countries, an estimated 60 per cent of street youth report lifetime drug use, most commonly inhalants, tobacco, alcohol and marijuana. Substance abuse is associated with other health problems in this group, including high-risk sexual behaviour, positive HIV status, physical complaints and depressive symptoms (Embleton, Mwangi, Vreeman, Ayuku and Braitstein, 2013). Qualitative reports from the perspective of street youth in low- and middle-income countries highlight poor nutrition, inability to attend school, regular exposure to physical violence, as well as emotional problems (such as missing their parents, being humiliated and feeling afraid or worried) as leading distresses suffered by young people (Wallace, 2009).

The way youth perceive and cope with life on the street may be influenced by their reasons for leaving home. In Toronto, one third of homeless youth reported a pre-existing mental-health condition and, in focus groups, voiced the complex dynamics of mental-health problems resulting from both long-term issues as well as the stressors of homelessness (McCay and others, 2010). Brazilian youth who were drawn to street life were more positive about it than youth who were driven to the street due to home circumstances (Raffaelli and others, 2000; 2001). Youth who experienced sexual harassment on the street or abuse at police stations have higher levels of hopelessness than their fellow street youth (Duyen, 2005). Youth who become homeless or enter street life due to political conflict, rather than poverty, may also experience higher levels of traumatic symptoms (headaches, nightmares, bad memories, anxiety) brought about by the conflict and subsequent breakdown of social structures; the dynamics of gender and conflict may present additional challenges for social reintegration into care systems (Vealea and Donab, 2003).

Gender roles and contextual factors influence the plight and outcomes of homeless and street youth. For example, in Kenya, gender differences on how children are socialized to survive poverty help boys become street savvy at a young age, while girls who resort to street life represent "... a broken path of development. ..." (Aptekar and Ciano-Federoff, 1999, p. 44). Once on the street, boys appear to be better-adjusted than girls, with active social networks, loyalty and continued relationships with their mothers, whereas girls fare worse emotionally, are more socially isolated and do not maintain contact with their families (Aptekar and Ciano-Federoff, 1999). This scenario does not play out in Brazil, however, where there are similar

gender differences in the cause of homelessness, but where girls appear to fare just as well as boys in meeting their basic needs on the street, potentially due to the variety of governmental and non-governmental service organizations available to them in Brazil that are not available in Kenya (Rafaelli and others, 2000).

The circumstances of street life have profound implications for youths' social, emotional and cognitive development. However, street youth facing extreme adversity are remarkably adaptive and develop coping mechanisms to survive—and sometimes even thrive—in these circumstances (Koller and Hutz, 2001). They develop protective friendship networks and social relationships, learn to manoeuvre through police harassment and exploitation, and utilise available social services (Kombarakaran, 2004). They may keep contact with family members and supplement household income (Aptekar and Ciano-Federoff, 1999). Street youth have often come to the streets through severe hardship and take a solution-focused view of their situation, taking pride in their ability to survive and earn money. As street youth progress through adolescence, they may develop a distinct subculture from which to derive a collective identity; in becoming adaptive to that subculture, however, the barriers to mainstream social integration may be increased (Beazley, 2003).

#### Juvenile justice systems

The vast majority of young offenders suffer from some mental-health condition that is exacerbated by their experience in the juvenile justice system (Glaser, Calhoun, Bradshaw, Bates and Socherman, 2001). Youth in the juvenile justice system suffer substantially higher rates of prevalence of mental-health conditions than youth in the general population. About 70 per cent of youth involved in the juvenile justice system have at least one diagnosable mental-health disorder, whereas approximately 55 per cent meet the criteria for two, or more, concurrent, mental-health diagnoses (Shulman and Cauffman, 2011; Sickmund, Sladky, Kang and Puzzanchera, 2011). In addition, some studies suggest that girls in the juvenile justice system are at significantly higher risk than boys of having a mental-health disorder (Sickmund and others, 2011).

Almost all research on youth mental health and incarceration has been conducted in high-income countries, with little attention paid to youth with mental-health conditions in low- and middle-income countries. However, juvenile justice facilities in low- and middle-income settings present a number of circumstances that would lead to increasingly poor outcomes for incarcerated youth with mental-health conditions. In many low-resource settings, youth—particularly homeless or marginalized youth—experience frequent negative interactions with the justice system, from police harassment on the streets (e.g. extortion, corruption, abuse) to abuse in detention and inadequate support for reintegration upon release (Wernham, 2004).

Incarcerated youth are regularly subject to violence, intimidation, exploitation and inhumane conditions, such as lack of adequate nutrition, hygiene, or medical care (Defense for Children International, 2007; Shulman and Cauffman, 2011; Wernham, 2004). Prolonged pretrial detention and lengthy or indefinite incarceration periods are prevalent (Defense for Children International, 2007). Youth are housed inappropriately with adults, strip-searched without regard to gender, and subject to extortion and humiliation (Wernham, 2004). While all youth are vulnerable to physical, sexual and psychological abuse, in these settings (Shulman and Cauffman, 2011), the lack of female officers or appropriate facilities exposes girls to a particularly high risk of sexual assault and exploitation and also results in decreased access to

appropriate services (DCI, 2007; Cauffman, 2008; UNICEF 2006; Wernham, 2004). In some cases, on release from incarceration, youth have been simply dismissed outside the facility gates and left to fend for themselves with no support or resources, leaving them in a worse plight than the one from which they had been removed (Human Rights Watch, 2006).

In a number of low- and middle-income countries, inadequate or non-existent juvenile facilities have resulted in youth being housed with older inmates, where they may be subject to abuse, exploitation and/or degrading treatment (UNICEF, 2006, Gharaibeha and El-Khoury, 2009). In many such settings, mental-health concerns are not prioritized and, even if they were, there would be too few mental-health professionals to address the level of need, and good practices would be hampered by the lack of resources. On release, after prolonged periods of detention, many of these youth have very little in the way of life skills or community resources to aid them in rehabilitation and reintegration.

#### **Mental-health care systems**

Conditions in the mental-health care system, like those in the justice system, often violate human rights and intensify, rather than ameliorate, mental-health conditions. In low- and middle-income countries in which there is a lack of investment in mental-health service systems, disturbing examples of poor care and human rights violations are common. In extreme circumstances, those with identified mental disorders may be incarcerated due to lack of appropriate mental-health treatment and facilities, or may be housed in mental-health facilities operated by the police (Human Rights Watch, 2006; 2012; 2013).

The lack of mental-health professionals and modern medication or treatment options means patients are housed in overcrowded, long-term, in-patient facilities, with little attempt at rehabilitation or social integration (Patel, Saraceno and Kleinman, 2006). Young patients are committed frequently and treated involuntarily, separated from their families, and deprived of adequate nutrition, sanitation and health care. Extreme maltreatment has been repeatedly documented, such as forced seclusion, assault and abuse, being chained to beds, the floor or each other, and being left to lie in their own excrement (Gettleman, 2011; Human Rights Watch, 2013; Murthy, 2001). Regrettably, the system intended to address mental-health conditions in young people appears to do more harm than good.

#### **Orphaned by HIV/AIDS**

There are additional, specific experiences of youth that occur predominantly in low- and middle-income countries that impact the occurrence and trajectory of mental-health conditions. Youth exposed to armed conflict, female genital mutilation, child labour and orphaned by HIV/AIDS come predominantly from low-resource settings. These experiences themselves appear to contribute to higher rates of post-traumatic stress and depression, which are exacerbated by the ongoing experiences of violence, discrimination and poverty (Benjet, 2010).

The experience of youth orphaned by HIV/AIDS exemplifies the ways in which a multitude of adverse circumstances—poverty, loss of caregivers, stigma—compound the impact on youth well-being. AIDS orphans have been shown to be at higher risk of internalizing problems, depression, anxiety, anger, hopelessness and suicidal thoughts than non-orphans (Atwine, Cantor-Graae and Bajunirwe, 2005; Makame, Ani and Grantham-McGregor, 2002). Compared to other types of orphans, as well as non-orphans, youth orphaned due to AIDS are not only at higher risk of suffering mental-health conditions, but also experience a more negative

trajectory, with increased mental-health conditions over time due to the impact of AIDS-related stigma on mental health (Cluver, Orkin, Gardner and Boyes, 2012). Adolescents orphaned by AIDS who keep the cause of parental death a secret due to stigma and the risk of discrimination present additional stress and isolation, exacerbating bereavement and coping challenges (Thupayagale-Tshweneagae and Benedict, 2011).

#### RISK FACTORS CONTRIBUTING TO THE DEVELOPMENT OF MENTAL-HEALTH CONDITIONS IN YOUTH

This section considers the risk factors for mental-health conditions. Many aspects of life – including poverty and social exclusion, circumstances such as bullying, traumatic events, and conflict and post-conflict experiences – have deleterious impacts on mental-health conditions among youth. In many cases, perpetrators of bullying and violent events also suffer from mental-health conditions whereas, traditionally, more emphasis is given to victims. The section concludes with a discussion on the risk factors that contribute to the development of mental-health conditions in youth living in low- and middle-income countries. While many of the risk factors associated with mental-health conditions for youth in low- and middle-income countries are the same as those in high-income countries, young people in low- and middle-income countries face a particular set of risk factors, such as poor nutrition, lack of resources, poor educational systems, conflict, war and displacement.

A variety of risk factors for mental-health conditions is considered next, with a particular focus on bullying, stress, traumatic events, exposure to conflict, and poverty. Evidently, youth may face a number of stressors in the course of their development, and it is often more the accumulation of these risks which portends greatest risk, rather than any one particular experience (Bradshaw, Rebok and others, 2012; Rutter, 1989).

#### **Bullying and peer rejection**

Bullying is broadly defined as intentional, and repeated, acts of aggression that take physical (e.g. hitting, theft), verbal (e.g. harassment, threats, name-calling) and relational (e.g. spreading rumours, influencing social relationships) form. Bullying typically occurs in situations where there is a power or status difference (Olweus, 1993; CDC, in press). In high-income countries, bullying represents a significant and worrisome problem for many school-aged youth, as it is one of the most common forms of aggression and victimization experienced by school-aged children (Nansel and others, 2001). The prevalence of frequent involvement in bullying appears to increase in late elementary school, peak during middle school, and decline in high school (Olweus, 1993). As a result, much of the research on bullying has focused on middle-school aged youth.

WHO has been assessing rates of bullying across the globe since the late 1990s (Craig and others, 2009). The WHO study of 40 developing countries showed that the rate of youth exposure to bullying ranged from 8.6–45.2 per cent among boys and 4.8–35.8 per cent among girls.

Although there is a growing body of research across the globe suggesting that frequent involvement in bullying can have pervasive, long-lasting effects on children's social and emotional functioning (Nansel and others, 2001), including externalizing and internalizing problems (O'Brennan, Bradshaw, and Sawyer, 2009), these effects tend to vary as a function of

the youth's pattern of involvement in bullying. Generally speaking, the research suggests that youth that are involved in bullying both as perpetrator and target evince the most serious types of behavioural and mental-health conditions (Bradshaw, O'Brennan, and Sawyer, 2008; Bradshaw, Waasdorp, Goldweber and Lindstrom Johnson, 2013; O'Brennan and others, 2009). A recent study indicated that bully/victims are over 12 times as likely as non-bullied youth to be a member of a gang, and nearly 13 times more likely to have carried a weapon (Bradshaw, Waasdorp and others, 2013). These findings highlight the mental-health risk associated with bullying.

#### Adverse and traumatic events in children and youth

A growing body of research documents the link between adverse life events and a variety of mental-health conditions (Jordanova and others, 2007). Cross-sectional and longitudinal studies of adverse life events have shown an association with mental-health conditions (Kessler, 1997). Research has found that most episodes of depression, perhaps as many as 50 per cent, are preceded by a major life event (Kessler, 1997). The psychological toll claimed by stress also plays a role in the etiology of other mental-health conditions such as PTSD and anxiety.

The most consistent depression research findings are that stressful life events—both major and minor—often precede the onset of depression, and that an accumulation of stressors can have a graded relationship with the severity of the resulting depressive disorder (Lewinsohn, Hoberman, and Rosenbaum, 1988). Adverse life events, such as physical assault, death of a close relative, unemployment, or termination of a romantic relationship, have been found to be associated with more severe depression. The greatest risk of onset appears to occur within one month of the stressor event (Lewinsohn and others, 1988).

Not surprisingly, stress has been linked with lower overall productivity and tends to contribute to distal adverse outcomes, such as poor academic or work performance, risk of accident and injury, and low socioeconomic status (Swaen, van Amelsvoort, Bültmann, Slangen and Kant, 2004). Stress can affect social relationships, such as by disrupting the social environment and social interactions in ways that, in turn, can create vulnerability to further psychological and physiological distress, or can exacerbate the effects of the existing stress (Joiner, 2000).

Research with regard to traumatic experiences has indicated that exposure to traumatic events among children and adolescents is highly prevalent both in low- and middle-income countries and within urban communities in high-income countries (Bradshaw and Garbarino, 2004; Briggs and others, 2013; Fairbank, 2008). Traumatic events may include natural disaster, catastrophe caused by human error, catastrophe caused by failed equipment, physical or sexual assault, rape, robbery/mugging, serious motor-vehicle accident, witnessed violence, injury or death, combat, torture or imprisonment, threat of harm to self or loved ones, domestic violence and physical abuse, fire and burn survivors, destruction of one's home, and life-threatening illness. Studies utilising community samples have reported a wide range of prevalence estimates for experienced traumas among youth, from 43 per cent (Giaconia and others, 1995) to 84 per cent (Vrana and Lauterbach, 1994) with prevalence rates varying significantly across, and within, countries. For example, researchers in South Africa, which has a history of high rates of violent crime (Suliman and others, 2009), have reported estimates of traumatic events among youth ranging from 82 per cent (Fincham, Altes, Stein, Seedat and others, 2009) to 100 per cent (Ensink, Robertson, Zissis, Leger and others, 1997).

Some of the most common types of trauma reported among adolescents include physical assault, domestic violence, impaired caregiver, emotional abuse, community violence, witnessing someone being hurt or killed, unexpected news of a loved one's death and sudden accident or illness (Briggs and others, 2013; Giaconia and others, 1995). Traumas may occur very early in a young person's life, frequently before the age of 14 and, in some cases, even before the age of 10 (Giaconia and others, 1995), with younger children more likely than older children and adolescents to report traumas such as domestic violence and neglect (Briggs and others, 2013). These are often referred to collectively as 'adverse childhood events' and have been shown to produce physiological changes in brain activity and stress responsiveness (Anda and others, 2006; Bradshaw, Rebok and others, 2012). Some studies have found that males are more likely than females to experience traumas such as witnessing violence or physical assault, while females are more likely to experience sexual violence (Foster, Kuperminc and Price 2004; Hanson and others, 2008), however, some have found no difference between sexes in terms of types of traumas experienced (Giaconia and others, 1995).

Youth in urban settings and those belonging to minority groups may be at increased risk of experiencing traumas (Abram and others, 2004; Foster and others, 2004; Garbarino, Bradshaw and Vorrasi, 2002). Those youth, whose parents or caregivers have low socioeconomic status, have also been found to be at increased risk (Cox, Kotch, Everson and others, 2003). Recent studies of youth and adolescents have found that the vast majority of individuals are more likely to experience multiple life-threatening or terrifying events than a single traumatic event (Briggs and others, 2013; Suliman and others, 2009). A clinical study in the United States among children who had experienced trauma found that 77 per cent had reported more than one type of exposure and 31 per cent had experienced five or more types of trauma (Briggs and others, 2013). Exposure to violence can impact youths' mental health, well-being and ability to develop healthy relationships. The recent study of students in the eighth to tenth grade in South Africa (Reddy and others, 2010) found that youth are facing difficult issues such as increased exposure to crime and violence, inequality and poverty. As a consequence, mental-health conditions and behavioural problems are becoming more prevalent in that country.

Research has demonstrated that experiencing these traumatic events increases the risk of developing a range of mental-health conditions in youth, including PTSD, depression and anxiety disorders (Briggs and others, 2013; Dyregrov and Yule, 2006; Pine and Cohen, 2002; Briggs and others, 2013; Giaconia and others, 1995; Pine and Cohen, 2002). Estimates of PTSD prevalence among adolescents are varied: a community sample in the United States found a lifetime prevalence among older adolescents to be 6 per cent (Giaconia and others, 1995) while Kessler and others (1995) reported a lifetime prevalence of 10 per cent in other samples (Kessler and others, 2005). Similarly, Elklit (2002) reported a 9 per cent lifetime prevalence among adolescents in a representative sample in Denmark. Many studies of PTSD are conducted in post-disaster settings, either man-made or natural (Dyregrov and Yule, 2006). The estimates of PTSD among these samples are more highly varied than the community samples. For example, a review by La Greca and Prinstein (2002) found that, following natural disasters, moderate to severe symptoms of PTSD were experienced by 30-50 per cent of adolescents (La Greca and Prinstein, 2002).

Traumas have been associated with depression and anxiety in many samples as well, and often occur as comorbid conditions with PTSD (Fan, Zhang, Yang, Mo, Liu and others, 2011; Kolltveit and others, 2012; Suliman and others, 2009). In addition to these psychological morbidities, trauma can have lasting effects on an adolescent's overall functioning and

development (Clark, Thatcher, Martin and others, 2010; Pynoos, Steinberg, Piacentini and others, 1999), poor performance in school (Carrion and Hull, 2010), familial problems (Clark and others, 2010) and poor physical health (Pynoos and others, 2009).

Previous research in adults has revealed that exposure to multiple traumas may be associated with an increased risk of mental-health conditions - including PTSD, depression and anxiety - compared to exposure to a single traumatic event (Green and others, 2000; Miranda and others, 2002). Similarly, research with youth has found that those who experience multiple traumas are more likely to develop PTSD or depression than those who experience one traumatic event (Suliman and others, 2009) and are also more likely to experience more subsequent traumas (Cook and others, 2005). In addition to the number and type of trauma experienced, other risk and protective factors for PTSD have been identified. Low socioeconomic status and being female are both risk factors for developing PTSD among adolescents (Cox and others, 2003; Hanson and others, 2008; Hunt, Martens, Belcher and others, 2011). A family history of mental illness may double the risk of exposure to trauma (Costello, Erkanli, Fairbank, Angold and others, 2002), while higher amounts of social support have been found to be protective (Dyregrov and Yule, 2006; Meiser-Stedman, 2002; Pine and Cohen, 2002), especially support from parents (Salmon and Bryant, 2002). Sustained exposure to trauma during the developmental years of adolescence can be especially problematic because it may affect the development of the central nervous and neuroendocrine systems adversely (Dyregrov and Yule, 2006; Van der Kolk, 2003).

#### Conflict and post-conflict mental health

Many studies of mental-health conditions among youth in low- and middle-income countries have focused on post-conflict or disaster settings. Exposure to war and conflict remains one of the greatest risk factors for PTSD and other mental-health conditions among adolescents (Attanayake and others, 2009; Barenbaum, Ruchkin, Schwab-Stone and others, 2004). In conflict settings, children and adolescents often have disproportionately higher rates of morbidity and mortality compared with adults (Attanayake and others, 2009; Bellamy, 2005).

The types of trauma experienced in these settings may be quite different from those experienced by adolescents in community samples, and have been found to include: combat situations, being forced into the role of child soldier, fleeing or being forced from their homes, witnessing violence - particularly the death of loved ones and the loss of parents or caregivers (Attanayake and others, 2009; Machel, 1996; Wexler, Branski and Kerem, 2006; Mollica and others, 2004). Often, children experience multiple types of trauma, which have been linked to the increased risk of PTSD and other mental-health conditions (Suliman and others, 2009).

The incidence of PTSD among children and adolescents affected by conflict (including refugees and displaced persons) has ranged from 25 per cent to 75 per cent across studies (Dyregrov and Yule, 2006); a recent meta-analysis concluded that approximately 50 per cent of children affected by war developed PTSD symptoms (Attanayake and others, 2009). Many studies on children affected by conflict focus on PTSD, with fewer including diagnoses of anxiety and depression and almost none focusing on psychotic disorders (Attanayake and others, 2009; Jordans and others, 2009). Clearly, PTSD is an important outcome to measure in such settings, yet the lack of data on other mental-health conditions in these contexts is a significant limitation in the field, and an area in which future research should be concentrated.

Children displaced by war represent an acutely vulnerable group and may be at increased risk of suffering mental-health conditions (Hepinstall, Sethan, Taylor and others, 2004; Fazel and others, 2012; Reed, Fazel, Jones, Panter-Brick and Stein, 2012). A review by Reed and colleagues (2012) of refugee and displaced children resettled in low- and middle-income countries focused on risk and protective factors associated with mental health among this population. Sex was found to be a significant risk factor, such that males had an increased risk for externalizing symptoms. Females tended to have a higher risk for internalizing symptoms, such as depression and anxiety, than males (Mels and others, 2010; Sujoldzić and others, 2006; Van Ommeren and others, 2001).

Additional risk factors for mental-health conditions included parental psychiatric problems (Angel and others, 2001), repeated exposure to violence (Ellis, MacDonald, Lincoln, Cabral and others, 2008) and prolonged residence in refugee camps. A review by Tol, Song and Jordans (2013) of studies on resilience in children affected by war in low- and middle-income countries found that individual coping strategies (Fernando and Ferrari, 2011), positive self-perception (Kryger and Lindgren, 2011) and perseverance and self-esteem (Betancourt and others, 2011) were protective factors for mental health problems. Family-level factors, including family connectedness (Sujoldzic, 2006) and family cohesion (Berthold, 1999; Sujoldzic and others, 2006) have also been found to be protective.

Children displaced by war may be resettled in high-income countries that have greater resources for mental-health care than their home country; however, there are additional challenges that may affect their mental health adversely in these settings (Fazel and others, 2012). These challenges may include discrimination based on race or culture, bullying, immigration policies and low neighbourhood connectedness (Goldin, Levin, Persson, Haggolf and others, 2001; Rothe and others, 2002; Sujoldzic and others, 2006; Rothe and others, 2002). Those youth who are able to integrate more readily into their new community yet still retain aspects of their cultural identity have been found to have a lower risk of mental-health problems after migration (Fazel and others, 2012).

Children who are affected by conflict and either remain in their own country or are displaced to another low- or middle-income country often have few options for care services due to continued political instability and/or a lack of resources or funding for mental-health care (World Health Organization, 2008). There is evidence that the end of conflict brings a natural reduction in post-traumatic symptoms among some children (Laor and others, 1997; Punamaki, Qouta, El-Sarraj and others, 2001); however, many children may have severe symptoms that may persist for years without treatment (Dyregrov, Gjestad and Raundalen, 2002; Kinzie and others, 1989; Kuterovac, 2003). Finding appropriate service mechanisms for children affected by conflict is therefore critical, especially given that some studies have indicated that mental-health conditions related to the conflict may not present themselves until later in life, and may affect the child's progress through adolescence and adulthood (Barenbaum and others, 2004; Cohen, Brom, Dasberg and others, 2001). Systematic reviews (Barenbaum and others, 2004) have emphasized the need for programmes (including both assessment and treatment) to be developed and sustained within the home countries of adolescents affected by war. Increasingly, efforts are being made to develop interventions for children affected by conflict. A recent meta-analysis by Peltonen and Punamaki (2010), however, found that, while a number of programmes appeared to lower both PTSD and depression symptoms, many studies employed weak designs and few focused on multiple domains of child development and psychosocial well-being. A review by Jordans and others (2009) found only two randomized, controlled, trials-testing interventions for

youth affected by conflict in low- and middle-income countries. A randomized trial of adolescents in Uganda found a reduction in depression symptoms among girls who had received interpersonal group therapy (Bolton and others, 2007) and a trial in Bosnia found that a parent-child interaction intervention improved maternal mental health and child psychosocial functioning significantly (Dybdahl, 2001). Despite these positive results, Jordans and others (2009) recommended a more theory-driven approach to developing interventions for children affected by conflict, and more rigorous study designs as implemented by two randomized trials (Bolton and others, 2007; Dybdahl, 2001).

#### Mental-health conditions of youth in low- and middle-income countries

In low- and middle-income countries, children and adolescents represent over half of the overall population (UNICEF, 2008). Up to 30 per cent of disability-adjusted life years among young people aged 30 and under have been attributed to mental-health conditions (Kieling and others, 2011; Lopez, 2006). A systematic review of epidemiological studies conducted in low- and middle-income countries with non-referral samples found the prevalence of mental-health conditions among children and adolescents to range from 10 per cent to 20 per cent, a range consistent with that observed in high-income countries (Kieling and others, 2011).

Many of the risk factors associated with mental-health conditions among adolescents in low- and middle-income countries are shared with adolescents in high-income countries, including genetic risk factors, physical health status and the physical and mental health of parents or caregivers, especially maternal mental health (Benjet, 2010; Kieling and others, 2011; Zashikhina and Hagglof, 2007). Risk factors occurring at higher rates in low- and middle-income country context include poor nutrition, lack of resources for physical and mental health care, poor educational systems and, as discussed in the previous section, conflict, war and displacement (Zashikina and Haggolf, 2007; Arun and Chavan, 2009; Mels and others, 2010; Kieling and others, 2011).

Despite the high prevalence of mental-health conditions among youth in low- and middle-income countries, and the preponderance of factors through which the risk of developing such problems is increased in these settings, the vast majority of youth do not receive mentalhealth care services of any kind (Belfer, 2008; Patel, Flisher, Nikapota, Malhotra and others, 2008). The Child Atlas Project conducted by the World Health Organization indicated that funding for mental-health resources was rare in low- and middle-income countries, and that the majority of countries participating in the survey had no governmental body responsible for mental-health care (Belfer, 2008; Kieling and others, 2011). This has created a substantial gap between the mental-health needs of youth in low- and middle-income countries and the resources available to them (Belfer, 2008; Jordans and others, 2009; Patel and others, 2008). The lack of priority placed on mental health is even more distressing given that mental-health conditions experienced by youth can have lasting consequences into adulthood, both in terms of overall health and educational achievement (Conti, Heckman, Urzua and others, 2010; Currie and Stabile, 2009). Further, a number of studies have indicated that interventions conducted in lowand middle-income countries can be effective in reducing mental-health symptoms among youth (e.g. see systematic reviews by Jordans and others, 2009; Patel and others, 2007; WHO, 2010b).

## SERVICE UTILIZATION AND HELP-SEEKING BEHAVIOUR AMONG YOUNG PEOPLE

This section examines the help-seeking behaviour of young people affected by mental-health conditions and offers a set of programming approaches for addressing the mental-health conditions of youth in all aspects of their life. Traditionally, services for young people suffering from mental-health conditions have been grossly inadequate. Moreover, when these services are available, the rates of service utilization by youth with mental-health conditions have been low. The fear of social exclusion and stigmatization prevents young people from seeking help and utilizing services. The section concludes that interventions which support youth in all aspects of their life - family, school, place of work, and community - are vital for addressing mental-health conditions in young people.

Despite the high prevalence of mental-health conditions and the preponderance of risk factors for these problems among children and adolescents, mental-health services for this population are often insufficient or go under-utilized (Blanco and others, 2008; Eisenberg, Hunt, Speer and others, 2012; Leaf and others, 1996; Zwaanswijik, Verhaak, Bensing, Van der Ende, Verhulst and others, 2003). For example, a study of a nationally-representative sample of college students in the United States found that, among those who had had a mental-disorder diagnosis within the past year, only 18 per cent had obtained some kind of mental-health service (Blanco and others, 2008). In another study, less than 50 per cent of students who had had serious suicidal ideation in the past year had received any mental-health treatment (Drum, Brownson, Burton Denmark and Smith, 2009). In a survey of over 13,000 students in the Healthy Minds project, only 36 per cent of those with a mental-health problem had received services within the past year and, among those, half did not even receive what is considered to be minimallyadequate treatment (Eisenberg, Hunt, Speer and Zivin, 2011; Eisenberg and others, 2012). The problem extends beyond college students as well: only 21 per cent of non-college-aged young people (19-25 years of age) with a mental-health diagnosis in the past year received any form of treatment (Blanco and others, 2008).

Service utilization has been associated with a number of demographic variables, including gender and age. Help is more often sought for boys in childhood and early adolescence and for girls in late adolescence (Boldero and Fallon, 1995; Zwaanswijk and others, 2003). Another factor is parental education, such that the children of parents with higher levels of education were more likely to receive services than children of parents with less education (Farmer and others, 1999; Zwaanswijk and others, 2003). Cultural factors may also play a role in help-seeking behaviour among young people (Barker, Olukoya and Aggleton, 2005) and may partially account for differences in help-seeking and service utilization rates across countries. These cultural factors may include the way in which the mental-health condition is perceived by the child and his/her caregiver, and the stigma associated with the mental-health condition or with seeking treatment for it (Barker and others, 2005; Cauce and others, 2002; Michelmore and Hindley, 2012).

Adolescents often feel inclined to deal with mental-health conditions completely on their own, with no support from anyone (Sheffield, Fironeza, Sofronoff and others, 2004). When they do seek assistance, children and adolescents tend to use more informal service systems (Sheffield and others, 2004), often first seeking counsel of family and friends before considering help from professionals, especially for emotional problems (Boldero and Fallon, 1995; Rickwood, Deane, Wilson, Ciarrochi and others, 2005). In a study of young people in Australia,

researchers found that parents, friends and teachers were three of the most important sources of help among those with a mental-health condition (Rickwood and others, 2005). Although social support from family and friends has been found to be protective for a number of health problems in literature, these resources may not be adequate for serious mental-health conditions experienced by young people (Walcott and Music, 2012). In trying to improve service utilization among youth, it is thus important to keep in mind that they often prefer to seek help from these informal sources, and to develop formal services around these support systems so as to increase utilization. Options may include school-based programmes (Mason-Jones and others, 2012; Walcott and Music, 2012), parental educational initiatives about mental health (Power, Eiraldi, Clarke, Mazzuca, Krain and others, 2005) and interventions that include the child's natural support systems, such as parents or other family (Coatsworth, Santisteban, McBride, Szapocznik and others, 2001). As indicated throughout the present report, early intervention is critical, as mental-health conditions in youth are strongly associated with mental-health disorders later in life (Kim-Cohen and others, 2003).

#### Institutional barriers to service utilization for young people

Research indicates that only approximately 28 per cent of adults within the United States with mental illness actually received care in the previous year (Substance Abuse and Mental Health Publications (SAMHSA), 2010). The resources are considerably more limited in low- and middle-income countries, where young people face additional barriers to care: the ambiguously-defined period of 'adolescence' is often categorized – for service provision purposes – with either children or adults, rather than recognizing emerging adulthood as a unique developmental stage (Patel and others, 2007). In addition, help-seeking behaviour comes less readily to young people, who may be even more influenced by stigma, embarrassment and lack of basic knowledge about mental health (Saxena and others, 2007).

Health disparities do exist globally wherever any economic, social and cultural barrier limits access to care further. When young people do access formal mental-health or support services, these programmes may be provided through schools, community-based organizations, Government programmes (such as foster care, juvenile justice and social security), and other systems (Podmostko, 2007). Services provided to youth are often influenced more by the point of entry into the maze of systems rather than the youth's actual needs. For example, the authors discussed different potential responses to a depressed adolescent with truancy issues: whereas a mental-health service would address the depression primarily through counselling, the school system might instead pursue a truancy action. Since each system has its own procedures, terminology and eligibility criteria (Podmostko, 2007), service providers unfamiliar with external resources will draw, typically, only from their own system, creating tunnels of service provision from which it is difficult to diverge. The result is inefficiency, due to poorly-coordinated mentalhealth services rather than a comprehensive system of care that would enable youth to receive the most appropriate services available (Ross and Miller, 2005). Furthermore, the authors point out that the system response to youth is influenced by cultural and institutional factors, such as differential response by race, again resulting in services driven by external priorities or bias, rather than by individual needs.

Service inefficiency is exacerbated further during youths' transition to adulthood, as service provision during this time is influenced more by institutional and bureaucratic guidelines than the developmental needs of youths and young adults (Davis, 2003; Patel and others, 2007).

As the diagnostic and age criteria for programme eligibility vary between systems, young people ageing out of youth programmes encounter discontinuity in service eligibility, with gaps or 'transition cliffs' in which the same person is classified as a youth in one system but as an adult in another. This lack of standardized practice across systems may cause disruption in important mental-health services and loss of support and progress during a crucial period of development (Davis, 2003; Podmostko, 2007).

In countries where adult health insurance is often provided through school or work sources, emerging adults face the additional challenge of losing both private (parental) and public medical insurance during this transitional period (Heflinger and Hoffman, 2009; Podmostko, 2007; Wang, Grembowski and Watts, 2010). However, this likelihood may have different impacts on youth with and without mental-health conditions: youth with a physical or mental disability on public insurance are less likely to lose insurance eligibility than their non-disabled counterparts, whereas the opposite is true for youth with private health insurance (Wang and others, 2010). This may be due to eligibility pathways for public funding that prioritize individuals with identified health needs, while youth with disabilities who age out of their parents' health coverage face additional barriers, related either to lack of awareness about public service options or to decreased access to employer-based plans due to the high level of unemployment and low educational achievement in these groups (Wang and others, 2010).

As discussed previously, difficulties in accessing services may be compounded for youth in rural or low-resource areas, due to factors such as poverty, low service availability, lack of transportation and heightened stigma (Heflinger and Hoffman, 2009; WHO, 2003). These factors may not only serve as barriers to care, but may also contribute to a higher proportion of youth at high risk for transition problems in these areas (Heflinger and Hoffman, 2009). The bureaucratic constraints of institutional transitions may cause young adults to be treated either as children or adults in existing systems that may not be an appropriate fit, rather than as a distinct service population with programmes targeted to their unique needs (Davis, 2003; Patel and others, 2007). This poor fit is a particular concern in the case of youth with delayed psychosocial development (Davis, 2003). Child or adult services are often not attractive to young people, who may be much older or younger than most others receiving the service (Davis, 2003). A recent study analysing the impact of offering mental-health services designed specifically for youth in transition found that youth-specific programmes increased outpatient mental-health service utilization significantly compared to traditional adult services (Gilmer, Ojeda, Fawley-King, Larson and Garcia, 2012). Features of the youth programmes included staff with experience working with youth, collaboration with child-service systems to support transition to the adult system, and youth-specific topic emphasis, such as independent living skills and developmentally-appropriate social skills.

Counter to the poorly-coordinated service structures that too often occur in practice, Podmostko (2007) highlights the 'systems of care' approach as an ideal framework for responding to youth with mental-health needs, in which comprehensive services are provided through interagency coordination and in collaboration with the young person and his, or her, natural support structures. This approach focuses on building broad, cross-cutting partnerships and strong infrastructure to facilitate positive outcomes for youth. Pires (2002) presents a primer on building systems of care, explaining that these systems are youth- and family-focused, driven by youth needs and preferences, community-based and culturally competent. This represents a holistic view of youth needs by incorporating services from multiple domains rather than focusing solely on mental health.

Youth-centered, collaborative and multi-systemic services, such as those discussed above, represent good practices for supporting youth with mental-health conditions in coping with the unique challenges posed by the transition from dependent to independent living. Furthermore, supporting youth self-determination, development and social integration is key to promoting successful transition. For example, a recent study compared outcomes for foster-care youth with special educational needs enrolled in either a traditional transitional living programme or a self-determination mentoring programme (Powers and others, 2012). While youth in a transitional living programme received case management and peer support, classes on topics such as budgeting and building a resume and assistance applying for resources, youth in the intervention programme participated in individual, weekly sessions on self-determination skills to pursue youth-identified goals and transition planning. Following completion, those in the self-determination intervention reported a higher quality of life and greater use of transitional services, with higher employment rates and high school completion rates at one-year follow-up, than those in transitional living programmes (Powers and others, 2012).

However, a recent review of available transitional programmes revealed that - while there often exists an intent to support self-determination and collaboration with youth - the current state of institutional barriers to service encountered by transition-aged youth restricts choice and self-determination by limiting the service options available (Kang, Petr and Morningstar, 2012). The authors note that most of the programmes also failed to incorporate social justice principles or address the reality and impact of stigma and discrimination. They suggest that transitional programmes be improved by shifting away from the typical focus on individualism and independence and towards more social capital-inspired models that build on relationships and social supports as crucial to success.

#### Overcoming stigma

Youth living with mental-health conditions experience social, economic and political exclusion, impacting their ability to access already-scarce mental-health services and support to recover from their condition and rejoin their communities (Drew and others, 2007). For example, even in high-resource settings such as the United Kingdom, the majority of people living with mental-health conditions experience discrimination; stigma and discrimination impede service delivery even more in low- and middle-income countries (Chambers, 2010). Lack of public understanding of youth mental conditions, as well as the stigma attached to both treatment-seekers and treatment-providers, present barriers to care (WHO, 2003); in many places, this leads to formalized discrimination at the legal and policy level (Saxena and others, 2007). While recent shifts have contributed to increased acknowledgement and investment in youth mental health in many high-resource countries, there has been no similar shift in low- and middle-income countries' priorities (Patel and others, 2007), where tackling mental health tends to be seen as something of a luxury among so many other pressing concerns.

### Prevention, self-development and social integration of youth with mental-health conditions: approaches and programmes

Given the concerns about access to care and stigma, it is helpful to consider the role of mental-health promotion and the prevention of mental-health conditions, as this may reduce the need for services, and link everyday practice better with services through enhanced systems of care.

Multiple frameworks have been put forth to characterize both the public-health approach to prevention (e.g. Mrazek and Haggerty, 1994; O'Connell, Boat and Warner, 2009) and the continuum from health promotion to treatment (Weisz, Sandler, Durlak and Anton, 2005; O'Connell and others, 2009). These models are gaining increased recognition and some traction in diverse service settings, including education, juvenile justice and child welfare, in addition to the more traditional areas of medicine and public health, all with the goal of preventing mental-health conditions. These public-health models not only can be applied in multiple settings, they have utility for preventing and addressing a range of behavioural and mental-health conditions across the life course.

One of the earliest public-health approaches to prevention put forth by Caplan (1964) outlined primary, secondary and tertiary prevention. Specifically, primary prevention reduces or eliminates the incidence of a disorder, whereas secondary prevention focuses on early identification and treatment of the disorder. Tertiary prevention emphasizes the reduction of disorder-related impairment and disability. Although some researchers have challenged this approach (e.g. Gordon, 1983), this model dominated the field of prevention science until the early 1990s. In the United States, the Institute of Medicine's Committee on the Prevention of Mental Disorders and Substance Abuse among Children, Youth and Young Adults (Mrazek and Haggerty, 1994) proposed a slightly modified version of the Caplan model, in which the term 'prevention' was to be used for interventions administered before the onset of a clinicallydiagnosable disorder. In contrast, 'treatment' was to be used for the provision of services designed to reduce the symptoms of, or treat, an existing disorder. Finally, the term 'maintenance' was to be used for care that enhanced rehabilitation and reduced the risk of recurrence following resolution of an episode of acute mental disorder (Muñoz, Mrazek, and Haggerty, 1996). The Institute of Medicine report also recommended the adoption of a modified version of Gordon's (1983) three-tiered prevention framework for mental disorders, which advocated universal, selective and indicated preventive interventions:

*Universal* preventive interventions target an entire population group (e.g. mass media for suicide prevention hotlines and campaigns against smoking, school-wide social-emotional curriculums to prevent mental-health conditions).

*Selective* preventive interventions target high-risk subpopulations as determined by biological, psychological, or social factors empirically associated with the onset of a disorder (e.g. coping-skills training for children of depressed parents).

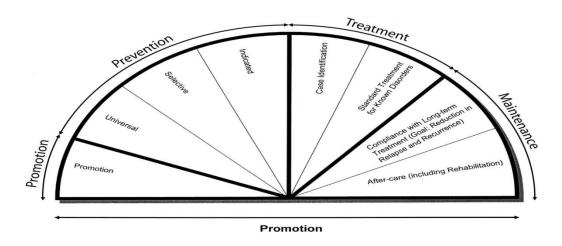
*Indicated* preventive interventions target individuals at highest risk of developing the disorder based on subclinical signs that do not yet meet full diagnostic criteria (e.g. mood management for high school students with elevated depression symptoms (Muñoz and others, 1996).

In an updated version of the original report by Mrazek and Haggerty (1994), the Institute of Medicine expanded upon the three-tiered framework to include the broader continuum, spanning mental-health promotion through treatment (see Figure 1; O'Connell and others, 2009). They defined *promotion* as "efforts to enhance individuals' ability to achieve developmentally-appropriate tasks (competence) and a positive sense of self-esteem, mastery, well-being and social inclusion and to strengthen their ability to cope with adversity" (p. 67). Mental-health promotion generally targets entire populations within a particular setting (e.g. schools or

workplaces) and focuses on adaptive, positive aspects of functioning, irrespective of risk. As displayed in Figure 1, the prevention continuum in mental health ranges from the promotion of positive mental health in the general population to the maintenance of treatment gains among those treated for mental-health conditions. Prevention strategies—universal, selective, or indicated—must be designed taking into consideration the most appropriate environmental level at which to intervene and must be implemented in carefully selected settings within that ecology (Weisz and others, 2005).

Figure 1

The Institute of Medicine Promotion Maintenance Continuum (United States of America)



A supportive system for self-development and social integration – operating at various levels, such as personal, family, school or neighbourhood, and at the broader, societal level – is key to addressing the mental-health conditions of youth in all aspects of their life. Transition brings a unique set of challenges as youth with mental-health conditions move away from dependent to independent living. The community support system needs to focus on personcentred planning: engaging the young person's parents, peers, educators and family in developing strategies clarifying to each their specific role in the process and maintaining programme focus on outcomes rather than outputs. These roles are considered in greater detail below, and specific examples of research-based programmes are provided across various ecological contexts, beginning with the family.

#### Family-focused programmes

A number of preventive interventions target younger populations with the goal of producing significant impacts in adolescence and early adulthood. Early intervention has been shown to be more cost-effective compared to intervention in later life (Kieling and others, 2011; Carneiro and Heckman, 2003). One of the most meaningful, cost-efficient preventive interventions is the Nurse–Family Partnership, which targets young mothers during the first two years of the child's

life; many of these mothers are under the age of 24 and, thus, better considered youth themselves. This multi-component programme has demonstrated a range of proximal impacts for mothers and children, including reduced rates of domestic violence, as well as distal impacts for children up to 20 years later, such as reduced aggressive behaviour and criminality (Eckenrode and others, 2010).

The Nurse–Family Partnership combines educational support, parent training and health support to prevent emotional and physical harm associated with early risk factors. Home visiting generally involves regular visits to pregnant women or new mothers by health professionals such as nurses and social workers. These programmes target a host of public-health concerns, such as pre-term delivery, low birth weight, infant mortality, child abuse and neglect, childhood injuries, parenting skills, intimate partner violence and child and parent mental health. The randomized trials of the Nurse–Family Partnership have demonstrated reduced behavioural problems and problem internalization during childhood in the child, as well as a decrease in maternal substance abuse and reduced early-onset antisocial behaviour during the child's adolescence. By age 19, the target girls had fewer children and were less likely to have been arrested or to have become reliant on Medicaid than their peers who had not participated in the programme (Eckenrode and others, 2010).

There exist other evidence-based, family-focused prevention models. The Positive Parenting Programme includes five levels of parent training: from an initial universal component using mass media to disseminate information about effective parenting strategies, to a selective-skills training component for the parents of children with behavioural problems, to an indicated component of up to 12 sessions for parents with children manifesting serious behavioural problems. This third level addresses such issues as marital problems and parental depression. Multiple trials in the United States of America and Australia have found the overall programme to be effective in reducing child behavioural problems (Prinz, Sanders, Shapiro, Whitaker, and Lutzker, 2009). The Adolescent Transitions Programme applies a tiered, public-health framework to reduce and prevent adolescent substance use and antisocial behaviour, which has universal, selective and indicated components (Dishion and Kavanagh, 2003). Various versions of the programme have shown benefits for adolescents, such as reductions in aggressive behaviour, school problems and substance use.

Another family-focused model is called Wraparound, as it intends to support youth and families across multiple ecological contexts. The complexity of the system of service delivery, and the need to individualize services for each child, requires that a case manager, or care coordinator, be assigned to help each family access services and assist the service providers in their collaboration. All agencies involved, as well as the child and family, must participate actively in decision-making regarding the student's care (Burns and others, 2000). The team develops an individualized service plan based on a wraparound approach. The wraparound requires that services be individualized and child- and family-centred. In the wraparound process, a child is not simply placed into a pre-existing, categorical programme, but rather, multiple services are tailored or created and wrapped around the student's individual needs and strengths. As an individualized approach, this process can be an important aspect of selective and indicated strategies and is an extension of interventions provided and described above, in community and school applications of multi-tiered systems of support (e.g. Eber, Hyde and Suter, 2011). Other models similar to Wraparound that have been shown to demonstrate positive impacts on youth include Multisystemic Therapy (Henggeler, Cunningham, Pickrel, Schoenwald

and Brondino, 1996), Multidimensional Treatment Foster Care (Chamberlain, 1996) and Functional Family Therapy (Alexander, 1982).

#### School-based programmes

Although there exist effective, school-based preventive interventions at the universal, selective and indicated levels, the majority of research has focused on universal prevention programmes implemented during the early, elementary-school years. Drawing on prevention science and public-health models, many of these evidence-based programmes target risk and protective factors to help reduce disruptive behavioural problems in childhood and adolescence (Wilson and Lipsey, 2007). Fewer interventions focus on reducing the internalization of problems. Most current, effective interventions neither integrate prevention and treatment nor work across the three levels of prevention (Weisz and others, 2005). Many prevention-oriented, school-based programmes are broad in scope, yielding a variety of positive academic, emotional and behavioural outcomes for students and schools. For this reason, the programmes reviewed in this section are organized by level of prevention rather than by targeted outcome. The programmes span developmental periods, targeting students from preschool to college.

Another framework used worldwide is that of Social and Emotional Learning, which promotes the processes of developing social and emotional competencies in children (Collaborative for Academic, Social and Emotional Learning (CASEL), 2008). Social and Emotional Learning Programming is based on the understanding that the best learning emerges in the context of supportive relationships that make learning challenging, engaging and meaningful; social and emotional skills are critical to being a good student, citizen and worker; and many different kinds of risky behaviour (e.g. drug use, violence, bullying and dropout) can be prevented, or reduced, when multi-year, integrated efforts are used to develop students' social and emotional skills. This is best done through effective classroom instruction, student engagement in positive activities both in and out of the classroom, and broad parent and community involvement in programme planning, implementation and evaluation.

Five interrelated sets of cognitive, affective and behavioural competencies have been developed: self-awareness, self-management, social awareness, relationship skills and responsible decision-making. Social and Emotional Learning is strengths-focused and aims actively to build assets and positive, pro-social behaviour and attitudes. Social and Emotional Learning Programmes centre on participation and practice inside and out of the classroom, both to build individual skills and to aid generally in fostering positive, and supportive, school and community environments.

Many of the programmes that teach Social and Emotional Learning skills have now been evaluated rigorously and found to have had positive impacts (Durlak, Weissberg, Dymnicki, Taylor and Schellinger, 2011). Schools are highly-effective settings for teaching Social and Emotional Learning skills, but similar activities can also be implemented in after-school settings and communities (Durklak, Weissberg, and Pachan, 2010). Teaching Social and Emotional Learning skills helps create—and maintain—safe, caring learning environments. The most beneficial programmes provide sequential and developmentally-appropriate instruction in Social and Emotional Learning skills. They are implemented in a coordinated, school-wide manner, from preschool to high school. Lessons are reinforced in the classroom, during out-of-school activities and at home. Educators receive ongoing professional development in social and emotional learning, and families and schools work together to promote children's social,

emotional and academic success. Many programmes related to children's social and emotional development focus on a single problem or issue such as preventing substance use, whereas Social and Emotional Learning is an inclusive approach that covers the entire spectrum of social and emotional competencies that help children to be resilient and successful learners.

Promoting Alternative Thinking Strategies (PATHS) (Greenberg, Kusche and Mihalic, 1998) is one such universal, school-based and Social and Emotional Learning curriculum that has demonstrated positive effects on elementary-school-aged children. Using a developmentally-appropriate curriculum and activities that teach self-control and emotional regulation skills, the programme has been found to reduce both internalizing and externalizing behaviour within one year after the intervention. A large, multisite trial of children from high-risk neighbourhoods resulted in improved pro-social behaviour as well as significantly-reduced aggressive, inattentive and poor academic behaviour. Similar effects have been observed for PATHS in the United States, the United Kingdom and Croatia.

The Good Behaviour Game is another school-based, universal preventive intervention that has received considerable empirical support. This classroom-based, behavioural management strategy is based on social learning principles designed to improve academic instruction by reducing aggressive, disruptive and off-task student behaviour. The long-term effects of the Good Behaviour Game, both independently and in combination with academic interventions, have been tested in a series of large-scale, randomized controlled trials. When delivered in first grade, the Good Behaviour Game was associated with reductions in aggressive and disruptive behaviour as well as in diagnoses of conduct disorder in middle school (Kellam, Ling, Merisca, Brown and Ialongo, 1998). Longer-term benefits, evident at ages 19–21, included reduced rates of antisocial personality disorder, drug and alcohol abuse and dependence, tobacco use (Kellam and others, 2008), less frequent use of school-based mental-health services and decreased violent behaviour. When combined with instructional components and delivered in first grade, the Good Behaviour Game reduced the likelihood of conduct disorder, school suspension, and special-education service receipt, and increased both high school graduation and college attendance, while also improving performance on standardized tests (Bradshaw, Zmuda, Kellam and Ialongo, 2009). Similar effects have been observed for the programme when implemented in the United States and in the Netherlands.

The LifeSkills Training Program (Botvin, Griffin, and Nichols, 2006) is an interactive, skills-based, universal prevention programme designed to lower substance use and promote adaptive skills. Trials of LifeSkills found that it had a significant impact on reducing substance use and violence among middle-school students. A recently-developed high-school version of the programme uses developmentally-appropriate, collaborative learning strategies to help students achieve competency. While the high-school programme has yet to be tested in randomized controlled trials, programme evaluations have demonstrated promising outcomes on substance use among high-school students.

The Coping Power Programme (Lochman and Wells, 2004) – a school-based, indicated, preventive intervention – has produced significant effects among pre-adolescent students with aggressive or disruptive behavioural problems. This multicomponent programme applies a contextual, social-cognitive framework addressing both parenting processes and children's sequential cognitive processes. The intervention, delivered to parents and students over one to one-and-a-half academic years, provides training in social skills and problem-solving, while addressing the social-cognitive factors and mechanisms involved in aggressive and disruptive behaviour. Randomized trials of the programme have indicated that, relative to a comparison

group, participants experienced lower rates of substance use and proactive aggression, improved levels of social competence, and significant teacher-rated behavioural improvement. The Coping Power intervention was found to have positive effects after one year of programme delivery, including improved teacher-rated behaviour and parent-rated substance use (Lochman and Wells, 2004). Replications of this model are currently underway in Europe where, historically, there have been fewer school-based student support services (e.g. Italy).

Positive Behaviour Interventions and Supports (PBIS) is another approach to preventing and improving problem behaviour in classrooms and schools by rewarding positive behaviour (Horner and others, 2009). Positive Behaviour Interventions and Supports encourages students to treat themselves and others with respect, by adhering to simple rules and expectations that are taught and reinforced. This three-tiered model follows the public-health approach to prevention. Implementation is led by a school-wide team representing administration, teaching staff and support personnel. In many schools, this team may also include a parent and, possibly, a mentalhealth provider from an outside agency. Over 22,000 schools across the United States are implementing PBIS, as are schools in several other counties, including Norway, the Netherlands, Finland, the United Kingdom and Australia. Recent randomized trials of the approach indicate that the PBIS model is associated with reductions in suspension rates and other disciplinary problems and increased academic performance and school climate (Bradshaw, Koth, Thornton and Leaf, 2009; Bradshaw, Mitchell and Leaf, 2009; Bradshaw, Pas, Goldweber, Rosenberg and Leaf, 2012; Bradshaw, Waasdorp and Leaf, 2012; Horner and others, 2009; Waasdorp, Bradshaw and Leaf, 2012). PBIS has demonstrated favourable effects on mental-health problems like concentration and aggressive behaviour.

When it comes to preventing bullying more specifically, several countries – including Australia, Canada, Finland, Norway, the United Kingdom and the United States – have been very active in developing and testing bullying-prevention programmes. The most widely-tested model is the Olweus Bullying Prevention Programme (Olweus and others, 2007), which aims to improve school climate and reduce bullying by establishing clear rules and procedures for reporting and handling bullying, collecting data to guide the implementation process, and providing more intensive support to youth directly involved in bullying. This particular model has shown itself to be more effective outside the United States than within (Ttofi and Farrington, 2011). A more recently developed model called KiVa, created in Finland, provides classroom materials and discussions between students and teachers, peer support for student victims, and disciplinary strategies and information for parents. KiVa has been shown, through large-scale trials, to reduce bullying (Kärnä and others, 2011). This promising model is currently being tested in the Netherlands and being adapted for the United States, Japan, Eastern Europe and other countries across the globe.

#### Community-based approaches

Often, at the community level, large-scale interventions are required to affect prevalence rates of adverse behaviour. Some community-based programmes, such as youth-mentoring initiatives, emphasize outcome improvements for a specific age group. The Communities That Care approach (Hawkins and Catalano, 2004) is an evidence-based, comprehensive, multi-tiered system of support that encourages the collection and systematic use of community-level data to identify areas of strength and need and to guide plans for preventive strategies based on a community's specific profile. Emphasis is placed on areas of greatest need, not those with the

largest populations and, because schools typically are included, Communities That Care frequently targets school-aged children and adolescents explicitly. The programme is built on the tenets underlying both social-control and social-learning theories, which hold that individuals' behaviour is influenced by the groups to which they belong. Interventions based on these theories aim to create pro-social norms and community bonds, both by providing opportunities, teaching the skills to be involved with a group and by creating a system of recognition for positive behaviour (Hawkins, Catalano, and Arthur, 2002). The Communities That Care approach accomplishes those goals by increasing communication among community members, guiding community mobilization and providing training. It involves being trained in a five-phase, data-driven, analytic, problem-solving approach, forming an action plan, selecting evidencebased interventions and implementing them. The approach has been implemented in Australia, the Netherlands, the United Kingdom and the United States of America. The end goal is to ensure healthy outcomes by having the involved community take ownership of the process. Studies of Communities That Care in the United States of America have documented consistently that – even with limited funding – communities can implement such an approach. Compared with non-CTC sites, CTC communities were more likely to select evidence-based prevention programmes for implementation (Fagan, Arthur, Hanson, Briney and Hawkins, 2011). Moreover, CTC resulted in better interagency collaboration and less service overlap and redundancy. Behaviour targeted by communities has included substance abuse, violence and crime, parenting skills and school outcomes. In a five-year, randomized, controlled trial across seven states and twenty-four communities, CTC sites implemented at least 75 per cent of the objectives or core components of the programmes chosen in the first year, deviated minimally from the programmes, and provided the appropriate intervention in the required dosage (frequency and duration) (Fagan and others, 2011). Programme attendance and retention were also high, with universal programmes reaching nearly all targeted middle-school students. However, training initiatives reached fewer than 10 per cent of parents. Findings were mixed with respect to parental knowledge, attitudes and behaviour. While parent training showed the most positive effects, selection bias may have skewed the findings (Fagan and others, 2011).

#### Workplace-based prevention

Mental-health conditions can impact productivity across a range of ecological settings, including the workplace. This can result in lost productivity, both for the individual and at a collective level. Mental disorders have been linked to reduced productivity at work and a reduction in the number of hours worked (Kessler and Frank, 1997). Some interventions – such as depression screening, outreach and treatment – have been shown to yield financial benefits to employers in addition to the individual mental-health benefits to employees (Wang, Simon, and Kessler, 2008). Thus, the workplace is a natural—and important—setting in which to deliver preventive interventions to young adults.

In high-income countries, the Internet is an increasingly common modality used in workplace interventions (Billings, Cook, Hendrickson and Dove, 2008). Check Your Drinking is one such web-based programme, based on theories of motivational interviewing and social norming. This model provides personalized, normative feedback to prevent and reduce high-risk alcohol use, targeting working adults aged 18–24 years (Cunningham, Humphreys and Koski-Jännes, 2000). A randomized, controlled trial indicated that the programme was effective in both preventing and reducing workplace alcohol use, as well as weekend drinking (Doumas and

Hannah, 2008). Another Internet-based prevention programme is Stress and Mood Management (Billings and others, 2008), which was created to help employed young adults manage stress, prevent depression and anxiety, and reduce substance use. It includes a variety of techniques, such as cognitive behavioural strategies, relaxation, problem-solving and time management skills, which are coupled with psycho-educational and other resources aimed at reducing stress (Billings and others, 2008).

A number of work-related preventive interventions, such as the JOBS programme in the United States, focus on reducing depression related to unemployment and increasing the probability of re-employment (Caplan, Vinokur, Price and van Ryn, 1989). Such interventions, typically, include delivering group sessions aimed at enhancing job-seeking skills and motivation, building confidence and self-efficacy, and improving mental health. In the case of JOBS, research suggests a noticeable impact on re-employment and reduced symptoms of anxiety and depression, in both the short term and over two years later (Caplan and others, 1989; Price, van Ryn, and Vinokur, 1992; Vinokur, van Ryn, Gramlich and Price, 1991; Vinokur, Schul, Vuori and Price, 2000). JOBS was also tested in Finland and reported similar impacts on stress and related mental-health problems in unemployed young adults (Vuori, Silvonen, Vinokur and Price, 2002). The programme is now being implemented in several communities in China, Ireland and Israel.

## Putting youth at the centre of interventions

Educators, peers, parents, counsellors and other stakeholders engaged in the youth mental-health support system should have respectful and caring attitudes to all youth. These supportive adults should be open-minded and non-judgmental, and focus on developing trusting relationships and maintaining awareness of the importance of diversity and youth culture, when working with youth with, or at risk of, developing mental-health conditions. Any system that supports youth with mental-health conditions should be able to recognize and address the need for intervention, advocate for, motivate, recruit and engage youth, understand youth disability and culture, and communicate with youth with physical, sensory, psychiatric or cognitive disabilities.

# Mental health intervention, early childhood and youth economic participation

International and non-governmental development organizations have also been slow to prioritize mental health, particularly among youth. Despite significant developments on the part of civil society in recent years – there now is non-governmental organization (NGO) activity in almost 90 per cent of countries worldwide on some aspect of mental-health programming – these activities are neither comprehensive nor sufficient to meet population needs (Saxena and others, 2007). A recent survey conducted by the World Health Organization to map available youth mental-health services provided by these groups found that—despite a variety of broader development programmes that did include them—psychosocial components tended to have narrower objectives and did not address youth mental health in a systematic manner; nor was youth mental health incorporated into country-level strategies. There were several barriers to successful widespread implementation, including a lack of informed guidelines and indicators, poor interagency collaboration, low awareness and funding allocation, technical and human resource limitations and the need for greater evidence on effective models of care (WHO, 2012).

A major consequence of the failure to address youth mental health is that youth with

mental-health conditions have continued to face additional challenges to their economic integration. Mental-health conditions restrict youths' ability to engage, to complete their education and to obtain the critical skills needed for employment. This, in turn, puts them at increased risk of future unemployment. The high rates of youth unemployment globally can also have a direct effect on youth mental health. Research has found consistently that, when youth move from their educational stage to the stage at which they expect to be employed, those who become employed have better mental-health status than those who were not able to obtain employment (Fryer, 1997). The extent to which this is because employment improves mental health, or because unemployment affects mental health, varies by context.

Clearly, the ages of 14-25 represent a key period of social and economic integration. However, the environment during a child's first few years of life in the early stages of their neurological and social development forms the physical, social, cognitive and emotional foundation for subsequent development. So – in particular when considering prevention strategies that could reduce the burden of mental-health conditions during youth – providing the right conditions for healthy early development is likely to be much more effective than treating problems later. Research has found that weak foundations in early childhood in children in extreme circumstances (such as orphans or those living in extreme poverty) can create problems that lead to lifelong challenges in learning, problematic behaviour later in life, and potential long-term physical and mental-health problems (Shonkoff, 2010).

## CONCLUSION

#### Define policies and services to benefit youth with mental-health conditions

Worldwide, mental health has been neglected by Governments and policymakers alike. Approximately one third of countries lack mental-health budgets, and many that do designate funding allocate less than 1 per cent of their overall health budget to mental health, with lower-income countries spending a smaller overall proportion of health funds on mental health than higher-income countries (Saxena and others, 2007). Disparities between need and available services exist in all countries; although treatment rates are higher in high-income countries than elsewhere, they still do not exceed 50 per cent of need (Patton and others, 2012). In low- and middle-income countries, the treatment gap often exceeds 75 per cent (Saxena and others, 2007; World Federation for Mental Health, 2011; WHO, 2011). In high-resource settings, underfunded and unequally-distributed programmes have contributed to these gaps, while additionally, low- and middle-income countries must combat an overwhelming lack of trained mental-health providers (WHO, 2003; Drew and others, 2007; Saxena and others, 2007).

Less than one third of low- and middle-income countries have a designated youth mental-health entity. The lack of youth-focused mental-health policies has negative impacts, not only on service coordination and delivery, but also on resource allocation and accountability (Kieling and others, 2011).

Policies and programmes aimed at de-institutionalizing youth with mental-health conditions and moving services into other systems of care, such as family, school- and community-based prevention programmes, may help overcome the potentially iatrogenic effects

of inadequate mental-health systems. Similarly, school-based policies targeting children with learning disabilities serve both as a vehicle for reducing barriers to service and for ensuring that access to care occurs in a normal setting where youth spend a considerable amount of their time. Policies are needed which require schools both to implement preventive programming (such as training in Social-Emotional Learning and Positive Behaviour Support), and to promote the integration of the full continuum (from promotion to indicated intervention to mental health services).

#### Efforts are needed to overcome stigma

As noted throughout this report, the widespread stigma attached to mental-health conditions jeopardizes the situation for youth with mental-health concerns. Stigma is the main cause of discrimination and exclusion: it affects self-esteem, disrupts relationships, and limits opportunities for socialization and independent living, including access to stable housing and employment. Changing the public perception of mental-health conditions is essential to addressing stigma at both a personal and a societal level. General awareness of mental-health conditions among service providers, educators, parents, peers and other stakeholders is still quite limited. These misconceptions lead to prejudice and discrimination, attitudes which are far too common. It is essential to use all available tools to overcome erroneous beliefs about mental conditions and promote social integration, through information dissemination and research to counter stereotypes and negative attitudes. Efforts to reduce stigma need to occur at a societal level. They should include training for practitioners and families, in order to create the opportunity for, and acceptance of, accessing services.

#### Reach out to non-formal support systems in developing countries

Research has shown that the vast majority of services for mental-health conditions in low- and middle-income countries are provided outside the health sector, by families and community, traditional and religious leaders. Although debate continues on the value and effectiveness of traditional healing practices for youth mental-health conditions, there is consensus on the importance of liaising with these services in order not only to provide a relevant entry-point into care and reintegration, but also to deliver services where they are sought, build on good practices, where possible, and build capacity and limit bad practices, where necessary.

#### Improve surveillance and programme monitoring and evaluation

Improved surveillance and programme monitoring and evaluation will aid in the identification of risk of youth mental-health conditions, as well as of protective factors to be targeted through preventive interventions. It is critical that data be collected regularly regarding a broad range of outcomes across childhood into adolescence and emerging adulthood. Although a number of surveillance efforts have been developed in various countries, few of those initiatives have been sustained, nor have they been broad enough in scope to guide practice or be used to evaluate the impact of programmes and policies.

Surveillance is a critical aspect of the public-health framework, yet many low- and middle-income countries in particular lack both the funding and the infrastructure to collect such data. Making culturally-sensitive—yet valid—mental-health surveillance tools available to countries is an attainable goal and a good return on investment. Supporting consistent measurement approaches across countries would also allow for cross-cultural comparisons of

mental-health conditions among youth. WHO efforts to assess bullying and related mental-health concerns could serve as a good example of such coordinated efforts.

#### Additional research to document the impact of promising programmes

The vast majority of prevention and intervention research has been conducted on youth in high-income countries. Only 10 per cent of all randomized clinical trials on mental health among youth are based on interventions in low- and middle-income countries (Kieling, 2011). More research in low- and middle-income settings is warranted. Additional models for the integration of existing health services is needed within these settings, as mental-health services are scarce there (Kieling and others, 2011; Patel and others, 2013). In addition to increased prioritization of mental health by Governments in low- and middle-income countries, improved integration of mental health into other systems of care for youth would increase cost-effectiveness and aid in reducing the strong stigma of persons with mental-health conditions, two of the largest barriers to care in low- and middle-income countries (Eisenberg and others, 2009; Kieling and others, 2011; Patel and others, 2013). Methods have been developed for cultural adaptation to existing tools and evidence-based programmes so that the resulting framework is suitable for implementation in a low- and middle-income country or post-conflict context (Bass and others, 2012).

### Increase focus on promotion and prevention

Early promotion and prevention efforts hold the greatest promise for lessening the prevalence of behavioural and mental-health conditions that limit social engagement. As a result, there is a great need for increased focus on prevention of mental-health conditions among youth. This includes targeting risk factors in early childhood that put youth at subsequent risk of developing behavioural and mental-health conditions. Adopting a life-course perspective to prevention is critical to the effective promotion of social and economic integration. Although early prevention efforts targeting young children may seem ill-timed for addressing concerns in youth, it is the early focus on skill promotion which is mostly likely to put the youth on a positive trajectory for successful adjustment in the face of risk or stress. Early intervention efforts have been shown to be cost-effective and to address a broad range of behavioural and mental health outcomes, making them an efficient use of resources. Prevention efforts aimed at youth may also reduce the prevalence rate of mental-health conditions and stem concerns that have emerged. Careful consideration of cultural and developmental factors is critical to the success of these efforts.

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