



11

Policy briefing

Purpose

The purpose of this policy briefing is to provide basic insights into the magnitude and major determinants of depressive disorders and suicidal behaviour in Europe. This briefing also presents the evidence-base as to effective measures reducing and preventing depression and suicidal behaviour and the need for inter-sectoral collaboration and partnerships. Finally, the role of the public health sector will be highlighted and examples of public health led initiatives are being presented.

This briefing note has been prepared for policy makers responsible for public health and health promotion as well as for decision makers in fields of social protection, education, labour and urban planning, both at national and at local level.

Key messages in this policy briefing are:

- Depressive disorder and suicidal behaviour are major contributors to the European burden of disease.
- Depression and suicidal behaviour are linked to a range of risk factors, in particular traumatic life events in early childhood, alcohol and drug abuse, personality disorders, socio-economic circumstances and psychosocial stressors.
- A number of risk factors for depression and suicidal behaviour are modifiable and, in most cases, major depression is a curable disorder and most suicides are preventable.
- Interventions in primary care for patients with depressive disorders and/or suicidal ideation are proven to be effective.
- Sound public policies for social protection, education, labour and urban planning will also improve mental health and reduce the development of mental health problems.
- Important life span settings in promoting positive mental health and preventing depression include early life, child care, schools, and work life.
- Effective public health action to prevent depression and suicidal behaviour requires an inter-sectoral policy framework at all levels, as many determinants of depression and suicidal behaviour lie in the domain of non-health sectors.
- All countries in Europe should have a national and/or sub-national strategy and action plan for mental with prevention of depression and suicide as key components.

The issue

Depressive disorder and suicidal behaviour are major contributors to the European burden of disease, leading to high social and economic costs and therefore constituting a major threat to Europe's productivity. Depressive disorders are a main risk factor for both fatal and non-fatal suicidal behaviour.

Prevention of both depressive disorders and suicidal behaviour are possible and cost-effective.^{1,2} Evidence-based policies, practices and initiatives do exist and can be readily adopted and implemented by stakeholders in Member States and the EU.

What is depression?

Depression is characterized by an all-encompassing low mood accompanied by low self esteem and loss of interest or pleasure in usually enjoyable activities, disturbed sleep or appetite, low energy, and poor concentration. Spells of low mood are normal, but depression is defined as a mood disorder when it lasts for more than two weeks and significantly affects a person's ability to function, study or work. The diagnosis of major depressive disorder is based on the patient's self-reported experiences, behaviour reported by relatives or friends or by a mental status exam. The most common time of onset is between the ages of 20 and 30 years, with a later peak between 30 and 40 years.



The health and productivity burden

Depressive disorders are common. In the EU, 13% of Europeans suffer depressive disorders at some point in their lives. Estimates for the total disease burden in the WHO European Region indicate that in 2004 depression accounted for 5,6% of all DALYs in Europe.³ The main reason for the major impact of depressive disorders on the burden of disease in Europe is that they start at an earlier age than most other diseases and tend to become chronic.

Furthermore, the WHO expects an increase in depressive disorders, especially in high and upper middle income countries, reaching 8.5% and 6.0% respectively, of the total burden of disease in 2030.

The self-reported depressive symptoms have increased in many Member States, e.g. school children in Finland and Sweden report more depressive symptoms than ever before. Also in France and Hungary depressive symptoms have increased considerably among the adult population in the last two decades.

Depressive disorders lead to substantial impairment in quality of life and ability to take care of everyday responsibilities. People suffering from major depression report seven times more work days lost than people without any mental disorder.⁴ Two thirds of the individuals with depression report severe impediments in normal functioning, a considerably higher proportion than individuals with physical chronic conditions.⁵

Major depression affects women almost twice as often as men. Data from western and southern Member States indicate that the lifetime prevalence of major depression is 13% overall, 9% of adult European men and 17% of adult European women. Being single or having a chronic illness increases the risk of developing a depressive disorder.

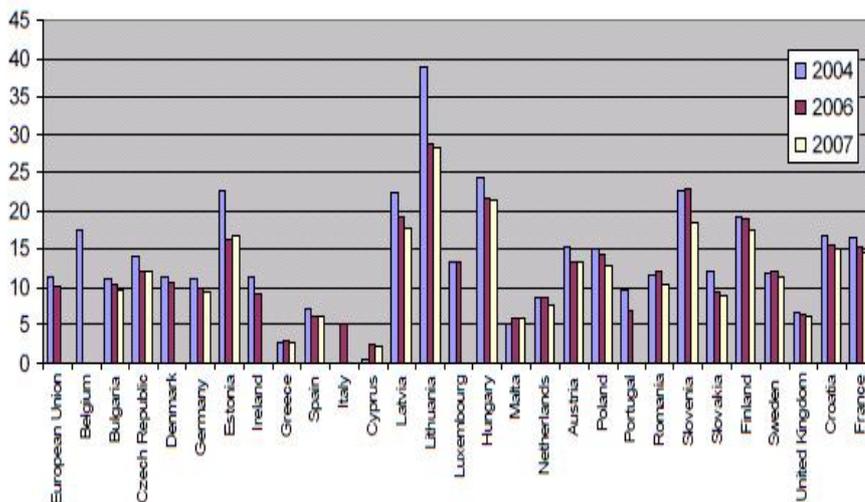
Depression is highly co-morbid with other mental disorders such as anxiety disorders and substance abuse⁴. Depression is also a risk factor for physical ill health.

Self-harm and suicides

Depressive disorder can lead to deliberate self-harm and suicide attempts. As to self-harm, there is little reliable information on the prevalence among adolescents and in adult populations. The majority of individuals who harm themselves do not attend a hospital as a result and therefore remain unreported. Deliberate self harm rates vary considerably between European countries. Regional deliberate self harm rates and national suicide rates follow similar patterns over time in both men and women⁶.

More than 50 000 people die of suicide each year in the European Union, with EU suicide rates varying from 2.6 per 100 000 people in Greece to 28.4 per 100 000 people in Lithuania⁷ (see Figure⁸). Seven of the 27 EU Member States are among the global top 15 countries in male suicide rates, and five in female suicide rates.

Figure Death due to suicide and intentional harm. Standardised death rate by 100.000 inhabitants



Source: EuroStat, data from 2004, 2006 and 2007⁸



Men die three to four times more often by suicide than do women in all Member States. However, women attempt suicide more often than men. The European Alliance Against Depression-study (EAAD), involving 16 countries, revealed that hanging is the most prevalent suicide method both for males (54%) and females (36%), for males followed by firearms (10%) and poisonous drugs. For females it is poisoning by drugs (25%) and jumping from a high level (16%). Suicide is a leading cause of death in young people, especially for young males.⁹ A recent WHO study shows that young people are often at risk of suicide and that suicide is the second cause of mortality in the 10-24 age group.¹⁰

Nine out of ten suicides are estimated to be associated with mental disorders, mostly depression (which is associated with 60% of suicides²) but also alcohol use disorders. High risk groups also include those with severe somatic illness, the socially disadvantaged, those with recent loss, especially through suicide.¹¹ People with a history of deliberate self-harm or suicide attempts are at especially high risk of dying by a repeated attempts.

A public health challenge

While the physical health of European citizens continues to improve significantly over the past decades, this is not as evident for mental health. Changes in work, social and family life, as well as current economic uncertainties add to people's stress.

Depressive disorder and suicide have a major impact on health inequity and contribute to differences in life expectancy between EU citizens. Thus, actions to reduce depressive disorder and suicides also contribute to EU policies as to increase social cohesion and health equity. Good mental health of the population is a prerequisite for economic growth and the establishment of a prosperous society.

In most cases, major depression is a curable disorder and most suicides are preventable. Suicide prevention has consistently been shown to be highly cost-effective.^{12 13} Depression can be prevented by policy actions targeting the causes of depression throughout the life-span. The number of evidence based psychological intervention programmes preventing depression has increased over the last ten years.¹⁴

Risk factors

Depression and suicide are associated with a range of risk factors. Especially stressors in early childhood, socio-economic circumstances and work life are of importance, followed by individual and life style factors.

Early development

Prenatal maternal stress is a known risk factor for behavioural and mental disorders, including depression. Those born small, due to foetal stressors, have an increased risk of adult depression.¹⁵

Hostile, unstable, and unsupportive parent-child relationships can lead to depression later in life.

Corporal punishment, harsh parenting and child abuse, physical, sexual and emotional, and inter-parental conflict, are associated with adverse psychological outcomes¹⁶, and disorders in childhood¹⁷ and adolescence.¹⁸

Promoting a nurturing early interaction between caregivers and the child increases resilience in coping with adverse life events and promotes life-long mental health and well-being. Children of parents with depression are a high risk group: six of ten will develop a mental disorder before the age of 25.¹⁹

Life-style

Alcohol problems lead to a more serious course of depression, including earlier onset of the disorder, more episodes of depression and more suicidal attempts.²⁰ A rise in per capita alcohol consumption has been found to be linked to a post-war rise in suicide mortality in many European countries (Denmark, France, Hungary, Norway, Sweden), but not in southern Europe. The link seems to be more pronounced in countries where strong spirits dominate the consumption^{21, 22, 23} and only in some population groups, such as the lower education



segment within the population.²⁴ In Scotland 27% of men and 19% of the women who engaged in self-harm, reported alcohol as the reason for self-harming.²⁵ At least 10 000 suicides in the EU each year are alcohol-related.

Individual factors

Impact of genes on mood is not predetermined, but their effects are often being modified by experiences in early life. Stressors encountered early in life, increase the risk of later depression by persistently altering the expression of genes related to depression.²⁶ Thus, quality of care early in a child's life has profound effects on mental health.

There are also significant gender differences in the number of people experiencing depression and in suicide rates. These differences are amongst others related to traditional female/male gender roles.²⁷

Working conditions

The effects of work on mental health are complex. On the one hand, work is a source for personal self-expression and self-fulfilment, and a source of interpersonal contacts and financial security. These are all prerequisites for good mental health. The workplace social capital, e.g. the presence of sustaining and trusting relationships, has been shown to be a protective factor against depression.²⁸ On the other hand, there is evidence indicating that a high workload, precarious work, and high emotional demand, as well as school or work place bullying and violence, are linked with depression. Precarious and insecure work, irregular working times, conflicts at work with other persons, work overload or lack of power to control work processes can have a negative impact on mental wellbeing. The combination of a high level of job strain and high job insecurity may increase the risk of depression by fourteen times compared to those who have control over secure and challenging jobs.

Socio-economic risk factors

Socio-economic risk factors for mental health problems, depression and suicide are poverty, poor education, unemployment, social isolation and exposure to major life events. On a community level, socio-economic deprivation and high unemployment rates are linked with high suicide rates.^{29, 30, 31}

Mental health can be compromised by living in deprived neighbourhoods with high unemployment, poor quality housing, limited access to services, poor quality environment and low social capital.³²

Those who become unemployed are twice as likely to be diagnosed with clinical depression as those who remain employed.³³ The number of people in high debts has recently risen due to the economic crisis. Financial difficulties are associated with an increased occurrence of major depression.³⁴

Access to suicide means

Choice of suicide mean varies according to the country and even inside one country, and by age and gender. Suicide means used also vary over time.³⁵ One European study reports hanging to be the most prevalent suicide method in among both males (54%) and females (36%).³⁴ Other means/ tools for suicide in the EU are firearms, self-poisoning by ingesting legal medication or illegal drugs, drowning, jumping from a high location or in front of traffic.³⁶ The use of different suicide methods also depends on the availability of means and tools.

Summary Table: Risk and protective factors for depression and suicide

Protective factors	Risk factors
Welfare (social protection, social inclusion, social capital)	Macro-level socio-economic risk factors (poverty, poor education, deprivation)
Healthy work place and living (social capital at work, workplace health promotion, stress management)	Poor living and working conditions (unemployment, job insecurity, job stress, bullying, high debts)
Healthy prenatal and childhood environment	Developmental risk factors (prenatal nutrition, abuse, harsh upbringing, poor relationship to parents, intergenerational transmission)
Healthy life style	Life-style risk factors (alcohol and/or drug use)
Individual psychological resilience (sense of mastery, self-esteem)	Individual risk factors (mental disorder, major life event, physical illness/disease, gender, migrant or minority status, access to lethal means)



What works?

There is increasing evidence supporting the effectiveness of mental health promotion in early age. This includes for example the provision of a safe and nurturing environment for every child by addressing physical and sexual abuse of children, access to good quality childcare for all, and actions against school bullying.

Evaluation research also supports that social emotional learning (SEL) and Skills for life (SFL) programmes enhance the social and emotional skills of children and youngsters, and significantly reduce or prevent behaviour and mental problems or disorders, such as violent, aggressive and antisocial behaviour, drug problems, anxiety and depressive symptoms and disorders. These programmes are more effective if provided in the context of whole school approaches rather than stand alone classroom programmes.

Targeted policy measures for specific groups at risk of depression may also contribute to reduce depression. Such measures should include good social protection and access to job search and socio-emotional skills training for unemployed people. Debt management and psychosocial support should be available for all persons in high debt.

Labour policies should set a 'healthy working climate ' as the target of every working place by capacity building of managers and staff.

Finally, safe environments will contribute to preventing suicide attempts. The restriction of access to common and highly lethal suicide means, such as toxic substances and firearms, has proven to be successful in reducing suicides.^{37, 38, 39} Restriction of one suicide mean seems not to lead to a method substitution, as suicidal persons tend to have a preference for a specific method.⁴⁰ Prevention of suicide should be taken into account already in the planning process or after an environment (e.g. bridges, railways) has been identified as a suicide hot-spot.

Health care role

There is emerging evidence as to the effectiveness of targeted by psychological interventions in primary care for patients with depressive disorders. For instance the stepped care model for prevention of depression in primary care halved the number of new cases of depression among older people.⁴¹ Psychological and/or educational interventions are effective in preventing depression of children and adolescents⁴², and effective interventions in primary care have been developed to prevent intergenerational transmission of depression from parents to child.⁴³

Training of healthcare personnel in preventive actions and early recognition of depression and suicide risk in children and young people as well as adults, identification of sub-optimal parenting, and provision of support in families where parents have mental illness is essential. Programmes aimed at education of primary care physicians (e.g. in Hungary⁴⁴, Northern Ireland⁴⁵, Slovenia⁴⁶ and Sweden^{47,48} have contributed to early detection of depression and even a decrease in suicides.

Healthcare personnel training can positively influence staff attitudes and professional identity and skills in treating suicidal persons.^{49,50} Responsiveness of services to the needs of individuals with suicidal behaviours is an essential component of suicide prevention.

Health care staff can also reduce alcohol-related mental health problems. There is strong evidence for the effectiveness of policies that regulate the alcohol market by taxation and restricting access in reducing the harm done by alcohol. Promotion of a healthy lifestyle and avoidance of harmful drinking are cornerstones in promotion of good mental health and prevention of suicides.⁵¹

There is extensive evidence for the impact of brief advice ('mini-intervention '), particularly in primary care settings, in reducing harmful alcohol consumption.



Due to the heterogeneity in the structure of health care systems as well as social service organisations in countries, there is not one single, uniform approach to initiating local and national level networks for preventing depression.

However, the 'Nuremberg Alliance Against Depression', a successful community-based project that resulted in a significant reduction of suicidal behaviour by more than 20% in the Nuremberg region, served as a model for now 18 regions in 16 different European countries who joined the 'European Alliance Against Depression' (EAAD) in 2004. All these regions are now in process of implementing respective regional intervention programmes addressing depression and suicidal behaviour in accordance with the so-called 'Nuremberg-model'.⁵²

Barriers to health care

Too many people with depression are left alone without adequate treatment. Several studies have shown that most people with psychiatric problems do not receive appropriate professional help. In Europe, only one in four individuals with a 12-month mood disorder reported formal service use in the previous year.⁵³ The problems in health care access for depression are linked to lack of awareness, stigma related to depression, and deficiencies in primary care's capacities and competencies to identify and treat depression.

Depression and suicide are associated with stigma, which is a major barrier in access to mental health services. Evidence suggests that the fear of being labelled as having a mental health problem may cause individuals to delay or avoid seeking treatment altogether if people with depression are not treated respectfully and with dignity in health care services.

The most common barriers of access to services reported by suicidal people are problems in navigating in the health services, unavailability of professional help and a preference to manage the problem by themselves.⁵⁴ These findings underline the need to establish low threshold services to prevent suicides.

Intersectoral partnerships

Depression and suicide do not only present challenges to the health sector but are also highly relevant for other sectors such as child and family policies, education, labour policies, and environmental planning. Evidence indicates that sound public policies, such as those that address social protection, education, labour and urban planning also improve mental health and reduce the risk of mental disorders. Important life span settings in prevention of depression include early life, child care, schools, and work life.

Child and family policies are decisive, as foundations of adult mental health are laid in early life. Abusive or hostile parenting and neglect leads to adult depression and emotional unavailability of parents predicts adolescent suicide attempts. Support for parenting by family policies, good quality day care for all, and flexible work life arrangements for parents, as well as programmes addressing parenting skills, contribute to prevention of depression and suicide.⁵⁵

The education sector can contribute by strengthening life skills of pupils. Social and emotional learning at schools help to reduce the onset of depression later in life. Girls who have been victims of bullying in elementary school tend to be more inclined to engage in suicide attempts and to die by suicide in later life. Evidence indicates that multi-faceted school programmes reduce the risk for mental disorders and are important in mental health promotion across the lifespan.⁵⁶

Workplace interventions have been shown to promote mental health and wellbeing and to reduce the risk of depression. Programmes for unemployed people, including peer support, job search training and preparation for setbacks, protect against depressive symptoms and depression.⁵⁷

Social security is important to alleviate the adverse consequences of unemployment. Social protection policies and active labour market programmes are key to mitigate the consequences of job loss and to increase new employment opportunities.⁵⁸ People in high debt need support through e.g. national debt relief programmes.



Environmental planning can support mental health and prevent depression and suicide. Good urban planning creates a safe and inviting environment, which is especially important for children to enable safe enlargement of the zones for their socio-emotional developmental activities. Improved housing conditions can promote mental health and increase social and community participation.⁵⁸ Community mobilisation facilitates better mental health of its members.

The role of the media

There is significant evidence that highly sensationalised reporting on suicides with detailed descriptions of method increases the risk of 'copy-cat' suicides.⁵⁹ On the other hand, responsible reporting on suicides may help to reduce copycat suicide, especially among adolescents, and breaking the stigma surrounding suicide and mental illness.⁵⁰ It is therefore important to liaise with media in educating the public about depression and suicide prevention. The WHO and the International Association for Suicide Prevention produced guidance for media as to reporting on suicides.⁶¹ Research suggests that these guidelines help to reduce stigmatisation in press and to reduce the risk of copycat suicides.^{62,61}

Information available on the internet is of varying quality.⁶³ Some social networking sites and chat rooms are even glamorising suicides and providing detailed instructions and techniques for committing suicide.⁶⁴ This is particularly dangerous for young people. However, effective web-based prevention and mental health promotion can assist in getting the first step towards help.⁶⁴ Internet can easily provide access to preventive services, such as web-based depression prevention courses, and may encourage health service uptake by those who fear stigma or have difficulties travelling to and from health services.⁶⁵ Supportive peer-communities on the web can offer support for people at risk of depression. In related health areas, it has been evidenced that web-based peer support improves feelings of well being and cut costs by minimizing visits to physicians.⁶⁶

Strengthening the evidence base

In most countries, health information is less comprehensive in the domain of mental disorders than in the domains of physical diseases.⁶⁷ Population based data on trends in depression, deliberate self-harm and suicide attempts are lacking in most of the countries and therefore also at EU-level. As a consequence, policy makers are in the dark as to the societal impact of the issue and angles for preventive action.

Effective health policy and planning requires the timely availability of population based data on epidemiology, risk factors, health services use and resources spent. Therefore, mental health topics should be included as a more prominent component in health surveys, health and social indicator systems, as well as in health system statistics. The development of a structural mental health indicator or strengthening the mental health contribution to the 'healthy life years' indicator would contribute to strengthening the political importance of mental health.

Research into the aetiology and determinants of depression and effective prevention of depression and suicide has resulted in hugely improved opportunities for preventive actions. Yet, many research efforts concentrate on individual level studies, meaning that important system level determinants and intervention possibilities may remain undetected. To support the implementation of preventive actions, health systems research and cost-effectiveness studies are needed. A nice example is the OSPI-study, a prospective controlled design study in four different countries evaluating community based EAAD-interventions.⁵¹ As part of a national strategy there needs to be agreed investment in national research and an understanding that such research will link into the international research community.

In order to promote the transfer of research findings into practice, policy briefs and practice guidelines need to be developed as to the prevention of depression and suicide.



Conclusions

Depression and suicide are major public health challenges, with roots across all sectors of society. Depression is affecting 13% of Europeans during their lifetime, causing huge sufferings in individuals and families as well as high societal costs due to loss of productivity and health care. Depression reduces productivity and increases the costs of sick leave and disability pension schemes. Depression and suicide are major contributors to health inequalities in the EU.

Actions against depression and suicides are necessary, possible and will pay off. Evidence-based, cost-effective actions are available. Depression and suicides can be prevented by diversified actions within and outside of health care services. Evidence of cost-effectiveness is emerging. Depression and suicide should be prioritised in policies and by stakeholders, from the EU-level to local level, supported by outcome targets.

Political commitment to fighting depression in health and non-health policies should be harnessed by continuous awareness raising as to the prevalence of depression and the impact of depression and suicide on well-being and productivity. The prevention of depression and suicide should become a key component in EU-level, national and sub-national health policies. Political commitment is indispensable for mainstreaming of prevention of depression and suicides into relevant non-health policies, action plans and programmes.

Targets for suicide reduction need to be formulated in policy action plans. This will help to focus attention on suicide prevention and on addressing the most vulnerable groups or the most deprived areas. To be meaningful, these targets should be measurable. Depression targets can be formulated as rates of access to promotion or prevention programmes in schools or workplaces, reduction in sickness allowance days per employee due to depression, or reduction in number of new disability pensions due to depression.

Lack of political support, inadequate management, overburdened health services and stigma-related barriers for access to appropriate services has hampered the development of adequate programmes for the prevention of depression and suicides.

Access to health services should be improved by mainstreaming mental health services into primary care and by integrating health and social services. This requires mental health being incorporated into health and social policies and legislative frameworks, supported by senior leadership, adequate resources, and ongoing governance. Capacity building is needed in primary care to support prevention, early recognition and treatment.

Building resilience among vulnerable risk groups can successfully be done by support for parenting and early relationships, social emotional learning in schools or by stress management training at workplaces. Community-based, multifaceted mental health services will result in lower suicide rates.

Access to preventive interventions can be also improved by telephone and e-health solutions. Readily available and continued psychological and medical care for persons after a non-fatal suicide attempt helps to prevent repeated attempts.

Effective public health action to prevent depression and suicide requires an intersectoral policy framework at all levels, as most determinants of depression and suicide lie in the domain of non-health sectors. A strategic framework is needed for an effective addressing depression and suicides. This should include the preparations of a national and/or sub-national strategy and action plan for mental health, with prevention of depression and suicide as key components.

A successful fight against depression and suicide requires continued investment in mental health research and monitoring, willingness to work across sectors, and readiness to address determinants, such as child abuse and bullying, gender and health inequalities, high debts, work life problems and poor social protection. Effective measures in the fight are responsive primary health care services, collaborative media, a health promoting educational system and healthy work places.



References

- 1 Cuijpers P, Smit F (2008). Has time come for broad-scale dissemination for prevention of depressive disorders? *Acta Psychiatr Scand* 118(6):419-20.
- 2 Mann, J, Apter A., Bertolote J, et al. (2005). Suicide prevention strategies – a systematic review. *JAMA* 294(16): 2064–74.
- 3 WHO (2008). The global burden of disease. 2004 update. Geneva: WHO. Available: http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf
- 4 Sullivan L.E, Fiellin DA, O'Connor PG (2005). The prevalence and impact of alcohol problems in major depression: a systematic review. *Am J Med* 118(4):330-41.
- 5 Ormel J, Petukhova M, Chaterji S, et al. (2008). Disability and treatment of specific mental and physical disorders across the world: Result from the WHO World Mental Health Surveys. *Br J Psychiatry* 192 (5): 368-75.
- 6 Arensman E, Fitzgerald T, Bjerke T, Cooper J, Corcoran P, De Leo D, Grad O, Hawton K, Hjelmeland H, Kapur N, Perry I, Salander-Renberg E, Van Heeringen K. (2008). Deliberate self-harm and suicide: gender-specific trends in eight European regions. *Journal of Epidemiology and Community Health*, 62(Suppl 1)A1-A36.
- 7 Moussavi S, Chatteriji S, Verdes E, et al. (2007). Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *Lancet* 370(8):851-8.
- 8 Eurostat data. Death due to suicide, by gender - Standardised death rate by 100 000 inhabitants, 2007.
- 9 Vaernik A. et al., Suicide methods in Europe - a gender-specific analysis of countries participating in EAAD, *J Epidemiol Community Health*, 2008 (1), 1-7
- 10 World Health Organization (WHO): Suicide prevention. Available: http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/
- 11 Nordentoft M. (2007). Prevention of suicide and attempted suicide in Denmark. *Danish Med Bull* 54 (2):306-69. 22 Westman J, Sundquist J, Johansson LM, et al. (2006). Country of birth and suicide: a follow-up study of a national cohort in Sweden. *Arch Suicide Res* 10(3):239-48.
- 12 Appleby L, Morriss R, Gask L, et al. (2000). An educational intervention for front-line health professionals in the assessment and management of suicidal patients (The STORM Project). *Psychol Med* 30(4):805-12.
- 13 Platt S, McLean J, McCollam A, et al. (2006). Evaluation of the first phase of Choose Life: the National strategy and action plan to prevent suicide in Scotland. Report by the Scottish Government. Scottish Executive Social Research. Available at: <http://www.scotland.gov.uk/Resource/Doc/146980/0038521.pdf>
- 14 Cuijpers P, van Straten A, Smit F, et al. (2008). Preventing the onset of depressive disorders: a meta-analytic review of psychological interventions. *Am J Psychiatry* 165(10):1272-80.
- 15 Rääkkönen K, Pesonen AK, Heinonen K, et al. (2008). Depression in young adults with very low birth weight: the Helsinki study of very low-birth-weight adults. *Arch Gen Psychiatry* 65:290-6.
- 16 Sarchiapone M, Carli V, Cumo C, et al. (2007). Childhood trauma and suicide attempts in patients with unipolar depression. *Depress Anxiety* 24(4): 268-72.
- 17 Madigan S, Moran G, Schuengel C (2007). Unresolved maternal attachment representations, disrupted maternal behaviour and disorganized attachment in infancy: Links to toddler behaviour problems. *J Child Psychol Psychiatry* 48:1042-50.
- 18 Allen JP, Porter M, McFarland C (2007). The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Dev* 78:1222-39.



- 19 Beardslee WR, Keller MB, Lavori PW, et al (1993). The impact of parental affective disorder on depression in offspring: a longitudinal follow-up in a nonreferred sample. *J Am Acad Child Adolesc Psychiatry* 32:723-30.
- 20 Sher L, Stanley BH, Harkavy-Friedman JM et al. (2008). Depressed patients with co-occurring alcohol use disorders: A unique patient population. *J Clin Psychiatry* 69(6):907-15.
- 21 Nemtsov A (2002). Correlations between alcohol consumption and suicides. *Demoscope Weekly* 73-4.
- 22 Värnik A, Wasserman D (2005). Suicide among Russians in Estonia: database study before and after independence. *BMJ* 330:176-7.
- 23 Wasserman D, Värnik A (1994). Increase in suicide among men in the Baltic countries. *Lancet* 343:1504-5.
- 24 Herttua K, Mäkelä P, Martikainen P (2007). Differential trends in alcohol-related mortality: a register-based follow-up study in Finland in 1987-2003. *Alcohol and Alcoholism* 42:456-64.
- 25 NHS Quality Improvement Scotland (2007). Understanding Alcohol Misuse in Scotland 3: Alcohol and Self-harm. Available at www.nhshealthquality.org
- 26 Anisman H, Merali Z, Stead JD (2008). Experiential and genetic contributions to depressive- and anxiety-like disorders: clinical and experimental studies. *Neurosci Biobehav Rev* 32(6):1185-206.
- 27 Seedat S, Scott KM, Angermeyer MC et al. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Arch Gen Psychiatry* 66(7):785-95.
- 28 Oksanen T, Kouvonen A, Vahtera J, et al. (2009). Prospective study of workplace social capital and depression: Are vertical and horizontal components equally important? *JECH*. 2009 Aug 19.
- 29 Berk M, Dodd S, Henry M (2006). The effect of macroeconomic variables on suicide. *Psychol Med* 36(2):181-9.
- 30 Middleton N, Sterne JAC, Gunnell D (2006). The geography of despair among 15-44-year-old men in England and Wales: putting suicide on the map. *JECH* 60:1040-7.
- 31 Rehkopf DH, Buka SL (2005). The association between suicide and the socio-economic characteristics of geographical areas: a systematic review. *Psychol Med* 36(2):145-57.
- 32 Scottish Public Health Observatory (ScotPHO): Public Health http://www.scotpho.org.uk/home/Healthwellbeinganddisease/MentalHealth/Data/data_deprivation.asp
- 33 Harnois G, Gabriel P (2000). Mental health and work: Impact, issues and good practices. Geneva, World Health Organization. Available: http://www.who.int/mental_health/media/en/73.pdf
- 34 Skapinakis P, Weich S, Lewis G, et al. (2006). Socio-economic position and common mental disorders: Longitudinal study in the general population in the UK. *Br J Psychiatry* 189:109-17.
- 35 Moens GF, Loysch MJ, Honggokoesoemo S, et al. (1989). Recent trends in methods of suicide. *Acta Psychiatr Scand* 79(3):207-15.
- 36 Stark C, Hopkins P, Gibbs D (2004). Trends in suicide in Scotland 1981 - 1999: age, method and geography. *BMC Public Health* 20(4):49.
- 37 Mittendorfer-Rutz E, Wasserman D (2004). The WHO European monitoring surveys on national suicide preventive programmes and strategies. *Suicidology* 9(1):23-5.
- 37 Mann JJ, Apter A, Bertolote J et al.(2005).Suicide Prevention Strategies: A Systematic Review. *JAMA*. 294(16):2064-74.
- 38 Hawton K, Bergen H, Simkin S, et al. (2009).Effect of withdrawal of co-proxamol on prescribing and deaths from drug poisoning in England and Wales: time series analysis. *BMJ* 338 (182): b2270.



- ⁴⁰ Daigle MS (2005). Suicide prevention through means restriction: assessing the risk of substitution. A critical review and synthesis. *Accid Anal Prev* 37(4):625-32.
- ⁴¹ van't Veer-Tazelaar PJ, van Marwijk HW, et al. (2009). Stepped-care prevention of anxiety and depression in late life: a randomized controlled trial. *Arch Gen Psychiatry* 66(3):297-304.
- ⁴² Merry S, McDowell H, Hetrick S et al. (2004). Psychological and/or educational interventions for the prevention of depression in children and adolescents (Cochrane review). *Cochrane Database of Systematic Reviews*, Issue 2.
- ⁴³ Beardsley WR, Wright EJ, Gladstone TRG, et al. (2007). Long-term effects from a randomized trial of two public health preventive interventions for parental depression. *J Family Psychol* 21:703-13.
- ⁴⁴ Rihmer Z, Belso N, Kalmar S (2001). Antidepressants and suicide prevention in Hungary. *Acta Psychiatr Scand* 103:238-9.
- ⁴⁵ Kelly C (1998). The effects of depression awareness seminars on general practitioners knowledge of depressive illness. *Ulster Med J* 67:33-5.
- ⁴⁶ Marusic A, Roskar S, Dernovsek M, et al. (2004). An attempt of suicide prevention: the Slovene Gotland Study. In: Programme and Abstracts of the 10th European Symposium of Suicide and Suicide Behaviour, August 2004, Copenhagen, Denmark.
- ⁴⁷ Rihmer Z, Rutz W, Pihlgren H (1995). Depression and suicide on Gotland. An intensive study of all suicides before and after a depression-training programme for general practitioners. *Journal of Affective Disorders* 35:147-52.
- ⁴⁸ Rutz W (2001). Preventing suicide and premature death by education and treatment. *J Affect Disord* 62:123-9.
- ⁴⁹ Ramberg I-L, Wasserman D (2004). Benefits of implementing an academic training of trainers program to promote knowledge and clarity in work with psychiatric suicidal patients. *Arch Suicide Res.* (4): 331-43.
- ⁵⁰ World Health Organisation (WHO).(2008). Integrating mental health into primary care. A global perspective. Available: http://www.who.int/mental_health/policy/Mental%20health%20+%20primary%20care-%20final%20low-res%20140908.pdf.
- ⁵¹ Anderson P (2006). Alcohol in Europe - A public health perspective. Luxembourg, European Commission.
- ⁵² Hegerl U et al., The European Alliance against depression: a multifaceted community based action programme against depression, *World J Biological Psychiatry*, 2008, 9 (1): 51-58.
- ⁵³ Alonso J, Angermeyer MC, Bernert S, et al. (2004). Use of mental health services in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand* 109 (420): 47-54.
- ⁵⁴ Pagura J, Fotti S, Katz LY, Sareen J, Swampy Cree Suicide Prevention Team (2009). Help seeking and perceived need for mental health care among individuals in Canada with suicidal behaviors. *Psychiatr Serv* 60 (7):943-9.
- ⁵⁵ European Commission (2009). Background document for the thematic conference: Promotion of mental health and wellbeing of children and young people -making it happen. Available at http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/background_young.pdf
- ⁵⁶ Jane-Llopis E, Braddick F (Eds). (2008). Mental Health in Youth and Education. EC Consensus Paper.
- ⁵⁷ Malmberg-Heimonen I, Vuori J (2005). Activation or discouragement — the effect of enforced participation on the success of job-search training. *Eur J Social Work* 8(4):451-67.
- ⁵⁸ Stuckler D, Basu S, Suhrcke M, et al. (2009). The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *Lancet* 374(9686):315-23.



- ⁵⁹ Thomson H, Petticrew M, Morrison D (2001). Health effects of housing improvement: systematic review of intervention studies. *BMJ* 323(7306):187-90.
- ⁶⁰ Choose Life: Guidelines for the reporting of suicide in the media. Available: <http://www.chooselife.net/Media/Media.asp>
- ⁶¹ Hawton K, Williams K (2001). The connection between media and suicidal behaviour warrants serious attention. *Crisis* 22:137-40.
- ⁶² WHO Department of Mental Health (2000). Preventing Suicide a resource for media professionals. WHO/MNH/MBD/00.2. Available: http://www.who.int/mental_health/media/en/426.pdf
- ⁶³ Sonneck G, Etzersdorfer E, Nagel-Kuess S (1994). Imitative suicide on the Viennese subway. *Soc Sci Med* 38(3):453-7.
- ⁶⁴ Griffiths KM, Christensen H (2000). Quality of web based information on treatment of depression: cross sectional survey. *BMJ* 321:1511-5.
- ⁶⁵ Biddle L, Donovan J, Hawton K, et al. (2008). Suicide and the internet. *BMJ* 336(7648):800-2.
- ⁶⁶ Stjernswärd S, Östman MJ (2006). Potential of e-health in relation to depression: short survey of previous research. *Psychiatr Ment Health Nurs* 13(6):698-703.
- ⁶⁷ Lorig KR, Laurent DD, Deyo RA, et al. (2002). Can a back pain e-mail discussion group improve health status and lower health care costs? *Arch Int Med* 162:792-6.
- ⁶⁸ Lavikainen J, Fryers T, Lehtinen V (Eds) (2006). Improving mental health information in Europe. Proposal of the MINDFUL project. Helsinki: Stakes. Available: http://www.stakes.fi/pdf/mentalhealth/Mindful_verkkoversio.pdf



Acknowledgements

This policy briefing has been developed as part of the work of the project PHASE ('Public Health Actions for a Safer Europe'), more specifically its work package 4 ('Injury information and reporting'). The PHASE project was coordinated by the European Association for Injury Prevention and Safety Promotion ('EuroSafe') and co-funded by the European Commission, Executive Agency for Health and Consumers in the framework of the European Public Health Programme 2003-2008 (Grant Agreement 2006123).

This policy briefing has been compiled and edited by Wim Rogmans (EuroSafe, <http://www.eurosafe.eu.com/>) on the basis of the background document 'Preventing of Depression and Suicide- Making it Happen', and other reports published in the framework of the EU thematic conference on preventing depression and suicide^{10th - 11th} December 2009, Budapest, organised by the European Commission and Hungarian Ministry of Health with the support of the Swedish Presidency of the EU and in collaboration with the WHO Europe. Drafts have been reviewed by Ella Arensman, research director, National Suicide Research Foundation, Cork, Ireland.