



**RISKS TO MENTAL HEALTH:  
AN OVERVIEW OF VULNERABILITIES AND RISK FACTORS**

**BACKGROUND PAPER BY WHO SECRETARIAT FOR THE DEVELOPMENT OF  
A COMPREHENSIVE MENTAL HEALTH ACTION PLAN**

---

**27AUGUST 2012**

This WHO Discussion Paper does not represent an official position of WHO  
(please refer to the disclaimer included on the last page of this paper).

# **Risks to mental health: an overview of vulnerabilities and risk factors**

Background paper by WHO secretariat for the development of  
a comprehensive mental health action plan

27 August 2012

---

## Key points

- The value of mental health and well-being: Mental well-being makes up an integral part of an individual's capacity to lead a fulfilling life, including the ability to form relationships, study, work or pursue leisure interests, as well as to make day-to-day decisions and choices.
- Determinants of mental health and well-being: Mental health and well-being is influenced not only by individual attributes, but also by the social circumstances in which persons find themselves and the environment in which they live; these determinants interact with each other dynamically, and may threaten or protect an individual's mental health state.
- Risks to mental health over the life course: Risks to mental health manifest themselves at all stages in life. Taking a life-course perspective shows how risk exposures in the formative stages of life – including substance use in pregnancy, insecure attachment in infancy or family violence in childhood - can affect mental well-being or predispose towards mental disorder many years or even decades later.
- Vulnerability to mental disorders: Depending on the local context, certain groups in society may be particularly susceptible to experiencing mental health problems, including households living in poverty, people with chronic health conditions, minority groups, and persons exposed to and/or displaced by war or conflict.
- Vulnerability among persons with mental disorders: Person with a mental disorder have their own set of vulnerabilities and risks, including an increased likelihood of experiencing disability and premature mortality, stigma and discrimination, social exclusion and impoverishment .
- Mental health promotion and protection: Since the range of risks to mental health is wide, responses to them need to be multi-layered and multi-sectoral. Broad strategies include: nurturing of core individual attributes in the formative stages of life (such as self-esteem and resilience); early recognition and prevention of emotional or behavioural problems, especially in childhood and adolescence; provision of living and working conditions that enable psychosocial development and self-determination (particularly among vulnerable persons); promotion of positive interactions within and between social groups; social protection for the poor; anti-discrimination laws and campaigns; and promotion of the rights, opportunities and care of individuals with mental disorders.

## 1. Context, objectives and scope

Mental health or psychological well-being makes up an integral part of an individual's capacity to lead a fulfilling life, including the ability to form and maintain relationships, to study, work or pursue leisure interests, and to make day-to-day decisions about educational, employment, housing or other choices. Disturbances to an individual's mental well-being can adversely compromise these capacities and choices, leading not only to diminished functioning at the individual level but also broader welfare losses at the household and societal level.

In the context of national efforts to develop and implement mental health policy, it is vital to not only address the needs of persons with defined mental disorders, but also protect and promote the mental well-being of its citizens. The intrinsic value of positive mental health is enshrined in WHO's definition of health as "... a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".<sup>1</sup>

At its Sixty-fifth session, held in May 2012, the World Health Assembly adopted a resolution calling on WHO to develop, in consultation with Member States, a comprehensive action plan that actively addresses not only the need for early identification and appropriate care for persons with mental disorders, but also assesses vulnerabilities and risks as a basis for developing the mental health plan.

As a background input to the preparation of a comprehensive mental health action plan by WHO Member States and secretariat, this paper sets out to provide a conceptual outline of the main vulnerabilities and risk factors relating to mental health and ill-health, as well as an overview of the available evidence for mitigating risks through appropriate promotion and protection efforts. The focus is on the set of vulnerabilities and risk factors that should be taken into account when developing and implementing appropriate health and social policies or strategies. In reviewing the contribution and interaction of different determinants to mental health and well-being, not only their adverse but also their protective influences are considered.

## 2. Determinants of mental health and well-being

A commonly used definition of mental health is "... a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community".<sup>2</sup> Reference to this definition makes it clear that mental or psychological well-being is influenced not only by individual characteristics or attributes, but also by the socioeconomic circumstances in which persons find themselves and the broader environment in which they live (**Figure 1**):

- *Individual attributes and behaviours*: These relate to a person's innate as well as learned ability to deal with thoughts and feelings and to manage him/herself in daily life ('emotional intelligence'), as well as the capacity to deal with the social world around by partaking in social activities, taking responsibilities or respecting the views of others ('social intelligence'). An individual's mental health state can also be influenced by *genetic and biological factors*; that is, determinants that persons are born or endowed with, including chromosomal abnormalities (e.g. Down's syndrome) and intellectual disability caused by prenatal exposure to alcohol or oxygen deprivation at birth.

- *Social and economic circumstances:* The capacity for an individual to develop and flourish is deeply influenced by their immediate social surroundings – including their opportunity to engage positively with family members, friends or colleagues, and earn a living for themselves and their families – and also by the socio-economic circumstances in which they find themselves. Restricted or lost opportunities to gain an education and income are especially pertinent socio-economic factors.
- *Environmental factors:* The wider sociocultural and geopolitical environment in which people live can also affect an individual's, household's or community's mental health status, including levels of access to basic commodities and services (water, essential health services, the rule of law), exposure to predominating cultural beliefs, attitudes or practices, as well as by social and economic policies formed at the national level; for example, the on-going global financial crisis is expected to have significant mental health consequences, including increased rates of suicide and harmful alcohol use.<sup>3</sup> Discrimination, social or gender inequality and conflict are examples of adverse structural determinants of mental well-being.

**Figure 1**      **Contributing factors to mental health and well-being**



It is important to emphasize that these different determinants interact with each other in a dynamic way, and that they can work for or against a particular individual's mental health state. **Table 1** provides an illustrative set of factors that may threaten or protect mental health. For example, an individual's level of self-worth could be enhanced or diminished depending on social support or economic security at the household level, which in turn might be influenced by the extent of political stability, social justice or economic growth in a country.

**Table 1**      **Mental health determinants**

| <i>Level</i>          | <i>Adverse factors</i>            |   | <i>Protective factors</i>                                |
|-----------------------|-----------------------------------|---|----------------------------------------------------------|
| Individual attributes | Low self-esteem                   | ↔ | Self-esteem, confidence                                  |
|                       | Cognitive/emotional immaturity    | ↔ | Ability to solve problems and manage stress or adversity |
|                       | Difficulties in communicating     | ↔ | Communication skills                                     |
|                       | Medical illness, substance use    | ↔ | Physical health, fitness                                 |
| Social circumstances  | Loneliness, bereavement           | ↔ | Social support of family & friends                       |
|                       | Neglect, family conflict          | ↔ | Good parenting / family interaction                      |
|                       | Exposure to violence/abuse        | ↔ | Physical security and safety                             |
|                       | Low income and poverty            | ↔ | Economic security                                        |
|                       | Difficulties or failure at school | ↔ | Scholastic achievement                                   |
|                       | Work stress, unemployment         | ↔ | Satisfaction and success at work                         |
| Environmental factors | Poor access to basic services     | ↔ | Equality of access to basic services                     |
|                       | Injustice and discrimination      | ↔ | Social justice, tolerance, integration                   |
|                       | Social and gender inequalities    | ↔ | Social and gender equality                               |
|                       | Exposure to war or disaster       | ↔ | Physical security and safety                             |

### 3. Risks to mental health

A further critical way in which risks to mental health interact is over age and time. Risks to mental health manifest themselves at all stages in life. A life-course approach is used here, since it shows how risk exposures in the formative stages of life can affect mental well-being many years or even decades later.<sup>4 5 6</sup> **Figure 2** presents a schematic overview of some of the main individual, social and environmental risks presenting themselves over the life course.

Alternative approaches or perspectives could be taken (such as using gender, socioeconomic status or income rather than age group as the primary unit of interest). It is also the case that not all risks pertain to a particular age group; for example, gender, ethnicity and place of residence are independent of age; these are also discussed below.

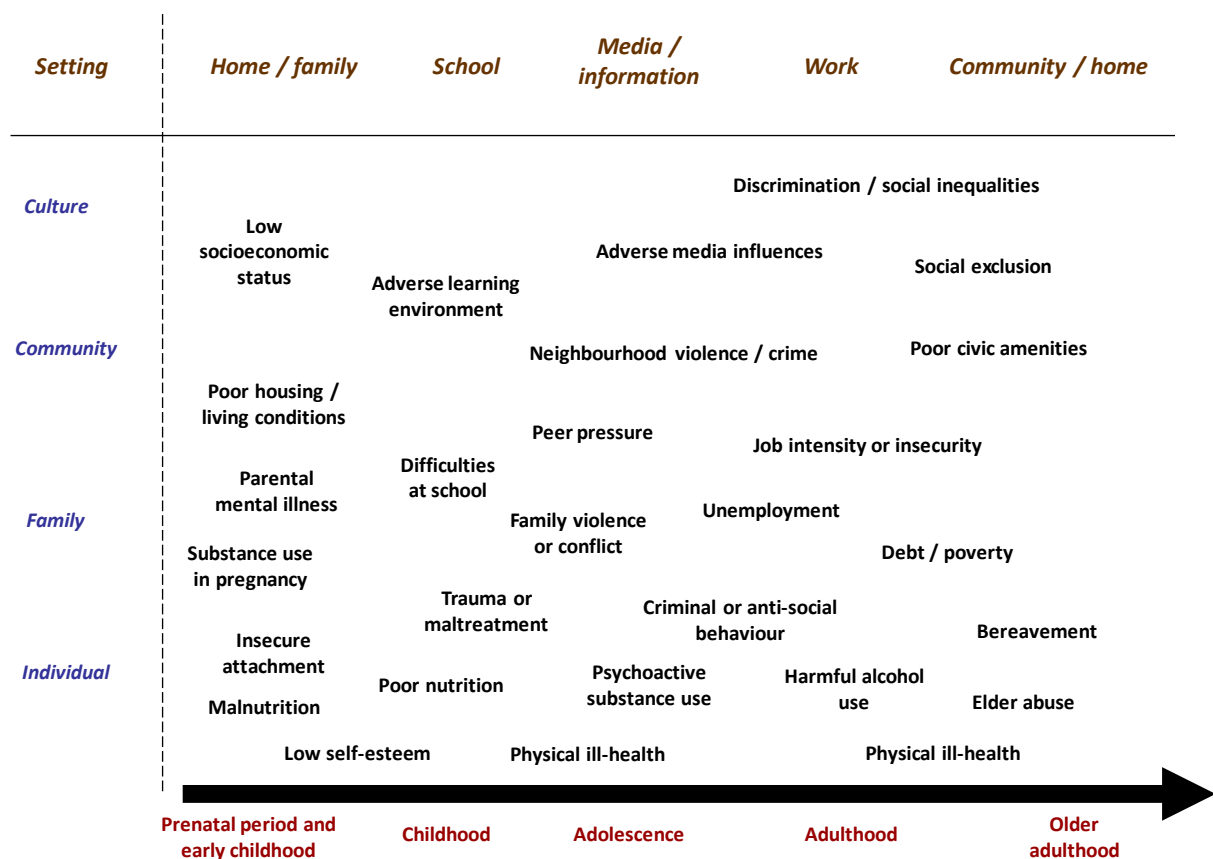
#### Pre-conception and pre-natal period:

An individual's mental health can be influenced by events or circumstances occurring before their birth or even their conception. Pregnancies that are unwanted or take place during adolescence, for instance, can raise the chance of risky health behaviours in pregnancy or mental health problems in childhood.<sup>6</sup> Likewise, poor adaptation to pregnancy can be considered a potential risk to the child's mental as well as physical health status.<sup>6</sup> It is already well established that malnutrition, low birth weight and certain micronutrient deficiencies (such as iodine deficiency) significantly heighten the risk to brain development, as do risky health behaviours in pregnancy, especially the use of tobacco, alcohol and drugs.<sup>2 7 8</sup>

## Infancy and early childhood

There is a strong body of evidence to show the importance of attachment by neonates to their mothers or another primary caregiver for subsequent social and emotional development.<sup>9 10</sup> Separation from the primary caregiver - due for example to parental absence or rejection - leads to anxiety, stress and insecurity. Post-natal depression among new mothers can likewise contribute to sub-optimal attachment and development. Parents who have difficulties in bonding, have limited skills or exhibit negative attitudes place their children at increased risk of exposure to stress and behavioural problems. Other important risks to physical and cognitive development in infancy and early childhood include maltreatment and neglect (by parents and other caregivers), malnutrition and infectious or parasitic diseases.<sup>9 10</sup>

**Figure 2 Schematic overview of risks to mental health over the life course**  
(Adapted from: Foresight project, 2008; Kieling et al, 2011; Fisher et al, 2011)<sup>4 5 6</sup>



## Childhood

Childhood years are vital for developing life skills. Negative experiences within the home or at school - due to family conflict or play-ground bullying, for instance - have a damaging effect on the development of these core cognitive and emotional skills.<sup>6 9</sup> Supportive parenting, a secure home life and a positive learning environment in schools are key protective factors in building and protecting mental well-being or capital at this stage of life.

Risks to mental health include family violence or conflict, negative life events, and a low sense of connection to schools or other learning environments. At their worst, exposure to such risks - as a

result of persistent beating, severe bullying, parental loss or abuse - can cause a level of trauma that has an indelible effect over the rest of the person's life. The socio-economic conditions in which children grow up can also have a telling impact on subsequent choices and opportunities in adolescence and adulthood. Poor housing or living conditions, for example, may be seen by children as shameful or degrading, may reduce opportunities for productive learning and social interaction, or may increase their exposure to disease and injury.

Children with a parent who has a mental illness or substance use disorder are placed at a high risk of experiencing family discord and psychiatric problems.<sup>11 12 13</sup> The intergenerational transfer of mental disorders is the result of interactions between genetic, biological, psychological and social risk factors occurring as early as pregnancy and infancy.

### Adolescence

Adolescence also constitutes a critical formative stage in life, marking as it does the passage from childhood to adulthood. Adolescence is also the period where mental disorder is more likely to develop or become apparent. The adverse experiences, conditions or environments that affect the mental well-being of younger children apply equally to adolescents. In addition, there are a number of other significant risks that have particular pertinence to this life stage.<sup>5 14</sup>

Tobacco/alcohol/drug use is one such risk, the onset of which typically occurs during adolescence. Adolescents exposed to family unrest or exhibiting behavioural problems in childhood are more likely to engage in psychoactive substance use.<sup>5</sup> Substance use is particularly hazardous and harmful for adolescents because the brain and body are still developing at this age. Adolescents are also susceptible to peer pressure and, increasingly, media influences that may encourage substance use. In addition to these risks to health, substance use in adolescence is linked to lowered educational outcomes, more risky sexual behaviour and heightened violence.

### Adulthood

Individuals who have a secure and supportive period of adolescence and childhood behind them, and who are able to exercise emotional control and social aptitudes, are better equipped to deal with the set of choices and challenges that inevitably present themselves in adulthood.

One of the most critical choices to be made - and a key determinant of an individual's well-being - concerns the 'work-life balance'; in economic terms, the allocation of time between production (whether paid for or not) and consumption (including leisure time with family and friends). Stress and anxiety are a frequent outcome for persons spending too much time working, caring for others or operating in a difficult / insecure work environment, as it is for those able and willing to work but unable to do so because of adverse socio-economic circumstances.<sup>11</sup> Unemployment in particular is a well-established risk factor for mental ill-health (while returning to or getting work is a well-recognized protective factor). Unemployment is associated with greater health care use and higher death rates. The association also works in the opposite direction; that is, mental ill-health is a significant predictor of unemployment, and in its wake, of debt or impoverishment.<sup>15 16</sup>

Outside the work place, a vital source of well-being is participation in the life and activities of the local community in which individuals and their families live. Exclusion from such activities – due to a lack of access, neighbourhood violence / crime, a breakdown in civic trust / respect, or an

absence of respite care – exerts a negative force on an individual's well-being as well as on the social capital of the community.

A further core dimension of individual welfare is health itself, not only for its enabling value (for carrying out work and leisure activities) but also its intrinsic value; that is, people prefer to be healthy than sick. Ill-health or disability therefore constitutes another important risk factor for psychological well-being in general and depression in particular.<sup>8</sup> Individuals with chronic disease or disability – whether comorbid with depression or not - are at an elevated risk of being marginalized from social or community activities, particularly those associated with stigma or discrimination (such as HIV/AIDS). While some disease processes directly affect the brain – such as cerebral malaria, HIV/AIDS, stroke and substance use disorders - others primarily create a psychological burden due to the challenges of living with the condition (such as an altered lifestyle or coming to terms with the prospect of prolonged illness or premature death).

### Older age

Older age is the single most important predictor for cognitive decline and dementia. Older adults are also particularly at risk of social isolation, as they withdraw from the labour market (which may deprive them of a steady income) and become more susceptible to chronic disease (which may deprive them of their mobility, independence and cognitive skills). Feelings of isolation can also come about due to the loss of their partner or friends to illness, or due to inattentive or uncaring family members. The elderly are also vulnerable to physical neglect or abuse, either by formal or informal carers, and this has obvious negative implications for their state of well-being.

Social and family isolation - and also bereavement - are significant predictors of depression in older age. Since chronic physical illness is also a risk factor for depression, the higher prevalence of physical health conditions in this age group further contributes to elevated rates of depression.

### Other risks (affecting any age group)

In addition to the risks that typically present or manifest themselves at different points over the life course, there are other potential threats to mental health that can impact on persons at *any* age or stage in their lives, depending on the broader sociocultural and geopolitical context into which they are born and/or within which they exist (see **Figure 3** for an overview of the interplay between increased vulnerability, mental disorders and development outcomes).

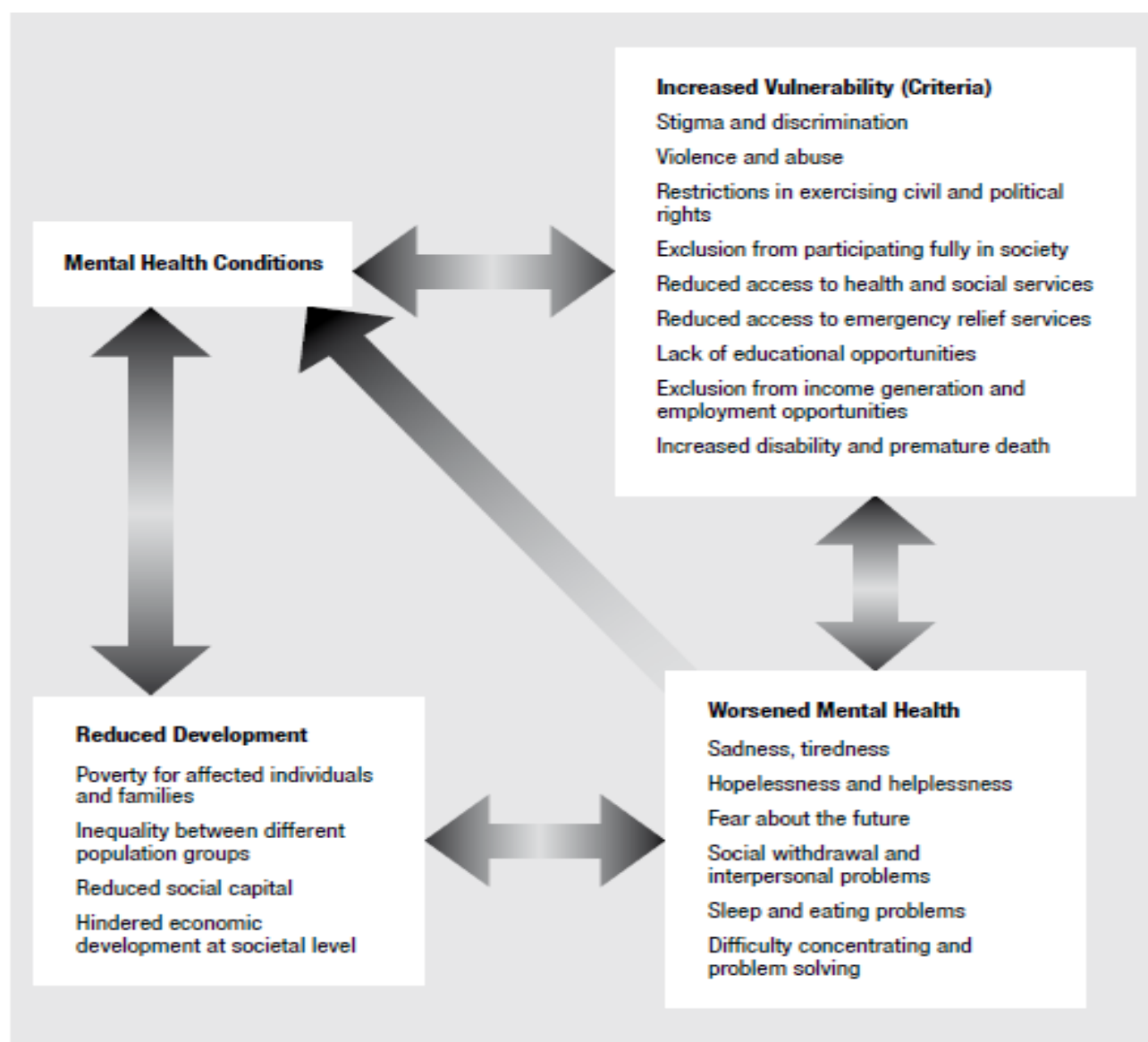
Since even the most basic socio-demographic characteristics of individuals are framed by social norms or customs, a person's gender, ethnic grouping or place of residence may influence their chances of developing a mental health condition. Racism or discrimination towards a particular group in society, for example, raises that group's exposure to social exclusion and economic adversity, thereby placing them at a higher risk of stress, anxiety and other common mental disorders.

Similarly, the socially-defined role of women in many societies exposes them to greater stresses, which, together with other factors including family violence and abuse, leads to higher rates of depression and anxiety. By contrast, substance use disorders are more common among men, influenced in part again by social attitudes or norms.

Persons exposed to violence, armed conflict and natural disasters represent a further vulnerable group at a significantly elevated risk of psychological distress and morbidity, as are those forcibly displaced by such events (of whom almost half are children and adolescents).<sup>17</sup>

Poverty and associated conditions of unemployment, low educational level, deprivation and homelessness are all strong markers for mental illness. These adverse conditions prevail in the populations of many rich as well as poor countries. Mental illness and poverty are considered to interact in a negative cycle; that is, not only is the risk of mental illness among people who live in poverty higher, but so too is the likelihood that those living with mental illness will drift into or remain in poverty.<sup>15 18</sup> Accordingly, both the poor as well as people with mental disorders constitute vulnerable groups requiring targeted social and financial protection or assistance.<sup>19 20</sup>

**Figure 3** Vulnerabilities, mental disorders and adverse development outcomes  
(Source: WHO, 2010)<sup>20</sup>



## 4. Risks and vulnerabilities among persons with mental disorders

While the focus thus far has been on risks to mental health among different age or social groups, it is important to emphasise that those who go on to experience a mental disorder have their own set of risks / vulnerabilities. As just mentioned, one such heightened risk is impoverishment, due to the difficulties that people with mental disorders can have in securing or maintaining work and income. So from this way round, mental ill-health acts as the risk factor – in this case, for unemployment, debt and poverty. The same argument applies to discrimination, human rights abuse, violent victimization and social exclusion, which are far more likely to be experienced by people with mental health problems than those in the population as a whole.

In health terms, the onset or presence of a mental disorder raises the chance of disability and premature mortality from other diseases, including cardiovascular disease, diabetes, HIV/AIDS and other chronic conditions.<sup>8</sup> The higher than expected occurrence of these diseases in persons with mental disorders can be attributed to a range of factors, including general neglect of their physical health (by themselves, families or care providers), elevated rates of psychoactive substance use in this population, diminished physical activity, an unhealthy diet and, in many cases, side-effects of medication. Health outcomes for persons with comorbid mental and physical conditions are markedly worse, due to diminished health-seeking behaviour, adherence and follow-up for these cases.

Along with suicide, these chronic diseases produce a level of pre-mature mortality far in excess of the general population; even in the relatively affluent context of Nordic countries, this mortality gap has been put at 20 years for men and 15 for women.<sup>21</sup> Put another way, people with mental disorders have a considerably reduced life expectancy, and this is only partly explained by fatal events directly linked to a mental health diagnosis (including suicide).

## 5. Addressing risks: mental health promotion and protection

It is evident from the foregoing overview that mental well-being can be put at risk by a wide range of factors that span not only the life course but also different spheres of life, including: cognition and behaviour at the individual level; living and working conditions at the social level; and opportunities and rights at the broader environmental level. Equally, therefore, public mental health responses to these risks need to take place across these different levels and social groups. The precise nature of the response will depend on its specific purpose and target group, but can be broadly split into actions that promote or protect mental health versus those that seek to restore or improve it through appropriate treatment and care of people with mental disorders.

The conceptual and evidential basis for mental health promotion has been the subject of a number of publications and reviews by WHO and its partners.<sup>2 11 22 23</sup> Accordingly, only a broad overview of key strategies to address mental health risks and vulnerabilities is provided here, with reference made to these recent reviews for a more detailed account of available evidence. **Table 2** provides an illustrative set of mental health promotion and protection strategies, which aim to enhance mental well-being and, among certain target groups, may also prevent the onset of mental ill-health. These actions need to take place within a broad public health framework which is informed by an understanding of the social, economic, cultural and political forces at work in a particular setting, and which is carried out in conjunction with other sectors (including education, housing, employment and social welfare / protection).

**Table 2 Key directions for mental health promotion and protection**

| <b>Strategic direction</b>                             | <b>Key interventions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Developing and protecting individual attributes</b> | <ul style="list-style-type: none"> <li>• <i>Mothers and infants</i>: Enable early attachment; provide appropriate parent training and natal care (including post-natal depression care); develop safe, stable and nurturing relationships between children and their parents and caregivers;</li> <li>• <i>Children and adolescents</i>: Ensure sufficient nutrition and stimulation</li> <li>• <i>Older adults</i>: Healthy ageing policies and community activities;</li> <li>• <i>All age groups</i>: Regular physical activity / healthy diet; discourage / restrict tobacco, alcohol and other psychoactive substance use</li> </ul>                                                                                                    |
| <b>Supporting households and communities</b>           | <ul style="list-style-type: none"> <li>• <i>Families</i>: Ensure secure living conditions for children and adolescents; target prevention on those with behavioural disorders and those with a mentally ill parent; prevent intimate partner violence;</li> <li>• <i>Workers / employees</i>: Support increased employment opportunities, and promote safe and supportive working conditions (including stress management);</li> <li>• <i>Low-income households</i>: Ensure basic living conditions (shelter, water and sanitation); provide social and financial protection;</li> <li>• <i>Communities</i>: Make neighbourhoods safe; enhance civic assets / social network; restrict availability of alcohol, drugs and tobacco</li> </ul> |
| <b>Supporting vulnerable groups in society</b>         | <ul style="list-style-type: none"> <li>• Develop and implement social inclusion policies;</li> <li>• Implement anti-discrimination laws and policies;</li> <li>• Make education available and accessible to all</li> <li>• Promote women's rights and freedoms; gender-equity policies</li> <li>• Provide early intervention to refugees after exposure to trauma (including those caught up in conflicts);</li> <li>• Conduct awareness raising campaigns;</li> <li>• Foster responsible reporting in the media</li> </ul>                                                                                                                                                                                                                  |

### Developing and protecting individual attributes

At its core, mental health and well-being rests on the capacity of individuals to manage their thoughts, feelings and behaviour, as well as their interactions with others. It is essential that these core attributes of self-control, resilience and confidence be allowed to develop and solidify in the formative stages of life, so that individuals are equipped to deal with the complex choices and potential adversities they will face as they grow older. Promoting a healthy start in life is therefore vital, and there is ample evidence to indicate that early intervention programmes do have an important protective or preventive effect. The most successful programmes addressing risk and protective factors early in life are targeted at child populations at risk, especially from families with low income and education levels, including: home-based interventions in pregnancy and infancy; efforts to reduce tobacco and alcohol use during pregnancy; and parent management training and pre-school programmes.<sup>2 11 20</sup> Recent reviews of evidence from low- and middle-income countries likewise found significant positive effects for interventions delivered by community members on children's development and the psychosocial functioning of both mothers and children.<sup>6 22 24</sup>

Alcohol, tobacco and drug use pose risks to mental and physical health, particularly among pregnant women and adolescents. Raising awareness about the health risks of substance use can be accompanied by implementation of a number of proven strategies for reducing their use, including fiscal measures (namely, increased excise taxes) and regulatory instruments (such as comprehensive restrictions on advertising, minimum age of use and restrictions on smoking in public places).<sup>25</sup> Maintaining a healthy diet and regular physical exercise are also protective factors for mental health and can be considered as part of a holistic approach to health promotion and protection in the population.

### Supporting families and communities

Individual-level mental health and well-being is strongly mediated by the immediate social context in which people live, work and carry out their day-to-day activities. The focus of family- and community-level attention is therefore to foster living and working conditions that enable psychosocial development (particularly among vulnerable persons) and promote positive interactions within and between families and social groups. Certain mental health promotion and protection strategies are targeted at specific groups, including: home-based interventions for socioeconomically disadvantaged families and for children with a mentally ill parent; prevention of intimate partner violence; school-based interventions for children and adolescents exhibiting emotional or behavioural problems; work-based interventions for adults looking for employment or struggling to cope at work; community-based interventions aimed at enhanced social participation of older adults; and psychosocial support for persons affected by conflict or disaster.<sup>2 11 26</sup> Other strategies are more universal in nature, and include the expansion of social protection schemes for poor or other vulnerable groups, the safeguarding of neighbourhood safety, and the building up of community amenities and social networks.<sup>20</sup>

### Supporting vulnerable groups in society

At the level of social and environmental determinants, key predictors of – and also consequences of – mental ill-health include lack of access to basic amenities and services, social exclusion, discrimination and exposure to violence, conflict or disasters. State-wide policy instruments that can address these failings and contribute towards social equality, inclusion and security include: anti-discrimination laws and campaigns; social protection for the poor; and elaboration of peaceful relations within and across national or ethnic boundaries.<sup>19 20</sup> Given the heightened risk of psychiatric morbidity among minority populations, refugees, persons caught up in conflict or disasters and other vulnerable groupings in society (including women in many cases), targeted application of these generic policy instruments to these identified groups is warranted. Similarly, the rights and opportunities of people with mental disorders need to be respected, including: access to decent and appropriate health and social care; educational, housing and employment opportunities; and participation in communal activities.<sup>20 27</sup> Given the stigma that persons with mental disorders commonly face, awareness-raising or anti-discrimination campaigns (including efforts to foster more responsible reporting in the media) can play a valuable role in reshaping public attitudes. Such macro-level changes in social attitudes and policies are often hard as well as slow to achieve, and require a substantial commitment of political will as well as financial resources from key decision-makers at the national level. There is also a need to better understand the complex inter-relationships that exist between exposure to these social determinants of health and mental health outcomes.

## References

- <sup>1</sup> WHO (2006). *Constitution of the World Health Organization*. Basic Documents, Forty-fifth edition, Supplement, October 2006.
- <sup>2</sup> WHO (2005). *Promoting mental health: concepts, emerging evidence, practice*. World Health Organization; Geneva, Switzerland.
- <sup>3</sup> WHO (2011). *Impact of economic crises on mental health*. WHO Regional Office for Europe; Copenhagen, Denmark.
- <sup>4</sup> Foresight Mental Capital and Wellbeing project (2008). *Final Project report – Executive summary*. The Government Office for Science, London.
- <sup>5</sup> Fisher JRW, Cabral de Mello M, Izutsu T, Vijayakumar L, Belfer M, and Omigbodun O (2011). Adolescent Mental Health in Resource-Constrained Settings: A Review of the Evidence of the nature, prevalence and determinants of common mental health problems and their management in primary health care. *International Journal of Social Psychiatry*, 57: Supplement 1.
- <sup>6</sup> Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O et al (2011). Child and adolescent mental health worldwide: evidence for action. *Lancet*, 378: 1515-1525.
- <sup>7</sup> Grantham-McGregor S, Cheung YB, Cueto S, Glewwe P, Richter L, Strupp B, and the International Child Development Steering Group (2007). Developmental potential in the first 5 years for children in developing countries. *Lancet*, 369: 60–70.
- <sup>8</sup> Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A (2007). No health without mental health. *Lancet*, 370: 859-877.
- <sup>9</sup> Walker S, Wachs TD, Meeks Gardner J, Lozoff B, Wasserman GA, Pollitt E, Careter JA and the International Child Development Steering Group (2007). Child development: risk factors for adverse outcomes in developing countries. *Lancet*, 369: 145-157.
- <sup>10</sup> Walker S, Wachs TD, Grantham-McGregor S, Black M, Nelson C, Huffman C et al (2011). Inequality in early childhood: risk and protective factors for early child development. *Lancet*, 378: 1325-1338.
- <sup>11</sup> WHO (2004). *Prevention of mental disorders: Effective interventions and policy options*. World Health Organization; Geneva, Switzerland.
- <sup>12</sup> Hetherington R, Baistow K, Katz I, Trowell J (2001). *The welfare of children with mentally ill parents: Learning from inter-country comparisons*. Wiley and Sons; Chichester, UK.
- <sup>13</sup> Matteblat F, Remschmidt H (2008). The children of mentally ill parents. *Deutsches Arzteblatt International*, 105: 413-418.
- <sup>14</sup> Sawyer S, Afifi RA, Bearinger LH, Blakemore SJ, Dick B, Ezeh AC, Patton GC (2012). Adolescence: a foundation for future health. *Lancet*, 379: 1630-1640.
- <sup>15</sup> Lund C, De Silva M, Plagerson S, Cooper S, Chisholm D, Das J, Knapp M, Patel V (2011). Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. *Lancet*, 378: 1502-14.
- <sup>16</sup> OECD (2011). *Sick on the job: Myths and realities about mental health and work*. Organization for Economic Cooperation and Development; Paris, France.
- <sup>17</sup> Reed RV, Fazel M, Jones L, Panter-Brick C, Stein A (2012). Mental health of displaced and refugee children resettled in low-income and middle-income countries: risk and protective factors. *Lancet*, 379: 250-265.
- <sup>18</sup> Patel V, Lund C, Hatherill S, et al. Mental disorders: equity and social determinants. In: Blas E, Sivasankara Kurup A, eds. *Equity, social determinants and public health programmes*. Geneva: World Health Organization, 2010: 115–34.
- <sup>19</sup> WHO (2008a). *Closing the gap in a generation: Health equity through action on the social determinants of health*. World Health Organization; Geneva, Switzerland.
- <sup>20</sup> WHO (2010a). *Mental health and development: Targeting people with mental health conditions as a vulnerable group*. World Health Organization; Geneva, Switzerland.
- <sup>21</sup> Wahlbeck K, Westman J, Nordentoft M, Gissler M, Laursen TM (2011). Outcomes of Nordic mental health systems: life expectancy of patients with mental disorders. *British Journal of Psychiatry*, 199: 453-458.
- <sup>22</sup> Barry M, Clarke A, Jenkins R, Patel R (2011). *Rapid review of the evidence on the effectiveness of mental health promotion interventions in low and middle income countries*. World Health Organization; Geneva, Switzerland.
- <sup>23</sup> WHO (2002). *Prevention and promotion of mental health*. World Health Organization; Geneva, Switzerland.
- <sup>24</sup> Engle PL, Fernald L, Alderman H, Berman J, O’Gara C et al (2011). Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. *Lancet*, 378: 1339-1353.
- <sup>25</sup> Chisholm D, Doran C, Shibuya K, Rehm J (2006). Comparative cost-effectiveness of policy instruments for reducing the global burden of alcohol, tobacco and illicit drug use. *Drug and Alcohol Review*, 25: 553-65.
- <sup>26</sup> Tol WA, Barbui C, Galappatti A, Silove D, Betancourt TS, Souza R, Golaz A, Van Ommeren M (2011). Mental health and psychosocial support in humanitarian settings; linking practice to evidence. *Lancet*, 378: 1581-1591.
- <sup>27</sup> WHO (2008b). *UN Convention on the Rights of Persons with Disabilities – A major step forward in promoting and protecting rights*. World Health Organization; Geneva, Switzerland.

---

## Disclaimer

This WHO Discussion Paper does not represent an official position of the World Health Organization. It is a tool to explore the views of interested parties on the subject matter. References to international partners are suggestions only and do not constitute or imply any endorsement whatsoever of this discussion paper. The World Health Organization does not warrant that the information contained in this discussion paper is complete and correct and shall not be liable for any damages incurred as a result of its use.

The information contained in this discussion paper may be freely used and copied for educational and other non-commercial and non-promotional purposes, provided that any reproduction of the information be accompanied by an acknowledgement of WHO as the source. Any other use of the information requires the permission from WHO, and requests should be directed to World Health Organization, Department of Mental Health and Substance Abuse, 20 Avenue Appia, 1211 Geneva 27, Switzerland.

The designations employed and the presentation of the material in this discussion paper do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this discussion paper. However, this discussion paper is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the presentation lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

© World Health Organization, 2012. All rights reserved.

The following copyright notice applies: [www.who.int/about/copyright](http://www.who.int/about/copyright)