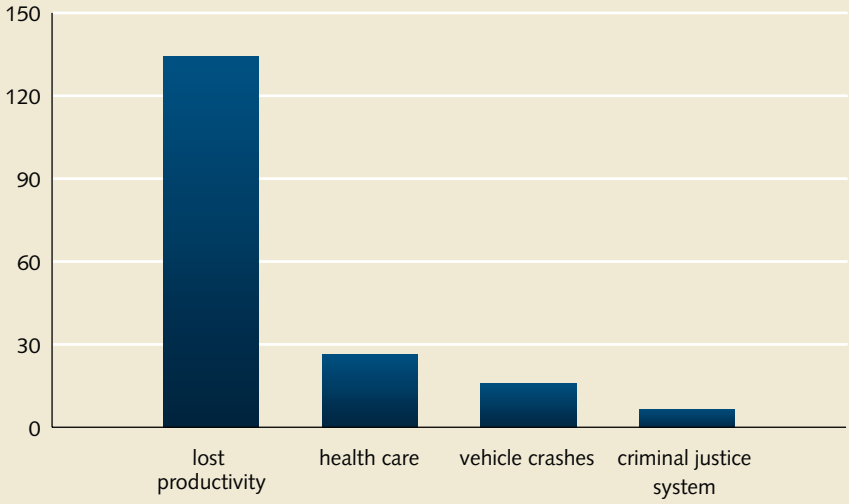
In the **United States,** the total economic cost of alcohol abuse was estimated at US$ 185 billion for 1998 (Harwood, 2000). More than 70% of this cost was attributed to lost productivity (US$ 134.2 billion), including losses from alcohol-related illness (US$ 87.6 billion), premature death (US$ 36.5 billion) and crime (US$ 10.1 billion). Health care expenditures accounted for US$ 26.3 billion, of which US$ 7.5 billion was spent on treating alcohol abuse and dependence and US$ 18.9 billion on treating the adverse medical consequences of alcohol consumption. Other estimated costs included property and administrative costs due to alcohol-related automobile crashes (US$ 15.7 billion), and the costs of the criminal justice system for alcohol-related crime (US$ 6.3 billion) (Figure 9).

In the **United Kingdom,** about 150,000 people are admitted to hospital each year due to alcohol-related accidents and illnesses. Alcohol is associated with up to 22,000 deaths a year. Deaths from cirrhosis of the liver have nearly doubled in the last 10 years. A recent government report shows that alcohol abuse costs the country at least £20 billion a year. The study found that 17 million workdays are lost to hangovers and alcohol-related illnesses each year. This costs employers £6.4 billion. One in 26 NHS "bed days" is taken up by alcohol-related illness, resulting in an annual cost to the taxpayer of £1.7 billion. The cost of clearing up alcohol-related crime is a further £7.3 billion a year. Moreover, drink leads to a further £6 billion in "social costs".

9

Cost of alcohol abuse in USA, billion US$, 1998

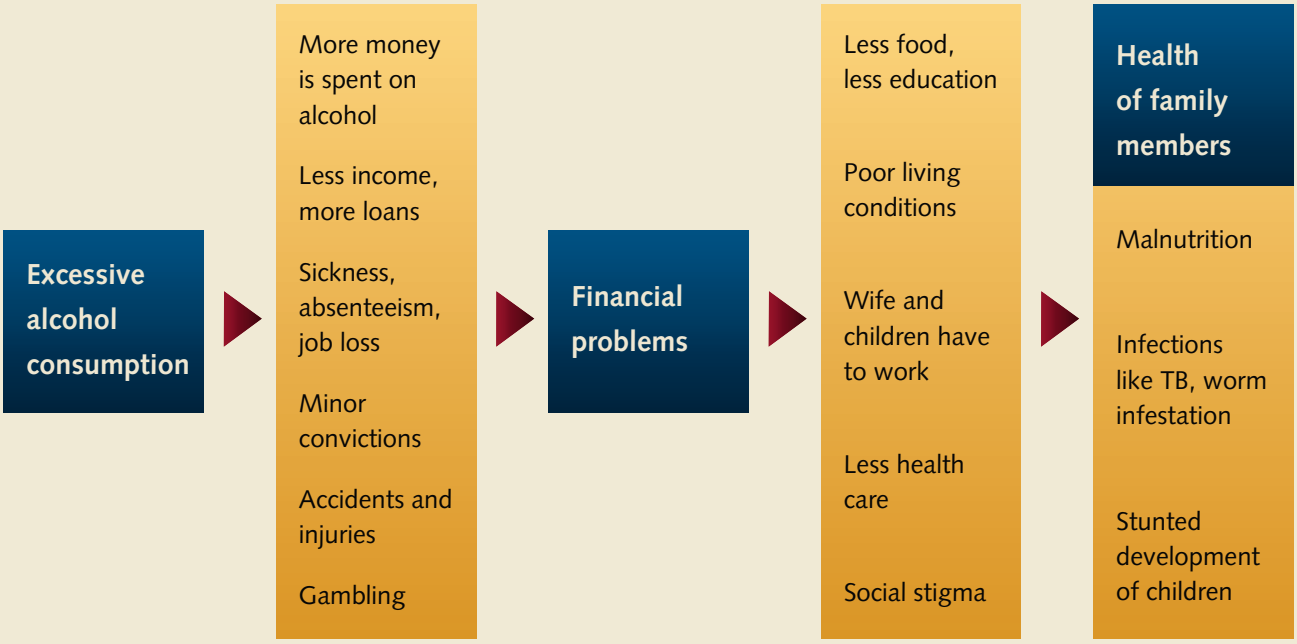


Source: Harwood, 2000

Diseases related to alcohol and substance abuse are therefore a serious public problem. They affect development of the human and social capital, creating not only economic costs for society as a whole, including the health system, but also social costs in terms of injuries, violence and crime. They also affect the well-being of future generations (Figure 10).

10

Excessive alcohol consumption and impaired health of the family



Talking about mental disorders means talking about poverty: the two are linked in a vicious circle

Since mental disorders generate costs in terms of long-term treatment and lost productivity, it can be argued that such disorders contribute significantly to poverty. At the same time, insecurity, low educational levels, inadequate housing and malnutrition have all been recognized as contributing to common mental disorders. There is scientific evidence that depression is 1.5 to 2 times more prevalent among the low-income groups of a population. Poverty could therefore be considered a significant contributor to mental disorders, and vice-versa. The two are thus linked in a vicious circle (Figure 11), and affect several dimensions of individual and social development:

Work

Unemployed persons and those who fail to gain employment have more depressive symptoms than individuals who find a job (Bolton & Oakley, 1987; Kessler & al., 1989; Simon & al., 2000). Moreover, employed persons who have lost their jobs are twice as likely to be depressed as persons who retain their jobs (Dooley & al., 1994).

Education

Studies have shown a significant relationship between the prevalence of common mental disorders and low educational levels (Patel & Kleinman, 2003). Moreover, a low educational level prevents access to most professional jobs, increases vulnerability and insecurity and contributes to a persistently low social capital. Illiteracy and illness therefore lock in poverty.

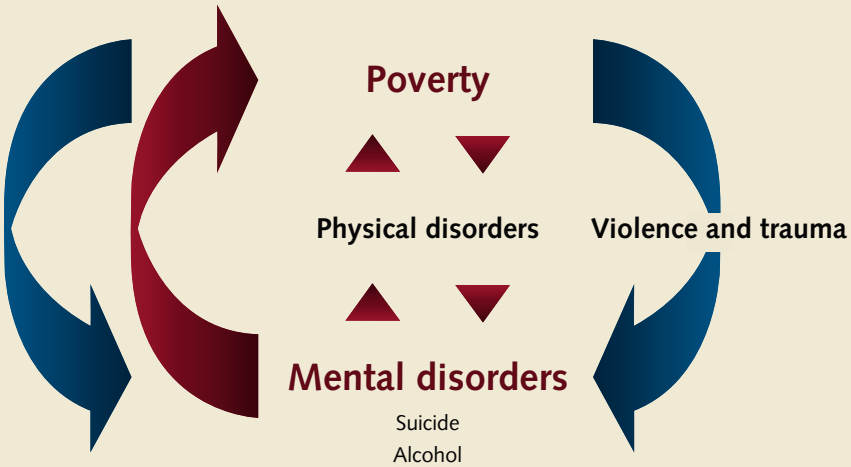
Violence and trauma

In communities afflicted by poverty, violence and abuse are not unusual. They affect general mental well-being, and can induce mental disorders in the most vulnerable.

Without well-targeted and structured investment in mental health, the vicious circle of poverty and mental disorders will be perpetuated, thereby preventing poverty alleviation and development.

11

Poverty and mental disorders: a vicious circle



Promoting mental health; preventing and managing mental ill health

In order to reduce the increasing burden of mental disorders and avoid years lived with disability or death, priority should be given to prevention and promotion in the field of mental health. Preventive and promotional strategies can be used by clinicians to target individual patients, and by public health programme planners to target large population groups.

Integrating prevention and promotion programmes for mental health within overall public health strategies will help to avoid deaths, reduce the stigma attached to the persons with mental disorders and improve the social and economic environment.

Is it possible to promote mental health and prevent mental disorders?

Within the spectrum of mental health interventions, prevention and promotion have become realistic and evidence based, supported by a fast-growing body of knowledge from fields as divergent as developmental psychopathology, psychobiology, prevention, and health promotion sciences (WHO, 2002). Prevention and promotion programmes have also been shown to result in considerable economic savings to society (Rutz et al., 1992).

Much can be done to reduce the burdens of mental disorders, avoid deaths and promote mental health in the world.

Mental health promotion

Health promotion is the process of enabling people to gain increasing control over their health and improve it (WHO, 1986). It is therefore related to improving the quality of life and the potential for good health, rather than only an amelioration of symptoms (Secker, 1998). Psychosocial factors influence a number of health behaviours (e.g. proper diet, adequate exercise, and avoiding cigarettes, drugs, excessive alcohol and risky sexual practices) that have a wide-ranging impact in the domain of health (WHO, 2002).

A growing body of cross-cultural evidence indicates that various psychological, social and behavioural factors can protect health and support positive mental health. Such protection facilitates resistance (resilience) to disease, minimizes and delays the emergence of disabilities and promotes more rapid recovery from illness (WHO, 2002). The following studies are illustrative. Breast-feeding (advocated by the joint WHO/UNICEF Baby-Friendly Hospital Initiative, Naylor, 2001) improves bonding and attachment between infants and mothers, and significantly improves child development. Promotive interventions in schools improve self-esteem, life skills, pro-social behaviour, scholastic performance and the overall climate.

Among various psychosocial factors linked to protection and promotion in adults are secure attachment; an optimistic outlook on life, with a sense of purpose and direction; effective strategies for coping with challenge; perceived control over life outcomes; emotionally rewarding social relationships; expression of positive emotion; and social integration.

Photo: © WHO, P. Virot

When can interventions for prevention of mental disorders begin?

Visits by nurses and community workers to mothers during pregnancy and after childbirth, in order to prevent poor child care, child abuse, psychological and behavioural problems in children and postnatal depression in mothers, have proved to be extremely effective on a sustainable basis (Olds et al., 1988). Teaching mothers about early monitoring of growth and development in low-birth-weight babies, along with proper maternal advice, can prevent poor intellectual development (Infant Health and Development Programme, 1990). Early stimulation programmes can enable mothers to prevent the slow development often seen in preterm infants, and improve the physical growth and behaviour of such infants (WHO, 1998). Such programmes can also reduce the number of days spent in hospital (Field et al., 1986), and thus result in economic savings. Nutrient supplements to prevent neuropsychiatric impairment have also been found to be useful. For example, iodine supplementation programmes through iodination of water or salt (recommended by WHO, 1996; 2001) can help prevent cretinism and other iodine-deficiency disorders (Sood et al., 1997; Mubbashar, 1999). Moreover, it may have a positive effect on the intelligence level of even apparently healthy populations living in iodine-deficient areas (Bleichrodt & Born, 1994).

Preventive strategies are useful even during childhood and adolescence

Preventive interventions reduce depression and feelings of hopelessness, aggressive and delinquent behaviour, as well as alcohol, tobacco and drug use, on a sustained basis (Schweinhart & Weikart, 1992; WHO, 1993; Bruene-Butler et al, 1997; Shochet et al, 2001).

Training teachers and parents has been shown to improve detection of problems and facilitate appropriate interventions.

A stitch in time

Psychosocial interventions, such as cognitive-behavioural therapy and family-based group intervention for "high risk" children, prevent the development of anxiety disorders (Dadds et al., 1997) and reduce depressive symptoms and conduct problems (Jaycox et al., 1994). Depression in adolescence has a high risk of recurrence in adulthood, and is also associated with the risk of development of personality problems or conduct disorders.

It is possible to prevent the majority of suicides and suicide attempts among schoolchildren through a comprehensive schools-based prevention programme that includes appropriate modifications to school-based policy, teacher training, parent education, stress management and a life-skills curriculum, along with the introduction of a crisis team in each school (Zenere & Lazarus, 1997).

Veliana, 6 years old, Bulgaria

How can prevention help adults and the elderly?

There is considerable evidence which shows that preventive strategies improve marital, relational and occupational functioning. It is possible to reduce dysfunctional marital communication, sexual difficulties, divorce and child abuse among young couples through education and skills training (Renick et al., 1992; Cowan & Cowan, 1992). Programmes to cope with widowhood and bereavement have been seen to help reduce depressive symptoms and facilitate better adjustment (Vachon et al., 1980). Similarly, studies have shown that stress-management skills and occupational stress-management training for personnel at risk (e.g. nursing personnel, bus drivers, teachers and blue collar workers) can be very useful. It has also be seen that retrenched workers who received adequate counselling coped better, had fewer depressive symptoms and managed to find better jobs (Vinokur et al., 1992). Retrenchment and job loss can cause depression, anxiety and many other problems such as alcoholism, marital stress and child abuse, and can even can lead to suicide.

Physician advice and other forms of brief intervention have been found to be effective in reducing alcohol abuse (Babor & Grant, 1992). Brief interventions have also been tried to reduce smoking (Kottke et al., 1988). Strategies to prevent alcohol and other substance abuse through mass campaigns, including the use of alcohol warning labels, have been successful in raising awareness (MacKinnon et al., 2000). Similarly, community-intervention programmes aimed at women, that involve community coalitions, task forces and support groups, help reduce smoking (Secker-Walker et al., 2000).

The introduction of mandatory bicycle helmet use leads to a substantial reduction in head injuries that can cause neurological and mental disabilities (Cameron et al., 1994). Short cognitive-behavioural programmes for victims of vehicular and industrial accidents (Fecteau & Nicki, 1999; Bryant et al., 1998) are beneficial in the prevention and management of post-traumatic stress disorder.

Prevention of suicidal behaviour

The prevention of suicidal behaviour (both attempted and completed suicide) poses a series of particular challenges at the public health level. On the one hand, subjects at risk of suicidal behaviour cover a wide age range, from early adolescence to later life. On the other hand, the risk of suicidal behaviour varies greatly according to several sociocultural factors (among which age, gender, religion, socioeconomic status) and mental status.

It is also influenced by the availability of methods used for that behaviour. This diversity calls for an integration of different approaches at the population level in order to achieve significant results.

According to the best evidence available (WHO, 1998), the following interventions have demonstrated efficacy in preventing some forms of suicidal behaviour:

- Control of availability of toxic substances (particularly pesticides in rural areas of some Asian countries);
- Detoxification of domestic gas and car exhaustion;
- Treatment of people with mental disorders (particularly depression, alcoholism and schizophrenia);
- Reduction of access to firearms; and
- Toning down of press reports about suicides.

Hoang Gia, 9 years old, Vietnam

Treatment of mental disorders: effectiveness and cost-effectiveness

The widening recognition of mental health as a significant international public health issue has led to the growing need to demonstrate that investment of resources in service development is not only required, but also worthwhile. Specifically, it is important to collect evidence of effective and appropriate mental health care strategies that are also cost-effective and sustainable. Although the volume of completed studies remains modest, particularly in middle- and low-income countries, there is increasing economic evidence to support the argument that interventions for schizophrenia, depression and other mental disorders are not only available and effective, but are also affordable and cost-effective.

12

Treatment effects on disability

Percent total improvement in disability