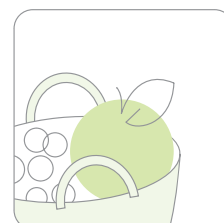
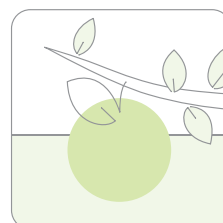
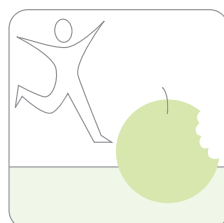
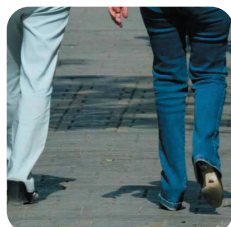


# The State of Mental Health in the European Union





# The State of Mental Health in the European Union



EUROPEAN COMMISSION

Neither the European Commission nor any person acting on its behalf is responsible for any use that might be made of the following information.

The information contained in this publication does not necessarily reflect the opinion or the position of the European Commission.

Reproduction is authorised, except for commercial purposes, provided the source is acknowledged

*Europe Direct is a service to help you find answers  
to your questions about the European Union*

New freephone number:

**00 800 6 7 8 9 10 11**

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>).

ISBN 92-894-8320-2

© European Communities, 2004

Photo cover page: © European Communities, reproduction authorised until 2012, provided the source is acknowledged.

Printed by the services of the European Commission

# Contents

|                                                                              |           |
|------------------------------------------------------------------------------|-----------|
| <b>List of contributors</b>                                                  | <b>5</b>  |
| <b>Executive summary</b>                                                     | <b>6</b>  |
| <b>1 Introduction</b>                                                        | <b>8</b>  |
| 1.1 Mental health and mental illness                                         | 8         |
| 1.2 Burden of mental illness                                                 | 9         |
| 1.3 Why publish a European report on mental health?                          | 10        |
| <b>2 Comparing mental health in Europe</b>                                   | <b>12</b> |
| 2.1 Context of mental health in Europe                                       | 12        |
| 2.2 Methodology for comparing mental health in Europe                        | 15        |
| <b>3 Mental health status in Europe</b>                                      | <b>20</b> |
| 3.1 Positive mental health                                                   | 20        |
| 3.2 Negative mental health: psychological distress and psychiatric disorders | 20        |
| 3.3 Suicide                                                                  | 25        |
| 3.4 Alcohol, tobacco and drug related problems                               | 28        |
| <b>4 Protective and risk factors</b>                                         | <b>34</b> |
| 4.1 Gender and mental health                                                 | 34        |
| 4.2 Age and mental health                                                    | 38        |
| 4.3 Marital status                                                           | 43        |
| 4.4 Social factors - poverty, unemployment and deprivation                   | 44        |
| 4.5 Rural-urban differences in mental health                                 | 48        |
| 4.6 Migration and mental health                                              | 51        |
| <b>5 Responses to mental health problems across Europe</b>                   | <b>54</b> |
| 5.1 General description                                                      | 54        |
| 5.2 Psychiatric inpatient care                                               | 54        |
| 5.3 Community services, facilities and support                               | 56        |
| 5.4 Mental health in primary health care                                     | 56        |
| 5.5 Staffing issues                                                          | 57        |
| 5.6 Patient and family involvement                                           | 58        |
| 5.7 Use of psychotropic drugs                                                | 59        |
| 5.8 Survey results: Seeking help for mental health problems                  | 61        |
| <b>6 Conclusions and recommendations</b>                                     | <b>64</b> |
| 6.1 Summary of findings                                                      | 64        |
| 6.2 Conclusions                                                              | 66        |
| 6.3 Recommendations                                                          | 66        |
| <b>Annex I Details of studies used in survey of surveys</b>                  |           |
| <b>References</b>                                                            |           |

# Figures

|           |                                                                                                                |    |
|-----------|----------------------------------------------------------------------------------------------------------------|----|
| Figure 1  | Determinants of mental health                                                                                  | 11 |
| Figure 2  | Population density in the EU and Norway                                                                        | 12 |
| Figure 3  | Urban population in the EU and Norway                                                                          | 12 |
| Figure 4  | Population aged over 65 in the EU and Norway                                                                   | 13 |
| Figure 5  | Gross domestic product, unemployment and percentage of population at risk of poverty                           | 14 |
| Figure 6  | Health expenditure in EU countries and Norway                                                                  | 14 |
| Figure 7  | Positive mental health in ten EU countries                                                                     | 20 |
| Figure 8  | Psychological distress in ten EU countries                                                                     | 22 |
| Figure 9  | Psychological Distress in seven EU countries (6 ESEMeD, plus UK)                                               | 22 |
| Figure 10 | Any mental disorder in the last 12 months in six EU countries                                                  | 23 |
| Figure 11 | Any mood disorder in the last 12 months in six EU countries                                                    | 23 |
| Figure 12 | Anxiety disorders in the last 12 months in six EU countries                                                    | 23 |
| Figure 13 | Total suicide mortality rates across Europe, 1997                                                              | 25 |
| Figure 14 | Male deaths from suicide, events of undetermined intent and unknown and unspecified causes                     | 25 |
| Figure 15 | Female deaths from suicide, events of undetermined intent and unknown and unspecified causes                   | 25 |
| Figure 16 | Trends in male suicide by country                                                                              | 26 |
| Figure 17 | Trends in female suicide by country                                                                            | 26 |
| Figure 18 | Suicide and old age in males across Europe                                                                     | 27 |
| Figure 19 | Suicide and old age in females across Europe                                                                   | 27 |
| Figure 20 | Suicides in young people across Europe                                                                         | 27 |
| Figure 21 | Suicide, risk of poverty and unemployment                                                                      | 27 |
| Figure 22 | Alcohol consumption across Europe                                                                              | 28 |
| Figure 23 | Trend in alcohol consumption 1980–2001                                                                         | 29 |
| Figure 24 | Trends in alcohol related death 1980–1997                                                                      | 29 |
| Figure 25 | Occurrence of alcohol disorders in men and in women in the last 12 months<br>six European countries            | 25 |
| Figure 26 | Effect of country on relative risk of lifetime alcohol disorders                                               | 26 |
| Figure 27 | Cigarettes consumed per person per year in EU countries and Norway                                             | 27 |
| Figure 28 | Deaths from smoking related causes in the EU and Norway                                                        | 28 |
| Figure 29 | Recent use of cannabis among young adults (15–34 years) in European Countries,<br>measured by national surveys | 29 |
| Figure 30 | Evolution of recent cannabis and cocaine use in some EU countries                                              | 32 |
| Figure 31 | Trends in acute drug-deaths in some EU countries, 1985–99                                                      | 33 |
| Figure 32 | Positive mental health in men and women                                                                        | 34 |
| Figure 33 | The effect of gender on the risk of poor mental health                                                         | 35 |
| Figure 34 | Relative risk of psychological distress for women compared to men in<br>some EU countries                      | 35 |
| Figure 35 | Psychological distress in males and females in some EU countries                                               | 35 |
| Figure 36 | The effect of gender on the risk of depression                                                                 | 36 |
| Figure 37 | Effect of gender for the risk of any disorders in ESEMeD                                                       | 00 |
| Figure 38 | Effect of gender for the risk of anxiety disorders in six EU countries                                         | 36 |
| Figure 39 | Effect of gender for the risk of any disorders in six EU countries                                             | 37 |
| Figure 40 | Ratio of male to female deaths from suicide in EU countries                                                    | 37 |
| Figure 41 | Ratio of male to female suicides across Europe, 1987 and 1997                                                  | 38 |
| Figure 42 | Relative risk of psychological distress for young people                                                       | 38 |
| Figure 43 | Psychological distress in seven EU countries                                                                   | 39 |
| Figure 44 | Relative risk of any mental health disorders in young people in six EU countries                               | 39 |
| Figure 45 | Relative risk of anxiety disorders in young people in six EU countries                                         | 39 |
| Figure 46 | Risk of psychological distress in older people                                                                 | 40 |
| Figure 47 | Psychological distress in older people                                                                         | 40 |

# Figures

|            |                                                                                                       |    |
|------------|-------------------------------------------------------------------------------------------------------|----|
| Figure 48  | Relative risk of mood disorders in older people                                                       | 41 |
| Figure 49  | Relative risk of anxiety disorders in older people                                                    | 42 |
| Figure 50  | Relative risk of psychological distress by marital status across Europe                               | 43 |
| Figure 51  | Mental health and living arrangements in six European countries                                       | 43 |
| Figure 52  | Relative risk of mood disorders according to living arrangements                                      | 44 |
| Figure 53  | Relative risk of psychological distress by employment status                                          | 47 |
| Figure 54  | Psychological distress and unemployment in seven European countries                                   | 47 |
| Figure 55  | Relative risk of any mood disorder in the last 12 months for unemployed people by country             | 47 |
| Figure 56  | Relative risk of psychological distress by low income                                                 | 48 |
| Figure 57  | Psychological distress in rural and urban areas                                                       | 50 |
| Figure 58  | Comparison of any mental disorders in the last 12 months for people living in urban and rural areas   | 50 |
| Figure 59  | Migration rates across Europe                                                                         | 51 |
| Figure 60  | Psychological distress and migrants in five European countries                                        | 53 |
| Figure 61  | Psychiatric hospital beds in European countries                                                       | 55 |
| Figure 62  | Numbers of psychiatrists in EU countries                                                              | 57 |
| Figures 63 | Numbers of GPs in EU countries                                                                        | 63 |
| Figure 64  | Pharmaceutical expenditure across Europe                                                              | 59 |
| Figure 65  | People seeking help for a mental health problem                                                       | 61 |
| Figure 66  | Relative risk of seeking help for a mental health problem among cases of mental ill-health by country | 61 |
| Figure 67  | Probability of seeking help with a mental health problem                                              | 62 |
| Figure 68  | People seeking help for mental health problems from any health provider                               | 68 |
| Figure 69  | Types of providers consulted in case of mental health problems in the last year                       | 69 |
| Figure 70  | People seeking help from different providers in six ESEMeD countries                                  | 63 |
| Figure 71  | Referrals from a family doctor to a mental health specialist                                          | 63 |
| Figure 72  | Prescriptions of Drug for Individuals with any mental health disorder                                 | 63 |

# Tables

|          |                                                                                                                                   |    |
|----------|-----------------------------------------------------------------------------------------------------------------------------------|----|
| Table 1  | Prevalence rates of depressive disorders in selected major European studies                                                       | 21 |
| Table 2  | Prevalence of schizophrenia in the Nemesis study                                                                                  | 24 |
| Table 3  | Lifetime prevalence estimates of WMH-CIDI / DSM-IV mood disorders in Europe for individuals aged 65+, ESEMeD project              | 41 |
| Table 4  | Anxiety disorder in people aged over 65 in six European countries                                                                 | 42 |
| Table 5  | Alcohol disorders in people aged over 65 in six European countries                                                                | 43 |
| Table 6  | Studies reporting associations with higher rates of the common mental disorders, by indicators of less privileged social position | 44 |
| Table 7  | Impact of work on mental health                                                                                                   | 46 |
| Table 8  | Depression in rural and urban areas in males and females                                                                          | 49 |
| Table 9  | Consumption of antidepressants in 14 different European Union countries                                                           | 60 |
| Table 10 | Consumption of anxiolytics and hypnotics in 14 different European Union countries                                                 | 60 |

## Acknowledgements

Many thanks to Frederic Capuano, Jocelyne Gagnon, Maria Carolina Hardoy, Trevor Hill, Zoe Morgan, Nick Taub, and Jane Smith for their help with this report.



# Participants and contributors

## Project leader

Viviane Kovess

MGEN Foundation of Public Health, Paris 5 University, France

## Co-ordinating board

Terry Brugha

Mauro Giovanni Carta

Ville Lehtinen

University of Leicester, UK

University of Cagliari, Italy

STAKES, National Research and Development Centre for

Welfare and Health, Finland

## Topic experts

Matthias C Angermeyer (Older people)

Mariola Bernal (Immigrants)

Miguel Xavier (Substances)

France Kittel (Gender)

Tom Fryers (Deprivation)

University of Leipzig, Germany

Sant Joan de Deu-SSM, Spain

Faculty Medical Sciences of Lisbon, Portugal

ESP ULB Campus Erasme, Belgium

University of Leicester, UK

## National experts

Bairbre Nic Aongusa

Claes-Goran Stefansson

Henrik Day Poulsen

Charles Pull

Josep Maria Haro Abad

Heinz Katschnig

Michael G Madianos

Odd Steffen Dalgard

Rob Bijl

Viviane Kovess

Mauro Giovanni Carta

Ville Lehtinen

Matthias C Angermeyer

Miguel Xavier

France Kittel

Tom Fryers

Department of Health and Children, Ireland

The National Board of Health and Welfare, Sweden

Copenhagen University Hospital, Rigshospitalet, Denmark

Centre Hospitalier de Luxembourg, Luxembourg

Sant Joan de Deu-SSM, Spain

University of Vienna, Austria

University of Athens School of Nursing, Greece

University of Oslo, Norway

Ministry of Justice Research & Documentation, Netherlands

MGEN Foundation of Public Health, Paris 5 University, France

University of Cagliari, Italy

STAKES, National Research and Development Centre for Welfare and Health, Finland

University of Leipzig, Germany

Faculty Medical Sciences of Lisbon, Portugal

ESP ULB Campus Erasme, Belgium

University of Leicester, UK

## Other experts

Wolfgang Rutz

John H Henderson

Gaetan Lafortune

WHO Regional Office for Europe

Mental Health Europe

OECD

## National referees

Raimundo Mateos

Paul Bebbington

José Miguel Caldas de Almeida

Alv Dahl

Matti Joukaama

Venetsanos Mavrey

Pierluigi Morosini

Per Nettelbladt

Johan Ormel

Frédéric Rouillon

Dermot Walsh

Johannes Wancata

Siegfried Weyerer

Koen Demyttenaere

Faculty of Medicine Santiago of Compostela, Spain

University College London Medical School, UK

Pan American Health Organization, Portugal

Aliv University Hospital, Norway

University of Oulu, Finland

University of Ioannina Greece

National Institute of Health, Italy

Lund University, Sweden

University of Groningen, Netherlands

University Paris XII, France

Health Research Board Dublin, Ireland

University of Vienna, Austria

Organisation Central Institute of Mental Health, Germany

KU Lueven, Belgium

## Managing editor

Karen McColl

UK

# Executive Summary

This report aims to describe and compare the state of mental health in the European Union and Norway, in the context of longstanding efforts of EU public health programmes to promote good mental health and to prevent mental ill health.

A documented knowledge of the population's mental health status, and its determinants, is essential to establish the basis for such programmes and to monitor and improve them.

In preparing this report, it has been assumed that collecting and comparing information on mental health between countries will enable Member States to improve their understanding of mental health issues and to plan appropriate policy responses. Mental health has to be considered as a public health priority due to the heavy burden it places on the EU and its Member States.

The report's starting point is the acknowledgement that Member States are different in terms of population density, aging, poverty levels, cultural background and habits. Furthermore, all of these factors have been shown to have some links with mental health status and some of them have been identified as risk factors.

This project has involved representatives from all EU countries plus Norway, WHO Europe, a representative of a non-governmental organisation (Mental Health Europe) and a representative of OECD Europe.

Each country representative was asked to summarise all the surveys on mental health which had been carried out in their country. In addition, the experts each prepared a report on their country, its health system and particular issues relating to the mental health domain.

Routinely collected statistics, such as cause of death or the reasons for hospital discharge, do not fully reflect the reality of the majority of mental health problems, which do not lead to death or hospitalisation. This means that surveys among the general population are very important for assessing the state of mental health.

Consequently this report has been prepared combining two main kinds of data:

- routinely collected statistics on deaths from suicide, the use of drugs and alcohol and psychotropic drug consumption
- results from general population surveys.

The report is based on previous expert recommendations on mental health indicators, which propose that mental health should be described in three dimensions. Positive mental health relates to well-being and the ability to cope with adversity. Negative mental health comprises both psychological distress, which refers to the presence of symptoms (mainly depression or anxiety), and diagnosis of psychiatric disorders. These are the three dimensions which have to be measured through surveys.

However, although many surveys which include mental health measures were identified, the differences in survey techniques and research methods make real comparisons almost impossible. This highlights the importance of collecting data in a comparable manner across the EU.

Two EU designed surveys – Eurobarometer and ESEMeD – provide important information for comparisons for most of the countries. But even EU designed surveys face methodological challenges when interpreting differences.

This report compiles the diverse indicators and describes the major differences across countries in different dimensions, with an attempt to set up individual country profiles where sufficient information was available.

Measures of positive mental health do differ significantly between European countries. Similarly, measurement of psychological distress in the two European surveys shows significant differences between Member States. After controlling for major socio-demographic variables, differences also appear for most of the psychiatric disorders across the countries involved in the surveys. However, there are quite different patterns when considering these three dimensions and this underlines the necessity of collecting information on diverse dimensions (Section 3).

Suicide varies across Europe, ranging from 3 deaths per 100,000 in Greece to 24 deaths per 100,000 in Finland. Although males have higher suicide rates, the ratio of male:female suicides differs across countries as well as the relative proportion of younger and older people who committed suicide.

Since methods for collecting suicide data are not totally identical, data on deaths whose suicidal intention is doubtful (deaths from events of undetermined intent) have been compared as well.

In general, suicide rates have dropped across Europe in the last 20 years. In all countries a decreased trend is observed for suicide in males with the exception of Ireland and, to a lesser degree, of Spain and Luxembourg. This decreasing trend is stronger for suicides among women.

Alcohol, tobacco and drug use all vary between Member States. Alcohol-related problems are responsible for around nine per cent of Europe's total burden of disease. Cigarette smoking is also relevant to mental health because nicotine dependence has been defined as an addictive disorder. Use of illicit drugs varies from country to country and different usage patterns are also reflected in national differences in acute drug-related deaths.

Since mental health surveys results have to be interpreted with caution, a promising way to make comparisons is to compare risk groups across countries. The main relevant factors are gender, age, marital status, employment, socio-economic status, rural-urban place of living and immigration status (See Section 4).

Important differences are reported concerning the relative risk of women for psychological distress and depressive and anxiety disorders across countries. Similarly, there are differences for young people in some countries. Data on the older population were more difficult to compare for depressive disorders, as well as for cognitive disorders, although they will represent a major challenge for each country. To be divorced or to live alone is also a risk factor all around the EU, as are unemployment and poverty but the magnitude of these risks varies. Data on urban/rural comparisons are more difficult to compare, partially because socio-demographic compositions of the two populations are different and also because uniform definitions of what constitutes rural and what is urban have to be found. Very few data exist to allow comparisons on immigrant mental health status across countries.

The extent to which people seek help for any mental health problems, who they seek help from and what help is on offer also differ throughout the EU. Human and material resources are different, quantitatively and qualitatively, across the EU. The reported use of care and health seeking behaviour, however, does not fit the availability of resources and differs remarkably across countries as does the type of help sought. Similarly, the relationships between the primary care system, which is the most frequent provider in all countries, and the specialised mental health system are very different. Consequently, the type of care provided varies too (Section 5).

Thanks to the ESEMeD and Eurobarometer surveys, it is possible to present a complex picture of mental health in six countries, by putting together all available indicators.

This report demonstrates that comparisons of mental health, and its socio-economic determinants, are essential and feasible. Yet such comparisons should be interpreted with caution, at least until data is collected in a more comparable manner across Europe.

Widespread, although not universal, improvements in some indicators, such as suicide or alcohol consumption, point to effective public health policies. The effectiveness of these interventions should encourage the remaining countries, including the new Member States, to introduce similar policies.

Comparisons of the different mental health provision patterns may also be fruitful for EU countries.

The report recommends that, at the EU level:

- information be collected about mental health across the EU in an appropriate way to enable valid comparisons. EU level surveys have to be set up including longitudinal surveys and surveys on children, adolescents, immigrants and older populations. Data collected in various surveys such as labour force surveys should include a mental health component developed in collaboration with mental health surveys experts
- a report on mental health which collects and compares data from all sources, and which includes the enlarged Europe, should be produced on a regular basis in order to stimulate common efforts across the Member States

Many of the above recommendations apply at the national level as well as at the EU level. In addition, some further recommendations are made at Member State level. These stress the importance of:

- implementing EU data collection guidelines and instruments in each health-related survey and of conducting mental health surveys accordingly at regular periods.

# 1 Introduction

The need for information on mental health in Europe has been emphasised in the Public Health Policy, the Health Monitoring Programme and the Public Health Programme (2003–2008) of the European Commission.<sup>1</sup> Problems relating to mental health are a public health priority: the social and economic costs of depression, for example, are of huge importance since depression will be, in a few years, the disease group with the second heaviest toll globally.<sup>2</sup> Moreover, there is no good health without good mental health. Mental health is thus crucial to the well-being of individuals and societies.

It is increasingly evident that mental health problems are a major public health burden. In the last few years, the world has become more aware of this enormous burden and the tremendous potential for mental health gains.

This project aimed to produce a report on the state of mental health in the European Union and Norway and to stimulate the collection of further data on mental health across Europe.

This report describes and compares the state of mental health in the various Member States and proposes a basis for relevant programmes for the promotion of good mental health and the prevention of risk factors. Comparison of information on mental health between countries will enable Member States to improve their understanding of mental health issues and to plan appropriate policy responses.

## 1.1 Mental health and mental illness

Since mental health is a rather broad concept, a background project was designed: the 'Key Concepts' project, was carried out in 1997 in order to *'develop and evaluate the best options for the key concepts of mental health promotion in Europe'*.

This project considered that mental health has a positive and a negative dimension. The positive dimension refers to the concepts of well-being and ability to cope in the face of adversity. This encompasses various dimensions

including: self-esteem, internal locus of control or mastery, optimism, and sense of coherence, to mention the most frequently measured.

The negative dimension relates to the presence of symptoms defined as psychological distress as well as to mental disorders. These mental disorders are defined through recognised classifications such as the International Classification of Disease (ICD10) or the Diagnostic Statistical Manual Version IV (DSM IV). In this report, all the disorders included in Chapter 5 of ICD10 are considered as mental disorders: organic mental disorders, deficiencies and dementias (whatever their cause), psychotic disorders, depressive and anxiety disorders, substance use disorders, personality and conduct disorders and eating disorders. Although disorders in children are included in Chapter 5, in this report only adult disorders will be considered. Chapter 5 concerns psychiatric disorders only and does not include any neurological disorders from degenerative or traumatic origin.

It is important to clarify the relationship between psychological distress and mental disorders. Psychological distress refers to the presence of symptoms which are mainly types of depression or anxiety. These symptoms are usually measured by 'checklists' which produce a score by adding up the answers to the various questions. Psychological distress is, therefore, a continuous dimension. The symptoms are rather common and could be transient, for example, following a negative or stressful life event. However, most of the time the person does not fit into a psychiatric diagnostic category and probably

never will. Those who are defined as having psychiatric disorders, however, do usually also score highly on the psychological distress checklist.

Psychiatric diagnoses on the other hand, are discrete entities described in classification through syndromes. These syndromes are a cluster of symptoms whose duration, severity, and impairment on daily life correspond to different diagnoses which usually relate to a need for care, either primary care or psychiatric care.

For each of these three dimensions, there are various measurement instruments: positive mental health and psychological distress are measured by checklists, while the categorical diagnoses are measured through diagnostic instruments which follow, as closely as possible, the classifications which they aim to produce.

The report of the 'Key Concepts' project favoured a multidimensional approach where mental health was conceived as an indivisible part of general health which reflects the interaction between the individual and the environment.<sup>3</sup> Mental health is influenced by a wide range of factors. These include individual biological and psychological factors, social interaction, societal structures or resources and cultural values. This current report is based on the 'functional model' of mental health (Figure 1), which illustrates these interactions.

Crucial demographic factors which relate to mental health are sex, age, marital status, ethnicity and socio-economic status. Socio-demographic factors can combine with personality characteristics to influence the onset, course, restitution and relapse of disorders in various ways.

Social networks and, especially, close confiding relationships, can act protectively or as risk factors for the onset and recurrence of mental ill health and may affect the course of an episode of illness. Perceived social support, or a lack of it, has an effect on mental health. Negative pressure from, or interaction with, social networks can also have an impact. Social support should not, however, be treated solely as an environmental factor as it is linked to other factors, such as personality features.

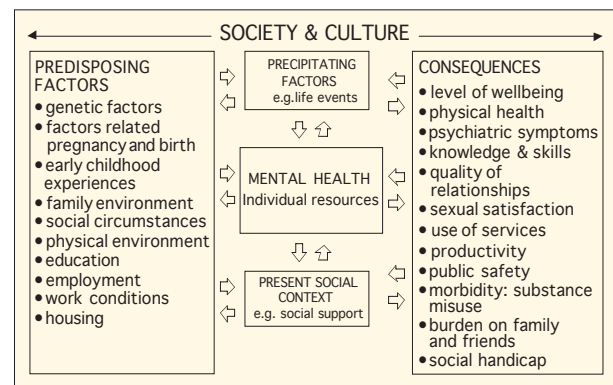
Major occurrences in a person's life that require some psychological adjustment can be risk factors for mental ill health. These adverse 'life events', such as loss of a partner or of a job, can interact with other determinants to have an effect on mental health. In addition, many long lasting difficulties such as disability – either of oneself or of someone close – or major financial problems can result in chronic mental disorders.

The public health implications of the functional model of mental health shown in Figure 1 are many. This model stresses the importance of:

- prevention and health promotion in mental health and the necessity of improving living conditions in various areas: education, housing, employment, access to leisure and culture, human rights and health care organisation (especially the training of health professionals to deal with psychological suffering),
- providing adequate care to those who need it and to carefully allocate specialised and non-specialised resources, according to the severity of disorders in order to optimise resource use,
- providing adequate medical and social resources to the severely mentally ill, and of minimising discrimination, and of integrating people with severe mental illness fully into society and helping their family and friends to support them.

It is hoped that comparisons between the various Member States may facilitate exchange of experiences and of practices and that ultimately this will improve the situation for the EU as a whole.

Figure 1. Determinants of mental health



Source: Korkelia et al, 2003<sup>3</sup>

## 1.2 Burden of mental illness

Mental health is crucial to the overall well-being of individuals, societies and countries. The magnitude, suffering and burden in terms of disability and costs for individuals, families and societies are staggering.<sup>2</sup> Globally, it is estimated that as many as 450 million people suffer from a mental or behavioural disorder and nearly one million people commit suicide each year. One in four families have at least one member with a mental disorder.



According to the World Health Organization's Global Burden of Disease project in 2001, one third of the years lived with disability are due to neuropsychiatric disorders and a further 2.1% are associated with intentional injuries.<sup>2</sup> Four of the six leading causes of years lived with disability are due to neuropsychiatric disorders (depression, alcohol use disorders, schizophrenia and bipolar disorders).

Depression alone causes over 12% of the years lived with disability globally, and ranks as the third leading contributor to the global burden of disease. More than 150 million persons suffer from depression at any point in time. About 25 million suffer from schizophrenia and more than 90 million suffer from an alcohol or drug related problem. In 2000, more than 1.8 million deaths were attributed to alcohol related risks and 205,000 deaths were attributed to illicit drug use.

Dementia presents another enormous challenge for Europe's health and social care systems. There were an estimated 7.1 million cases of dementia in Europe in 2000, and dementia is the principal cause of disability among the elderly.

It is increasingly clear that mental health and physical health are interconnected. A number of mental disorders, such as depression, anxiety or substance abuse, are more common in people suffering from communicable and non-communicable diseases. And people suffering from chronic physical health problems are more likely to develop mental disorders such as depression. While in the general population the prevalence of major depression can range from three to 10%, it is consistently higher in people affected by chronic disease. In people suffering from high blood pressure, for example, the prevalence of major depression is up to 29%. In people living with HIV/AIDS the prevalence is as high as 44%. Rates of suicide are also higher among people with physical health problems than among other people. This co-morbidity – when a person is suffering from two medical conditions at the same time – has important consequences. People with co-morbid depression, for example, are less likely to adhere to medical treatment or recommendations, and are at increased risk of death or disability.

Given the prevalence of mental health and substance dependence problems, the emotional, but also the financial burden, on individuals, their families and societies is enormous. The economic impact of mental illness includes the effects on personal income, on ability to work (for individuals and for carers) and to make productive contributions to the national economy, as well as the use of health and support services.

In the Member States of the European Union the cost of mental health problems is estimated to be between 3% and 4% of gross national product. Of this, healthcare costs account for an average of 2% of GNP. Studies have also shown that the relative and absolute costs of treating chronic disease conditions, such as psychosis and neurosis, are comparatively high when contrasted with a wide range of health disorders. The average annual costs, including medical, pharmaceutical and disability costs, for employees with depression are estimated as up to 4.2 times higher than costs for people with other conditions. In the United Kingdom, for example, a study into the aggregate costs of all mental disorders estimated the total as 44.8 million euros.

An important characteristic of mental health is that mental disorders often start at a relatively young age and mortality from these disorders is relatively low. This means that people can live for a long time with the effects of mental ill-health and that the indirect costs, from lost or reduced productivity in the workplace, are high.

Similarly, it is known that the costs of mental health problems in childhood are large and largely hidden. Research from the UK shows the substantial additional costs generated by children with conduct disorders from ages 10 to 27 years in terms of education and criminal justice.

### 1.3 Why publish a European report on mental health?

Health issues have belonged to the competence of the European Community for a relatively short time. Health was mentioned in this sense for the first time in the 1993 Maastricht Treaty in article 129:

*'The Community is to make a contribution towards ensuring a high level of health protection by 1) the encouragement of cooperation between the Member States and, if necessary, the provision of support to their actions; 2) the promotion of policies and programmes of the Member States in the areas of disease prevention, research into causes and transmission of diseases, health information and health education; and 3) fostering of co-operation with third countries and the competent international organisations in the sphere of public health.'*

Further Treaties of the European Union have built on this European competence in public health. The 1997 Treaty of Amsterdam focused on health protection and disease prevention and identified the need for further actions to

'achieve improvements in public health' as well as activities to 'prevent diseases and health problems' and the 'reduction of risks to human health'.

Based on the mandate for public health established in Maastricht, the Commission of the European Communities published in 1993 the Public Health Framework Programme with its eight action programmes. This was adopted by the Parliament and Council in December 1995 and started in 1996.

Within the Public Health Framework Programme, an action programme on health monitoring was launched in the European Union and Norway. The main objectives of this Programme, which was adopted by the Parliament in June 1997, were:

- to establish a set of Community (core and background) health indicators for monitoring health in the Community that would facilitate the planning, monitoring and evaluation of Community programmes and actions, and that would provide added value to Member States' own health information systems, thus supporting the development of national health policies;
- to specify the content of a network to be set up for the collection and dissemination of health data and indicators, mainly with the aid of telematics; and
- to establish a capacity to undertake analyses, and to support the preparation and dissemination of reports on health status, trends and determinants and the impact of policies.

Mental health was mentioned under the heading '*Functioning and Quality of Life*' as one area for which health indicators might be established under a future Community health monitoring system.

This, in turn, stimulated a number of projects in the mental health field, financed by the European Commission, which have made an important contribution to this report. Specifically, this has included some comparative community surveys, such as ODIN<sup>3</sup>, a large European survey (ESEMED)<sup>5</sup>, plus the addition of a mental health part to the Eurobarometer survey in 2002.<sup>6</sup>

A project entitled *Putting Mental Health on the European Agenda* was carried out between 1998 and 2000. This project outlined a public health approach for mental health in Europe proposing a framework for mental health policy in the European Union, published in the book *Public Health Approach on Mental Health in Europe*.

The project strongly stressed the need to shift the focus of mental health. First, as a major contributor to health and well-being, mental health needs to be brought out

from professional, organisational and political isolation into the broader sphere of public health. Second, instead of concentrating on mental health at the level of individuals, it is important to strengthen the population-level mental health approach. Third, there is a need to shift the understanding of mental health, which traditionally has focused on mental disorders. Instead of looking only at the negative side of mental health, contemporary thinking and actions must draw attention to positive mental health.

In September 2002, a new public health programme was adopted for the years 2003–2008.<sup>1</sup> The general objectives of this programme are:

- to improve information and knowledge for the development of public health,
- to enhance the capability of responding rapidly and in a coordinated fashion to health threats, and
- to promote health and prevent disease through addressing health determinants across all policies.

Based on this new programme, the European Commission has identified its priority work areas. These include some cross-cutting themes such as health impact assessment and tackling health inequalities. Other priorities relate to health information (including a working party for mental health monitoring), to specific health threats and to health determinants, of which mental health is one.

The existing network of people concerned with mental health in Europe, the European Network on Mental Health Policy (ENMHPO), produced a framework and proposed key concepts and indicators relevant to good mental health.<sup>3</sup> The aim of this report is to build on the work of the ENMHPO and to expand the framework within the European Union.

The publication of this report on mental health is important in order to find out more about mental health and its determinants. This report will enable overall comparisons to be made and will enable people in charge of policies, analysts and researchers of the Member States to instigate their own prevention programmes. This report should also stimulate further projects on mental health in Europe.

## 2 Comparing mental health in Europe

### 2.1 Context of mental health in Europe

For many individuals within any one country of the EU, the diversity of European culture may seem the most striking feature, and, indeed, there is incontrovertible diversity. The differences of which most of us are aware (with the exception of language) are largely in rather small-scale traditional features of everyday life, which importantly define our identity and sense of belonging, and vary significantly within, as well as between, nation states.

Yet, looked at from outside, Europe may seem remarkably homogeneous. Profound changes have been taking place across Europe as a whole, varying in pace and degree, but essentially similar in all countries. Changes in the nature of work increasingly emphasise services and communications rather than manufacturing and agriculture. The place of work in people's lives has changed, to provide a great deal more leisure time, which, together with the mechanisation of domestic tasks, higher levels of disposable income and cheap and easy travel, has provoked a huge tourist industry almost everywhere. Communications – telephone, fax, e-mail, radio, television and internet – have opened up the world, especially for younger people, even in remote rural areas.

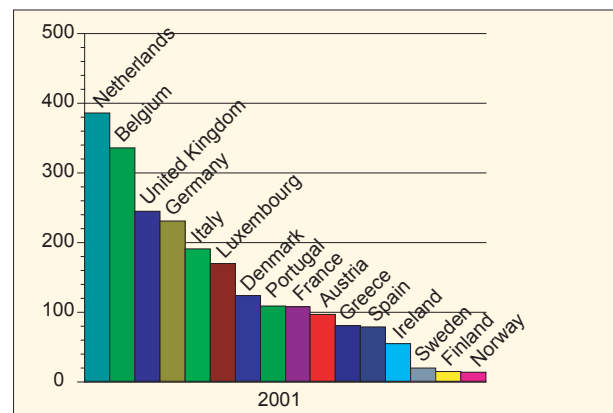
Marriage, divorce and co-habitation, have changed throughout the continent, apparently independent of religious traditions. First births are later and family size is smaller everywhere. In all countries, concurrent with the reduction in children, there is a huge and growing increase in elderly people, but they are fitter and healthier for much longer. These changes in the make up of the population present serious challenges in relation to retirement and pensions right across Europe.

All of the features mentioned above, and many more, have profound implications for mental health – the experience of ordinary people, the challenges of prevention, and the organisation of treatment and care. These are important issues where exchange of information and experience can bring significant benefits.

#### 2.1.1 Population

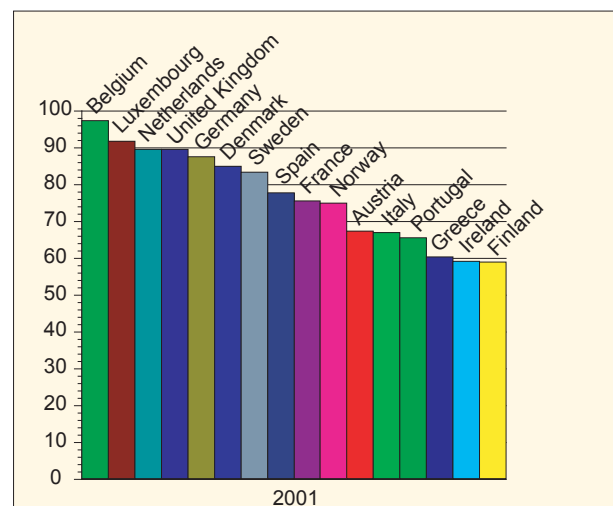
In most countries there are very wide variations in density of population, yet urbanisation continues its apparently irresistible progress.

**Figure 2. Population Density in the EU and Norway**  
Average Population Density per square km, 2001



Source: WHO Health for All Database<sup>1</sup>

**Figure 3. Urban Population in the EU and Norway**  
Percentage of Population Living in Urban Environment, 2001



Source: WHO Health for All Database

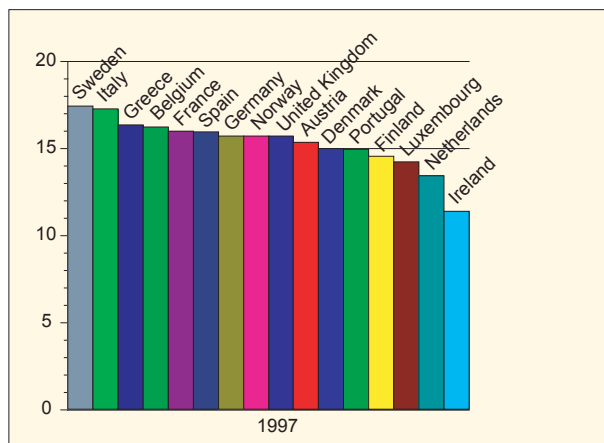


Immigration has also been a feature of most EU countries in the last few decades and most migrants settle also in towns.

Everywhere there are issues of multi-culturalism and assimilation, legal and illegal residents and citizenship, participation, discrimination and disadvantage. There are risks to both general health and mental health attached to immigrant status, and to experience of social exclusion, made more difficult by serious communication problems related to alien languages and cultures (see Section 4.6).

In many countries of Europe there is concern about low fertility, some failing to reach replacement level. OECD figures for 2000 show Spain, Italy, Greece, Austria and Germany with very low rates (between 1.22 and 1.34 births per women aged 15–49). The highest rates were found in France and Ireland (1.89 births per woman). Alongside this, life expectancy has been increasing at all ages. In most European countries 15–20% of the population is aged 65 or more and about 4% aged 80 or more. The exceptions with lower proportions of population aged 65 or more in 1997 were Ireland, Netherlands and Luxembourg. Children under 15 generally make up less than 20% of the population.

**Figure 4. Population Aged over 65 in the EU and Norway**  
Percentage of population aged over 65, 1997



Source: WHO Health for All Database

This holds the prospect of increasing imbalance of populations in favour of the elderly. As the proportion of elderly people increases, high dependency levels are maintained even where the proportion of children decreases. This probably means that people reaching traditional retirement age will need to continue working – they are, in general much fitter and healthier than previous generations and face much longer retirement

prospects. It certainly means increasing numbers of people with dementia and increasing numbers of carers, often themselves elderly and vulnerable (see Section 4.2). It should also mean that children are more valued, but also that child deaths, now rare, are more tragic in their effects on families.

The low birth and fertility rates are no doubt related to increasingly late marriage, at least among middle-income groups. In all groups, and apparently in all countries, marriage has become much less common, and co-habiting has become very common, whether short-term, anticipating marriage, or long-term. This has created havoc with marital status statistics, so that it is difficult to know what health associations there now are. Divorce has also become far more frequent, and living alone consequently more common, needing more independent housing. This is often accompanied by a lack of social support, especially of close confiding relationships known to be protective in mental health terms. Children increasingly have broken and multiple families; it is not yet clear what mental health consequences there may be on a whole population scale.

In general, deaths from the main causes – heart disease, cerebro-vascular disease and malignancies – are falling. Virtually all European countries can point to year on year increases in life expectancy from birth (which derives largely from substantial improvements in peri-natal and infant mortality), and in life expectancy from age 65 and 80. Whatever the perceived problems, this represents a huge success for both socio-economic improvement and health care systems. However, there are sub-groups that do not share these improvements to the full.

### 2.1.2 Economy

In a global context, all countries in the EU are relatively wealthy, with thriving economies and most are designated high income countries by the World Bank. Figures from the Organisation for Economic Co-operation and Development (OECD) showed only Greece, Portugal and Spain with significantly lower gross domestic product (GDP) in terms of dollars per capita as purchasing power parity. This is confirmed by data from WHO. The outstanding GDP of Luxembourg, which is the highest in Europe, is presumably related to its international status and the very high proportion of non-Luxembourgish working there. It will be noted later the effect this has on measures of health spending. Ireland has the second highest GDP and this illustrates the relatively recent economic boom, and, perhaps, the relatively low proportion of elderly, non-productive people.

Yet, in almost all countries there are regions of poor economic performance, with relatively low family incomes, high rates of unemployment, inadequate education, and limited opportunities. And there are ethnic minorities or other distinct sub-groups in the population who are also disadvantaged in these various ways. Since these features are linked at the population level to higher prevalence rates of the common mental disorders, there are obvious implications for both prevention and care.

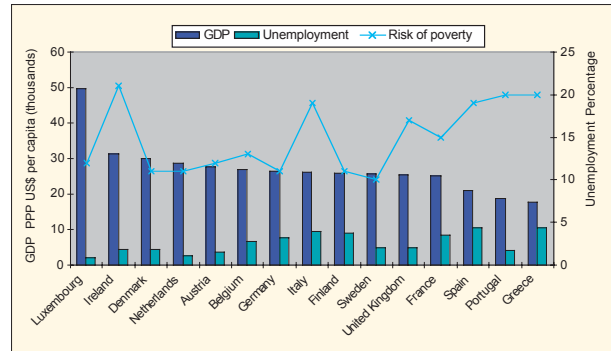
Unemployment rates vary across Europe. But these national rates mask those regional and sub-group variations mentioned above. For example a rate of 10.4% in Germany masks 8.2% in the old 'West' and 18.6% in the old 'East'. In Italy, the overall rate hides the fact that there is a very high rate of unemployment in young adults (age 15-24) nationwide, and particularly in young adults in the South. Unemployment figures show only part of the picture of non-employment, and the rest of the picture will no doubt be very different in different countries. In Sweden, for example, alongside 4.7% unemployment among the workforce aged 16-64 years, we must also consider that there are 13.1% receiving sickness benefit, and therefore temporarily not working, and 8.0% receiving a disability pension, and therefore permanently not working.

In many countries, as the economy has expanded, there is concern about increasing gaps between rich and poor. The poor may increasingly include old people unless the pensions crisis currently experienced or anticipated by most countries is resolved. Apart from social justice and equity, resolution of this issue is thus needed to avoid potentially huge health and social care burdens on communities in the future with ageing populations.

Data on the proportion of population at risk of poverty are available from the EU's New Cronos databank. The percentage of population below 60% of the median equivalised income after social transfers ranges from 10% in Sweden to over 20% in Ireland (Figure 5). These data must be interpreted cautiously, however, as the proportions given relate to each country's GDP. Being at risk of poverty by this measure is, therefore, very different in, for example, Luxembourg and Greece.

**Figure 5. Gross Domestic Product, Unemployment and Population at Risk of Poverty**

*Gross domestic product, purchasing power parity thousand dollars per capita, percentage unemployment and percentage of population below 60% of the median equivalised income after social transfers*



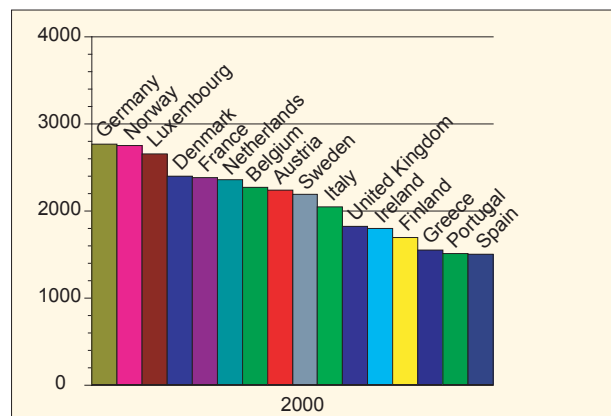
Source: Eurostat New Cronos<sup>2</sup> and OECD statistics<sup>3</sup>

### 2.1.3 Financing health care

There is great diversity in the health care systems of different countries within the EU, but there are some common themes. Total health spending varies; the highest countries are Germany and France, the lowest Luxembourg and Ireland. However, if measured by per capita spending per year as purchasing power parity (ppp), Luxembourg, with the lowest proportion of GDP, was the highest (\$2,613) in 1999 because of its very high GDP. By 2000, Germany had slightly exceeded Luxembourg (Figure 6). In 2000, Spain, Portugal and Greece were the lowest, with expenditure of around \$1,400).

**Figure 6. Health Expenditure in EU Countries and Norway**

*Total health expenditure, purchasing power parity dollars per capita, WHO estimates, 2000*



Source: WHO Health for All Database

All countries appear to have been increasing their health expenditure over the last few years, but even large extra sums of money for health care as, for example, in the UK, take a very long time to work their way through the system to produce recognisable improvements. However, there is an overlap between 'health' and 'social' spending, especially in relation to long-term illness and disability, not least in respect of mental illness. Few countries give the relevant social budget, but it is clear, for Germany and Sweden at least, that it is very large and may be of a similar order to the overt 'health' budget. No doubt it is much less in some other countries.

The mixture of health care funding sources – from taxation, national or compulsory insurance, private insurance and direct patient payments – varies. Therefore, the proportions of total health expenditure that are public and private also vary. High proportions of public spending are now the norm in Europe, and these are often very high proportions. The corollary is a variable private sector which, however, is most commonly an option for relatively affluent people, who can afford it in a situation where they are already covered by a national system of health care.

In every country there appear to be direct payments by patients for some aspects of health care. This is probably most common in respect of drugs, social care and dental care, but a few countries have charges for hospital attendance or even GP consultations. In these cases there are exemptions for poorer people. For example, in Ireland where a fee is charged to see a GP, about one third of the population have free medical cards. As health budgets are under pressure everywhere, there is a strong impression that patient direct payments are tending to increase in many health care systems. This is made explicit in a recent reform plan for health care in Germany. Although Sweden's comprehensive health and social care system is funded out of taxation, about 30% of the total health spend comes from direct patient payments. Mental health is usually fully encompassed by national financial systems, whether insurance based or tax based, but may not be covered by private insurance systems.

## 2.2 Methodology for comparing mental health in Europe

This project has involved representatives from all EU countries plus Norway, WHO Europe, a representative of a non-governmental organisation (Mental Health Europe) and a representative of OECD Europe. See the list of participants and contributors on page 5.

Each country representative was asked to prepare a report on all the surveys on mental health which had been carried out in their country. In addition, the experts were asked to prepare a report on the main features of their country, its health system and particular issues relating to the mental health domain.

### 2.2.1 Methodology of this report

The aim of this report is to describe mental health status, and its determinants, across Europe. As data already exist concerning psychiatric care systems, the emphasis is on epidemiological data.

Mental health and mental health needs can be measured at both individual and population levels. These may be assessed using techniques such as surveys, analyses of routinely collected data, analyses of socio-economic indicators and combinations of these techniques. Health and healthcare may be measured by various indicators.

This report has been prepared combining two main kinds of data:

- Routinely collected statistics
- Results from general population surveys

#### 2.2.1.1 Routinely collected statistics

This report followed the recommendations of the Mental Health Indicators project.<sup>x</sup> This report presents an analytical comparison of some macro indicators collected routinely from institutional sources in Europe. The objective is a general description of mental health status, which includes well being, in the European Union and Norway using officially available statistics. Monitoring a set of routine indicators could allow a good general framework and may provide a source of hypotheses.

A review of macro indicators collected routinely from institutional sources such as World Health Organization (WHO), Organization for Economic Cooperation and Development (OECD) and from EUROSTAT (particularly the New Cronos databank) was carried out. Indicators which could help illustrate mental health status, and the availability of psychiatric care, for European countries were chosen.

Tables and figures are presented throughout the report to enable internal comparisons within each country (trends over time) and between different Member States. Reliability of results may sometimes be doubtful between countries but the measure of the temporal trends in each nation allows methodologically safer comparisons.

## Suicide

Suicide mortality statistics were collected using the International Classification of Disease (ICD) 10 group 'Suicide and intentional self harm'. Suicide data are available from different sources: the OECD databank<sup>2</sup>, the WHO Health for All database<sup>1</sup> and from Eurostat (New Cronos)<sup>3</sup>. The majority of data used in this report are taken from the WHO Health for All Database.

## Deaths due to events of undetermined intent

The Eurostat databank was used to provide rates for male and female deaths due to events of undetermined intent. These figures are important because artefacts of death registration and disparities in the procedures for determining suicide may contribute to the international discrepancies in suicide rates. Rates of deaths due to events of undetermined intent were therefore presented as well as suicide rates.

## Alcohol consumption

At the population level the crude rate of the consumption of alcohol and alcoholic beverages is measured per capita (litres of alcohol per person per year). The alcohol consumption is calculated as the difference between production, alcohol imported and alcohol exported.

There are several reasons why these data should be treated with caution. On one hand, a country's entire population, irrespective of age, is sometimes used to calculate per capita consumption. This leads to a reduction in the estimated average figures for the age groups among which consumption is actually highest. On the other hand, consumption calculations are based on statistics for the production and sale of different alcoholic drinks, and this can lead to overvaluation (drinks that are produced but not consumed) and/or under-valuation (undeclared or illegal production, drinks imported by tourists, countries with a high proportion of children and/or young people in general). Per capita data thus provide us with what is, at best, an estimate of alcohol consumption, but not exact figures, however close the approximation may be.

Data on alcohol consumption were taken from the WHO Health for All Database for the sake of consistency, since the HFA database is a key source throughout this report. The WHO has also, however, been developing the Global Alcohol Database<sup>4</sup> since 1997 and this contains a huge amount of suitably treated and analysed information on the most important indicators in this field.

When consumption trends from both sources are compared it is interesting to note that, despite the fact that the Global Alcohol Database figures (weighted estimate for people over the age of 15 only) are higher than those from the Health for All database, both reveal the same trends.

## Drug use

Data relating to drug use were taken from the 2002 and 2003 reports of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)<sup>5</sup> which provides an annual overview of the drug phenomenon in the European Union and Norway. The data used in this report relate to trends in drug use and trends in acute drug related deaths.

## Mental health care resources

This project did not set out to describe the diverse health systems across Europe. It was considered relevant, however, to bring in some data concerning health care resources; WHO data for general practitioners and psychiatric beds and Eurostat (New Cronos) for psychiatrists.

## Pharmaceutical drug use

Comparing psychotropic drug use across countries is not an easy task. Pharmaceutical companies provide data on the spending in euros by country and by inhabitants and the data could be presented in categories (ATC classification). In this way, antidepressants, sedative/anxiolytics and antipsychotics drugs can be identified. However the data are provided by a paid-for service company (IMS) and are costly to obtain. In addition, this indicator reflects diverse prices so it does not reflect differences in consumption in countries.

The same company provides another indicator from a representative panel of physicians which is the number of prescriptions by ATC. In this case, the data are based on prescription analysis and one prescription could concern either a short or a long period of care, so they may correspond to rather different number of units. Furthermore, hospital consumption is not taken into account.

To avoid all these biases the Defined Daily Dose system (DDD/1000 inhabitants) is supposed to be the standard as it uses total mg of product sold in a country by the standard dosage for a day's treatment and reports it per 1,000 inhabitants.

The EU has set up a website on this – Euromedicine – but unfortunately the DDD data are not available for all countries. And some challenges remain with the DDD system. A standard dose for antidepressants, for example, is not easy to define since this may be different for individual antidepressants.

This report presents data from all three approaches:

- Per capita euros expenditure
- Number of prescriptions per inhabitant
- Defined daily dose per 1,000 inhabitants

### 2.2.1.2 General population surveys

General population surveys are extremely important when it comes to collecting mental health morbidity data. This is because routinely collected statistics on deaths related to mental health problems do not reflect the reality of mental health. Nor do hospital discharge data. These statistics contain no information on the large numbers of people who suffer from mental health problems but neither die nor are hospitalised as a result.

Comparison between surveys is difficult since this requires identical sampling design and use of instruments, including identical training for interviewers and diagnostic construction.

#### Instruments to measure mental health

As previously described, mental health can be described in three complementary dimensions. These are positive mental health (well-being) and negative mental health, which includes psychological distress and psychiatric disorders.

Some instruments are actually designed to produce answers which correspond to diagnoses of mental disorders. The Composite International Diagnostic Interview (CIDI), for example, is a diagnostic instrument which is capable of uncovering a wide variety of diagnose. In general population surveys, however, it may be limited to mood disorders, anxiety disorders and drug and alcohol disorders. These surveys will generate estimates of prevalence of particular disorders.

Other instruments measure more generic factors such as '*psychological distress*' by recording the presence or absence of some symptoms, such as those of anxiety or depression. This type of instrument produces a mental health score, and for some of them cut-off points can be used to categorise people into groups such as '*probable cases*' with mental health disorders. Instruments in this category include the General Health Questionnaire (GHQ), the MHI-5 which is a sub-scale of a widely used generic instrument, the Short-Form 36 (SF-36). The SF36 includes some positive mental health dimensions and some questions on impairment due to mental health problems. The SF-12 has been derived from the SF-36 and includes a score to evaluate mental health.

This report presents results derived using various instruments. Each instrument has been selected because either the survey of surveys revealed that it was one of the most commonly used instruments or because it was included in one of the two Europe-wide surveys whose results are presented in the following chapters. The instruments presented are:

- Diagnoses of mood disorders, anxiety disorders and alcohol disorders derived using the CIDI interview tool
- Positive mental health as assessed by the vitality subscale of the SF36 questionnaire
- Psychological distress as measured by the MHI-5 sub-scale of the SF-36 and as measured by the SF-12 mental health sub-scale
- Risk of poor mental health as measured by the general health questionnaire (GHQ-12) which identifies people with a '*probable mental health problem*'

There are difficulties when using mental health survey instruments across different countries and cultures. Some rules should be applied when translating instruments, such as those edited by WHO, and many instruments have validated versions in many languages. However, where there is careful translation, it has to be stressed that the interpretation of comparison results is difficult. Differences could be either genuine mental health differences, the expression of cultural differences in the expression of symptoms or both. This is the dilemma of comparative psychiatry which is relevant throughout this report.

#### Survey design issues

In addition to the choice of instrument and classification system, and the difficulties with translation of instruments, there are other important factors relating to survey design. These include:

- Source of sampling
- Sampling design
- Participation (response) rate
- Weighting system
- Translation of instruments
- The setting of cut-off points

The issues outlined above have important consequences on the reliability and applicability of survey results in the population surveyed, and have implications for the comparability of results between surveys (see below). Even in multi-country surveys there are difficulties in ensuring consistent survey design and execution across all participating countries.



### A survey of surveys

For this report, surveys done at national, regional and local levels were identified by national experts and from published and unpublished literature. A form collected detailed information about every survey using specified mental health instruments,<sup>a</sup> including the population covered, socio-demographics, sampling methods, instruments, analytical methods, main results, and if data were available for secondary analyses. To try to ensure full coverage, additional National Referees were asked to review the information.

Information was collected on about 200 surveys. The intention was to use the results of these surveys to generalise about prevalence and associations with known risk factors, and to pool data from many surveys where possible, for meta-analysis. However, many surveys were small-scale local surveys, no doubt locally useful but inappropriate for generalisation. And the diversity of sampling approach, methods, instruments, analysis, diagnostic classification and presentation of results among the others was so great as to preclude even simple comparisons except in a few cases. Meta-analysis could be attempted on only 19 studies, using one of three standard instruments (the General Health Questionnaire (GHQ), the Composite International Diagnostic Interview (CIDI) and the Short Form 36 (SF-36) and that with respect only to gender differentials. Annex 1 gives the principal characteristics of the selected studies.

The results of the meta-analysis were limited. The results mostly lacked statistical confidence, although they did confirm previous research findings that women generally suffer worse mental health than men across many different countries and regions (see Section 4.1).

There is huge potential for invaluable comparative meta-analyses where there are many surveys covering the same ground in countries across the EU. This potential cannot currently be realised, however, because researchers have not used the same methods. If the many surveys carried out across Europe were more standardised to enable their findings to be pooled into a more powerful analysis, then the results of each study would be much more valuable. This exercise highlights the importance of an agreement on standard research practice, which would guarantee comparable data, to enable the discovery of differences in mental health between different communities across Europe.

#### 2.2.1.3 European surveys

In addition to the 200 national surveys examined for the survey of surveys, data were collated and compared from a number of European level surveys. These included the

mental health questions which were included in the October 2002 Eurobarometer survey and the ESEMeD/MHEDEA 2000 Project.

### The Eurobarometer Survey

The European Commission funds the Eurobarometer survey on a wide range of topics twice a year in all EU Member States and two separate regions (East Germany and Northern Ireland).<sup>b</sup> In October 2002 a set of questions relating to mental health was included.<sup>x</sup> These questions were standardised survey measures that had been proposed by the European project on the establishment of indicators for mental health monitoring in Europe. These measures related to either negative or positive dimensions of mental health. The questions included were:

- two sub-scales of the SF-36: MHI-5 (psychological distress measure) and EVA (energy and vitality which are positive mental health measures). A score of 52 or less on the MHI-5 scale is taken to indicate psychological distress
- a question about whether respondents had sought help from somebody for a mental health problem during the last 12 months,
- a question on social support, the 3-item Oslo social support scale.

Response rates for the Eurobarometer survey in October 2002 ranged from 23% (Great Britain) to 84% (France). In eight of the countries/regions, the response rate was less than 50%. Thus, for this report countries whose response rates were below 45% were excluded. Thus, Denmark, Greece, Ireland, Northern Ireland, Finland and Great Britain were excluded.

Despite the methodological issues outlined above, the Eurobarometer survey provides interesting information on mental health status in different European countries and use of mental health services.

### ESEMeD

The ESEMeD/MHEDEA 2000 Project<sup>6</sup> (European Study of the Epidemiology of Mental Disorders/Mental Health Disability: a European Assessment in year 2000) comprised six European national surveys in Belgium, France, Germany, Italy, the Netherlands and Spain.<sup>c</sup> The survey, hereafter referred to as ESEMeD, was partially supported by the European Commission.

ESEMeD used the CIDI interview tool (see Section 2.2.1.2) to diagnose current or previous mental disorders and also used the SF-12 scale to assess psychological distress. The overall crude response rate of this study was 61.2% and within countries the weighted response

rate ranged from 45.9% in France to 78.6% in Spain. The response rates for Belgium, Germany, Italy and the Netherlands were 50.6, 57.8, 71.3 and 43.4 percent respectively.

For the SF-12 analysis, we also added the results of a Great Britain wide national survey carried out in 2000 that also used the SF-12.<sup>7</sup>

These mental health factors were compared with socio-demographic variables and the use of health services. The socio-demographic composition of the sample group varied significantly between countries, except for the ratio of men to women.

For this report, analyses were carried out to compare the risk of different disorders between countries and to compare the effect of certain risk factors. These analyses were adjusted to take into account these differences in sex, age, living arrangements (married or living with someone or not) and whether people live in a urban or rural setting.

#### 2.2.1.4 Country reports

In addition to this survey of surveys, which led to specific comparisons, national experts were asked to write a report on the main features of their country and its mental health care system. To support this national report indicator data tables (including available OECD, WHO and EUROSTAT data) for each country, were circulated to each national expert.

All of these country reports included some background information about the population and economy of the country, and the general health care system. This background information is important to supply context for the description of mental health status, care, problems and issues. A compilation of these country reports will be published separately.

## Notes

<sup>a</sup> This included any survey using GHQ, SF-36 or SF-12, any form of CIDI, BDI and CESD.

<sup>b</sup> The Eurobarometer surveys cover the population aged 15 years or over, resident in each of the Member States. The basic sample design applied in all Member States is a multi-stage, random probability one. In each EU country, a number of sampling points is drawn with probability proportional to population size (for a total coverage of the country) and to population density. The net sample sizes are about 1,000 per country/region except Luxembourg (about 600) and Northern Ireland (about 300), giving a total net sample of about 16,000. All interviews are face to face in the respondent's home, conducted by a national survey agency.

<sup>c</sup> The survey is a cross-sectional face to face household interview with probability samples representative of adult population of the six countries. The target population were individuals aged 18 years or older residing in private households. A stratified multi-stage random sample without replacement was drawn in each country. In most countries the sampling frame was either a register of residents or postal registries. In France, however, an adjusted commercially obtained list of telephone numbers was used. For more information on ESEMeD results see Acta Psychiatr Scand 2004; 109 (Suppl 420): 1-64.

## 3 Mental health status in Europe

Despite the importance of mental health in public health terms, we still have a great deal to learn about the state of mental health in Europe. This chapter brings together routinely collected statistics on suicide, alcohol and drugs and survey results on positive mental health, psychological distress and diagnosis of mental health problems to help develop a picture of mental health status throughout Europe and to understand the differences between EU Member States.

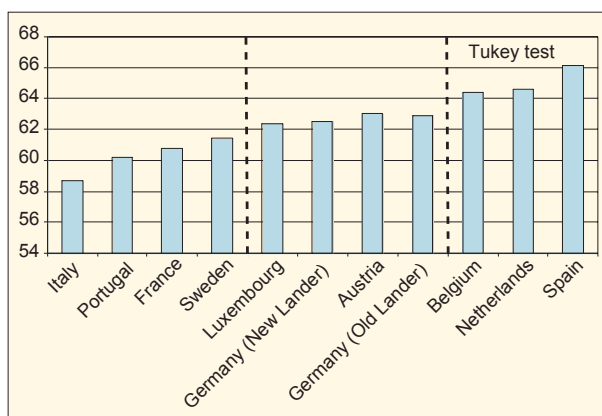
Although there have been many surveys at the national or regional level, this chapter, focused on inter-country comparisons, places special emphasis on the results of two recent European level surveys: Eurobarometer and ESEMeD.

### 3.1 Positive mental health

As described previously, mental health has a positive dimension which can be evaluated in many ways which are very useful indicators for monitoring mental health promotion programmes. Unfortunately, despite the fact that measures of positive mental health have been strongly recommended, very few data on positive mental health, or well being, have been published in Europe.

The few existing results come from the Eurobarometer survey, which has used the vitality subscale of the SF36 survey instrument (Figure 7).

**Figure 7. Positive mental health in ten EU countries**  
Score on the vitality subscale of SF36 (0 to 100).  
The highest score has the highest positive mental health.  
Standardised against West German population.



Source: Eurobarometer<sup>1</sup>

Comparison of the different scores shows significant differences after some standardisation. Italy, Portugal, France and Sweden are in the lowest group and Belgium, Netherlands and Spain are in the highest. Germany, Austria and Luxembourg are in the middle.

It is interesting to note that positive mental health scores, which are considered as reflecting a genuine dimension, do not correspond to the inverse of negative mental health as will be seen further on.

### 3.2 Negative mental health: psychological distress and psychiatric disorders

Table 1 shows various survey results on mental health disorders and depressive disorders. The table illustrates the fact that the surveys used different instruments, covered different time periods and that the populations surveyed had different demographics. In addition, the surveys differed in terms of design effect, participation rates, statistical analyses and weighting systems so their results can hardly be compared.



Table 1. Prevalence rates of depressive disorders in selected major European studies

| Country                     | Study                               | Year      | Population                                                      | Sample | Instrument | Taxonomy* | Period   | Age group | Prevalence All | Male  | Female |
|-----------------------------|-------------------------------------|-----------|-----------------------------------------------------------------|--------|------------|-----------|----------|-----------|----------------|-------|--------|
| Europe (6 National samples) | MHEDEA/ESEMeD <sup>2</sup>          | 2000-2002 | Europe (Spain, Italy, Germany, France, Belgium and Netherlands) | 21,425 | WMH-CIDI   | DSM-IV    | 12-month | 18+       | 3.90%          | 2.60% | 5%     |
| Finland                     | Finland 2000 <sup>3</sup>           | 2000      | national                                                        | 8,028  | CIDI       | ICD-10    | 12-month | 30+       | –              | 4     | 6      |
| France (Basse Normandie)    | Sante des BN <sup>4</sup>           | 1998      | regional                                                        | 1,445  | CIDI-S     | DSM-IV    | 12-month | 18+       | 3.4            | –     | –      |
| Germany (Lubeck & region)   | TACOS <sup>5</sup>                  | 1998      | regional                                                        | 4,075  | M-CIDI     | DSM-IV    | 12-month | 18-64     | 2.1            | 1.1   | 3      |
| Germany                     | GHS <sup>6</sup>                    | 1999      | national                                                        | 4,181  | M-CIDI     | DSM-IV    | 12-month | 18-65     | 8.30%          | 5.50% | 11.20% |
| Netherlands                 | NEMESIS <sup>7</sup>                | 1996      | national                                                        | 7,076  | CIDI v 1.1 | DSM-IIIIR | 12-month | 18-64     | 5.80%          | 4.10% | 7.50%  |
| France (Paris)              | Paris/Sardinia <sup>8</sup>         | 1994-96   | regional                                                        | 2,260  | CIDI-S     |           | 6-month  | 18+       | 5.9            | –     | –      |
| France (Isle de France)     | Sante des F <sup>9</sup>            | 1998      | regional                                                        | 1,183  | CIDI-S     | DSM-IV    | 6-month  | 18+       | 5.8            | –     | –      |
| Italy (Sardinia)            | Paris/Sardinia <sup>8</sup>         | 1994-96   | 3 different areas                                               | 1,040  | CIDI-S     | ICD-10    | 6-month  | 18+       | 6.5            | –     | –      |
| Germany (Lubeck & region)   | TACOS <sup>10</sup>                 | 1998      | regional                                                        | 4,075  | M-CIDI     | DSM-IV    | 4-week   | 18-64     | 0.8            | 0.3   | 1.2    |
| Netherlands                 | NEMESIS <sup>7</sup>                | 1996      | national                                                        | 7,076  | CIDI v 1.1 | DSM-IIIIR | 4-week   | 18-64     | 2.70%          | 1.90% | 3.40%  |
| Great Britain               | 1st survey psych morb <sup>11</sup> | 1993      | national                                                        |        | CIS-R/SCAN | ICD-10    | 2-week   | 16-64     | 2.30%          | 1.90% | 2.80%  |
| Great Britain               | 2nd survey psych morb <sup>12</sup> | 2000      | national                                                        |        | CIS-R/SCAN | ICD-10    | 2-week   | 16-64     | 2.80%          | 2.60% | 3.00   |

Source: E S Paykel MD FRCP FRCPsych FmedSci., T Brugha MD FRCPsych., T Fryers MD PhD FFPH. (2004) SIZE AND BURDEN OF DEPRESSIVE DISORDERS IN EUROPE. In: European Review on Size and Burden of Mental Disorders. To be published in European Neuropsychopharmacology.

Fortunately, there are two European surveys using identical instruments and design and whose data can be analysed together: Eurobarometer and ESEMeD.

However, even though much was done to ensure comparability, care should be taken with comparisons since there are always unmeasured differences in estimates of the rates of disorders. As a consequence, this report presents only a few overall comparisons and, instead, presents risk factor comparisons for the major pertinent mental health variables (gender, age, marital status, employment, economic situation, rural/urban place of living and immigration status) because it is safer to compare these various risk factors within different countries.

The figures presented are mainly in the form of relative risk, or odds ratio. The odds ratio is a number which indicates how much the risk has to be multiplied for a given country compared to another chosen as reference. Relative risk can also be presented in this way to

illustrate the size of a risk associated with one variable (such as being female) compared to another (such as being male). This format has the advantage that it can express, in a easy to understand manner, the risk. It also allows researchers to statistically 'control' for other variables which might have an effect in order to ensure that the risk is attributable to the country. Since the surveys in question were done on samples, the odds ratios have a confidence interval which should not include one (which correspond to a risk at 0) - this will be indicated in the figures. The odds ratios have been calculated using stata and those presented have been adjusted for the main demographic variables.

Two types of comparison are presented: psychological distress, as evaluated by MHI5 (SF36) in Eurobarometer and the mental health scale of SF12 in ESEMeD, and comparisons by psychiatric diagnoses according to medical psychiatric classifications (major depressive disorders and anxiety disorders).

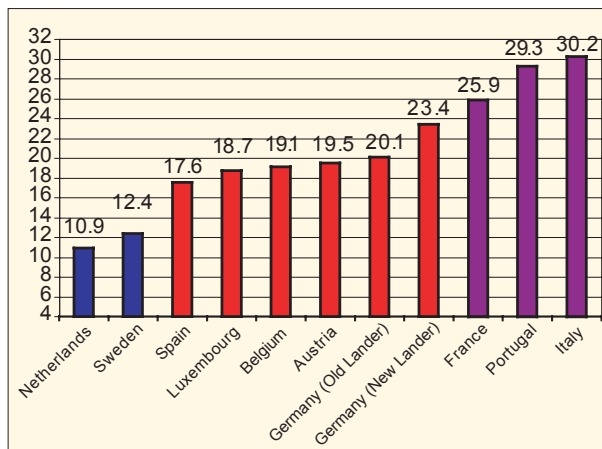
### 3.2.1 Psychological distress

Psychological distress was measured by two near-identical instruments – MHI-5 and SF-12 – derived from the same source. These instruments aim to evaluate common symptoms, mostly concerning anxiety and depression.

The Eurobarometer survey used the MHI-5 scale and a recommended cut-off point was used (Figure 8). This means that those with a score at or below 52 have high psychological distress. The differences between countries are significant.

**Figure 8. Psychological distress in ten EU countries**

*Percentage with a score of 52 or less on MHI-5 scale of SF36 – those who probably have mental health problems. Standardised against the West German population*

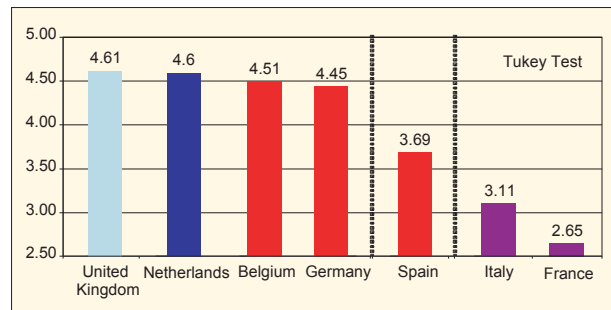


Source: Eurobarometer

For SF-12 no standardised cut-off point is available but a low rate is associated with high psychological distress and a high rate with low psychological distress (Figure 9). National UK survey data were added to the ESEMed data since they were collected using the same instrument.<sup>12</sup> Data were weighted according to the UK population distribution for age and sex.

**Figure 9. Psychological Distress in Seven EU countries**

*Mental health score on the SF-12 sub-scale in six ESEMed countries and the UK. A lower score indicates a higher level of psychological distress*



Source: ESEMed and UK psychiatric morbidity survey

When the two figures are compared the results are coherent: France and Italy are those claiming the highest psychological distress and Netherlands the lowest. Spain, Germany and Belgium are in-between.

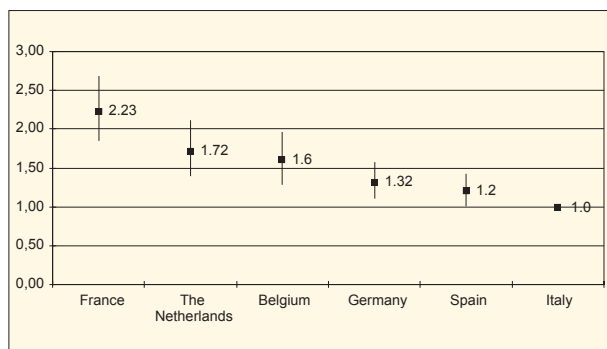
When comparing results obtained with positive mental health, one can see that some countries have strict inverse results such as the Netherlands, which has high positive mental health and is low in psychological distress. It is the reverse for Italy, Portugal and France which have low levels of positive mental health and high levels of psychological distress (Figures 8 and 9). Some countries, however, such as Spain and Belgium are high for positive mental health and relatively high as well for psychological distress.

### 3.2.2 Psychiatric disorders

Data from the ESEMed study enable presentation of prevalence for major depressive disorders and anxiety disorders for the six countries involved.

**Figure 10. Any mental disorder in the last 12 months in six EU countries**

*Relative risk for any mental disorder in the last 12 months, using Italy as a base. Adjusted for sex, age, living arrangements and urban/rural*



Source: ESEMeD

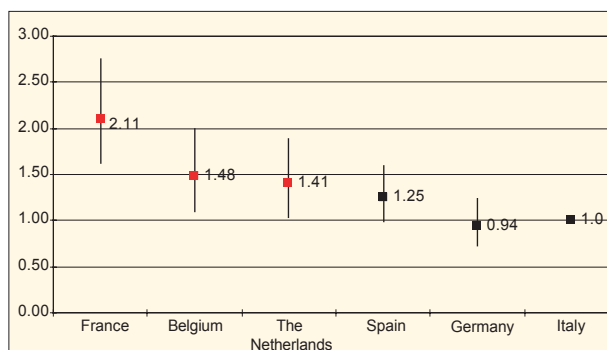
Five countries in the ESEMeD study had a higher prevalence of any mental disorder in the last 12 months than Italy. Figure 10 shows the relative risk compared to Italy for each of the other countries involved.

### 3.2.1.1 Depression

The six-country ESEMeD study included assessment of lifetime and current prevalence of mood disorders (which includes depression) and major depressive episodes. Figure 11 shows the relative risk for having had any mood disorder in the last 12 months compared to Italy. For all the following analyses, Italy was used as the reference for comparison because the rates for all the conditions were lower in Italy.

**Figure 11. Any mood disorder in the last 12 months in six EU countries**

*Relative risk for any mood disorder in the last 12 months, using Italy as a base. Adjusted for sex, age, living arrangements and urban/rural*



Source: ESEMeD

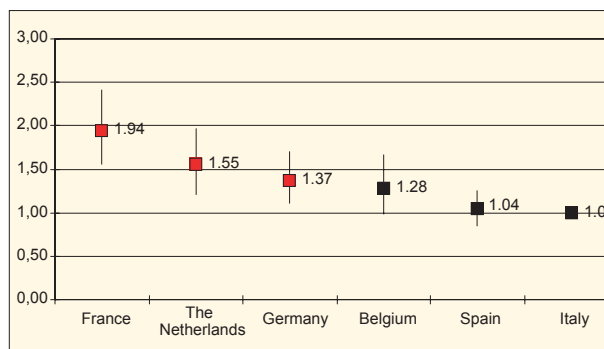
Compared to Italy, there is a significantly increased risk of any mood disorder in Belgium, France and the Netherlands (Figure 11).

### 3.2.2 Anxiety

The ESEMeD survey assessed the lifetime and current prevalence of anxiety disorders.

**Figure 12. Anxiety disorders in the last 12 months in six EU countries**

*Relative risk adjusted for sex, age, living arrangements and rural/urban. Italy as a Reference*



Source: ESEMeD

The relative risk of anxiety disorders in the last 12 months, compared to Italy, is shown in Figure 12. For anxiety disorders, France, Germany and the Netherlands are at risk compared to Italy. Spain and Belgium, however, do not have higher risk.

After controlling for major socio-demographic variables, differences do appear for most of the psychiatric disorders across the participating countries. Italy has a lower risk for any disorders in the last year than the other countries and Spain does not differ from Italy for anxiety and depressive disorders. On the other hand, France and the Netherlands are constantly higher than Italy and Spain. Belgium is higher than Spain, Germany and Italy for mood disorders but not for anxiety and it is the reverse for Germany.

Interestingly Italy, which has the lowest rate of psychiatric disorders, has one of the highest psychological distress levels including within the same study where diagnosis as well as psychological distress questions are asked to the same subjects. There are various ways that this might be explained. One of these might be that Italians are more prone to admit common symptoms than to report severe psychiatric symptoms.

Alternatively, there may be some social and cultural mechanisms which prevent those in psychological distress becoming psychiatric diagnoses. This last hypothesis is supported by the fact that two macro-indicators: alcohol consumption and suicide are at low levels for this country. Of course we cannot rule out the hypothesis that a rigid psychiatric instrument such as the CIDI does not capture the

diagnosis symptomatology. It worth noting that this low rate for some of the diagnoses, more specifically depression, in Italy has been regularly reported in other surveys.

The analysis above illustrates that comparisons are difficult to interpret, as well as demonstrating that data are coherent between the two studies. This also shows that psychological distress is a different dimension of mental health to psychiatric disorders even though they do overlap to a certain degree.

### 3.2.3 Psychosis

In addition to the mental health problems described previously, it is important to consider other disorders such as schizophrenia.

Mental health literature suggests that the prevalence of schizophrenia has varied enormously between studies and countries. It is estimated that the average lifetime prevalence of schizophrenia would be about 1% of the total population.

Large differences in the prevalence of schizophrenia between different countries (from 0.3 per 1,000 to 13 per 1,000) were found in one 1987 review. In addition, pockets with very high and very low prevalence have been detected.<sup>13</sup>

A review by Häfner and an der Heiden<sup>14</sup> selected 30 prevalence studies of schizophrenia published since 1980. The lowest reported prevalence in these studies was 0.3 per 1,000 in Canada, and the highest from 6.0 to 11.0 per 1,000 in the USA in two separate studies.

Some studies, published from Finland, seem to indicate that the prevalence of schizophrenia would be somewhat higher in this country than in most of the other countries from which data are available. For example, the national Mini-Finland Health Survey, representing the whole Finnish adult population and conducted in the end of the 80s<sup>15</sup> revealed an overall prevalence of schizophrenia as 1.3% (same for both sexes). However, a clear difference between the five different regions of the country were found: the prevalence was 0.9% in the two southern regions, whereas it varied from 1.6% to 2.1% in the three northern and eastern regions.

Hovatta *et al* studied a single municipality in the north-eastern Finland, which they called a 'genetic isolate', and they found a very high prevalence of schizophrenia (3.2%).<sup>16</sup> A similar isolate had been found in already in the 40s in northern Sweden.<sup>17</sup>

The prevalence of psychosis has been estimated in two household surveys in Great Britain in 1993 and 2000.<sup>12</sup> In both surveys approximately 9,000 adults were interviewed in Wales, Scotland and England and screened for possible psychosis using self-report measure.

A follow-up interview by clinicians was used to produce a population prevalence estimate that in both surveys was 4 per thousand.<sup>18</sup> A high proportion of, but not all, cases were in contact with primary or secondary (specialist care) services and in receipt of treatment. The rate found is similar to that obtained in a survey based on service, practitioner and lay healer contacts carried out in selected parts of Australia.<sup>19</sup>

A general population random sample of 7,076 men and women aged 18-64 years in the NEMESIS study in the Netherlands, using the Composite International Diagnostic Interview (CIDI), yielded the following results.<sup>8</sup>

Table 2: Prevalence of Schizophrenia in the Nemesis Study

|                     | Male | Female | Total |
|---------------------|------|--------|-------|
| Lifetime prevalence | 0.4% | 0.3%   | 0.4%  |
| 12-month prevalence | 0.2% | 0.2%   | 0.2%  |
| 1-month prevalence  | 0.1% | 0.2%   | 0.1%  |

Source: Bijl *et al.*, 1998<sup>8</sup>

In this survey, those with evidence of psychosis according to the CIDI were additionally interviewed by psychiatrists. The lifetime prevalence of 'true' psychiatrist-rated clinical delusions and hallucinations was 3.3% and 1.7% respectively. The prevalence of *either* delusions or hallucinations was 4.2%. In the general population psychosis symptomatology that is considered not clinically relevant is present: lifetime prevalence is 12.9%. The prevalence of secondary symptoms (i.e. psychotic symptoms are present, but the result of drugs or somatic disorders) is 0.6%. Of the 17.5% of the population with any type of positive psychosis rating, only 2.1% had a diagnosis of non-affective psychosis (according to the DSM-III-R classification).

From this, it may be concluded that, although schizophrenia is rare, psychosis symptoms are rather common in the general population. These findings have to be put in context of the ongoing debate on the concept of schizophrenia. Although dichotomously defined for clinical purposes (using ICD or DSM criteria), some scientists consider that psychosis may exist as a continuous phenotype in nature. Better study of pre-psychotic states may have implications for prevention.

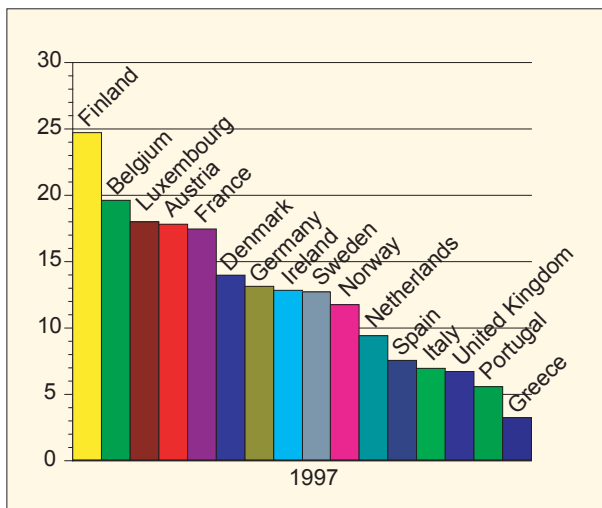
### 3.3 Suicide

There are big discrepancies between suicide rates in different EU Member States (Figure 13). The yearly rates range from 3 deaths per 100,000 in Greece to 24 deaths per 100,000 in Finland.

The last year with available suicide data for all EU countries is 1997 (Figure 13). More recent data are available for all countries except Belgium (Figures 14 and 15).

**Figure 13. Total Suicide Mortality Rates Across Europe, 1997**

*Standardised death rates, suicide and self-inflicted injury, all ages per 100,000*



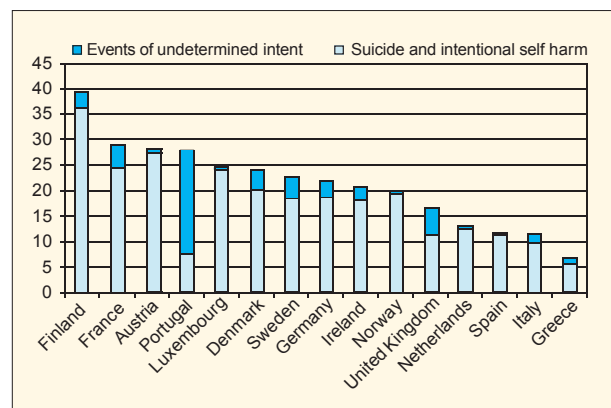
Source: WHO Health for All database

Some of the variations in suicide across Europe may be due to differences in the process of death registration.<sup>19</sup> Procedures for recording a death as a suicide are not uniform. Countries like Luxembourg require a suicide note in order to register a death as suicide, while in the United Kingdom an assessment of intent is required by a Coroner. Cultural and social norms also play a role in death registration. In cultures in which suicide is particularly stigmatised, it may be more common to record the cause of death as of undetermined intent or to record another cause.

For this reason it is interesting to take into account deaths from events of undetermined intent alongside suicide when making country comparisons. For example, the suicide rate in Portugal, which was one of the lowest rates of suicide, became one of the highest when undetermined intent is taken into account. Of course not all deaths from events of undetermined intent should be considered as a suicide, but many of them will be.

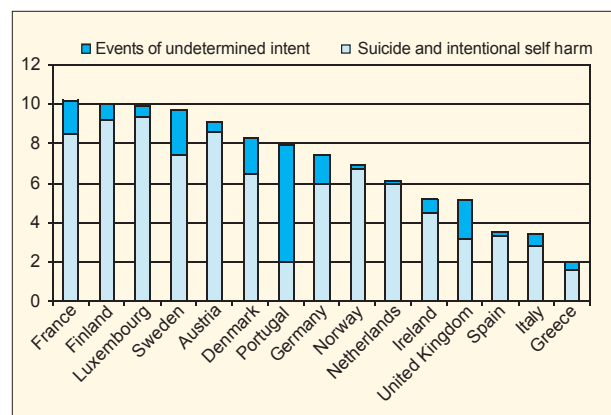
Adding these figures to the statistics helps to clarify the true situation and makes comparisons more, although not entirely, satisfactory.

**Figure 14. Male deaths from suicide, intentional self harm and events of undetermined intent across Europe 1999 by country**



Source: Eurostat New Cronos

**Figure 15. Female deaths from suicide, intentional self harm and events of undetermined intent across Europe 1999 by country**

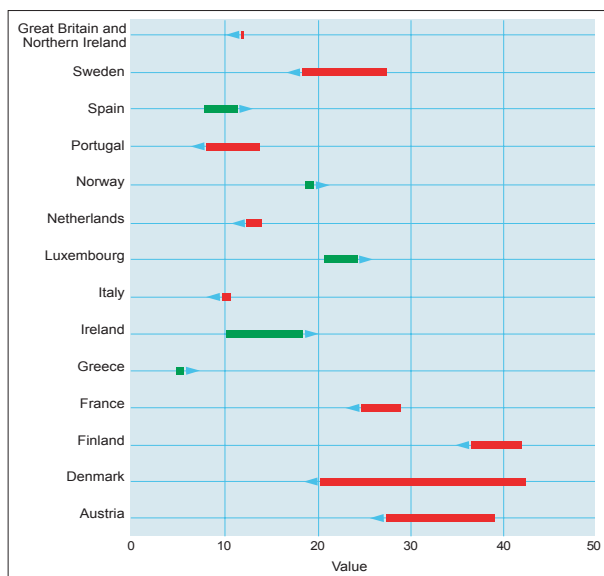


Source: Eurostat New Cronos

For this reason the evaluation of trends over time in each nation is probably a better tool for making comparisons between countries.

In all countries a decreased trend is observed for suicide in males with the exception of Ireland and, to a lesser degree, of Spain, Luxembourg and Greece (Figure 16). It is most notable in Ireland that the increase in suicide does not apply to women (Figure 17).

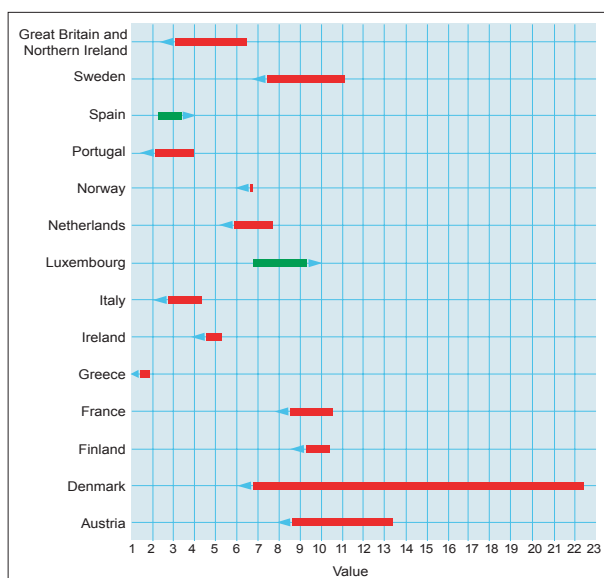
**Figure 16. Trends in male suicide by country**  
Standardised death rates, suicide and self inflicted injury, males all ages per 100,000, 1980-1999. Red lines indicate a decrease and green lines represent an increase.



Source: WHO Health for All Database

The trend of a decrease in suicides in the last 20 years is stronger in females (Figure 17).

**Figure 17. Trends in female suicide by country**  
Standardised death rates, suicide and self inflicted injury, females all ages per 100,000, 1980 – 1999. Red lines indicate a decrease and green lines represent an increase.



Source: WHO Health for All Database

Trends in suicide can be influenced by changes in attitudes towards the registration of deaths which occur over time within a country. For example, it could be argued that the Irish suicide rate has not really increased, but that there has been a cultural change towards suicide. If such a hypothesis were true, this should correspond also to a drop in deaths from events of undetermined events. This is not the case, however, in Ireland where deaths from events of undetermined intent among men increased by 14% between 1995 and 2000.

Among those countries with an increase in male suicide rates, only Luxembourg witnessed a slight decrease in deaths from events of undetermined events. Both countries with an increase in female suicide rates – Spain and Luxembourg – have also seen an increase in female deaths due to events of undetermined events.

The elderly have the highest suicide rates in the population (Figures 18 and 19). Suicide rates increase with age. Males aged 75 and above have the highest suicide rates of all age groups in most industrialised countries.

Since the number of people who reach old age is expanding, the absolute number of suicides is expected to rise. Suicide is predicted to become the tenth most common cause of death in the world by 2020.<sup>20</sup>

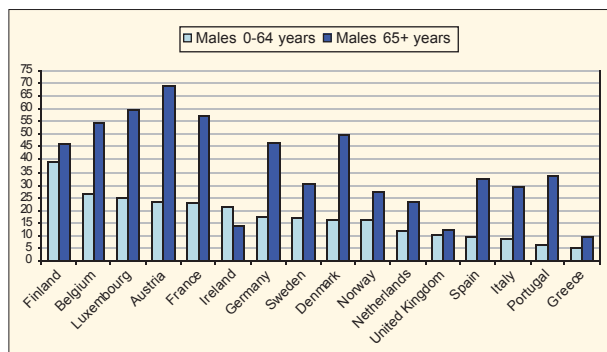
Risk factors for suicide in old age are mainly chronic, terminal and painful illnesses, psychiatric disorders (mainly depression), conflicts and stress in interpersonal relationships, social isolation and loneliness.

Elderly men tend to use violent suicide methods. The methods employed vary among the different cultural settings, hangings tend to dominate among male elderly suicide in European nations. The main method employed by elderly women is self-poisoning with prescription drugs.

The ratio of attempted suicides to deaths from suicide in the general population is estimated at between eight and 20 to one. The corresponding figure for the elderly was estimated at two to one by a 16-centre WHO study.<sup>21</sup>

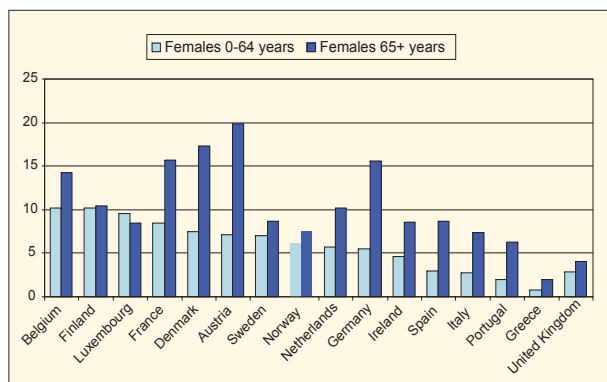


Figure 18. Suicide and old age in males across Europe  
Standardised death rates for suicide and self-harm in males aged 0-64 years and males 65 years and over, 1997



Source: WHO Health for All Database

Figure 19. Suicide and old age in females across Europe  
Standardised death rates for suicide or intentional self harm for females 0-64 years and females 65 years or older, 1997



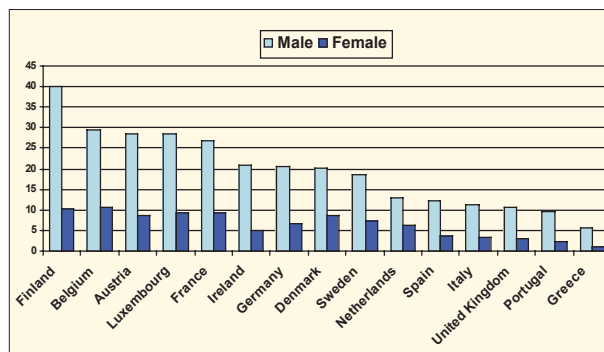
Source: WHO Health for All Database

Ireland is the only country where the suicide rates in males in the 0-65 age group is higher than the suicide rate of older adults.

The high suicide rate for adult men in Ireland is confirmed in the youngest age category: 15 to 24 years. As a result the ratio of suicides in young men compared to young women in Ireland is the highest in Europe.

Figure 20 shows the suicide rates for young males and females aged between 15 and 24 years.

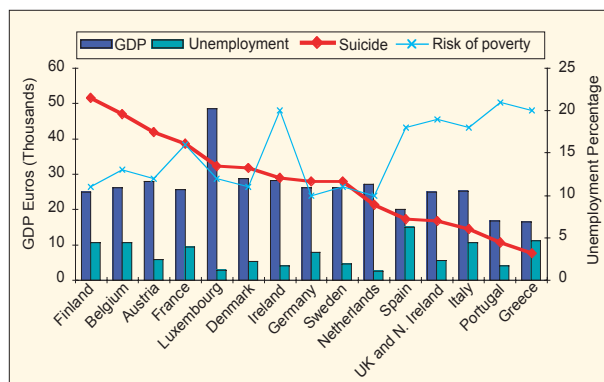
Figure 20. Suicides in young people across Europe  
Standardised death rates suicide and self-harm, males and females aged 15-24 years, 1997



Source: WHO Health for All Database

The variation in suicide rates across countries may be partly explained by social and cultural factors.<sup>22</sup>

Figure 21. Suicide, risk of poverty and unemployment



Source: Eurostat New Cronos and WHO Health for All Database

However, the relationship between major economic factors such as unemployment rate, GDP and poverty levels is not evident from the data available here (Figure 21).

For example, Ireland, the country which has had the best economic trend in most indicators in the period between 1980 and 2000, has had the highest increase in suicides during the same time. However, the causes are not clear and are certainly complex. There have been many changes in Irish society in the recent past. The wealth of the country has increased, although the risk of poverty has remained at a high level (Figure 21). There have also been radical changes in Irish social structure and religious attitudes.



On the other hand, substance abuse is well recognised as a crucial risk factor for suicide. Ireland and Luxembourg, those countries with increases in suicide, show an increase in consumption of alcohol during the same period (See Section 3.4). Ireland and Greece, countries that have shown an increased trend in suicides, have also seen an increase in the rate of drug related deaths.

Since depression is a very strong risk factor for suicide, it is relevant to consider depression trends. A review of studies relevant to trends in depression in western societies found evidence of an increase in the rate of major depression in cohorts born after the Second World War and a decrease in the age of onset. An increase in rates of depression was revealed for all ages during the period between 1960 and 1975. Evidence of a narrowing of the differential risk for men and women, due to a greater increase in the risk of depression among young men than young women, was also observed. It has been argued that the short-term variations in major depressive disorders by country was evidence that these rates were sensitive to changing historical, social, economic, or biologic environmental conditions. Thus, males may be at greater risk in situations of rapid improvement where the competitive challenge becomes pressing as the risk of 'goal striving stress' increases.

The notion of male sensitivity to goal striving stress may also be applied to understanding why Ireland, with the best European economic performance during the period 1980-2000, reports an increase in male suicides of around 100%. This is, however, only a hypothesis but is line with Durkheim's theory of '*anomic suicide*'.

Availability of health care, especially access to proper antidepressant care, may influence suicide rates in the various countries. Comparative data on access to care, however, and use of psychotropic drugs in Europe are difficult to obtain and compare (See Section 5.7).

### 3.4 Alcohol, tobacco and drug related problems

#### 3.4.1 Alcohol

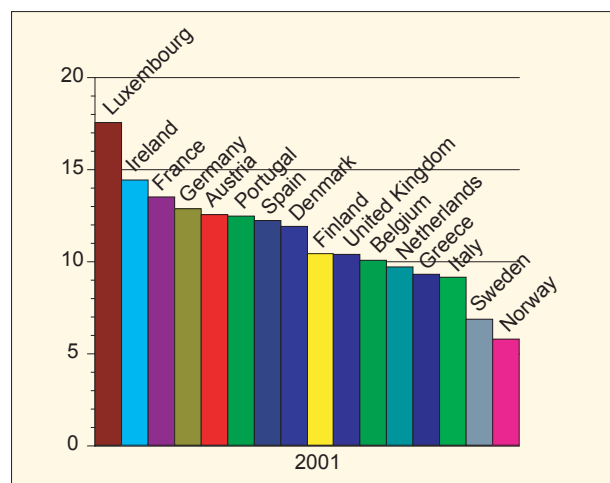
Alcohol related problems are one of the greatest public health challenges facing the countries of the European Union and are responsible for an extremely high burden of disease (9% of the total).<sup>23</sup>

Estimates of per capita alcohol consumption is based on the difference between production, importation and exportation of alcohol. As described in Section 2.2, this can only provide an estimate of alcohol consumption.

The European Union is the region of the world with the highest per capita alcohol consumption, although there are considerable differences between countries (Figure 22).

**Figure 22. Alcohol consumption across Europe**

*Litres of pure alcohol per person aged 15 years or over per year, 2001*

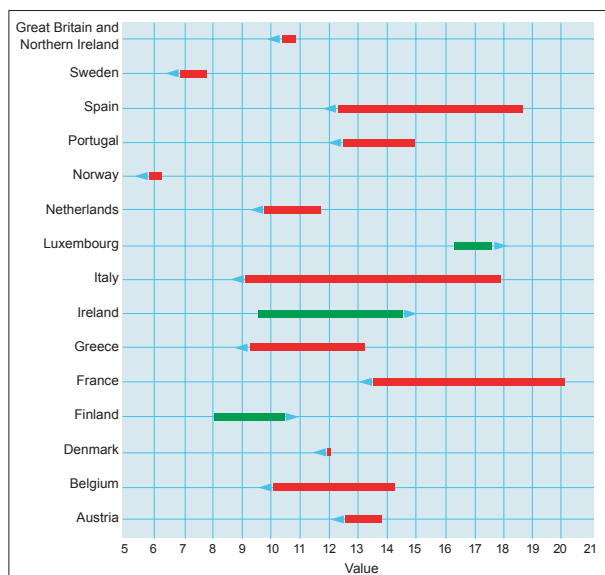


Source: WHO Health for All Database

Apart from Luxembourg, Sweden and Norway, differences across countries are not so striking. Trends over the last 20 years, however, show very important differences which better reflect public health policies.

In general terms, over the last 20 years consumption has remained more or less stable in the Nordic countries, except Finland. Consumption has fallen in countries that include the wine producers France, Portugal, Spain and Italy, and has displayed the strongest tendencies to rise in Ireland and Luxembourg (Figure 23).

**Figure 23. Trend in alcohol consumption 1980 – 2001**  
Pure alcohol consumption, litres per capita age 15+, both sexes, in the European Union and Norway. Red lines indicate a decrease and green lines represent an increase



Source: WHO Health for All Database

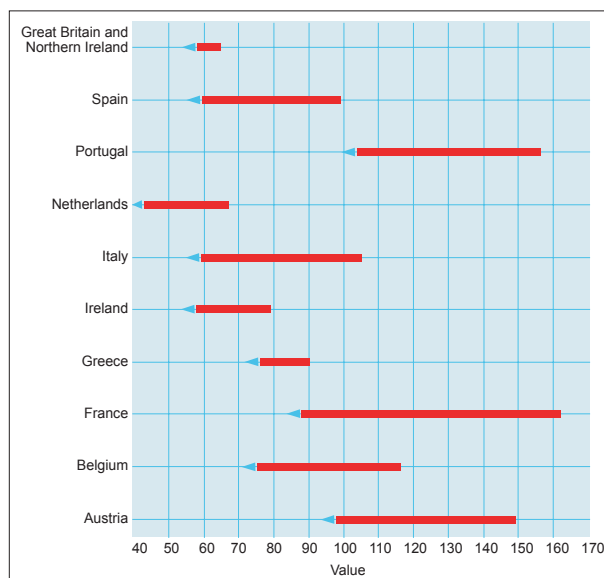
From a public health perspective, alcohol has an impact in such diverse areas as road accidents, organic morbidity/mortality, suicide and domestic violence, for which the existing data are fragmented and almost always fall short of the reality. There have been serious attempts in the last few years to address this problem of fragmentation of information about alcohol-related problems. Particularly notable is the Global Alcohol Database which WHO has been developing since 1997.

Alcohol abuse is associated with many health conditions, such as liver disease, hypertension, and psychiatric disorders, as well as with violence, homicide, dangerous driving and accidents. Alcohol abuse is also often associated with abuse of other drugs.

It is estimated that about 50% of all deaths in the European Region from intentional and unintentional injury are attributable to alcohol consumption.<sup>24</sup> Alcohol use and alcohol-related harm, such as drunkenness, binge drinking and alcohol-related social problems are frequent among adolescents and young people, particularly in Western Europe.

Alcohol-related mortality has fallen in all countries including those where alcohol consumption has risen, such as Ireland and Finland. This decrease is probably due to better access to care and lower toxicity of alcoholic beverages.

**Figure 24. Trends in alcohol related death 1980 – 1997**  
Standardised death rates per 100,000 population, alcohol-related deaths for countries with available data. Red lines indicate a decrease and green lines represent an increase



Source: WHO Health for All Database

#### 3.4.1.1 European survey findings on alcohol

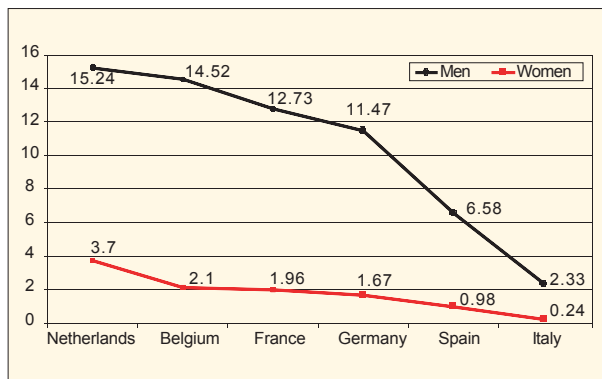
Data from reported population alcohol sales or alcohol-related deaths do not describe the phenomena completely. Alcohol consumption is levelling. For example, a country where most of the people are moderate drinkers will have the same average consumption as a country with heavy drinkers and a high rate of abstinence when the risks for health are completely different.

Epidemiological surveys could be a useful method to evaluate consumption patterns. However, data are collected by self declaration and alcohol problems are subject to denial, which usually results in underestimation.

The ESEMeD study assessed the prevalence of alcohol disorders in six European studies in the same way (Figure 25).

Figure 25. Occurrence of alcohol disorders in men and in women in six European countries

Percentage of men and women with lifetime prevalence of alcohol disorders, according to DSM IV diagnosis



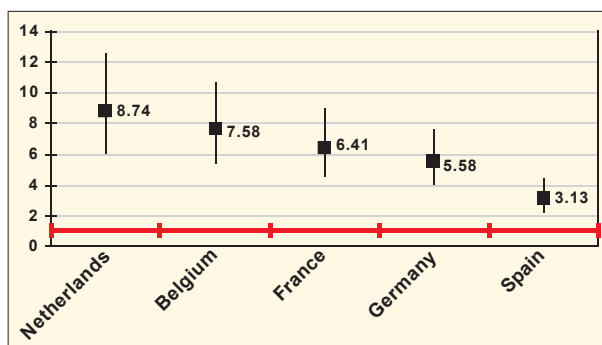
Source: ESEMeD

As expected, in all countries men have higher rates than women. Italy has a significantly lower rate than all the other countries and this corresponds to a lower consumption per inhabitant and to the biggest decrease in consumption.

Figure 26 shows the relative prevalence of alcohol disorders in men and women in five countries relative to Italy.

Figure 26. Effect of country on relative risk of lifetime alcohol disorders

Relative risk adjusted, Italy as a reference



Source: ESEMeD

Compared to Italy, all countries have significantly increased odds for alcohol disorders.

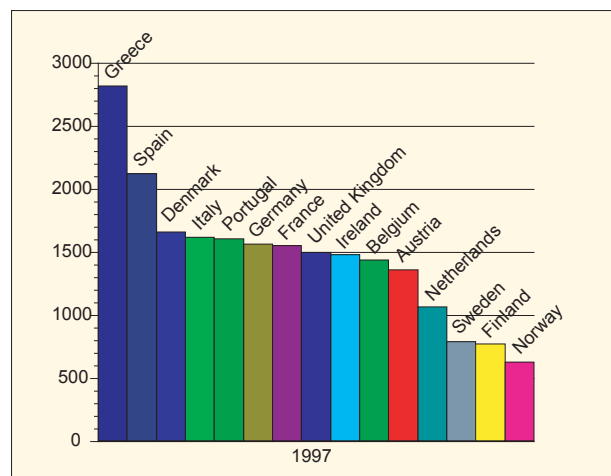
### 3.4.2 Tobacco

Cigarette smoking is also relevant to mental health since nicotine dependence has been defined as an addictive disorder. In addition, there is evidence that smoking is more common among people with mental disorders than in the general population.

Smoking varies across Europe. Figure 27 shows the number of cigarettes consumed annually per person in each country.

Figure 27. Cigarettes consumed per person per year in EU countries and Norway

Number of cigarettes consumed per person per year, 1997



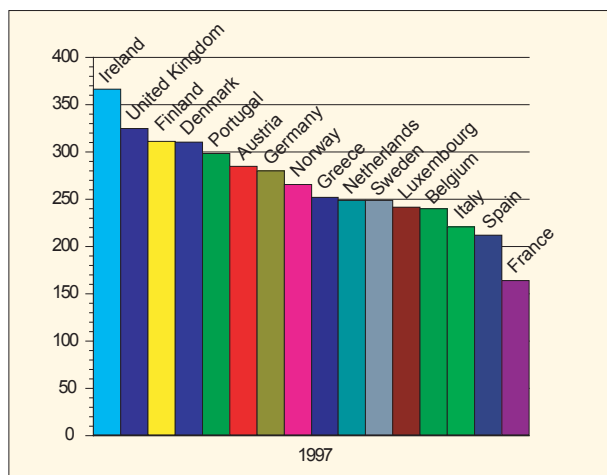
Source: WHO Health for All Database

The health consequences of smoking are well known and the enormous implications for mortality and morbidity among European populations well documented. Smoking kills thousands of people each year in the EU and Norway. Figure 28 illustrates the mortality from selected smoking-related causes in EU countries and Norway.

Smoking can result in serious conditions like lung cancer, atherosclerosis and Chronic Obstructive Lung Disease (COLD). Passive smoking has also been shown to be a risk factor for developing serious medical diseases.

Figure 28. Deaths from smoking related causes in the EU and Norway

Standardised death rates from selected smoking related causes per 100,000 population, 1997



Source: WHO Health for All Database

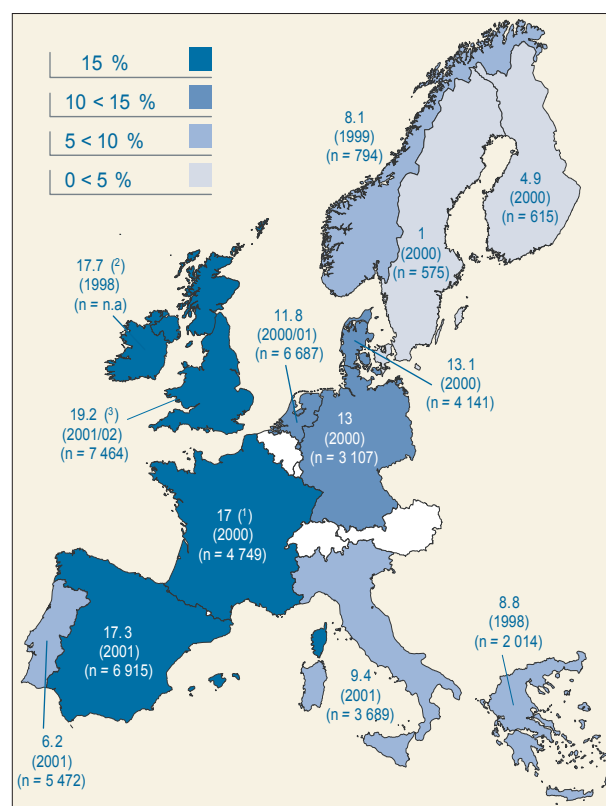
Creating a smoke free environment has been shown to decrease the number of cigarettes smoked and eliminates the risk of passive smoking. Among the EU countries and Norway there are big differences in restrictions of smoking in public places. In Ireland, Norway, France and Sweden rules have recently become quite strict, whereas smoking in public places is still permitted in other countries. The introduction of non smoking areas in places like restaurants and bars will decrease passive smoking and possibly also reduce the number of cigarettes consumed by smokers.

### 3.4.3 Drugs

Information on drug use and its consequences is collected by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) which publishes an annual report on the state of the drug problem in the European Union and Norway.

Cannabis remains the most commonly used drug in the European Union and it is estimated that at least one in every five adults in the EU has tried the drug (Figure 29).

Figure 29. Recent use of cannabis among young adults (15-34 years) in European Countries



Source: EMCDDA 2003<sup>25</sup>

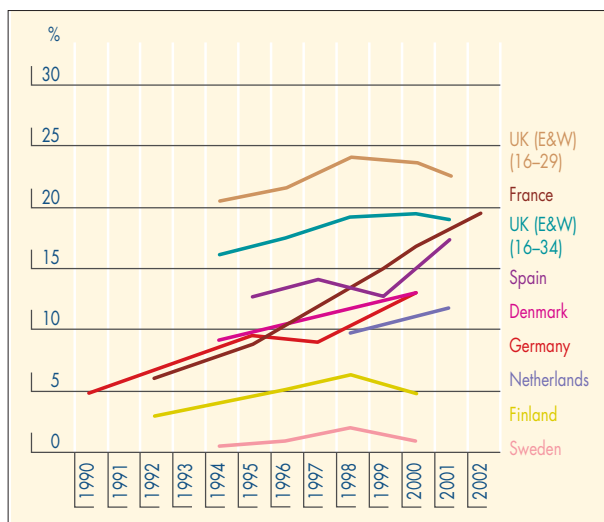
Data are from the most recent national surveys available in each country. Sample sizes (n) refer to the number of respondents for the 15-34 age group. The standard EMCDDA definition of young adults is 15-34 years. In Denmark and the United Kingdom, young adults are aged 16-34 years and in Germany and Ireland 18-34 years. Variations in age ranges may, to a small extent, account for some national differences. In some countries, the figures were recalculated at the national level to adapt, as far as possible, to the standard EMCDDA age groups

Surveys also suggest an increase in cocaine use in the UK and, to a lesser extent, in Denmark, Germany and the Netherlands. Cocaine use tends to be more common among young people living in urban areas. National figures may, therefore, not reveal the true picture of cocaine use in some major European cities.

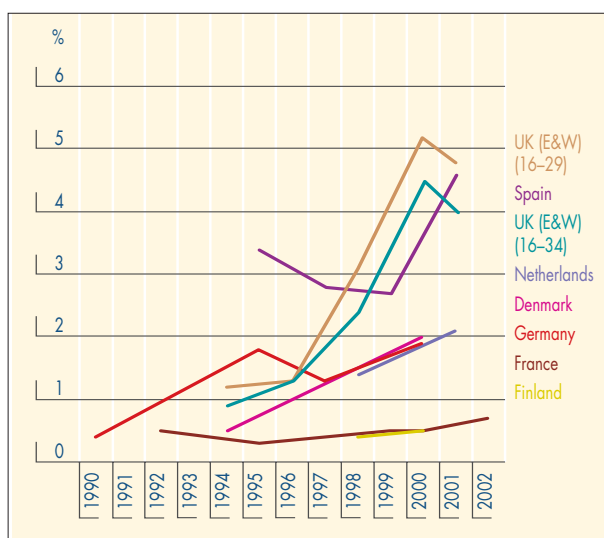
Relatively high rates of drug treatment attendance for cocaine use are reported from the Netherlands and Spain (30% and 19% respectively). Rates of between 6% and 8% are reported in Germany, Italy, Luxembourg and the UK.

Figure 30. Evolution of recent cannabis and cocaine use in some EU countries

#### Trend in cannabis use



#### Trend in cocaine use



Source: European Monitoring Centre on Drugs and Drug Addiction, Annual Report 2003: the state of the drugs problem in the European Union and Norway.<sup>26</sup>

NB: E&W is England and Wales. Data are from the most recent national survey available in each country. The standard EMCDDA definition of young adults is 15–34 years. In Denmark and the United Kingdom, young adults are aged 16–34 years and in Germany and Ireland 18–34 years. In France, the age range is 25–34 (1992), 18–39 (1995) but 15–34 for the other years. Sample sizes for each survey can be obtained on the EMCDDA website. Denmark, the figure for 1994 is for use of 'hard drugs'. Sources: Reitox national reports 2002, taken from surveys, reports or scientific articles.

After cannabis, the most commonly used drug in EU countries is usually either ecstasy or amphetamine, with rates of lifetime experience among the adult population generally ranging between 0.5 and 5%.

The prevalence of use of crack cocaine in Europe appears to be relatively low. There are, however, sporadic local reports suggesting a problem within marginal groups in some cities. Despite the low prevalence, any emerging trends need to be carefully monitored because of the potential public health impact of even a moderate increase in crack cocaine use.

Every year there are between 7,000 and 9,000 acute drug-related deaths reported in the EU. Most of the victims are young people in their 20s or 30s.

In most cases (usually around 80%), opioids are found, often in combination with other substances. In a smaller number of cases, cocaine or ecstasy alone is found. Some of the factors that appear to be associated with increased risk of opioid-related deaths are drug injecting, polydrug use and, in particular, concurrent use of alcohol or depressants, loss of tolerance and not being in contact with treatment services.

The number of acute drug related deaths ('overdoses') is sometimes used as a simplistic way of assessing a country's drug situation and to draw comparisons. Drug deaths are a source of social and political concern, especially acute deaths among young people.

Many EU countries witnessed a marked increase of acute drug related deaths in the second half of the 1980s and the early 1990s. However, in recent years, the number of acute deaths at the EU level as a whole has stabilised, between 7,000 and 8,000 per year, and in some countries they have even decreased.

Multiple factors have probably contributed to the recent stabilisation of drug-related deaths. The number of problem drug users may have stabilised and treatment data suggest that risky practices, for example injecting, have also decreased in some countries. In addition, treatment interventions – including substitution programmes – have expanded in many countries and medical assistance for overdoses may have improved.

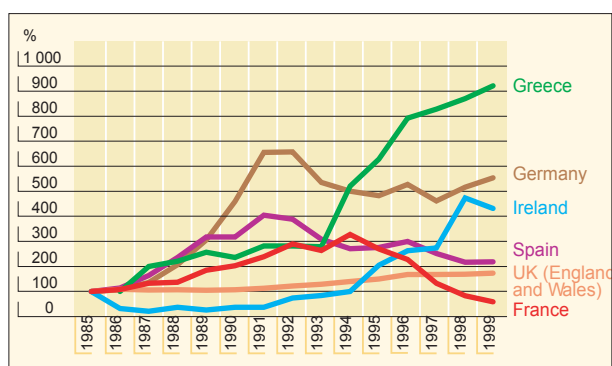
The stabilisation is consistent with the decrease in overall mortality (in some cases also in overdose deaths) among cohorts of problem drug users.

Within the overall EU trend, different national trends are observed:

- Several countries present a general downward trend, although with year to year fluctuations. For example, Austria, France, Germany, Luxembourg, Italy and Spain. Austria (1999), Germany (1999-2000) and Luxembourg (1997-98) reported new increases recently but they are not as high as previous values.
- Some countries have reported a substantial upward trend until recently – for example, Greece, Ireland (a decrease observed in 1999) and Portugal.

Figure 31. Trends in acute drug-related deaths in some EU countries, 1985-99

Examples of divergent trends in some EU countries  
Indexed all countries: 1985=100%

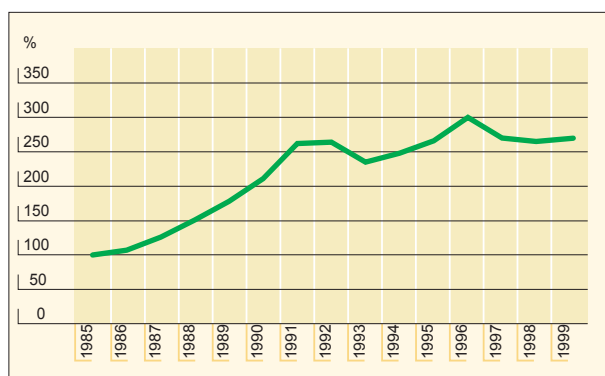


NB: These trends can be calculated for all EU countries. A few are presented as examples. Proportional variations over 1985 figures are presented. For Greece, the series begins in 1986 to avoid distortion. In some countries with an increasing trend, improved reporting may account for part of the increase. Not all countries provided data for all years, but this situation has been controlled in the analysis.

Direct comparisons between countries can be misleading because the number of drug-related deaths depends not only on the prevalence of problem drug use and the risk patterns (such as injection) but also on national definitions and recording methods.

Where definitions, methods and quality of reporting remain consistent within a given country, the statistics can indicate trends over time and, if correctly analysed and integrated with other indicators, can be valuable in monitoring the more extreme patterns of drug use.

Overall trend in the European Union  
Indexed: 1985=100%



Source: European Monitoring Centre on Drugs and Drug Addiction, Annual Report, 2001: the state of the drugs problem in the European Union and Norway.<sup>25</sup> Data from Reitox national reports 2000, taken from national mortality registries or special registries (forensic or police).



## 4 Protective and risk factors

Since mental health has many determinants, it has been established that some factors will protect a person and increase his or her resilience to the various stresses he or she may be exposed to. Conversely, some factors are considered to be risk factors and these will increase vulnerability. It is important to recognise these risk factors in order to prevent psychological distress and, potentially, psychiatric disorders.

Most environmental factors have a positive or negative influence on mental health and when policy makers want to set up prevention programmes it is essential to know how much these various factors could be protective or could constitute a risk. Comparison of these dimensions across the EU may help Member States to conduct studies on specific risks for some members of their population, and to set up mental health promotion and prevention programmes for those at risk.

### 4.1 Gender and mental health

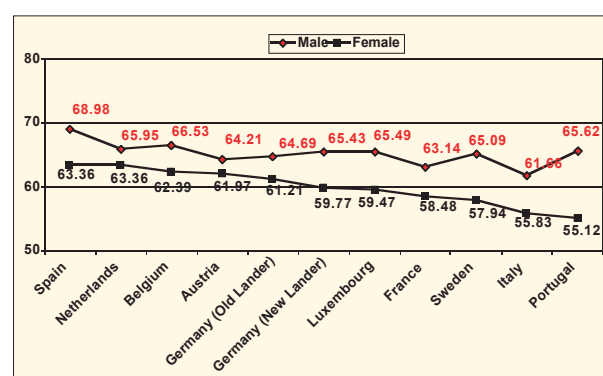
Mental health problems, which are different from psychiatric disorders, vary across gender. Women have higher rates of depression and anxiety (referred to as internalising disorders) and men have higher rates of substance abuse and antisocial disorders (called externalising disorders). Gender differences in severe mental health disorders, such as schizophrenia and bipolar disorders, are hardly noticeable but there are some differences. For schizophrenia, in men symptoms appear earlier in life, but in women hallucination is more frequent and psychotic symptoms are more noticeable. For bipolar disorders it appears that women have a shorter cycle, they suffer from more related medical conditions and they are more likely to be hospitalised for a manic episode.

Various possible factors contributing to the differences in the mental health of men and women have been suggested. The socio-economic gradient for health has been repeatedly cited for men and women in nearly all societies. Economic inequality both for women and men contributes to negative health outcomes and is also associated with depression.<sup>1</sup> It has been shown, however, that there is a steeper socio-economic gradient for men than for women. There is evidence that even after controlling for occupational grade, perceived work conditions and gender roles, women had still significantly more symptoms than men, which was not the case for physical symptoms.<sup>2</sup>

#### 4.1.1 Positive mental health and gender

Males have consistently higher scores than females for positive mental health (Figure 32). However, there is no interaction between gender and country which means that this male/female difference is rather constant across countries.

Figure 32. Positive mental health in men and women  
Positive mental health by score on the vitality subscale of SF36 (from 0 to 100), according to gender



Source: Eurobarometer

#### 4.1.2 Psychological distress, psychiatric disorders and gender

##### 4.1.2.1 Psychological distress comparisons

Survey results based on measures of psychological distress show higher levels of psychological distress, and higher probability of mental ill-health, in women than in men in most countries.

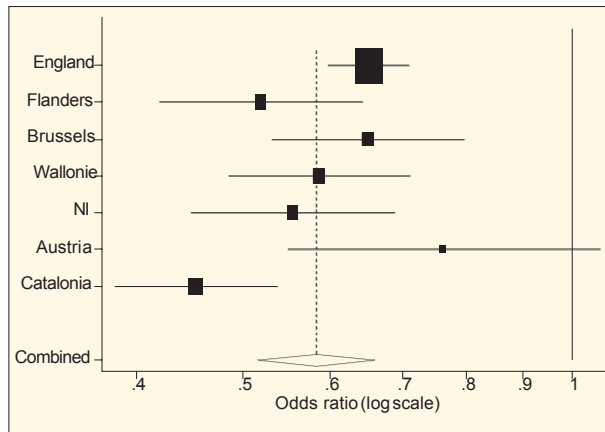
An attempt was made to collate results from all known surveys on prevalence of mental health problems in Europe for this report (see Section 2.2).

The meta-analysis confirmed that women generally suffer from poorer mental health than men across many different countries and regions. This trend holds true for most mental health problems defined and identified by the two particular instruments assessed (GHQ in Figure 33, CIDI in Figure 36). Figure 33 shows the effect of gender on the risk of poor mental health as measured by

the general health questionnaire (GHQ-12) which identifies people with a 'probable mental health problem'. This plot is based on GHQ-12 studies from seven populations.

**Figure 33. The effect of gender on the risk of poor mental health**

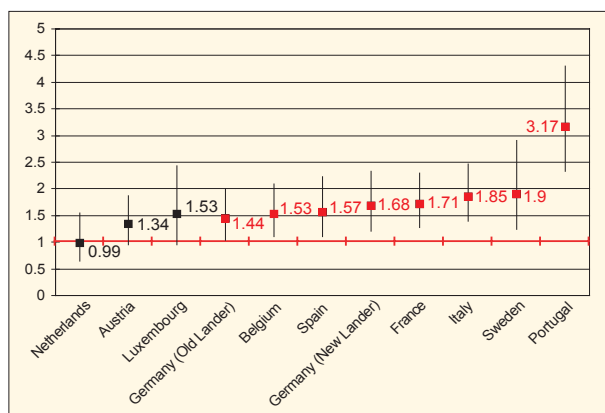
*Odds-ratios, log scale for men compared to women for 'caseness' defined by GHQ-12 in seven studies*



In the above diagram, each study is represented by a box. The size of the box is based on the number of survey respondents. The bigger boxes carry more weight in the analysis. The further a box is to the left because it is less than 1, the lower the risk for males compared to females. The horizontal lines through the boxes show the 95% confidence intervals. If the line crosses the vertical axis at 1, then the results are of doubtful significance. The combined odds ratio for all the data from all the studies is shown in the diamond shape suggesting that men have just under two-thirds of the risk of poor mental health that women have.

**Figure 34. Relative risk of psychological distress for women compared to men in some EU countries**

*Odds-ratio for females compared to males with MHI-5*

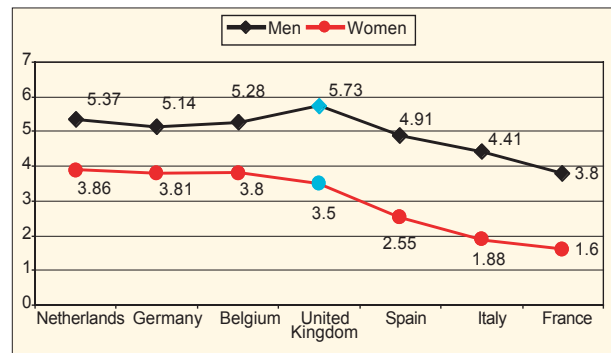


Source: Data from Eurobarometer Survey, October 2002

The Eurobarometer survey, which included a measure of psychological distress using the MHI-5 scale, allows for calculation of probable cases of mental ill-health and to compare the risk by gender (Figure 34). In each country except three – Netherlands, Austria and Luxembourg – females have higher risk than males. However, within the countries where the risk is significantly higher for females, Portugal shows a much larger risk for women than the other countries (except Sweden and Italy). It has to be carefully noted that higher relative risks for women compared to men, do not mean that these women necessarily are more at risk, but that their risk compared to men is higher.

**Figure 35. Psychological distress in males and females in some EU countries**

*Mental health score on the SF-12 sub-scale in six ESEMed countries and the UK, weighted.*



Source: ESEMed and UK psychiatric morbidity survey

In the ESEMed study, the mental health score derived from SF-12 is lower for females than males in all countries. However, statistical tests show a positive interaction between gender and ESEMed countries (0.01) which means that the gender difference does vary according to country. (It was not possible to integrate the UK results in the interaction). As a matter of fact, gender differences were larger in Spain, Italy and France compared to the Netherlands, Germany and Belgium.

When Eurobarometer and ESEMed psychological distress data are compared, it seems that consistent female/male differences exist for France, Spain and Italy and that the difference is smaller, if it exists, in the Netherlands and Germany. For Belgium, a larger difference exists with the Eurobarometer approach (MHI-5) than with the ESEMed approach (SF-12 MH score).

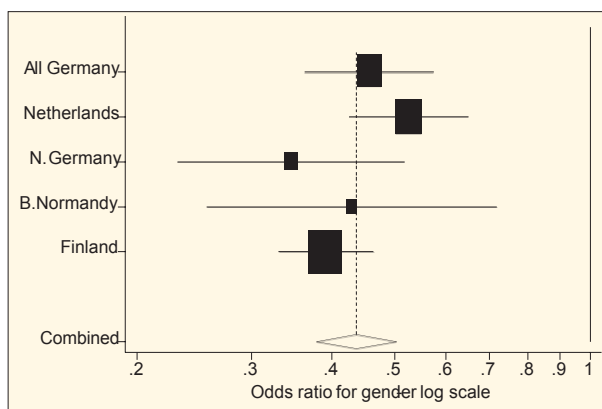
It has to be stressed that in most of the countries where the psychological distress is the highest – France, Portugal and Italy – the female/male rates are the highest and, conversely, in the country with the lowest psychological distress – the Netherlands – there was no difference. Thus, the female psychological distress contributes to a large part of the difference between countries. Sweden is an exception with a low rate and a high female/male ratio.

#### 4.1.2.2 Depression and gender

Several epidemiological studies have shown the higher prevalence of depression among women than among men including the results of our survey of surveys.

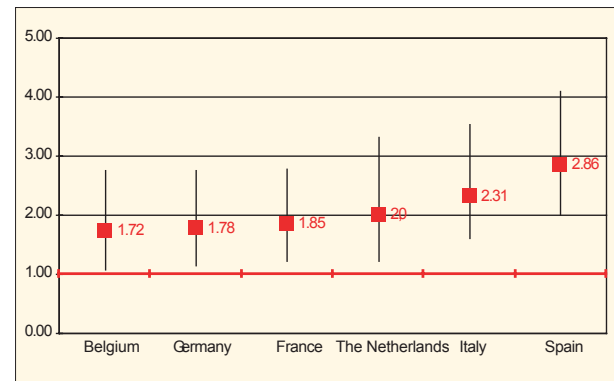
The meta-analysis of population surveys (see Section 2.2 and Annex I) also confirmed that women are at a greater risk of major depressive episodes as measured by the CIDI questionnaire (Figure 36). However this relative risk does not differ significantly between countries.

**Figure 36. The effect of gender on the risk of depression**  
Odds ratio for gender, log scale, on the 12 month risk of major depressive disorders, CIDI data



See Figure 33 for more guidance on interpreting this figure. The combined odds ratio for all the data from all the studies is shown in the diamond shape – suggesting that men consistently have only about half the risk of major depression in any 12 month period than women.

**Figure 37. Effect of gender for the risk of mood Disorders in six EU countries**  
Odds ratio female to male



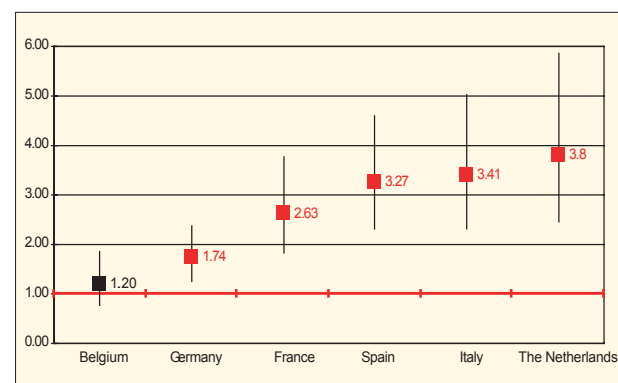
Source: ESEMeD

Women consistently score higher than men for any 12-month mood disorder. However, there is no difference across countries even though southern European countries seem to carry a slightly higher risk.

#### 4.1.2.3 Anxiety and gender

There are also gender differences in the prevalence of anxiety disorders. Figure 38 shows the relative risk for women compared to men of any anxiety disorder in the last twelve months in the six country EsemEd study.

**Figure 38. Effect of gender for the risk of Anxiety Disorders in six EU countries**  
Odds ratio female to male



Source: ESEMeD

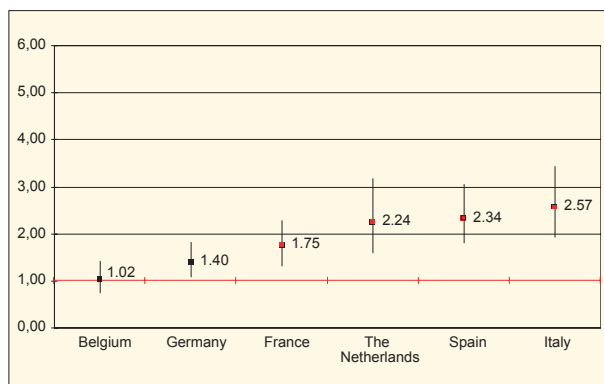
Spanish, Dutch and Italian women have higher relative risks – with men as reference – than their Belgian counterparts and Italians more than Germans. This comparison is particularly relevant since in the countries where the risks are the lowest – Italy and Spain – women have relative risks higher than in other countries. Conversely, in countries where risks are relatively high, such as Belgium, France and Germany, the relative risk to men is lower. Netherlands is the less favored since it combines high rates and a higher relative risk for women.

#### 4.1.2.4 Any mental health disorders

The ESEMeD study also enabled comparison of the relative risk for women compared to men of any mental health disorders (Figure 39).

**Figure 39. Effect of gender for the risk of any disorders in six EU countries**

*Odds ratio female to male.*



Source: ESEMeD

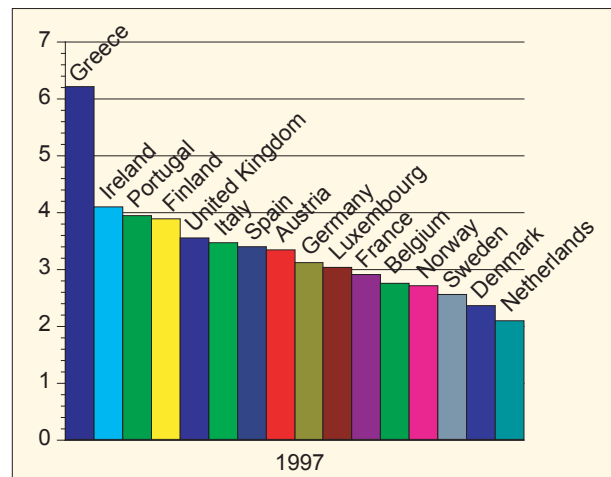
When all disorders are put together, including alcohol disorders, women still have a higher risk, except in Belgium. Italy and Spain carry more relative mental health risks for women than Germany and Belgium.

#### 4.1.3 Suicide, violence and gender

Suicide rates are consistently higher in men than in women. The ratio of male to female suicides does vary between countries. Figure 40 shows the ratio of male to female suicides across Europe.

**Figure 40. Ratio of male to female deaths from suicide in EU countries**

*Ratio of standardised death rates, suicide and self-inflicted harm, all ages per 100,000, 1997*



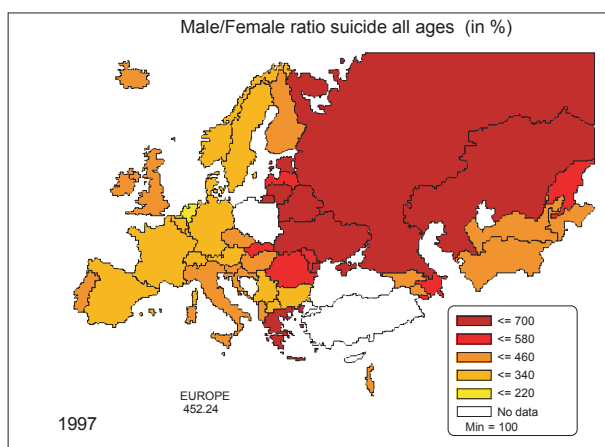
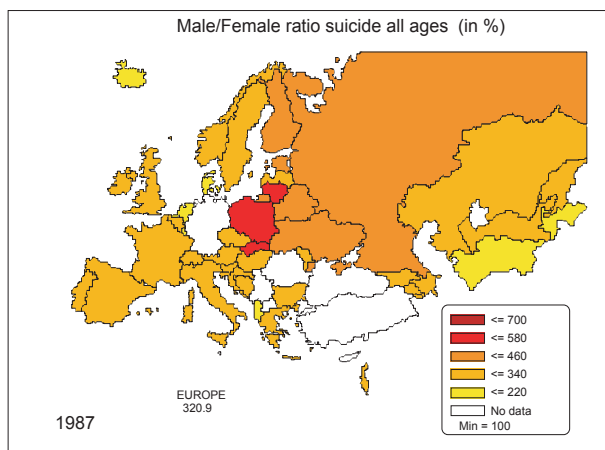
Source: WHO Health for All Database

The average ratio for male to female suicides for Europe restricted to 15 Member States is 3.1. The ratio in 1997 varies from 2.1 to 4.1 with one outsider, namely Greece, showing a ratio of 6.2. The general tendency is that southern countries have higher male to female ratios but there are some exceptions, like Ireland and Finland. When we extend the scope of countries to the candidate Member States of Europe, the ratios are even bigger reaching ratios between five and seven.

The ratio of male to female suicides has, in general, increased over the last ten years (see Figure 41). The increase has been bigger in some countries than in others.

Figure 41. Ratio of male to female suicides across Europe, 1987 and 1997

*Ratio of standardised death rates, suicide and self-inflicted harm, all ages per 100,000, 1987 and 1997*



Source: WHO Health for All Database

Men are also more at risk from violent death than women.<sup>3</sup> In Europe as a whole, over 8.5 men per 100,000 of the male population die as a result of murder. In comparison, 3.9 women per 100,000 are murdered.

The variation between European countries in mortality by intentional injuries is considerable, ranging from 6.9 in Greece to 37.3 in Finland for rates in males. The ratio of male to female deaths by intentional injury also varies between countries: from 2.1 in the Netherlands to 4.2 in Ireland.

In stark contrast to the differences between men and women in deaths from suicide across Europe, women attempt suicide more than men.<sup>4</sup> Similarly, although there are more violent deaths in men, more women have experienced some form of violence.<sup>3</sup> In the European region it appears that 20 to 50% of women have experienced some form of violence, even though much violence is under-reported.

## 4.2 Age and mental health

Age and mental health has to be studied in two directions: the relative risk for the young population compared to the adult population and mental health of older people.

### 4.2.1 Mental health and young adults

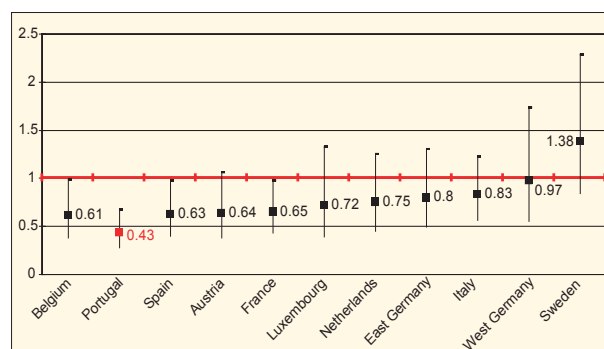
This report was dedicated to the adult population only. There are some data, however, which concern young people (Eurobarometer and ESEMeD) so some results for people aged 15 to 24 years in the EU can be presented. It should also be mentioned that a report on the health of young people has been published by the EU relatively recently.<sup>5</sup>

#### 4.2.1.1 Psychological distress and young adults

For psychological distress there are two studies with results for young people which enable comparisons.

Figure 42. Relative risk of psychological distress for young people

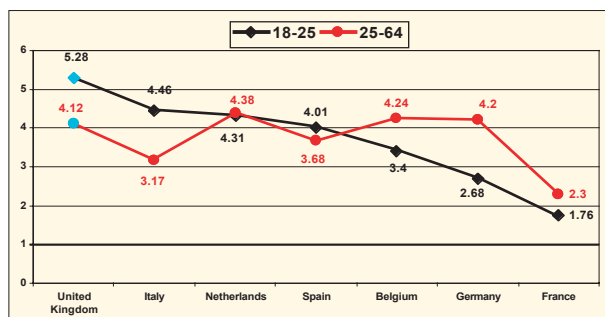
*Relative risk of psychological distress in 15-24 year olds compared with 25-64 year olds in 11 Eurobarometer countries*



Source: Eurobarometer, October 2002

In the Eurobarometer survey no difference was found in the different countries except for Portugal, and to a lesser degree Spain and France, where young people carry a lower risk than other adults. These are relative comparisons with older adults, however, so these young people could have higher rates than their counterparts in other countries if adult rates are very high in their country.

**Figure 43. Psychological distress in seven EU countries**  
Mental health score from SF-12 for six ESEMeD countries and UK national survey in 18-25 year olds compared with 25-64 year olds



Source ESEMeD and UK psychiatric morbidity survey

Figure 43 shows the SF-12 mental health scores for different age groups in the six-country ESEMeD study and the UK. A lower score indicates a poorer state of mental health. The interaction is very significant (0.00): in Germany and Belgium younger people have a poorer mental health score than the adults, while in Italy and the UK it is the reverse. France, Spain and Netherlands do not have differences.

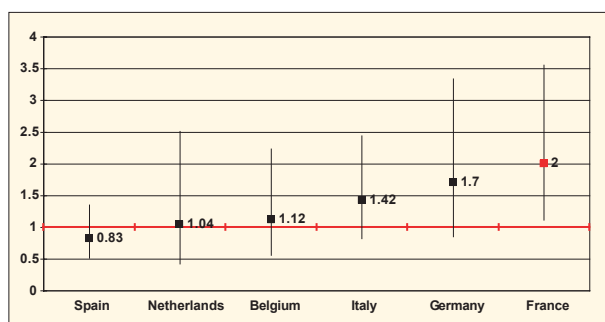
These results differ from the Eurobarometer findings and this may be due to the different age brackets – Eurobarometer having included the 15 to 17 year age group.

#### 4.2.1.2 Psychiatric disorders and young people

The ESEMeD study allows comparison of diagnoses for those aged between 18 and 24 years.

**Figure 44. Relative risk of any mental health disorders in young people in six EU countries**

Odds ratio for 18-24 year olds compared to the adult population for any mental health disorders in the last 12 months

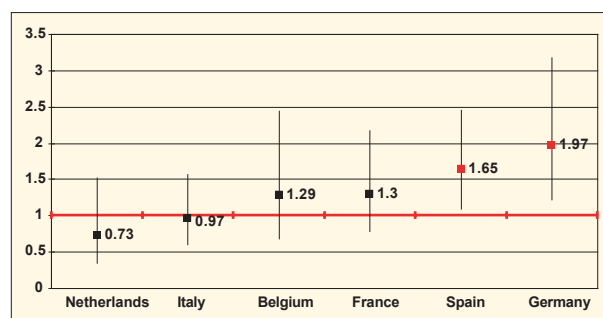


Source: ESEMeD

In the ESEMeD countries young people have no higher risk that the adult population: except for France when any disorders are considered. However, when the type of disorder is considered, it appears that the young population is more at risk of anxiety disorders in Spain and Germany (Figure 45).

**Figure 45. Relative risk of anxiety disorders in young people in six EU countries**

Relative risk for anxiety disorders in the last 12 months for 18-24 year olds compared to the adult population



Source : ESEMeD

ESEMeD shows poorer mental health in some of the countries and when diagnostic and psychological distress results are put together, young people seem to have poorer mental health than adults. This consideration has to include increasing drug consumption in most countries that mainly concerns the young population. In addition, it has to be remembered that comparing relative risk between young and adults at a certain time does not provide any information about evolution over time. Also, a non-significant relative risk may conceal increasingly negative mental health in Europe's young population.

#### 4.2.2 Mental health in old age

During the 20th Century, the age structure of the population changed substantially (see Section 2.1). Dramatic demographic changes have resulted in an increase of elderly people in terms of their absolute number and in terms of their proportion of the whole population. It is estimated that the proportion of the European population over 65 will rise from 22% in 2000 to 30% in 2025.<sup>6</sup> The number of oldest old will increase disproportionately. With these changes underway, aging and the special circumstances of older people are taking an increasingly central place in public health.

Mental disorders in old age are common. The most serious threats to mental health in old age are posed by depression and dementia.<sup>7-11</sup> Serious consequences of depression are reduced functioning, impaired quality of

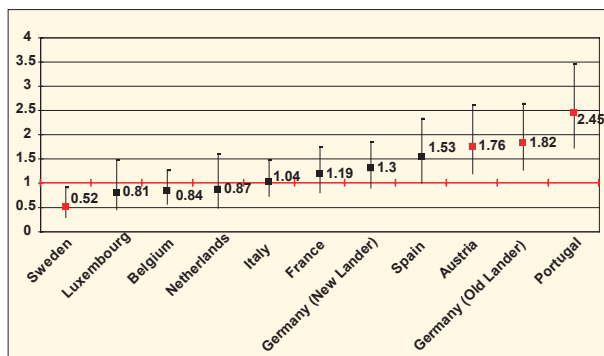


life, increased suicide rates and increased non-suicide mortality. Dementia, and particularly Alzheimer's disease, is the principal cause of disability among the elderly.<sup>12</sup>

#### 4.2.2.1 Psychological distress and age

The 2002 Eurobarometer study measured psychological distress in different age groups (Figure 46).

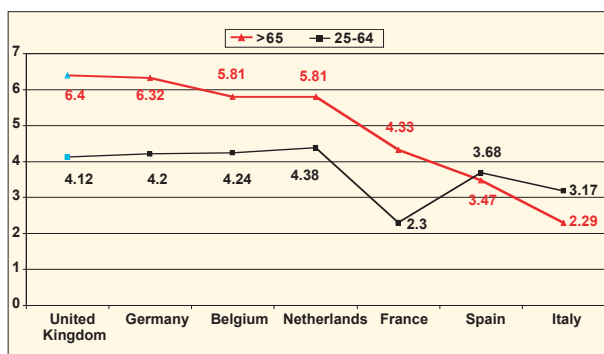
**Figure 46. Risk of psychological distress in older people**  
*Odds ratio showing relative risk of psychological distress in people aged 65 years or over compared to adults aged 26-64 years in ten Eurobarometer countries*



Source: Eurobarometer

In the Eurobarometer, Sweden has a lower risk for older people and three countries have higher risk: Austria, Germany and Portugal.

**Figure 47. Psychological distress in older people**  
*SF-12 scores in adults aged 65 and over and those aged 25-64 in six ESEMeD countries and the United Kingdom*



Source: ESEMeD and UK psychiatric morbidity survey

In ESEMeD, Italy remains the only country where the older group's mental health scores are lower than those of the adult population. The remaining countries, except Spain, have better mental health for older people. The interaction is very significant (0.00, UK excluded).

#### 4.2.2.2 Depression and old age

Prevalence of depression in old age has been widely studied across Europe.<sup>13-45</sup> Studies include both population surveys using dimensional diagnoses, which characterise a person on a scale from healthy to severely depressed. There are also community surveys which have applied categorical diagnoses and use specific diagnostic tools to decide whether someone meets the criteria of a diagnostic case or not.

This research provides broad agreement that major depression, as defined by recent classificatory systems, appears to be a relatively rare disease among the elderly. Most of the studies report prevalence rates under 5%. Some Nordic surveys report slightly higher rates. A systematic review done by Beekman<sup>46</sup> including 16 world-wide studies with 22,794 subjects published between 1989 and 1996 yielded an average prevalence rate of major depression of 1.8%.

When all depressive syndromes deemed clinically relevant are considered, however, it has been shown that these conditions are very common in the elderly. The prevalence of depressive syndromes ascertained by categorical diagnosis varies between 7.9% and 26.9%. The majority of these studies give results between nine and 15%. Prevalence rates of depressive syndromes ascertained by dimensional diagnosis are even slightly higher and vary between 9.8 and 27.5%, whereas all but one of the study results are between 13% and 28%. An analysis of 28 worldwide studies (involving over 46,000 people) found an average rate of all depressive syndromes of 13.34%.<sup>47</sup> A meta-analysis including results from nine European study centres applying the same standardized assessment method (GMS-AGECAT) which was carried out in the framework of the EURODEP programme revealed an overall prevalence of 12.3% in a total of 13,808 subjects.

Divergence of findings may be due to real differences in the prevalence of depression across regions and are of great interest as they can help us to understand the aetiology and cultural-ecological roots of depression. However, at the current state of research, variation found in the prevalence rates may be attributed largely to methodological differences (see Section 2.2). One of the main problems seems to be the definition of cases. However, even if the same definition is used, such as those studies involved in the EURODEP programme, great variation without obvious explanation still exists.

The ESEMeD study included a substantial number of non-institutionalised individuals aged over 65 in each country. Preliminary results regarding lifetime prevalence of depression in old age are shown in Table 3

(unpublished data). For major depression, prevalence ranged from 6.4% in Germany to 16.1% in France. These results should be interpreted cautiously since the data presented are un-weighted. Response rates vary from 78.6% in Spain to 45.9% in France.

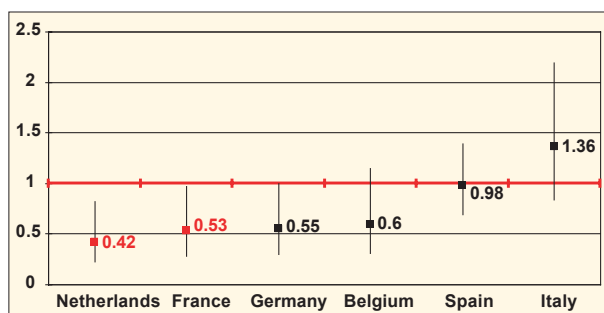
**Table 3. Lifetime prevalence estimates of mood disorders for older people in six EU countries**  
% prevalence of mood disorders according to WMH-CIDI/DSM-IV in those aged 65 or over

|                   | Belgium<br>N=501 |     | France<br>N=490 |     | Germany<br>N=667 |     | Italy<br>N=840 |     | The Netherlands<br>N=452 |     | Spain<br>N=1451 |     |
|-------------------|------------------|-----|-----------------|-----|------------------|-----|----------------|-----|--------------------------|-----|-----------------|-----|
|                   | %                | SE  | %               | SE  | %                | SE  | %              | SE  | %                        | SE  | %               | SE  |
| Major Depression  | 8.2              | 1.5 | 16.1            | 2.0 | 6.4              | 1.0 | 8.4            | 1.1 | 10.5                     | 1.8 | 10.0            | 0.5 |
| Dysthymia         | 4.5              | 1.1 | 11.3            | 1.7 | 2.3              | 0.6 | 4.6            | 0.7 | 3.1                      | 1.0 | 4.0             | 0.6 |
| Any mood disorder | 10.2             | 1.7 | 19.8            | 2.1 | 7.4              | 1.1 | 10.1           | 1.2 | 10.5                     | 1.8 | 11.2            | 1.0 |

Source: ESEMeD

The ESEMeD results also enable a study of the relative risk of mood disorders for older people compared to the adult population (Figure 48).

**Figure 48. Relative risk of mood disorders in older people**  
Odds ratio of risk for any mood disorder in the last 12 months in adults aged 65 years or over compared to adult population



Source: ESEMeD

In the ESEMeD studies people over 65 years appear to have a decreased risk for mood disorders, although this is only statistically significant for the Netherlands and France.

Despite all the research outlined above, there is no consensus about whether the prevalence of depression increases or decreases with age and studies have reached conflicting results. It has been suggested that elderly people are predisposed to depression due to age-related structural and biochemical changes which may increase their vulnerability.<sup>48</sup> Furthermore, an increase could also be expected since possible risk factors of depression

such as bereavement, loneliness, physical illness and institutionalisation become more common with increasing age.

There are some methodological and confounding factors which may result in an underestimation of the prevalence of depression in old age.<sup>49</sup> These factors may exert a stronger influence with increasing age and may have different effects on the younger old compared to the older old. The main points include:

- Many studies excluded institutionalised individuals, this has an influence on the results especially in the oldest old where the institutionalisation rate is high. German and British studies estimating the prevalence of depression in long-term or nursing home care published in the 1990s, revealed that roughly 30-50% suffer from depression.<sup>50-53</sup>
- Since dementia clearly increases with age, a primary diagnosis of dementia excludes the main diagnosis of depression in most of the criteria applied. One study reported that the apparent decline in depression with age disappeared if demented subjects were excluded.<sup>54</sup>
- Atypical depressions may be more common among the elderly than in younger age groups. Since recent epidemiological studies are relying strictly on specified criteria, atypical cases will not be diagnosed as depression.<sup>55</sup>
- Mortality is increased in individuals with depression. Therefore, even if the risk of depression increases with age, the increased mortality may lead to a decrease of prevalence.<sup>55</sup>

#### 4.2.2.3 Anxiety disorders and old age

Estimates regarding the prevalence of clinically significant anxiety symptoms in older people yielded more than 20%. Studies based on anxiety disorders according to current diagnostic criteria are less common. Estimates of prevalence in more recent European studies vary from two to 10 per cent.<sup>56-58</sup>

The ESEMeD study found that lifetime prevalence of any anxiety disorders in people aged over 65 years ranged from 8.7% in Germany to 15.9% in France (Table 4).

**Table 4. Anxiety disorder in older people in six European countries**

% prevalence of anxiety disorders in people 65 years or over

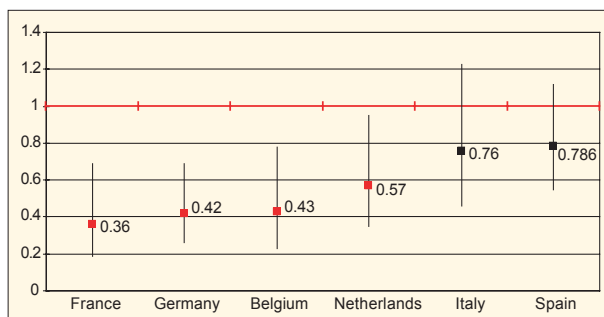
|                              | Belgium<br>N=501 |     | France<br>N=490 |     | Germany<br>N=667 |     | Italy<br>N=840 |     | The Netherlands<br>N=452 |     | Spain<br>N=1451 |     |
|------------------------------|------------------|-----|-----------------|-----|------------------|-----|----------------|-----|--------------------------|-----|-----------------|-----|
|                              | %                | SE  | %               | SE  | %                | SE  | %              | SE  | %                        | SE  | %               | SE  |
| Generalized Anxiety Disorder | 2.2              | 0.9 | 4.6             | 1.2 | 0.4              | 0.2 | 1.9            | 0.5 | 0.9                      | 0.4 | 1.7             | 0.3 |
| Social Phobia                | 0.3              | 0.3 | 1.5             | 0.7 | 0.6              | 0.3 | 0.6            | 0.3 | 0.7                      | 0.5 | 0.4             | 0.2 |
| Specific Phobia              | 7.3              | 1.3 | 9.2             | 1.6 | 6.6              | 1.0 | 4.1            | 0.8 | 6.4                      | 1.2 | 3.4             | 0.5 |
| PTSD                         | 2.0              | 0.8 | 2.6             | 1.1 | 0.9              | 0.4 | 2.2            | 0.7 | 1.4                      | 0.7 | 1.2             | 0.4 |
| Agoraphobia                  | 0.5              | 0.4 | 0.7             | 0.4 | 0.4              | 0.3 | 0.7            | 0.3 | 0.1                      | 0.1 | 0.4             | 0.2 |
| Panic Disorder               | 0.4              | 0.4 | 1.5             | 0.7 | 0.5              | 0.2 | 1.1            | 0.4 | 1.5                      | 0.7 | 1.1             | 0.3 |
| Any anxiety disorder         | 10.1             | 1.6 | 15.9            | 2.1 | 8.7              | 1.1 | 8.9            | 1.1 | 10.5                     | 1.5 | 7.0             | 0.8 |

Source: ESEMeD

ESEMeD results also enable comparison of the relative risk of anxiety disorders for older people (Figure 49).

**Figure 49. Relative risk of anxiety disorders in older people**

Odds ratio for relative risk of any anxiety disorder in the last 12 months for people 65 years or over in six ESEMeD countries, Reference adults 25-64



Source: ESEMeD

For anxiety disorders most of the countries have lower risk for those aged 65 and over for anxiety disorders except the two Southern European countries, Spain and Italy, where the risks was not significant.

#### 4.2.2.4 Dementia and old age

Dementia presents an enormous challenge for Europe's health and social care systems. It is estimated that the number of dementia cases in Europe will rise from 7.1 million in 2000 to about 16.2 million by 2050.

Dementia syndromes are among the most devastating of all illnesses. Dementia is the most important age-related disorder. The prevalence is low among people under the age of 65 and increases exponentially with age.

The EURODEM research group pooled and re-analysed original data of prevalence studies of dementia carried out in some European countries between 1980 and 1990. From the 23 datasets of European surveys considered, 12 were selected for comparison. The overall European prevalence rates for the five-year age groups from 60 to 94 years, were 1.0, 1.4, 4.1, 5.7, 13.0, 21.6 and 32.2%, respectively.<sup>59</sup>

Recent European studies, published from 1989/90 onwards, suggest that age-specific prevalence rates for dementia still vary substantially.<sup>60-93</sup> Variation among studies conducted in different European regions seems to reflect methodological differences rather than real differences. Despite the fact that field studies in the elderly face special challenges which may reduce response rate (high mortality, functional dependency, sensory impairment, institutionalisation), little attention has been paid to the discussion of recruitment obstacles and sampling issues to date.<sup>94</sup>

To obtain more stable estimates of age- and sex-specific prevalence, 10 years after the EURODEM estimates, a study compared prevalence of dementia across recent European population-based studies of persons 65 years and older.<sup>95</sup> Thirteen studies completed in Europe during the 1990s were pooled. A total of 2,346 cases of mild to severe dementia were identified in 11 cohorts. Age-standardized prevalence was 6.4% for dementia (all causes). The prevalence of dementia increased continuously with age and was 0.8% in the group age 65 to 69 years and 28.5% at age 90 years and older. The age pattern seems to be stable over time as there is a general similarity between the findings of this study and the results based on studies conducted in the previous decade.

#### 4.2.2.5 Alcohol and drug problems and age

The subject of alcoholism in late life has received relatively little attention in the literature. This is despite the fact that elderly people are particularly vulnerable to the adverse effects of alcohol. The prevalence of alcohol use disorders in elderly people is generally accepted to be lower than in younger people, but rates may be underestimated because of non-detection.

Very few representative surveys conducted in Europe report on substance-related disorders, especially on alcoholism, in late life. The six-country ESEMeD study looked at the lifetime prevalence of alcohol abuse and alcohol dependency. The results for the over 65 age group are shown in Table 5.

Table 5. Alcohol disorders in older people in six EU countries

*Lifetime prevalence estimates of WMH-CIDI / DSM-IV alcohol use disorders in Europe for individuals aged 65+*

|                    | Belgium<br>N=501 |     | France<br>N=490 |     | Germany<br>N=667 |     | Italy<br>N=840 |     | The Netherlands<br>N=452 |     | Spain<br>N=1451 |     |
|--------------------|------------------|-----|-----------------|-----|------------------|-----|----------------|-----|--------------------------|-----|-----------------|-----|
|                    | %                | SE  | %               | SE  | %                | SE  | %              | SE  | %                        | SE  | %               | SE  |
| Alcohol Abuse      | 3.4              | 0.9 | 2.4             | 0.8 | 2.6              | 0.6 | 0.9            | 0.3 | 1.7                      | 0.6 | 1.2             | 0.4 |
| Alcohol Dependence | 0.2              | 0.2 | 0.7             | 0.4 | 0.6              | 0.4 | 0.1            | 0.1 | 0.6                      | 0.3 | 0.1             | 0.1 |

Source: ESEMeD

Despite the inverse relationship between age and alcohol dependency, alcohol-related problems in old age are a matter of concern. High rates of co-morbidity with physical and psychiatric illness mean that older people with alcohol disorders are liable to be frequent users of health facilities.

In relation to drug dependency in older people, there is the substantial body of literature which indicates that psychotropic drug use in the elderly is high.<sup>96-104</sup> Prescription data are of limited use since an especially low compliance in old age is known. A substantial proportion of the drugs fall into the categories of sedatives, hypnotics and anxiolytics. Especially long-term benzodiazepine use is a matter of concern. Generally, psychotropic drug use increases with age and studies agree on the predominance of women users. Population surveys to determine the prevalence of drug dependency in old age are needed.

#### 4.2.2.6 Psychosis and age

Psychotic symptoms are a familiar problem to those involved in medical and social services for the elderly. However, few field studies have reported on this condition. Psychotic syndromes in late life appear to be a heterogeneous group of disorders. As with younger age groups, identification of psychotic syndromes in field studies faces major challenges such as non-reporting or selective drop out.<sup>105</sup>

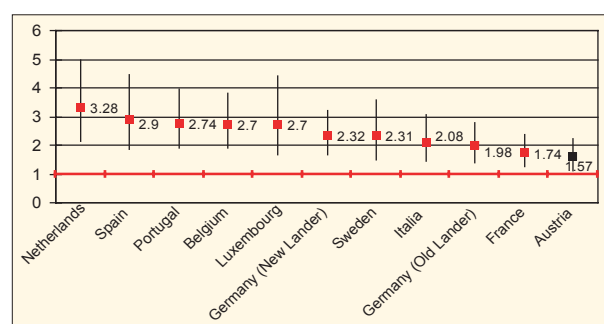
Community prevalence estimates for schizophrenia in individuals aged 65 years and older were found to be low. However, if psychotic symptoms in general are the focus of the study, the prevalence of psychotic symptoms in a non-demented elderly population was found to be 10%.<sup>106</sup> Psychotic syndromes are more common in women and they become more common with increasing age. Furthermore, they are associated with sensory impairment and social isolation and sometimes with a decline in cognitive performance.

### 4.3 Marital status and living arrangements

Studies have consistently found that living arrangements or marital status are associated with mental health status. In general, being married or living with someone is associated with better mental health than being divorced, widowed or single without making the assumption of any causal effect.

Figure 50. Relative risk of psychological distress by marital status across Europe

*Odds ratio for divorced, separated compared with married or living with someone. Controlled for sex and age*

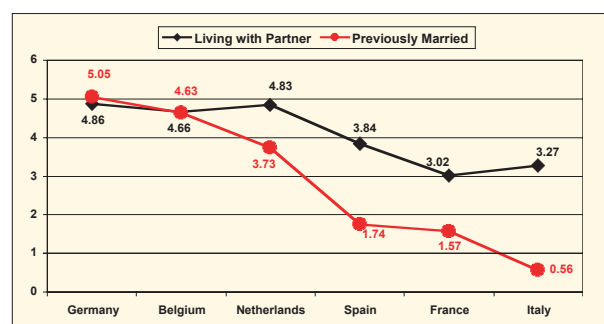


Source: Eurobarometer, October 2002

In the Eurobarometer results, those divorced, separated or widowed carry a higher risk of psychological distress in all the countries.

Figure 51. Mental health and living arrangements

*Psychological distress measured by SF-12 score in six EU countries*



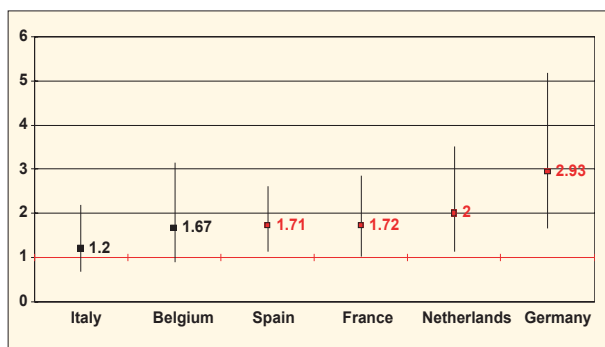
Source: ESEMeD

In ESEMeD the interaction between country and marital status is highly significant (0.00) for psychological distress. In two countries – Germany and Belgium – there is no difference, while in the remaining countries the divorced, separated and widowed have higher distress. Results from the UK (not presented) show identical results when those living in a couple are compared with those not living in a couple.

Figure 52 shows the relative risk of any mood disorder for people not living with a partner in six European countries according to results from the ESEMeD study.

Figure 52. Relative risk of mood disorders according to living arrangements

Age and sex adjusted odds ratio for any mood disorder in the last 12 months, for people who were previously married compared to those who are living with a partner.



Source: ESEMeD

In all the ESEMeD countries, except Italy and Belgium, the risk is higher for the divorced and widowed over those living in a couple (married or not). Germany and Netherlands, however, are the two countries where the risk is the most statistically significant. The differences concern mood disorders only.

When psychological distress results are compared to results obtained with a diagnosis approach, it seems that previously married Italians report more psychological distress than their adult counterparts but do not carry a higher risk for mood disorders. This sort of discrepancy has been already noted in Section 3. For Germany, the reverse tendency was found and in the remaining countries results are identical with both approaches (psychological distress and diagnosis).

## 4.4 Social factors – poverty, unemployment and deprivation

### 4.4.1 Overview on EU data and literature

In all European countries most physical diseases and severe, 'psychotic' psychiatric disorders (which are relatively rare) are well-known to be distributed unequally by social position. According to a recent major review of large scale population studies since 1980, people of lower socio-economic status, however it is measured, are disadvantaged also by higher frequencies of the conditions now called the 'common mental disorders' (mostly non-psychotic depression and anxiety, either separately or together).<sup>107</sup> In European and similar developed populations, relatively high frequencies are associated with poor education, material disadvantage and unemployment. The analysis published in that review was expanded for this report, to take account of new and relevant data which have become available since the review was published (Table 6).<sup>108-117</sup>

This analysis could not directly compare prevalence statistics because of differences in methods, but it compared the internal associations within each survey population, particularly with regard to associations between prevalence and markers of social disadvantage. Eight of these studies found a positive association between a higher prevalence of common mental disorders in less privileged groups. No study gave an inverse association between markers of social disadvantage and the prevalence of common mental disorders.

This simple overview suggests some robustness of findings despite the serious methodological limitations in reviewing such diverse studies: the common mental disorders are significantly more frequent in socially disadvantaged populations.

Table 6. Studies reporting associations with higher rates of the common mental disorders, by indicators of less privileged social position

|                                          |                                                  | Poor education |         | Unemployment |         | Lowest income or material circumstances |         |
|------------------------------------------|--------------------------------------------------|----------------|---------|--------------|---------|-----------------------------------------|---------|
| Number of studies reporting associations | Total reporting                                  | Review         | Review+ | Review       | Review+ | Review                                  | Review+ |
| Positive association                     | Men and women separately                         | 5              | 9       | 7            | 9       | 6                                       | 7       |
|                                          | Men and women combined (separate data not given) | 2              | 5**     | 3*           | 5*      | 2                                       | 3       |
|                                          | Total positive                                   | 2              | 2       | 3            | 3       | 4                                       | 4       |
|                                          |                                                  | 4              | 7**     | 6*           | 8*      | 6                                       | 7       |
| No clear association                     |                                                  | 1              | 2       | 1            | 1       | 0                                       | 0       |
| Inverse association                      |                                                  | 0              | 0       | 0            | 0       | 0                                       | 0       |

Note: \*one study positive only for men; women equivocal; \*\*one study positive only for women; equivocal for men. Review refers to the recent review,<sup>107</sup> commissioned by the Department of Health in England, which compared nine large-scale surveys. <sup>108-117</sup> Review+ refers to an expanded analysis for this report taking into account four new studies which are relevant.



Poverty, education, housing, occupation, employment, social status and social engagement are relatively tangible measures, for which 'Social Class' or 'Socio-Economic Status' are merely proxies, but these markers of social disadvantage are not independent of each other. Other factors are known to be important – childhood experience, physical illness, life events, working situations, and social networks.

The relationship between social disadvantage and mental health could be in two directions: the social consequences of mental disorders are well established for the most severe disorders, but are relevant for many other disorders as well. Conversely, and in order to have evidence for direct causation of mental health problems by factors associated with social disadvantage, cohort studies (which follow individuals within a population over time) have been conducted, and some evidence has been accumulated by such studies.

The evidence shows a mixed picture for specific childhood factors, likely themselves to be distributed unequally by social position, but there is some evidence that multiple childhood disadvantage is probably associated with high frequencies of anxiety and depression in adult life. Parental divorce often appears as a negative factor, but not always. Factors limiting educational achievement, with its consequence for other societal disadvantages, have been identified in some studies, including teenage anxiety, conduct disorders and alcohol disorders, and parental psychiatric disorder. However, there is little evidence that parental occupational social class is an important marker in itself.

On the other hand, most anxiety and depressive disorders start during childhood and adolescence and could hamper school work leading to school failure and consequently low job status and high risk for unemployment. These disorders could also lead to conduct disorders and potentially substance misuse with the same type of social consequences. Most psychiatric disorders have a negative influence on marital life and carry a risk of, either not being able to form a couple at all, or of disruptive behaviour. As a result a person may live alone or as a single parent, which, in turn, are risks to mental health. However, the epidemiological evidence is very limited for early psychological problems as a cause of educational failure and low adult social position. It has been established that adolescent behavioural problems in girls may be associated with adult disorders, and adolescent alcohol abuse in boys is associated with lowered educational attainment. It is almost certain that causation operates in both directions; the relative contributions of each factor in general populations are far from clear.

Most studies show a close relationship between the common mental disorders and physical illness, and one important longitudinal study convincingly demonstrated a significantly higher 7-year mortality related to common mental disorders. This is important in the light of well-established socio-economic status differentials in mortality, both in general and for most specific causes, as well as evidence of differentials in physical morbidity.

A few studies show mental disorders to be associated with certain negative job characteristics: lack of control over your own work, lack of variety in tasks, and inadequate use of skills. Jobs with these features tend to be of low status, requiring limited education, and poorly paid.

Stressful, especially '*negative life events*' are associated with depression and anxiety. Such life events, and negative responses to stressful experiences, are likely to be distributed unequally by social position, so disadvantage may well be reinforced in people with inadequate coping strategies. There is also some evidence for '*perceived lack of social support*' to be a factor related to high levels of anxiety and depression.

Studies confirm previous evidence of mental health disadvantages related to unemployment, which, of course, also interacts with education, income, housing, and occupational social class. Becoming unemployed appears to be a particular risk factor, like other stressful life events.

#### 4.4.2 Survey results: work, unemployment and low income

Surveys have explored the relationship between mental health and working conditions, employment status and low income.

Differences in specific disorder diagnoses between those who were unemployed and those who were in paid employment were illustrated in ESEMeD and differences in psychological distress in both ESEMeD and Eurobarometer.

##### 4.4.2.1 Work-related mental health problems

*Eurostat* has recently analysed data from the *EU Labour Force Survey*, in which respondents gave a self-assessment of their work-related state of health.<sup>118</sup> In this study the focus was on health problems, excluding accidental injuries (and irrespective of their severity), that respondents considered were caused or only made worse by their current or past working conditions.



The 1999 *EU Labour Force Survey* included an ad hoc module on work-related health problems. From this, the standardised prevalence rate of work-related health problems per year by diagnosis group showed that 1.18% of workers in the EU declared a problem of depression, anxiety or stress with or without any days absence from work. This study only covered eight Member States.

The results, presented in Table 7, show a wide range of values with the highest prevalence in Nordic countries such as Finland (3.37%) and Sweden (2.05%), and the lowest in Italy (0.65%) and Spain (0.33%). For these eight Member States of the EU, the prevalence is highest in the education sector (2.31), and in the health and social work sector (2.19). These groups include teachers, nurses, social workers and medical practitioners. It is important to bear in mind, however, that teachers, nurses and social workers are mainly women and anxiety or depressive states are more frequent in women than in males. Before attributing the difference to work, therefore, the results have to be analysed by gender and profession.

In the EU, 0.44 per cent of workers declared more than 14 days lost (ie two or more weeks absence) for mental health related reasons. The highest prevalence was among the 45-54 year-olds for the two types (1.5% with or without absence, and 0.6% with more than 14 days lost).

**Table 7. Impact of work on mental health**

*Standardised prevalence rate of work-related health problems (stress, depression or anxiety) by diagnosis group and age. Percentage.*

| Age                                                 | Total | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 & Over |
|-----------------------------------------------------|-------|-------|-------|-------|-------|-------|-----------|
| With or without days absence from work              |       |       |       |       |       |       |           |
| EU-15 <sup>1</sup>                                  | 1.18  | 0.54  | 0.89  | 1.36  | 1.53  | 1.34  | 0.42      |
| More than 14 days lost (two weeks' absence or more) |       |       |       |       |       |       |           |
| EU-15 <sup>1</sup>                                  | 0.44  | 0.22  | 0.31  | 0.50  | 0.60  | 0.53  | 0.18      |
| With or without days absence from work              |       |       |       |       |       |       |           |
| Denmark                                             | 0.84  | 0.53  | 0.63  | 0.77  | 1.3   | 0.92  | –         |
| Spain                                               | 0.33  | –     | –     | 0.46  | 0.39  | 0.42  | –         |
| Ireland                                             | 0.65  | 0.31  | 0.49  | 0.85  | 0.81  | 0.48  | 0.41      |
| Luxembourg                                          | 0.84  | –     | 0.67  | 0.90  | 1.06  | 1.57  | –         |
| Portugal                                            | 0.85  | 0.31  | 0.97  | 1.05  | 0.72  | 0.70  | 0.61      |
| Finland                                             | 3.37  | 0.91  | 2.21  | 4.16  | 4.30  | 4.76  | 1.88      |
| Sweden                                              | 2.05  | 0.62  | 1.54  | 2.57  | 2.49  | 2.49  | –         |
| UK                                                  | 1.48  | 0.68  | 1.14  | 1.84  | 1.81  | 1.41  | 0.36      |

(1) Estimates for EU-15 have been drawn up on the basis of the data available for the Member States covered by the module

Source: Eurostat (2004), *Health statistics – Key data on health 2002 – Data 1970 – 2001*, European Commission.

The prevalence rate of problems resulting in an absence from work of two weeks or more (cumulated over one year) is highest in the health and social work sector (0.83%), and in the education sector (0.83%). Currently, information to assess the trends over time of these work-related conditions in the EU workforce is limited.

Surveys of work-related illness suggest an increase in the reported prevalence rate of work-related stress, although such an increase could be caused by factors other than, or as well as, a genuine rise in work stress. With respect to long term restrictions, however, the International Labour Organization (ILO) states that mental illness affects more human lives and gives rise to a greater waste of human resources than all other forms of disability, with mental disorders being one of the three leading causes of disability. In the EU mental health disorders are a major reason for granting disability pensions.<sup>119</sup>

The European Foundation for the Improvement of Living and Working Conditions has also conducted European surveys. The Third European Survey on Working Conditions in 2000, involved 1,500 workers in each of the Member States (21,703 face to face interviews in homes). The average participation rate was 56% (Denmark, Greece, Italy and Netherlands were around 40% only).

Mental health pertinent questions were asked through the wording, 'Does your work affect your health? If yes how does it affect your health?' A list of reasons was presented, including, stress (28%), overall fatigue (23%), sleeping problems (8%), anxiety (7%) and irritability (11%). All of these may be considered as mental health symptoms.

These frequencies underline the fact that many workers consider that their work affects their health. Of course, this is different according to the occupation. Data are presented on stress and show the highest rates among professionals and lowest among elementary occupations and agricultural workers. The level of stress is below average for craft workers, clerks and service workers, while it is above average for technicians and managers.

Concerning stress at work Greek workers report high rates, followed by workers in Luxembourg, Sweden and Finland. Low rates are reported by Irish, Portuguese and British workers. Sleeping problems due to work follow a similar distribution, except for Greece where the rate is average.

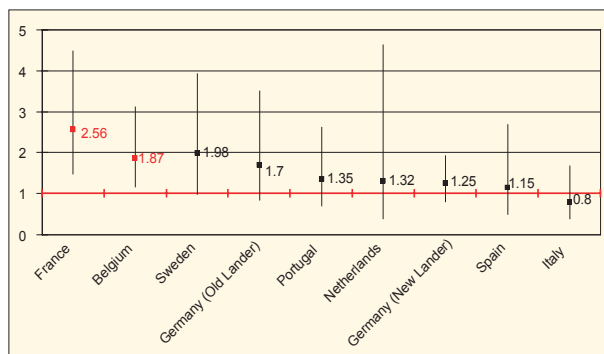
The rates are quite different in both surveys mainly because the first survey is focused on the last year and on work-related health problems, while the second survey cited concerns an opinion about whether work affects health. In both surveys, it is hard to interpret these data further because we do not have any objective measure of the mental health status of these people.

#### 4.4.2.1 Unemployment

Figure 53 shows the relative risk of psychological distress for people who are unemployed compared to those who are in paid employment in 10 European countries.

**Figure 53. Relative risk of psychological distress by employment status**

*Relative risk of psychological distress, as measured by MHI-5 scale of SF36 questionnaire, by employment, adjusted.*



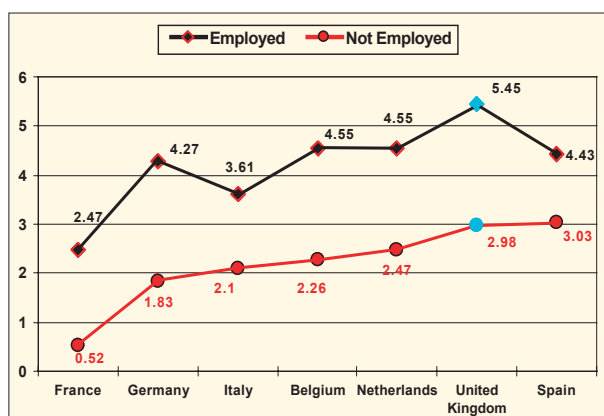
Austria with a value of 6.56 and a 95% confidence interval from 2.85 to 15.13 is not shown in order not to distort the scale.

Source: Eurobarometer, October 2002

In Eurobarometer, Austria, France and Belgium are the only countries to have higher relative risks for those who are unemployed.

**Figure 54. Psychological distress and unemployment in seven EU countries**

*Psychological distress measured by score on SF-12 scale*



Source: ESEMeD and UK psychiatric morbidity survey

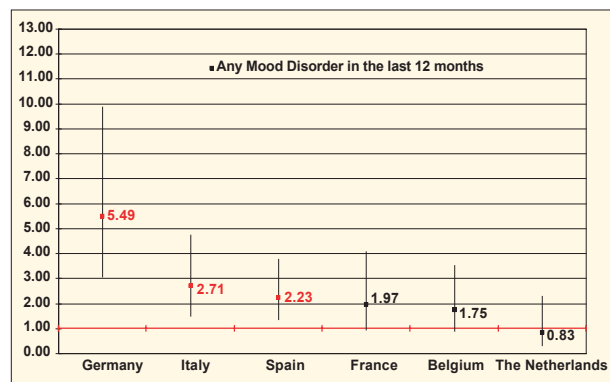
Figure 54 shows the mental health score of those who are not employed compared to those who are employed in seven countries. The lower scores on the SF-12 scale show a greater level of psychological distress. The results show consistently lower scores, and thus higher

distress, for those who are not employed. France, Germany and the Netherlands have large differences, while in Italy and Spain the differences are rather small. However, no interaction was found between the ESEMeD countries.

The Eurobarometer results seem to differ from the ESEMeD findings. However, in the ESEMeD study, the risk for French and Belgian unemployed are at the limit of significance. In the Netherlands, no difference was found in either study. For Spain and Italy the results are very different: not significant in Eurobarometer and significant in ESEMeD. In the latter, however, the employment status was particularly difficult to assess in these two countries and the differences in results may be due to difference in definition used in the assessment of employment status.

Since depressive disorders were highly correlated to employment status, major depressive disorders across countries were compared (Figure 55).

**Figure 55. Relative risk of any mood disorder in the last 12 months for unemployed people by country**  
*Age and sex adjusted odds ratio for any mood disorder in the last 12 months, for unemployed people compared to those in paid employment*



Source: ESEMeD

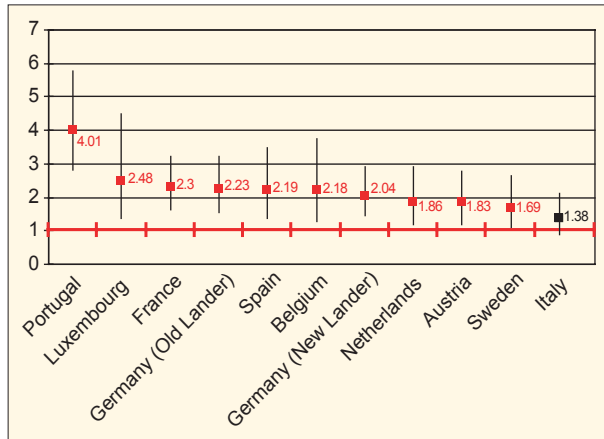
Germany, Italy and Spain show higher risk of disorders for those who are unemployed, and this concerns depressive disorders only.

These results are relatively coherent with the ESEMeD psychological distress approach.

#### 4.4.2.3 Low income

The relative risk of psychological distress for people on low-income was compared to the rest of the population in the Eurobarometer survey (Figure 56).

Figure 56. Relative risk of psychological distress by low income  
Measured by MHI-5 scale of SF36 questionnaire, adjusted



Source: Eurobarometer survey, October 2002

All countries except Italy show a higher risk for those with low income. This risk, however, seems especially high for Portugal, where it is significantly higher than Sweden and Austria.

#### 4.4.3 Conclusion

There can be no doubt now that disadvantaged groups in European populations experience more anxiety and depression than those who are more advantaged, despite the difficulties in measuring mental health problems. This represents significant suffering for individuals and serious loss of production and social function, with important consequences for children, communities and work-places.

The excess of the common mental disorders in disadvantaged people is well enough established to justify health policy initiatives to ensure that access to effective diagnosis and treatment is improved, especially at the primary health care level, and especially in communities with high levels of social disadvantage.

### 4.5 Rural-urban differences in mental health

Comparing rural and urban differences in mental disorders has long been a subject of research. Definition of urban/rural differences is a subject of concern since most of the studies looking into this issue use different definitions which render comparisons even more difficult.

Most published studies claim that there is a higher prevalence of mental health problems, or at least of depression, in urban areas. The underlying reasons can be summarised as:

- a higher risk of depression in urban areas than rural areas because of the decline in community relationships and social isolation in the city<sup>120-121</sup>
- greater stresses with housing, work, marriage, child-rearing and with security in urban environments, in interaction with the resources available to cope with the stress of urban life and high levels of hostility<sup>122-123</sup>
- concentration of poverty in city centres;
- poor social integration and social withdrawal and socio-cultural disintegration, including family and marital disintegration which limits social networks;<sup>124</sup>
- rural and urban migration, which encompasses stressors, coping resources and cultural factors.<sup>125</sup>

However, findings regarding rural and urban differences in depression from previous studies conducted in different regions have been inconsistent.

### Published Studies on Mental Health in Rural and Urban Areas in Europe

In Europe several reports on urbanicity and mental health originate from the United Kingdom. Harris and collaborators<sup>126</sup> collected data on depression in women from two highly differentiated samples: an urban group sampled in a suburb south of London, compared with two other groups living in two Scottish islands, one of which included a small town. Results indicated a significant decrease in depression with rurality. In addition, several environmental factors, specific to each sample (referred to as provoking agents and major difficulties) were shown to be predicting part of the variance. More recently, three nationwide surveys have been conducted in the UK, two of which reported figures concerning urban/rural differences. In the Health and Lifestyle Survey, urbanicity was defined according to the type of dwelling, assessed by individual interviewers: (1) urban home without open space, (2) urban home with open space, or (3) rural home. Odds ratios for psychiatric morbidity adjusted for socio-demographic variables supported the idea of rurality as a protective factor. In the more recent National Morbidity Survey,<sup>127</sup> a similar result was observed using interviewers' judgments for the urbanicity variable. However, rurality did not explain any significant amount of variance in the multivariate logistic regressions for both drug and alcohol dependence. Another recent large scale survey was conducted in the Netherlands,<sup>128</sup> where rural areas has being defined according to national population density criterion (top 80% of counties), and supported rural advantage. Odds ratios (adjusted for age and sex) were significantly lower in rural areas for mood and substance use disorders, as well as for co-morbidity (two or more disorders). Two highly contrasted French regions were compared: the industrialised and urbanised Ile de France region (totalling about 8 million adult inhabitants), as opposed to the more rural Basse Normandie region (about 1 million adults). The comparison found significant urban-rural differences for depression in the past six months to one year when sampling areas were defined according to population density. Severe depression seems to be particularly affected by the urban factor. These results confirm a difference for major depressive episodes between rural and urban settings, but in multivariate analysis this difference can be attributed to some expected socio-demographic differences such as gender, age (30-44 years) and marital status (divorced or single). In addition, the role of certain triggering events, such as death or illness in close family members and some childhood risk factors, such as being placed in an institution before the age of 12, also appear to be just as, if not more, important.<sup>129</sup>

In conclusion, these and other European studies comparing depression in rural and urban areas in Europe have produced diverse findings.<sup>130-137</sup> Although most of the studies have shown higher prevalence, especially in large cities in comparison to rural environments, the findings are by no means unanimous and are difficult to compare because of their diversity in mental health instruments and urban/rural definitions.

A European multicentre study, ODIN, has been investigating the rural/urban differences for depressive disorders in four European countries : Finland, Ireland, Norway and the UK (Table 8). The study found large urban/rural differences in prevalence of depressive disorder in the UK and Ireland, but the same was not evident in Finland and Norway. There were also remarkable differences between the urban study sites which were, however, not apparent between the rural study sites. A remarkable urban preponderance in comparison to the corresponding rural site in the female prevalence of depressive disorder was found in the UK and Ireland, whereas in men and in the total sample this difference was non-significant. In addition, factors such as lack of a confidante and having difficulties in getting practical help from neighbours, were important predictors of depressive disorder.

Table 8. Depression in rural and urban areas in males and females

| ODIN    | Male Rural | Male Urban | Female Rural | Female Urban |
|---------|------------|------------|--------------|--------------|
| Finland | 4.3        | 2.7        | 3.8          | 6.6          |
| Ireland | 8.1        | 4.3        | 5.9          | 15.2         |
| Norway  | 5.8        | 4.6        | 10.0         | 9.4          |
| Spain   | 9.41       | 2.0        | 21.15        | 1.8          |
| UK      | 5.2        | 5.0        | 7.9          | 4.7          |

Source: Ayuso-Mateos et al, 2001<sup>137</sup>

For this report, rural-urban comparisons of results from the six country ESEMeD Study were conducted (see Section 2.2.1.3).

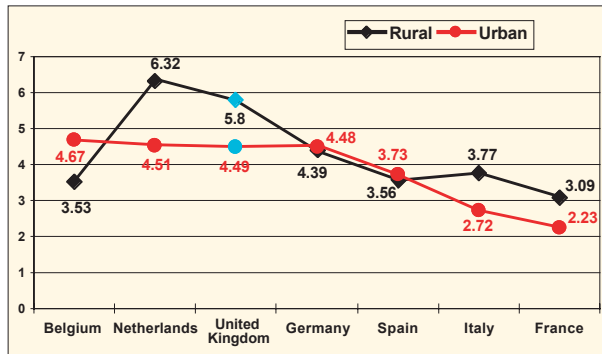
Of course, the different countries have various levels of urbanisation and population density: Belgium and Netherlands being the highest and Italy the lowest followed by France, Spain and Germany (see Section 2.1).

Since countries differ in their classification of what is 'rural' and what is 'urban' an objective measure has been used to split the population into rural (those living in cities below 10,000 inhabitants) and urban (those living in cities equal to or above this size). This definition is arbitrary and does not correspond to national definitions, but it does mean that a single definition is being used for all countries.

Figure 57 compares the results for psychological distress, as measured by the SF12 mental health score, for urban and rural areas in seven European countries.

Figure 57. Psychological distress in rural and urban areas

Measure on SF-12 mental health score in seven EU countries



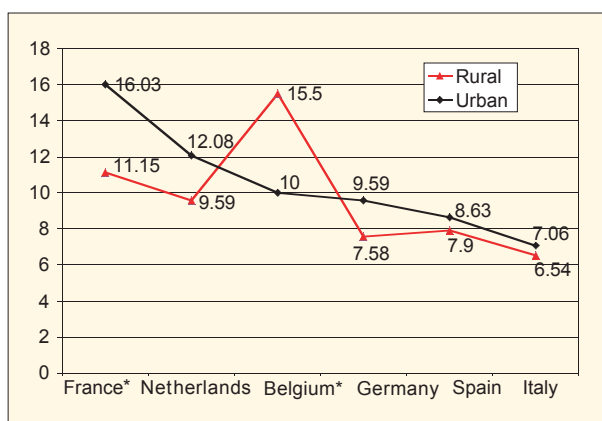
Source: ESEMeD and UK psychiatric morbidity survey

Interaction between ESEMeD countries and place of living is highly positive for psychological distress. It is worth noting that when analysing the data by gender, the difference remains in Netherlands for men only and in Germany it disappears.

These results with psychological distress parallel the results obtained with the diagnosis approach (see below) for Belgium and France and add new information about Italy and the Netherlands, where scores differ in favour of the rural areas.

Figure 58. Comparison of any mental disorders in the last 12 months for people living in urban and rural areas

Any 12 month disorders by place of living: Rural/urban (<=10 000/>10 000 persons)



Source: ESEMeD

Figure 58 compares rates for any mental disorders in the last 12 months by place of living. In general, urbanicity seems to be linked with a higher risk for mental health disorders, except for Belgium. However, for this country which urbanicity is subdivided into midsize

cities and metropolis, there is no difference between rural and metropolis and only those people living in midsize cities show better mental health than the two other categories.

The rural/urban differences are not uniform between countries. For any type of disorder, France and Germany have higher rates in urban areas than in rural areas whereas for Belgium it is the reverse. The remaining countries do not show differences. More specifically, mood disorders are higher in French and German urban areas versus rural and urban/rural difference for anxiety appear in France only.

For those countries where demographics differ across rural/urban population (France, Germany and Spain), multiple regression analyses were carried out to control for these differences. These analyses enable evaluation of the 'urban/rural' effect independently of the country effect and by controlling for the main demographic variables. These analyses demonstrated that living in an urban environment (urbanicity) is a risk factor for any disorders, but is not found for specific disorders. When marital status is controlled for, the risk disappears for Germany. However, the risk persists for France where urban people have a higher risk than those in rural areas and in Belgium it is the reverse.

ESEMeD results confirm previous findings that the differences between rural and urban areas vary between countries. For mood disorders (which have been studied the most) ESEMeD found differences between rural and urban areas in three countries: two where the urban rate was higher, one where it was lower and no difference in three countries. This parallels the ODIN study which found large urban/rural differences in UK and Ireland and not in the Nordic countries (Finland and Norway).

The fact that most of the urban risk disappears when marital status is controlled for, may explain some differences in the findings since the specific rural/urban rates of divorced/separated varies across countries. In ESEMeD it was different in France and Germany only. The same applies for age, since in ESEMeD the older group seems to have lower risk whereas the youngest category has the highest.

To conclude, most European studies show a higher risk in urban areas, at least for mood disorders. This effect has been repeatedly found in two different surveys in the Netherlands and France, and seems to exist in the UK and most of the ESEMeD countries, although different methods have been used. However, this effect seems to be mainly mediated by the main sociodemographic variables which are very different in rural and urban

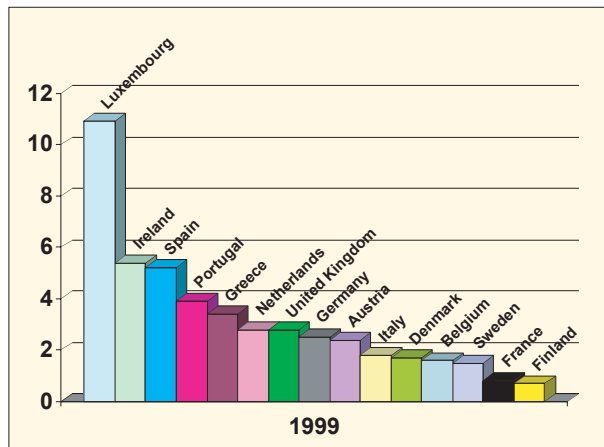


settings. Whatever the reason for the differences, it seems that the urban population has different risks. This should be taken into account when planning mental health care resources.

#### 4.6 Migration and mental health

The number of migrants in the world has more than doubled since 1975 and more than 56 million migrants were estimated to live in Europe in 2002.<sup>138</sup> During the 20th Century, Europe experienced three major periods of migration: around the time of the First and Second World Wars and during the 1990s.

**Figure 59. Migration rates across Europe**  
*Crude rate of net migration including corrections*



Source: Eurostat New Cronos databank

Within Europe there are very different patterns of migration (Figure 59). Northern European countries, such as the United Kingdom, the Netherlands, Germany and Sweden, have had a long experience of immigration throughout history, and especially immediately after the Second World War. In Southern European countries, such as Spain or Portugal, the immigration phenomenon is relatively recent. The composition of immigrant populations also varies from country to country.

Political and socio-economic instability in and around Europe has significantly increased the number of refugees and asylum seekers arriving in European countries. The presence of undocumented migrants is also a well-established fact in most European countries where migrants come or are 'called' into Europe to perform badly paid, physically and psychologically stressful jobs in highly qualified service economies and welfare states. Moves to close borders to new immigration have not prevented the increase in undocumented migrants in Europe. According to the last official International Labour Office estimate, in 1991

there were around 2.6 million undocumented migrants living in Europe.<sup>139</sup> More recent, unofficial, estimates suggest there are now more than three million undocumented migrants in Europe.<sup>140</sup>

Trends in migration in Europe began to change a few decades ago as a result of changes in the economic, political and social realms. EU Member States have been practicing a policy of closing borders throughout the 1990s, a policy that has become tougher still in recent years. However, the policy of closed borders does not stop migration, but instead seems to create a new underclass of undocumented migrants who are – contrary to all declarations of human rights – inhumanely suppressed and highly exploited.

Among all the changes a person can face during his or her life, few are so wide and complex as those which take place during migration. Practically everything that surrounds the person who emigrates changes. The process of loss and change which a person who migrates experience is seen as a grief process.<sup>141</sup> More specifically, seven losses have been identified which cause anguish that a person will experience with time: family and friends, language, culture, homeland, loss of status, loss of contact with the ethnic group and exposure to physical risks. Difficulties in expressing grief can cause psychological problems. These difficulties are accentuated when migration is accomplished under adverse conditions. The reception in the new country is crucial for the complete and successful development of the grief process.

In the case of refugees, who have to flee their country for fear of being persecuted, the grief process is more complex. War-related experiences and occupational status before migration may also be related to different mental health problems. A number of factors have been suggested as affecting the health of immigrants in their host country. These include: labour and economic instability, cultural and social marginalisation, family estrangement, pressures to send money back to their families, racial discrimination and a lack of statutory documentation.

These differences, as described above, in migration patterns, the migration experience and the reception that immigrants receive as they try to settle mean that it is not possible to consider migrants as one homogeneous group with identical risks for poor mental health. Further research is needed to identify factors which may lead to an increased risk of mental ill-health or increased need for mental health services. Factors to explore include reasons for migration, distance from host culture (including religion, language etc, ability to develop mediating structures and legal status as a resident).



## Mental Health and Migration: Summary of epidemiological studies

### Highest rates of schizophrenia in immigrants

Frequencies of schizophrenia is increased in several immigrant groups: Morocco, Surinam and the Dutch Antilles in the Netherlands<sup>142</sup>; Caribbean, Ireland, India and Pakistan in UK<sup>144-147</sup>; East Africa in Sweden.<sup>148</sup> But not all immigrant groups show higher risk than natives. The impact of migration itself produces high stress but rates of schizophrenia are even higher in the second generation, suggesting that other social factors and genetic vulnerability may be responsible for the increase.<sup>149</sup> The relative risk of schizophrenia in Surinam born immigrants against the Surinam born resident population was 1.46 but Odegaard's selection hypothesis cannot solely explain the higher incidence of schizophrenia.<sup>150</sup> The developmental task for formulating the life plan challenges the young adult's executive function abilities, which may be weaker in individuals vulnerable to schizophrenia. Formulating the life plan may be made more difficult by the position of disadvantaged ethnic minorities, raising the risk for schizophrenia.<sup>151</sup>

The African-Caribbean population in England is at increased risk of both schizophrenia and mania. African-Caribbean patients with schizophrenia show more affective symptoms, and more relapsing course with greater social disruption but fewer chronic negative symptoms, than white patients. Studies<sup>152-153</sup> have found that the elevated rate of schizophrenia among Turkish migrants was explained in part by possible misdiagnosis. The same research group<sup>153</sup> found in a group of Turkish schizophrenic patients, a higher rate of depression and hostile excitement than in German schizophrenic patients. Authors say that such a figure may be mainly due to diagnostic differences.

### Suicide

In the UK, suicide rates of young female immigrants from the Indian subcontinent are consistently higher than those of their male counterparts and of young women in the indigenous populations of the countries to which they immigrated. Depression, anxiety and domestic violence may contribute to the high rates but mental illness is rarely cited as a cause. Authors suggest that affective disorders may be under-diagnosed in this population.<sup>154-155</sup> Also, in the Netherlands the suicide rate among children of immigrants was considerably higher than that of the national population.<sup>156</sup> A study on psychiatric inpatients in Frankfurt in Germany found suicidal attempts more frequent among the Mediterranean girls than among their German counterparts.<sup>157</sup>

### Alcohol Abuse

Alcohol abuse among people of Indian descent is reflected in rates of cirrhosis-related mortality, which are twice as high as among English males.<sup>158</sup> The alcohol related disorders in immigrants was studied in Sweden by a register-based work on a national cohort of adults born 1929-65.<sup>159</sup> Authors found that patterns of alcohol abuse in the country of origin are strong determinants of alcohol-related disorders in first generation immigrants. The patterns in second generation immigrants are influenced by parental countries of origin as well as patterns in the majority of the population.

### Drug Abuse

Reports to investigate the reasons for drug abuse among immigrant youth have been carried out in Sweden<sup>160</sup>, France<sup>161</sup> and Germany<sup>162</sup> coming up with similar conclusions which suggest

that drug abuse was a consequence of difficult social integration. A 1996 WHO report noted that the consumption of tranquillisers and antidepressants by young immigrants across Europe is growing.

A recent review of the literature underlined that the association between migration and addiction is very heterogeneous. More or less drug and alcohol dependence than native populations have been reported in different migration phenomena across the world.<sup>163</sup> As suggested in some of the studies cited above on alcohol abuse, but probably not with the same strong association, patterns of addiction abuse in the country of origin are determinants of alcohol-related disorders in first generation immigrants. In spite of the public concern about migration and drug problems, there is a lack of data about drug dependence in the migrant population in Europe.

### Psychopathology expression and access to psychiatric facilities

A lower rate of recognized mental disorders in women of Indian origin was found by Jacob and colleagues<sup>164</sup> in a general practice setting in West London. Common mental disorders were similar in Indian women to those in other UK populations, individuals with common mental disorders had a higher frequency of consultation but were less likely to see depression as an indicator for medical intervention. Incorrect diagnosis by the GP was most likely to occur when patients did not disclose all their complaints: differing conceptualisation of common mental disorders may contribute to their under-recognition in women of Indian origin. In Turkish immigrants in the Netherlands, the expression of somatic complaints should alert physicians to further explore symptoms of minor psychiatric disorders and to examine sources of distress.<sup>165</sup> Surinamese, Antillean, Turkish and Moroccan women made considerably less use of mental health care services than native born women in the Netherlands. Cultural and socio-economic factors are largely responsible for such a difference: a care policy may improve the accessibility of mental health services for immigrant women.<sup>166</sup> Turkish immigrant teachers reported high levels of anxiety and depression in immigrant Turkish children which go largely undetected by their Dutch teachers.<sup>167</sup> Swedish born (but not Finnish) women and female refugees reported more psychosomatic complaints in the 90s than in 80s.<sup>168</sup> Similarly to the cited study on Sardinian immigrants to Paris, the results do not appear to confirm the clinical findings of 'somatization' as a privileged 'psychopathological course' in latin immigrants reported in the past.<sup>169</sup>

Turkish born migrant women in Sweden communicated distress by concrete expression about the body, emotion, social and life situation. Pain was prominent and psychiatric attribution was rarely accepted.<sup>170</sup> The results of this study point out the mutual need of exploring meaning in the clinical encounter to help patients, particularly migrants, make sense out of different perspectives of illness and healing.

### Risk of anxiety and depression

Depressive disorders were the second cause of medical consultations in 'undocumented' immigrants in a district of Madrid.<sup>171</sup> Senegalese travelling salesmen living in Sardinia, whose working conditions facilitate a community lifestyle, do not appear to be at risk for depression when compared to Sardinian controls. Higher rates of anxiety and depressive disorders were shown in the few fellow-countrymen who had managed to obtain a steady job with regular wages. In the latter case, the onset of psychopathological disorders was closely associated with the loss of contact with fellow-countrymen. A sample of Moroccan emigrants employed in similar occupations was characterised by a higher risk compared to natives. Elements of cultural cohesion, such as those represented by the associations of Islamic confraternities, probably may exert strong protective factors in immigrants from Senegal.<sup>172</sup>

*In a sample of Sardinians people living in Paris, migration was shown to be associated with a higher risk both of anxiety (as people living in Sardinia) and depressive disorders in the young people (as Parisians). The young emigrants and the children of emigrants (2nd generation emigrants) seem to be prone to drug-abuse and bulimia. The presence of a confidential relationship appears to have a protective effect, this suggests the need for support strategies.<sup>174</sup> In Greece, the work of Mavreas and Bebbington<sup>175</sup> shows that the rates of psychiatric disorders in two Greek samples, one Greek Cypriots living in Camberwell, London and the others living in Athens, were higher than those of the Camberwell population. Greeks reported more symptoms of general anxiety disorders. Mavreas and Bebbington suggest a greater risk of anxiety disorders in southern and of depression in northern European countries.<sup>175</sup> This is consistent with the Sardinian immigration studies.*

#### **Mental Health of EU immigrants once they returned to their country of origin and EU immigrants in disadvantaged countries**

*Little is known about the health of migrants once they return to their country of origin or they retire. This issue, however, represents a very relevant health problem particularly on immigration from southern Europe and Turkey toward northern European countries and on progressive aging of people who migrated in the 50s and 60s.<sup>176</sup> Elderly Sardinian residents who had experienced migration are characterised by an increased risk of dysthymia. A recent community*

*survey found a higher frequency of depressive disorders in the Sardinian immigrants in Argentina.<sup>177</sup> The study suggests the need for systematic research and support for European citizens who have migrated to south America and other economically disadvantaged countries.*

#### **Refugees and Mental Health**

*Recent surveys have shown that two thirds of refugees experience anxiety and/or depression.<sup>178</sup> Refugees have a high incidence of post traumatic stress disorder, depression, anxiety, panic disorder and agoraphobia.<sup>179</sup> Shortages of food, being lost in war situations, being close to death and suffering serious injury were each related to specific psychiatric symptoms in a community sample of adult Somali refugees.<sup>180</sup> The Harvard USA study in Refugee Trauma reported a high rate of disabling depression and post traumatic stress disorder among Bosnian refugees.<sup>181</sup> Nearly 50% of former Bosnian refugees who remained living in the Balkan area present psychiatric symptoms and disability 3 years after initial assessment. About 20% of those who did not have symptoms of psychiatric disorder at starting time had symptoms at follow-up. Depressed refugees had three times the risk of dying than non depressed.<sup>182</sup> A recent lecture<sup>183</sup> suggests that a long asylum procedure is associated with psychiatric disorders and indicates that both policy makers and mental health workers should take note of this finding.*

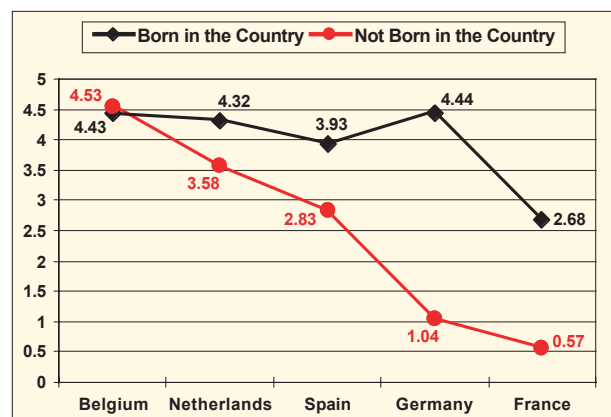
The particularly hard conditions of migration today in Europe seem to be leading to a deterioration in the mental health of newcomers. A group of psychiatrists have described common symptoms in migrants and have called it Chronic and Multiple Stress Syndrome in immigrants.<sup>x</sup> The growing incidence of this syndrome in many psychological and psychiatric services across Europe have alerted a group of social scientists and health care professionals from different countries to address the European Parliament to highlight the situation.

In Europe, epidemiological studies, which offer information on mental health status of immigrants, are still very rare. There is little data available with regard to the level of psychological and physical problems among those who are culturally different, owing to inadequate systems of registration. Nevertheless, some epidemiological studies do exist. The box below summarises the findings of different epidemiological studies which have looked into mental health in immigrants in Europe.

Figure 60 compares the findings for psychological distress, as measured by the SF-12 questionnaire, for people who were born in the country compared to those who were not born in the country.

**Figure 60. Psychological distress and migrants in five EU countries**

*SF-12 mental health scores for those born in the country compared to people not born in the country*



Source: Esemmed, 2000

Because of the way the samples were designed, it was not possible to compare those born in the country compared with those not born in the country for Italy.

## 5 Responses to mental health problems across Europe

The use of services is one of the determinants of mental health. Although each Member State chooses to organise its own care system according to national traditions, adequate care should be available for each EU citizen. Comparison of help seeking behaviour and description of care delivery across the EU is very useful since it will help policymakers to compare their own system with that of others.

### 5.1 General description

Mental health shares in the current ferment of health care systems. The last few years have seen new reform plans and laws in several countries, others having gone through similar developments some years earlier. The overall similarity of perceived problems and anticipated directions of change relating to mental health services suggests that there might be some common solutions. New laws not only deal with essentially legal aspects such as compulsory admission to hospital and patient rights, but also the nature and distribution of mental health care in the community. Some deal with financing issues. Others deal with specific problem areas such as alcohol or illegal drugs. There is a tendency, through new plans and laws, to emphasise the role of general practitioners and their need for training in mental health. Other laws and plans deal with devolution of administrative responsibilities for mental health, and ensuring equitable access to all forms of care throughout the country.

Austria, Italy, Netherlands and Norway are reported to be in a process of de-centralisation or devolution. This is an issue of importance, and it is also relevant in other countries. This administrative devolution is concurrent with, but is not necessarily directly associated with, sectorisation of district mental health services. This has been a key feature of developing mental health systems for the last 30 years, with the ideal of local, comprehensive community services. Most systems in Europe now have some form or degree of sector organisation in which a wide range of services are co-ordinated for a relatively small defined population, though the services, facilities and professionals encompassed vary. Where there are several different authorities with responsibilities for mental health and social care, as in Spain and Sweden, there is concern about co-ordination and co-operation.

In most European countries, mental health is now largely integrated into general health care, and is mostly under national or regional government responsibility. General practitioners, or other primary health care staff, deal with a large proportion of mental health problems. Specialist consultations frequently take place in general hospital psychiatric units or local mental health centres. Elderly people with dementia are sometimes served by a sub-specialist in old-age psychiatry. Children's services are usually separate, with a completely different group of staff and separate facilities, and working with schools and other child and youth agencies. There is concern expressed in several countries about the inadequacy of mental health diagnosis, treatment and care for offenders in and out of prison. This seems to be an area somewhat neglected which might benefit from co-operative consideration at EU level.

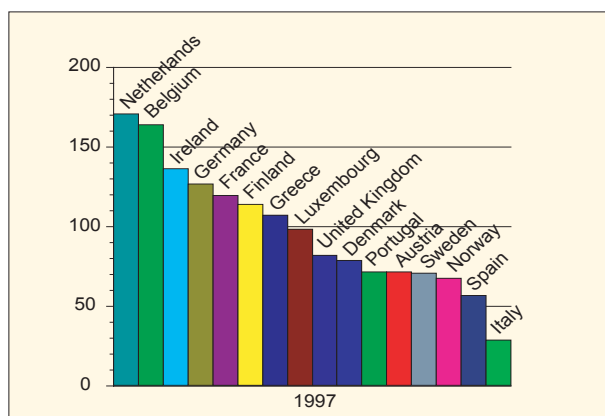
### 5.2 Psychiatric in-patient care

Large psychiatric hospitals were the inheritance of most European countries from the 19th and early 20th centuries, often constituting the bulk of all psychiatric care. They were characterised by stigma, social exclusion, custodial care and therapeutic nihilism. After the Second World War, new treatments and new attitudes to human rights gradually fuelled a fundamental change in attitudes. De-institutionalisation started about 40 years ago as a pioneering programme in some communities, challenging the nature of the big institutions and the need for so much in-patient care. The programme also anticipated the potential for treatment in general hospitals as for physical illness, and for care at home, in the family, and *'in the community'*. It gathered pace slowly and, though all countries eventually joined in, the process is not yet complete everywhere. Some countries still have relatively large numbers of beds in large psychiatric hospitals (Netherlands, 1.8/1000; Belgium 1.6/1000). Italy may have undertaken the most radical programme, though not the same in all parts of the country, and now has far less psychiatric hospital beds than any other European country. However, beds in 'homes' or 'centres' are not necessarily counted in the various totals given. Sweden has gone the furthest down the line in one important respect: after a programme of hospital diminution over a period of about 30 years, it has, since the mid 1990s had

no psychiatric hospitals at all, and all its 0.6/1000 psychiatric hospital beds are in psychiatric units in general hospitals.

**Figure 61. Psychiatric hospital beds in European countries**

*Psychiatric hospital beds per 100,000, 1997*



Source: WHO Health for All database

Overall, it cannot be doubted that there have been very significant reductions in psychiatric beds in most countries in the last two decades, a process that continues, usually with increased numbers of admissions but dramatic reductions in length of stay. Only longer-term hospital care and care of offenders with mental illness are now normally provided in special psychiatric hospitals, although there are exceptions to this.

The counting of 'beds' has always been difficult and controversial. Is it a matter of places available or beds occupied at a particular point in time? What institutions are included - large psychiatric hospitals, general hospital psychiatric units, rehabilitation institutions, specialist nursing and residential homes, sheltered housing? It certainly does not usually include prisons, though they contain large numbers of people with mental illness. Does it include elderly people with dementia, people with alcohol or other drug problems, and other special groups? So the high provision in Belgium of 2.5/1000 beds must be understood to include general hospital units and many in settings other than psychiatric hospital. And to the extremely low provision of 0.16 beds /1000 in Italy must be added the 0.3/1000 beds in specialist 'homes'. Nevertheless, even this combined Italian provision of 0.46/1000 is lower than any other country. Most countries figures currently fall between 0.5 and 1.3/1000, but it is not always clear what is included. In addition, the number of necessary beds is linked to the duration of stay which is highly dependent on the community residential alternatives as well as the non-psychiatric resources available for low cost housing and on the social benefits

provided to patients in order to enable them to live alone. It has to be stressed that residential resources will always be necessary for a certain number of psychiatric patients who could not be treated as out-patients only.

Most countries have retained some separate psychiatric hospitals, though they have been subjected to great changes. They have generally been very seriously reduced in size, provide a range of therapeutic settings and regimes, and are part of community-based service networks. Some, as in Austria, have been re-named to combat stigma. Many have been closed and replaced by modern alternatives. In most countries the most common therapeutic alternative is the psychiatric unit in the general hospital, psychiatry having similar status to any other medical specialty, but some have included short-term beds in 'mental health centres' providing a wide range of services.

Long-term care and rehabilitation is now often in nursing homes or residential homes, or even in sheltered housing, where little supervision is needed. All these are usually easier to integrate into sectorised, community service networks, and co-ordination and co-operation is now the common pattern. In some countries, private hospitals remain, often run by religious orders such as in Portugal, or traditional specialist institutions, such as the psycho-therapeutic/psycho-somatic rehabilitation hospitals in Germany, with variable integration into the state service system.

All countries retain some legal powers of compulsory admission for people considered dangerous either to themselves or others, though the use of such powers has become relatively rare in most countries. Norway still has relatively high use and it is a stated priority to reduce this; compulsory treatment can now be given also as an out-patient, and it is now legally required that voluntary solutions must be tried first. Denmark is also concerned about high levels of coercion, and is examining ways of reducing it. Protection of patient rights under compulsory orders has often been the subject of recent legislation, with some interesting developments. For example, Austria has patient attorneys and solicitors to protect their rights and interests.

In most countries, specialist teams - psychiatrists and others - work in and from hospitals and/or mental health centres, and out-patient (ambulatory) care may be provided in either or both settings. Generally speaking, where general practitioners have a gate-keeper role in the health care system, referral to such specialists and to the hospitals is through the GP, except in emergencies. In Spain the system is very heterogeneous because different organisational systems exist in



different communities. In general, GPs must refer to a community psychiatric team, which provides initial out-patient care. They can then refer to a general or psychiatric hospital for admission. Many general hospitals may also provide out-patient psychiatric care, often focused on the treatment of specific disorders. In general hospitals, the same specialists may work in both in-patient and ambulatory centres, but usually community psychiatric teams are independent of hospitals. In other countries, such as Germany, there can be direct access by patients to specialists.

### 5.3 Community services, facilities and support

The corollary of closing or reducing hospitals and psychiatric in-patient care, has been the development of a wide range of community facilities. The danger has been that hospital beds would be reduced or hospitals closed before alternative care in the community was developed, so it has to be done with careful planning to co-ordinate both developments. This care is emphasised in the Netherlands, and in Norway, where Parliament has forbidden more reductions in psychiatric hospital beds until community alternatives are in place.

There is a problem of definition in mental health services relating to social, as opposed to medical, care, and the country reports give very variable, and often very little, information. It is clear that there is almost always a variety of facilities that are provided by local authorities or government social agencies, insurance organisations, or voluntary associations (NGOs). These may or may not, however, be defined as '*mental health*' facilities, and may or may not be part of a co-ordinated network of services together with the formal medical care agencies. The close connection between the social care system and health care system in Denmark is by no means a universal situation. However defined, most countries consider that they do not yet have enough social care, or point to particular regions which are under-developed in this respect.

There are many functions and many different locations. Out-patients are seen in specialist hospitals and centres, general hospital units and in other general settings, such as primary health care centres. Out-patients may be seen by psychiatrists, psychologists, various therapists, specialist nurses and others. Day treatment and care is available in psychiatric and general hospitals, mental health centres and special day centres. Patients may receive clinical treatment, nursing care, social and occupational therapy and rehabilitation, and families get respite from home care. New services have been

developed to help people back into work or provide sheltered work opportunities. Support for patients and families in their own homes is available from specialist psychiatric community nurses or nurses working from the hospital, social workers, local carers and others. In Finland, with widely dispersed rural populations, they are experimenting with tele-counselling to support people at home.

Each country has many of these facilities, but few would claim to have all of them in every community, and particular facilities may include only some of the possible functions mentioned above. Almost all admit to variable provision across the country. And almost all admit to problems of co-ordination of these many and varied services. Co-ordination is indeed a huge challenge, as the providers of these community services usually include state and local authorities, health and social welfare agencies, private organisations, national and local NGOs, and possibly professional associations, patient and family associations. Not all will be located within the same defined community or serving the same catchment. Not all will necessarily share the same service ethos or aims of care. Relationships between all these have to be constantly worked at, and management of community service networks, whatever their formal constitution, is always extremely demanding.

### 5.4 Mental health in primary health care

In some countries, primary medical care has been the foundation of the health care system for a long time, and general medical practitioners have been the usual mode of access to other services, generally including mental health services. This '*gate-keeper*' function, is particular strong in Denmark, Finland, Norway, Portugal, Spain and the UK. In the Netherlands, GPs share this function with social workers, psychologists and some company doctors. In Austria and Ireland, GPs are said to be the usual first point of contact for patients, while in Belgium and Luxembourg, mental health is said to be fully integrated into primary health care. In Germany, GPs are officially not designated as '*gate-keepers*', so, in a sense, compete with specialists; yet GPs are considered to be very important and very involved in mental health care. In all countries they are much less likely to influence access to specialists in the private sector.

However, there are reports that GPs do not generally function well as regards mental health needs of their patients, and that their training is less adequate in psychiatry than in physical medicine. Several European countries are actively engaged in improving this situation. In the UK this has been a major concern for some time and psychiatric training is now one of the six-month modules included in GP training. It is not mandatory, however, and only about half of new trainees include this module. In Austria, GP training is being re-organised to include mandatory psychiatric training.

Such basic training is very important, but in Belgium and Luxembourg, GPs and all primary health care staff have regular continuing training in mental health, equally important at a time of changing treatment, services and attitudes. And, of course, for the many older GPs who had no basic psychiatric training beyond undergraduate experience, in-service training is essential. In Germany, there have been several efforts to improve GPs' response to patients with mental health problems - they see as many patients as specialists - and, also important, to improve the status of family physicians in a specialist-dominated medical culture. In Norway, the specialist services have a specified role in supporting and educating primary health care staff. Perhaps GP training in mental health is an example of an important common issue in which the countries of Europe could usefully learn from each other.

In some systems, for example Austria and Germany, GPs are largely office-based, solo practitioners, but in most countries where primary health care (PHC) is a prominent part of the health care system, it includes far more than just physicians, and several countries specifically report developments of mental health care in a PHC context. For example, in the new Finnish system, PHC is a broad concept including most social care for people with mental illness; in the Netherlands, PHC for mental health includes social workers and psychologists. In most UK practices, as well as several physicians, there are practice nurses, community nurses, health visitors, and increasingly counsellors and therapists working in or from the practice. Sometimes specialist psychiatric community nurses, psychologists, social workers and home carers are attached to the practice, though in many areas, these work as part of a community psychiatry team with a psychiatrist from a mental health centre serving a larger population.

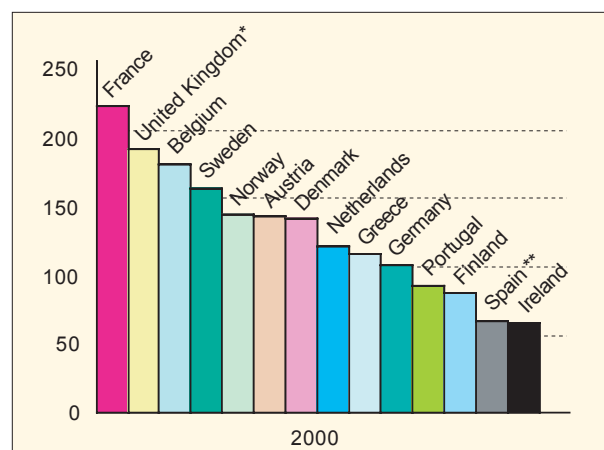
Norway similarly has District Psychiatric Centres; Finland and Sweden have also been developing multi-disciplinary specialist mental health centres. There is an administrative dilemma, faced in several countries, in providing multi-disciplinary community psychiatry with a full range of skills, necessarily covering a larger

catchment than the PHC units which also provide mental health care, while also ensuring close co-ordination with GPs and their PHC colleagues. Not all countries rely on primary health care to provide mental health care. An alternative model was developed in Italy, based on Community Mental Health Centres providing local direct access mental health services; in France, there are Medical Psychological Centres.

## 5.5 Staffing issues

In many countries there have also been significant increases in both the number and variety of professional staff in mental health work, and in the degree to which they are fully trained. The only figures for staff generally available are for psychiatrists, most countries falling between 10 and 19/100,000 population. However, these statistics too must be viewed sceptically, because definitions of what constitutes a particular professional group vary. Where psychiatrists are also trained as practising neurologists, as until recently in Austria, they need to be counted in a different way from full-time psychiatrists. Some other physicians and psychologists may have similar functions to psychiatrists, as apparently in Germany.

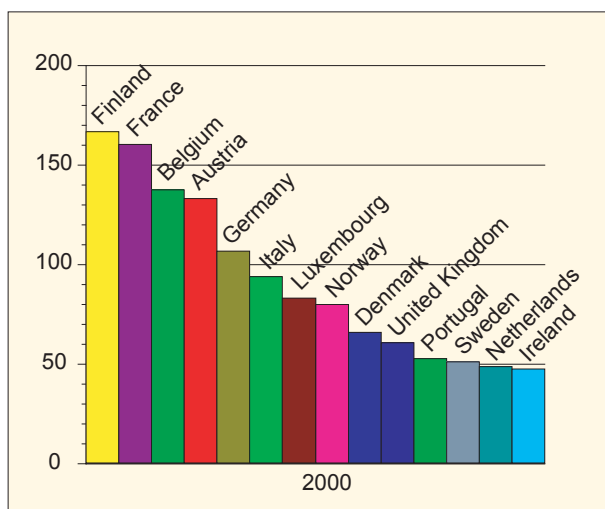
**Figure 62. Numbers of Psychiatrists in EU Countries**  
*Numbers of Psychiatrists per million residents, 2000*



Source: Eurostat New Cronos Databank



**Figure 63. Numbers of GPs in EU Countries**  
*Numbers of general practitioners, per 100,000 population, 2000*



Source: WHO Health for All Database

There are other professionals in psychiatry in most countries, but we do not know the numbers or the balance between them. These include psychologists, psycho-analysts, psycho-therapists, psychiatric nurse practitioners, trained counsellors, and perhaps others. Without a commonly agreed standard taxonomy of medical and social professional workers we will not be able to compare service provisions and patient experience.

Overall, we can say that there are more psychologists now available; psychiatric nurses have been given new training and new roles; social workers have been accepted into multi-disciplinary teams; psycho-therapists and counsellors have become more widely available. We can also say that training has changed over the years, probably for all groups. Yet there is little evidence of a common pattern except increasing diversity of staff, and increasing numbers. Staffing profiles have been very variable in the experience of different European countries, and the distribution of staff is also variable within most countries.

For example, in most places psychiatrists have been recognised and certified medical specialists for several decades, but a specialist exam has only recently been introduced in Austria, where Psychiatry and Neurology remained as a single specialty until less than ten years ago. Similarly, a specialist diploma in psychiatric nursing was introduced only in 1997. On the other hand, Austria has many psychologists, specialising as either Health Psychologists or Clinical Psychologists, and active in diagnosis, treatment, research and prevention. And there are even more psycho-therapists, professionally independent since 1991.

Similarly, in Germany the number of psychiatrists seems comparatively very small, but there are other physicians, psychologists, therapists, and others in mental health practice which can multiply that number by about ten. In systems where the cost of consultations is reimbursed from an insurance fund, there is an issue of which professionals are encompassed. In France, psychologist consultations are not reimbursed; in Germany psychologists have become members of the physicians association and therefore can be reimbursed.

Apart from certification and licensing, governments have been generally reluctant to interfere directly with the professions, but there is some suggestion that this is changing. For example, in Finland, municipalities are legally bound to develop multi-disciplinary local care systems. In the Netherlands, national policy is to improve the logic and transparency of the structure of professions in mental health practice, as well as requiring changes in practice based on thorough review of scientific evidence, as also in the UK. In Germany, the Federal Directive on Staffing of 1991 was a prescriptive law requiring specified multi-disciplinary staffing levels; it resulted in a 25% increase in staff of all groups from 1990-1995.

Governments can also influence professional numbers by increasing - and funding - training places, but the lag time is a huge problem, especially for specialist physicians; it takes at least ten years to produce new psychiatrists. Several countries, including particularly Denmark, Portugal and the UK, report serious shortages of professional staff. Denmark faces a particularly serious shortage of psychiatrists which cannot be solved by immigration because few non-Danes speak Danish.

## 5.6 Patient and family involvement

A key ethical principle of modern psychiatry is the involvement of the patient and family, as far as possible, in decisions relating to treatment and care. In all countries, the various legal safeguards on compulsory treatment recognise this. In Austria there are appointed patient attorneys and solicitors to protect their rights, and other formal mechanisms elsewhere. In the Netherlands, incorporation of patient views and preferences is now said to be a priority; in Finland it is mandatory. In Portugal, family burdens are very high, and increasingly patients and families are getting involved with wider service issues of content, style and location. Most commonly this is through local and national patient and family associations or wider mental health NGOs, who have for a long time had strong campaigning and advocacy roles in many countries. In some places, patients - users of mental health services -

are brought onto policy and planning bodies, as in Ireland, where they argue for less drug-oriented, and more home-based treatments.

NGOs are also involved in many countries in the provision of services beyond advocacy; in Luxembourg they are also involved in mental health promotion and prevention, and in treatment programmes. There is an increasing voluntary sector, providing important and unpaid services additional to government provisions. In France, much ambulatory care is provided by NGOs (CMPPs). It is not always easy to co-ordinate care between statutory and voluntary agencies, facilities and staff, and control of quality of care can be a problem: in Germany long-term care homes in the voluntary sector are said often to have inadequate psychiatric supervision, and treatment may not be appropriate or sufficient.

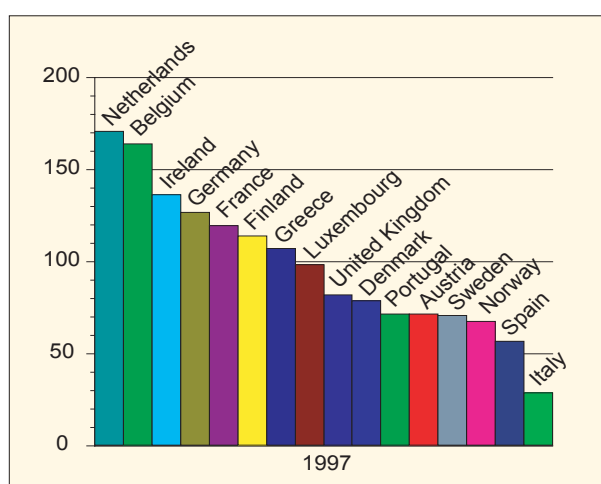
Carers of people with chronic psychiatric disorders, have particular needs. They are often spouses, elderly parents, or children of patients and they may carry the bulk of the burden of care for many years. In the UK there has been a major improvement in recognition of carers' needs, and rather variable provision of relief in the home, or respite admission of the patient, but there is a long way to go. Developments have been greatly assisted by the national and local carers' associations, and by the many NGOs dedicated to particular diseases, such as the Schizophrenia Fellowship, the Parkinson's Disease Society and the Alzheimer's Association, as well as NGOs with broader briefs, such as MIND. There are also European associations such as the European Federation of Families of Mentally Ill People (EUFAMI) and the European Users and Survivors of Psychiatry Network (EUSPIN).

## 5.7 Use of psychotropic drugs

Psychotropic drugs, together with psychotherapies, are essential elements for treating most psychiatric disorders.

EU countries have different policies to deal with drugs expenses and their budgets allocated to pharmaceutical drugs can vary considerably. They may also have very different policies toward payment by individuals, prices and retailers.

**Figure 64. Pharmaceutical expenditure across Europe**  
*Total pharmaceutical expenditure, purchasing power parity dollars per capita, 1997*



Source: WHO Health for All Database

This report compares two main classes of psychotropic drugs: antidepressants and anxiolytics (Tables 9 and 10). Three approaches are used to present data: euros spending per inhabitant, number of prescriptions per inhabitant and defined daily dose (DDD) per 1,000 inhabitants (see Section 2.2). In addition, where possible trends are presented and these may be more useful to compare countries.

Table 9. Consumption of antidepressants in 14 EU countries

Three indicators used: EURO/one inhabitant-calculated using a number of Euro by number of inhabitants of the country in one year; PRESCRIPTIONS/one inhabitant – number of prescriptions by physicians per number of inhabitant of the country in one year; DDD/1000 inhabit./day in one year. (France and Spain DDD-calculated using a box of drug, one box contains approximately 14 day's treatment)

| ANTIDEPRESSANTS |                                    |                                             |                      |                                 |
|-----------------|------------------------------------|---------------------------------------------|----------------------|---------------------------------|
| Country         | EURO/ inhabitant YEAR 2002 - (IMS) | PRESCRIPTIONS/ inhabitant YEAR 2002 - (IMS) | TREND/YEAR 2000–2002 | DDD/1000 inhabit./day YEAR 2000 |
| AUS             |                                    |                                             |                      | 6.2 (XI)                        |
| BEL             | 7.90 (II)                          | 0.50 (I)                                    | +4.72%               |                                 |
| DNK             |                                    |                                             |                      | 30.3 (VI)                       |
| FNL             |                                    |                                             |                      | 35.5 (V)                        |
| FRA             | 6.02 (V)                           | 0.35 (V)                                    | +8.6%                | 49.3 (I)                        |
| GER             | 3.32 (IX)                          | 0.24 (VII)                                  | +1.8%                | 12.6 (VII)                      |
| IRE             |                                    |                                             |                      | 10.4 (VIII)                     |
| ITA             | 3.55 (VIII)                        | 0.24 (VII)                                  | +8.8%                | 9.7 (IX)                        |
| NED             | 5.33 (VII)                         | 0.30 (VI)                                   | +2.1%                |                                 |
| NOR             |                                    |                                             |                      | 41.4 (III)                      |
| POR             | 5.48 (VI)                          | 0.42 (III)                                  | +10.6%               |                                 |
| SPA             | 6.33 (IV)                          | 0.41 (IV)                                   | +4.2%                | 7.45 (X)                        |
| SWE             | 10.70 (I)                          |                                             |                      | 48.8 (II)                       |
| UK              | 6.77 (III)                         | 0.50 (II)                                   | +9.2%                | 22.0 (V)                        |

It is not easy to compare data on drug use since often data for one type is not available for the other one. However, there are high antidepressant use countries – Sweden, Belgium and UK – and low antidepressant use countries such as Germany, Italy, Ireland, Austria and the Netherlands. The situation in France is doubtful since the approximation by DDD puts France in the highest category when France is at the middle with other indicators. The same applies for Spain, but in the reverse direction.

Trends show an increase between 2000 and 2002, mainly in Portugal (which is high in relation to the per capita prescriptions), the UK (one of the highest) and Italy, which is low.

Table 10. Consumption of anxiolytics and hypnotics in 14 EU countries

EURO/inhabitant-calculated using a number of Euro by number of inhabitants of the country in one year; PRESCRIPTIONS/inhabitant - number of prescriptions by physicians per number of inhabitant of the country in one year; DDD/1000 inhabitant/day in one year (France and Spain DDD-calculated using a box of drug, one box contains approximately 14 day's treatment)

| ANXIOLYTICS & HYPNOTICS |                                        |                                                 |            |                                                      |
|-------------------------|----------------------------------------|-------------------------------------------------|------------|------------------------------------------------------|
| Country                 | EURO/ one inhabitant YEAR 2002 - (IMS) | PRESCRIPTIONS/ one inhabitant YEAR 2002 - (IMS) | TREND/YEAR | DDD/1000 inhabit./ day YEAR 2000 (Finland Data Bank) |
| AUS                     |                                        |                                                 |            | 4.80 (X)                                             |
| BEL                     | 2.24 (III)                             | 0.53 (II)                                       | -5.5%      |                                                      |
| DNK                     |                                        |                                                 |            | 53.10 (IV)                                           |
| FNL                     |                                        |                                                 |            | 81.70 (II)                                           |
| FRA                     | 1.70 (IV)                              | 0.38 (IV)                                       | +3.4%      | 124 (I)                                              |
| GER                     | 0.41 (VIII)                            | 0.16 (VI)                                       | -3.7%      | 5.50 (IX)                                            |
| IRE                     | ---                                    |                                                 |            | 13.50 (VIII)                                         |
| ITA                     | 2.87 (I)                               | 0.20 (VII)                                      | -6.2%      | 0.30 (XI)                                            |
| NED                     | 0.56 (VII)                             | 0.27 (V)                                        | -1.2%      |                                                      |
| NOR                     |                                        |                                                 |            | 50.80 (V)                                            |
| POR                     | 2.84 (II)                              | 0.61 (I)                                        | +1.0%      |                                                      |
| SPA                     | 1.26 (V)                               | 0.51 (III)                                      | +0.6%      | 20.99 (VII)                                          |
| SWE                     |                                        |                                                 |            | 62.60 (III)                                          |
| UK                      | 0.30 (IX)                              | 0.10 (VIII)                                     | +2.1%      | 31.80 (VI)                                           |

The situation concerning anxiolytics is rather different than for antidepressants. Italy and Portugal are in the highest group with Belgium and UK plus some Nordic countries such as Finland, Sweden and Denmark. Conversely, the lowest group contains Germany, Ireland, Austria and the Netherlands (being in the lowest category as they were for antidepressants).

France appears to have been in the high consumption group, especially if an approximation made from the number of units sold is used. It is worthwhile to note that many countries see their consumption decreasing, although Spain and Portugal have seen a mild increase and France has a relatively high rate.

In conclusion, psychotropic drug use comparisons would have been very useful since they reflect care in the different countries. Antidepressant use should correspond to better care of depression and eventually a decrease in suicide while an increase in anxiolytics is more questionable in terms of evaluating use of care.

However, the data at the present time are not reliable enough to allow comparisons. In addition, these data reflect general tendencies and do not provide information about adequacy of care since it is not possible to know if the drugs are prescribed to those in need. These aspects will be explored in the following section.

## 5.8 Surveys results: seeking help for mental health problems

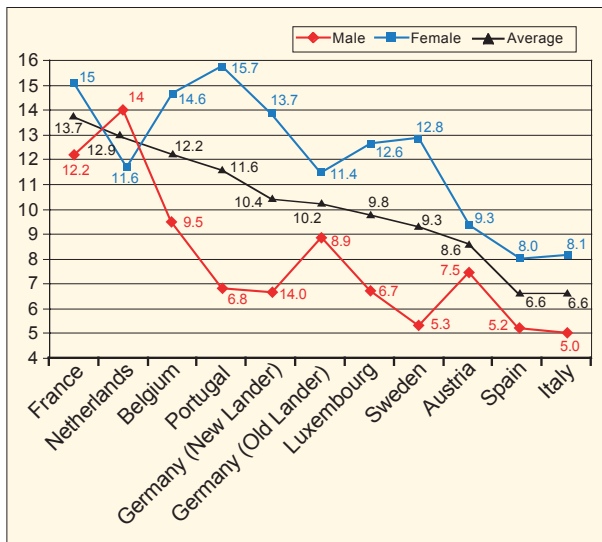
Another way to look at the health system use for mental health problems is by asking people randomised in the general population if they have looked for help for any mental health problem, and whom they have asked for help. Then it is possible to study their health system utilisation in relation to their health status as measured in the same surveys.

The ESEMed and Eurobarometer surveys enable comparisons of 'help seeking' for mental health problems in the various EU countries

Figure 65 shows the percentage of respondents in each country who had sought any help for a mental health problem in the last 12 months.

**Figure 65. People seeking help for a mental health problem**

*Proportion of total, female and male respondents who have sought any help for a mental health problem in the last 12 months.*



Source: Eurobarometer survey, October 2002

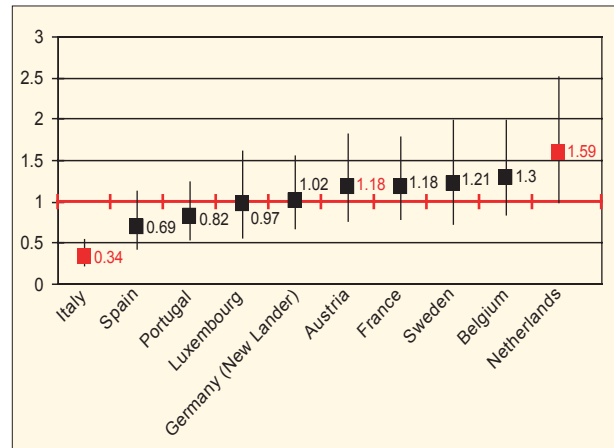
Figure 65 illustrates two results. First, it shows that proneness to seek help for a mental health problem varies greatly among the Eurobarometer countries: France, Netherlands, and Belgium being the highest and Spain and Italy the lowest. This means that Italy is low for asking care while high on psychological distress.

The second result is the magnitude of male/female difference in help seeking behaviour for mental health problems in some countries. In Portugal, Belgium, Luxembourg, Germany (New Lander) and Sweden, females ask for help far more frequently than men, while in other countries there is not that much difference (France, Austria Spain and Italy). In the Netherlands, men seek help more often than women.

It is possible to analyse the answers of all those respondents who were considered to be likely to have a mental health problem using the MHI-5 scale and see whether they said they had sought help in the last 12 months. Figure 66 takes the results of this analysis and shows the relative risk of asking for help for a mental health problem compared to West Germany (which is close to the EU average).

**Figure 66. Relative risk of seeking help for a mental health problem among cases of mental ill-health by country**

*Odds ratio for cases of mental ill-health seeking any help for a mental health problem in the last 12 months, using West Germany as a base*



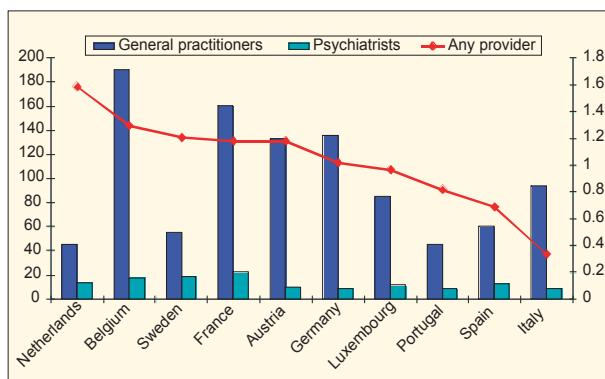
Source: Eurobarometer survey, October 2002

This figure indicates that two countries have patterns which are different to the others: Italy, where the tendency to consult in case of mental health problems is lower, and Netherlands, where it is higher.

These probabilities could be compared to the differences in availability of health professionals. Figure 67 shows that the probability to consult in case of psychological distress is not strictly parallel to availability of medical care, especially in the Netherlands and in Sweden where non-medical mental health professionals play an important role.

**Figure 67. Probability of seeking help with a mental health problem**

*Probability of consulting a general practitioner, a psychiatrist or any provider in the last year for cases with mental health problems, West Germany as reference*



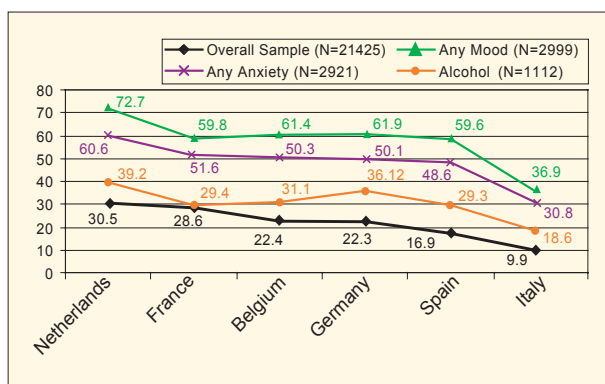
Source: Eurobarometer and WHO HFA Database

The comparison of data obtained through surveys and availability of care at least for medical practitioners (GP and psychiatrist) show that the proneness to consult in cases or with problems does not fit the availability of such resources, at least for the Netherlands, Sweden and, to a lesser extent, Italy. This may underline the importance of the non-medical professions in some countries who obtain high levels of care by using non medical professions, such as psychologists or various therapists for whom data are not available.

ESEMeD data allow the same sort of comparisons, including comparisons of the overall sample and those suffering from some mental health disorders (Figure 68).

**Figure 68. People seeking help for mental health problems from any health provider**

*Percentage of the overall sample, of people with alcohol disorders, of people with anxiety disorders and of people with mood disorders ever seeking help from any provider in six European countries, lifetime.*



Source: ESEMeD

The data collected through ESEMeD are remarkably consistent with the Eurobarometer data. Although both surveys were asking the same questions, data for Eurobarometer are on a one year period and ESEMeD for lifetime so the rates are different. The Netherlands, France and Belgium are the highest countries, Spain and Italy the lowest and Germany is in the middle.

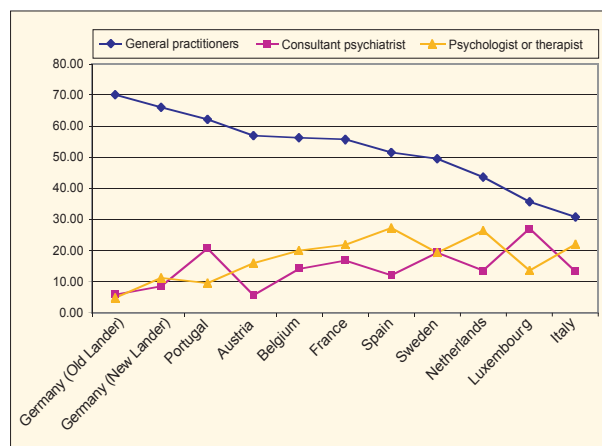
In the ESEMeD study, this is confirmed for the Netherlands (1.42) and Italy (0.35) by a logistic regression in order to control for socio-demographic differences.

### 5.8.1 Type of provider

More specifically, it is possible to examine the type of provider that people sought for a mental health problem and compare this with the availability of the different providers across EU.

**Figure 69. Types of providers consulted in case of mental health problems in the last year**

*Percentage of those seeking help who consulted a general practitioner, a psychiatrist, or a psychologist/therapist.*



Source: Eurobarometer, October 2002

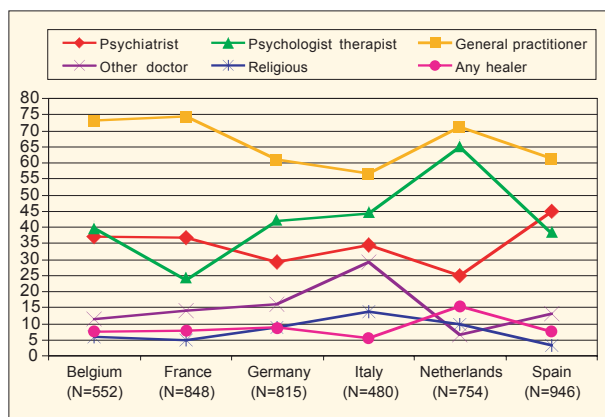
Figure 69 suggests that, in Eurobarometer, there are differences between countries in the type of help that people seek for a mental health problem. Although there are some differences for the general practitioners, most of the differences concerns the relative use of psychiatrists versus psychologists or psychotherapists.

In the ESEMeD comparisons, the general practitioner is the main provider of help for people for mental health problems. Psychologists (therapist, counsellors) are the most diversely used with the highest use rate in the Netherlands. Psychiatrists are more consistently used, but mental health specialists complemented each other (low use of psychiatrists in the Netherlands and high use in Spain).



**Figure 70. People seeking help from different providers in six EU countries**

*Percentage seeking help from a general practitioner, psychologist, psychiatrist, other doctor, religious adviser or any healer, weighted*



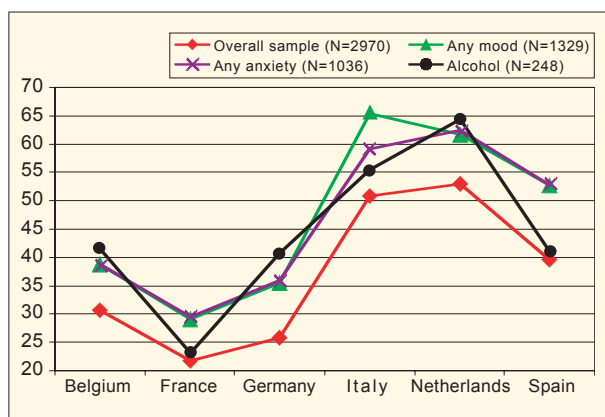
Source: ESEMeD

Comparisons with Eurobarometer results show some identical results: lower level of consultations with GPs in Italy in case of mental health problems and the importance of non-medical providers in the Netherlands.

The relationship between the primary care systems and the specialist systems are different too, and may have important consequences for care provision.

**Figure 71. Referrals from a family doctor to a mental health specialist**

*Referrals from a family doctor to a mental health specialist among the overall sample, among people with any lifetime mood disorder, people with any lifetime anxiety disorder and any lifetime alcohol disorder*



Source: ESEMeD

In some countries, like France, there are few contacts while in other countries, like the Netherlands or Italy, the referral is frequent. Interestingly, the relationship holds whatever.

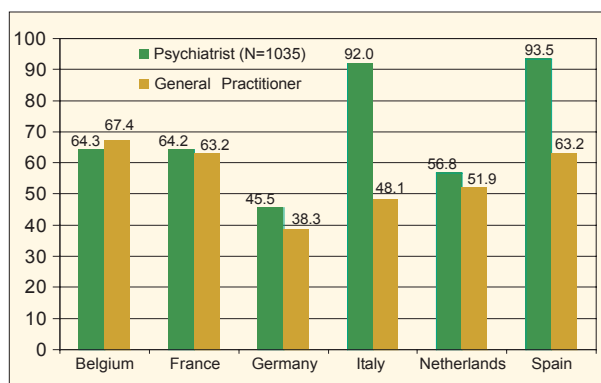
There are very diverse patterns of GP referral to mental health specialists. The rates of referral are very high in Italy and the Netherlands but very low in France.

Ultimately the type of treatment received by the person who suffered from mental health problems and, more specifically, the drug prescribed, varies across countries. Figure 71 presents the rate of prescription by psychiatrists and GPs in the ESEMeD countries. Germany and the Netherlands show the lowest prescription trends and this is coherent with the lowest drug consumption in these two countries

It is noteworthy that in the two countries with the lower rates of consultation in case of mental health problems, the GPs prescribe drugs more frequently. This may correspond to the fact that only very ill people seek medical help.

**Figure 71. Prescriptions of Drug for Individuals with any mental health disorder**

*Percentage of people with any previous mental health disorder during their lifetime prescribed drugs by a general practitioner and by a psychiatrist;*



Source: ESEMeD



## 6 Conclusions and recommendations

### 6.1 Summary of findings

The European Union is very diverse. Member States are different in terms of population density, aging populations, poverty levels, cultural background and habits, to quote some of the most notable differences.

All of these factors have been shown to have some links with mental health status and some of them have been identified as risk factors. Mental health promotion and prevention programmes are also implemented differently throughout the EU. This may mediate the effects of risk factors, as well as having implications for the organisation of mental health care and thus its efficacy.

All these make mental health differences between countries a high probability and render their study potentially very promising. This should help Member States to design priorities and set up their own policies on promotion, prevention and care systems.

However, if mental health status is found to be different in EU Member States, it is important to clarify whether differences are due to the different levels of risk factors, the efficacy of various promotion and prevention policies, the efficiency of mental health care systems or all of these factors.

Unfortunately, these relationships are rather complex. It is notable that those countries which had the highest economic increase - Luxembourg and Ireland - have seen an increase, over the same time, in negative mental health indicators such as alcohol and drugs consumption and that their suicide rates are increasing. Although it is important to note that low taxes on alcohol in Luxembourg, relative to neighbouring countries, mean that the amount of alcohol purchased in Luxembourg is likely to be higher than the amount consumed.

A similar pattern can be observed, to a lesser extent, in Norway and Greece although these countries have not seen a trend towards increased alcohol consumption. Similarly, the level of poverty and the risk of poverty in these countries are not decreasing.

To add to the complexity, mental health status across countries is not easy to compare. This report shows clearly that mental health has to be multidimensional and that each of the dimensions should be described: positive mental health, psychological distress and

psychiatric disorders (diagnoses approach). These three approaches are not parallel and complement each other, along with data on alcohol, tobacco and illicit drugs, suicide and psychotropic drug consumption.

Before summarising the major findings, some warnings are necessary:

- even though standardisation of most mental health instruments has been completed through many studies, translation of mental health state is one of the most difficult tasks, so it is always difficult to interpret any differences
- the countries which have done the most intensive psychiatric epidemiology studies: the UK and, to a lesser extent, Finland could hardly be used in comparisons because the instruments used were different. However, psychological distress in the UK, as measured by a national survey, could be compared to ESEMeD findings for psychological distress
- study design differences make it nearly impossible to compare independent studies and even difficult to compare multi-country designed surveys. In Eurobarometer, for example, many countries have had to be omitted from the analysis because of the very low participation rates. Similarly, in ESEMeD the sampling design was not genuinely identical. However, comparisons of psychological distress between these two independent studies show near identical results. This gives confidence that, when using the same instrument on a representative sample of a country, reproducible results can be obtained
- no comparative longitudinal studies were available. This renders it impossible to compare the evolution of risk factors and to link them to mental health, as well as to any promotion/prevention interventions. However, alcohol and suicide data are provided by WHO in a longitudinal manner. This enables the presentation of some trends and inferences: in most countries a reduction in alcohol consumption is followed by a reduction in deaths from suicide but this could also be due to better management of depression, increased use of antidepressants or both.

Some risk groups can be described:

- Women have consistently lower positive mental health levels than men in all the countries where data were available. In all but three countries - Netherlands, Austria and Luxembourg - females have

higher risk for psychological distress than males. However, within the countries where the risk is higher for females, Portugal shows a much larger risk for women than the other countries (except Sweden and Italy). In addition, in the six European countries where we have morbidity data, women consistently score higher than men for any 12-month mood disorder. When all disorders are put together, including alcohol disorders, women still have a higher risk, except in Belgium. Italy and Spain carry more relative mental health risks for women than Germany and Belgium.

- Age has been also regarded as a risk factor for young people, as well as for older people, who will become a large group in all the EU countries. In the ESEMeD countries, young people have no higher risk than the adult population: except for France when any disorders are considered. However, when the type of disorder is considered, it appears that the young population is more at risk of anxiety disorders in Spain and Germany. In the Eurobarometer, Sweden has a lower risk for older people and three countries have higher risk: Austria, Germany and Portugal. Despite all the research reported by experts, there is no consensus about whether the prevalence of depression increases or decreases with age and studies have reached conflicting results. This is partially due to the fact that many studies excluded institutionalised individuals, where the oldest old are most present. Studies on dementia conducted in different European regions seem to reflect methodological differences rather than real differences.
- Marital status and living arrangements is another risk factor. In the Eurobarometer results, those divorced, separated or widowed carry a higher risk of psychological distress in all the countries.
- Occupation and occupational status are also mental health determinants. However, the few EU data which exist on stress show the highest rates among professionals and lowest among elementary occupations and agricultural workers, below average for craft workers, clerks and service workers, while above average for technicians and managers. But these data are hard to interpret further because they are based on simple questions which assessed an opinion about the impact of work on health, but we do not have any measure of the mental health status of these people. In Eurobarometer, Austria, France and Belgium are the only countries to have higher relative risks for those who are unemployed.

- Poverty has also been linked to poor mental health. In the data available for comparison, all countries except Italy show a higher risk for those with low income. This risk, however, seems especially high for Portugal, where it is significantly higher than Sweden and Austria.
- Environment is also influential for mental health and comparing rural and urban differences in mental disorders is important for the organisation of care services. However, definition of urban/rural differences is a subject of concern since most of the studies looking into this issue use different definitions which render comparisons difficult. Data reported here seem to show that there are differences, but that most of them may be due to diverse sociodemographic factors such as the fact that there are more divorced people in urban areas and more older people in rural areas.
- Immigration has also been considered as carrying a special risk relating to mental health. In Europe, epidemiological studies, which offer information on mental health status of immigrants, are still very rare. There is little data available with regard to the level of psychological and physical problems among those who are culturally different, owing to inadequate systems of registration.

The use of services is also one of the determinants of mental health. Although each Member State chooses to organise its own care system according to national traditions, adequate care should be available for each EU citizen.

Resources can be compared across countries concerning GPs and psychiatrists, whose numbers are recorded relatively precisely. However, the non-medical mental health professions, whose role is important in the care system for mental health disorders, are poorly defined and recorded across the EU. The same applies to a lesser extent, to psychiatric beds, whose definitions are rather varied, as well as to the availability of alternative social resources across EU.

Among the care provided for mental health disorders, psychotropic drug use comparisons would have been very useful since they reflect care in different countries. Antidepressant use should correspond to better care of depression and eventually a decrease in suicide while an increase in anxiolytics is more questionable in terms of evaluating use of care. However, the data at the present time are not reliable enough to allow comparisons. In addition, these data reflect general tendencies and do not provide information about adequacy of care since it is not possible to know if the drugs are prescribed to those in need.

Surveys provided data on use of care for those suffering from mental health disorders. EU surveys show without ambiguity that proneness to seek help for a mental health problem varies greatly among the Eurobarometer countries: France, Netherlands, and Belgium being the highest and Spain and Italy the lowest. There is also an important difference between male and female proneness to ask for help in case of psychological problems.

In Portugal, Belgium, Luxembourg, Germany (New Lander) and Sweden, females ask for help far more frequently than men, while in other countries there is not that much difference (France, Austria Spain and Italy). In the Netherlands, men seek help more often than women.

In case of mental health disorders, some countries have patterns which are different from the others. When these probabilities are compared to the differences in availability of health professionals, the probability to consult in case of psychological distress is not strictly parallel to availability of medical care, especially in the Netherlands and in Sweden where non-medical mental health professionals play an important role.

When comparing the care providers, general practitioners are the most common. Most of the differences concern the relative use of psychiatrists versus psychologists or psychotherapists.

The relationships between the primary care systems and the specialist systems are different too. This may have important consequences for care provision, since in some countries general practitioners do not have much contact with the specialised professionals.

Thanks to ESMED and Eurobarometer six countries could be studied with a multi-dimensional approach. They can be clustered into four profiles:

- France, which has concordant negative mental health indicators: positive mental health is low, psychological distress is also high and, in addition, the diagnostic approach shows high level of psychiatric disorders. Deaths from suicide and alcohol are still high, even though there is a tendency to decrease.

Young people seems to have a higher risk for mood disorders than adults. Older people seem to have a lower risk of mood disorders, but suicide rates in the older population are higher. Unemployed people have a higher relative risk of psychological distress than in other countries.

Help seeking behaviour and psychotropic drug use show high rates. The mental health system relies heavily on general practitioners, with very low levels of contact with the mental health specialist system

- Italy and Spain have concordance and some differences: both of them have low levels of diagnosis of psychiatric disorders, but relatively high levels of psychological distress (especially Italy). The positive mental health indicators are in opposite directions: low in Italy and high in Spain.

Both Italy and Spain have low levels of suicide, alcohol consumption and low levels of help seeking behaviour. Spain has high illegal drug consumption but we have no data for Italy.

Interestingly, the high risk population groups seems to be diverse. The young Spanish have higher rates for anxiety disorders than the whole Spanish adult population and older Italian women seem to have relatively high rates of psychological distress.

- The Netherlands and Belgium have common features and differences, as well. They both have low levels of psychological distress and high levels of psychiatric disorders with the diagnostic approach along with high levels of positive mental health. This is the reverse of the situation in Italy. Both countries are high in health seeking behaviour and in the Netherlands there are important links between general practitioners and non-medical mental health providers. The Netherlands supports quite a lot of mental health promotion/prevention programs. Both countries are relatively low in alcohol consumption but the Netherlands still has high levels of illegal drug use (no data on Belgium). Suicide rates are high in Belgium and low in the Netherlands.
- Germany remains on its own and is at the medium level for all indicators. This may be due to a rather diverse population especially between the 'old' and 'new' Lander which show some differences. However, Germany seems to have some specific populations at risk: young people have a higher risk for anxious disorders (as in Spain), those who were previously married, those who are unemployed and migrants have a higher risk for mood disorders.

Two other countries may be commented on:

- The UK, according to the few comparable data that are available, seems to be in a good position: low levels for psychological distress and suicide rates, although the level of illegal drug use is high.

- Portugal seems to have higher risk for its female population which has the highest female/male ratio, for the Eurobarometer countries. The older population is also at a higher risk than in the other countries, as well as those with low income. Illegal drug use is also a risk; when deaths of undetermined intent are added to the suicide rates, the position of Portugal is far worse than it appears in statistics for deaths by suicide alone, where the rate is low.

Lack of pertinent data makes comments on other countries unavailable and does not reflect their risk groups and the mental health status of their populations.

All these findings have to be interpreted with caution; they may reflect answer style rather than mental health state. Nonetheless, these findings illustrate that comparisons are feasible and it is up to the country to interpret them and to act accordingly. At any rate, this attempt to draw comparisons could support mental health development for mental health promotion/prevention and care in different countries by underlying some risk groups or targeting problems. This analysis can also stimulate inter-country exchange on diverse practices for promotion/prevention as well as health care organisational patterns.

It is also hoped that this analysis will stimulate the necessary steps to obtain fully reliable comparable data in the European Union (see conclusions).

## 6.2 Conclusions

**Mental health is an essential part of health and its burden is important quantitatively and qualitatively**

Mental health is crucial to the overall well-being of individuals and societies throughout Europe. Mental health problems place a heavy personal and emotional burden on individuals and their families. There are also financial costs for individuals and for societies – the costs of mental health problems in the European Union is estimated to be between 3% and 4% of Gross National Product. Therefore, mental health should be monitored by following and comparing mental health indicators such as those proposed by the monitoring working group on mental health.

**Comparisons of mental health between EU Member States and of the socio-economic determinants of mental health are essential and feasible, but such comparisons have to be interpreted with caution**

When trying to compare population mental health across Europe, many indicators could be used that reflect diverse aspects: positive mental health, psychological distress, psychiatric morbidity, suicide and substance misuse. Social and economic determinants could be compared. Access to care for mental health problems in different Member States and prevention/promotion policies could also be compared.

These comparisons could potentially make an important contribution towards advancing our understanding of what can lead to mental ill-health and how to promote good mental health. Because the social and health systems are different, inter-country comparisons will contribute to discussions comparing the relative efficiency of systems by looking at differences in the resilience of different groups who are at risk. National healthcare policy-makers are continuously looking for such comparative data to shape their reforms and to help them explain these reforms to the public. Comparisons may be one of the more compelling subsidiarity tools in the EU but should be cautiously interpreted until there are more successful efforts to collect data in a comparable manner across EU Member States.

**Effective policies could have a major effect on mental health**

This report has shown that a number of indicators, such as alcohol consumption and suicide, have improved in most countries over the last 20 years thanks to public health policies. This should encourage the remaining countries, including the new Member States, to introduce similar policies. Some countries have also achieved very good results in decreasing acute drug-related deaths and the consumption of many drugs. Moreover evidence-based promotion/prevention interventions have been developed and should be implemented at the country level: these concern children, adult and older populations.

## 6.3 Recommendations

Most of the recommendations need to be considered for implementation at the EU, as well as at the country, level. However, these are presented separately at the different levels for clarity.

### 6.3.1 EU level recommendations

#### Promoting good mental health should be a priority for public health in Europe

Given the importance of mental health for good health, and in light of the increasing burden of mental health problems, prevention and promotion in the field of mental health deserve to be considered as a public health priority across Europe.

The development of health promotion strategies should be implemented by the European Union, among others, through facilitating the exchange of best practice and providing tools which can help Member States to understand their mental health situation and to promote good mental health.

Mental health status comparisons will accompany this by following positive mental health indicators.

#### Take mental health into account in public health and other policies in Europe

Given that there is no good health without good mental health, it is clear that comprehensive strategies to enhance public health need to incorporate policies to promote good mental health.

In addition to specific health policies, there are many other policy areas which could have an impact on mental health. The potential health consequences of a wide range of policies was recognised in Article 152 of the Maastricht Treaty which states that *'a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities'*.

The evidence drawn from this report should bring in relevant policies including those relating to gender, ageing, migration and rural/urban development. There is also a wide range of policies which can affect social disadvantage – such as policies relating to the economy, social security, employment, and housing – and which, in turn, can have an impact on mental health. It is important to consider the potential mental health implications of any developments in these policy areas.

The potential health consequences of policy developments should be evaluated through the process of health impact assessment at the EU level. Methods to assess the potential mental health impact of policies should be developed and incorporated into EU health impact assessment processes and these comparisons will be an important element of this.

#### Need for collection of information about mental health across the EU in an appropriate way to enable valid comparisons

A considerable volume of existing research into mental health already exists throughout Europe. Data is gathered throughout Europe by collection of routine statistics and through surveys at the regional, national and European levels. Although this research has produced valuable evidence, it is not often possible to make general conclusions because of incompatible methods, measures and analyses.

The full potential of existing research and data collection is currently not realised. Standardising and validating a small range of instruments and indicators, and closer collaboration between researchers, especially across the EU, would both facilitate and economise on future studies.

Since most of the mental health morbidity data have to be collected through population surveys:

- A common core of standardised instruments about mental health have to be included in specialist or more general surveys across Europe;
- Data should be collected in a comparable manner. This should include ensuring that sample design, field training and quality control of the data collection are carried out in the same way and that analyses are conducted on a common data bank in order to use the same statistical tools and methods. Guidelines should be issued and implemented to cover all these topics and EU-level data collection should be strongly supported by EU;
- Strict definitions and data collection guidelines, as well as a quality control handbook, should also be issued for routinely collected statistical data. This should include, for instance, suicide data, psychotropic drug use data and substance use data.

This collection and exchange of data needs to be encouraged and facilitated at the European level. The role of the Commission in helping to standardise indicators, developing infra-structure and mechanisms for data exchange and supporting networks for information exchange and co-ordination has been important and the mental health task force should continue this task.



However, there is a need for:

- Mechanisms to be set up to implement all this work in each Member State,
- EU-level designed high quality surveys such as the Labour Force Survey to include basic mental health questions on a regular basis. General Health Surveys at this level should include a mental health section following the mental health monitoring group recommendations. This also applies to any EU health-related survey, such as those conducted on working conditions. To obtain these results, health survey teams should integrate a mental health epidemiologist as consultant in order to ensure psychometric properties of the questions.
- Translation, standardisation and clinical validation of instruments between different languages and cultures is poorly researched: this ought to be a major priority for European research and development,
- Long term longitudinal studies, including studies of incidence and of long term outcome in the community. Lifetime incidence requires definitive study.

**The experts strongly recommend the setting up of a European cohort study on health, with a mental health part developed according to the recommendations of the monitoring group experts and with careful attention to transnational validation of instruments.**

**Need to produce on a regular basis, such as five years, a report on mental health which collects and compares data from all sources and which includes the enlarged Europe**

The data collection effort should be accompanied by an effort to synthesise data from all sources with considered conclusions about their differences and careful attention to their comparability as has been done in this report. It is important that this report includes data collected about the mental health of children, adolescents, older people and immigrants.

A fixed interval for such a report will underline the improvements in standardisation and the places where more effort are needed. This follow up will strengthen the necessity of, and interest in, co-operation in the collection of comparable and good quality data across the EU. Hopefully this will help enable more solid conclusions about differences which can be seen.

This process will help to create a stable group of EU mental health scientists aware of international comparisons in this field and able to produce EU knowledge and skills.

**Need to make a bridge between scientific results and policy development through dissemination of evidence-based practice for policy makers**

Of course the comparative exercise described above should bring concrete results for EU policymakers. Research relating mental ill-health to risk factors such as age, gender or disadvantage has already produced a wealth of useful evidence. It is often difficult, however, to draw on these findings to make evidence-based conclusions relevant to policy because the research is not designed in ways that can be useful to policymakers by using definitions, which are meaningful in a policy context.

Multidisciplinary team where scientists and policymakers from the EU work together to produce readable and valid documents for policy makers, should continue with the enlarged EU, as in the ENMPRO network.

### 6.3.2 At the country level

**Importance of policies to tackle social disadvantage to address inequalities in health**

In each EU country the data shows very marked social inequalities in mental health. People of lower socio-economic status, however it is measured, are disadvantaged, and this includes higher frequencies of common mental health problems, such as depression and anxiety. In Europe, relatively high frequencies of mental health problems are associated with poor education, material disadvantage and unemployment. Their large contribution to morbidity and disability, and the social consequences in working age adults, would justify substantial priority being given to addressing mental health inequalities, and deprivation in general, within national and European social and economic policy.

Setting up intersectoral mental health structures to promote mental health vision in each relevant policy sector.

**Importance of developing promotion and prevention and further development of mental health services**

Although this report has focused on mental health, rather than mental illness, some common themes emerge relating to mental health promotion, care and services. These themes reflect consultation with national experts throughout the European Union.

- The development of practical strategies to prevent alcohol and drug abuse should be continued and implemented in the countries where this is not the case. Mental health promotion projects for children and parents should be developed and evaluated across the diverse cultural, educational and economic contexts of Europe.



- Inequitable access to mental health care for some disadvantaged groups is a concern for many European countries. Some Member States face considerable challenges in addressing geographical inequalities of distribution and access to care. A number of special groups have been identified as of particular concern: children, the very old, homeless people, prisoners and migrants. All Member States are aware of the future burden of dementia with the ageing population.

Each EU country should develop specific approaches for bringing care available to the most disadvantaged people and make specific plans for mental care delivery to older people.

- The development of mental health services should be guided by the evidence base. To achieve this, rigorous evaluation of services and good management of information about services should be implemented in each EU Member State and inter-country comparisons should be supported by the EU.

Implement EU data collection guidelines and instruments in each health-related survey and conduct mental health surveys accordingly at regular periods (every 7 years minimum)

Each Member State should commit itself to implementing EU guidelines on instrument and survey design.

Each Member State should also undertake to introduce these elements into any health-related survey

In addition, each Member State should undertake to conduct a national general mental health survey, using the guidelines described above, on a regular basis and to make these databanks available for EU mental health epidemiologists in order to conduct comparative analyses.

## ANNEX 1

### Principal Characteristics of surveys selected for meta analysis

| Country                              | Year & title of study<br>(Reference number)                       | Measures<br>(& diag. System)          | Age<br>range | Sample<br>size (N) |
|--------------------------------------|-------------------------------------------------------------------|---------------------------------------|--------------|--------------------|
| 1. Austria: national                 | 1991 Attitudes of Austrian<br>pop to mental illness & psychiatry  | GHQ-12                                | 14+          | 1,278              |
| 2. Belgium: Bruxelles-Capitale       | 1997 Belgian National Health Survey                               | GHQ-12; SF-36                         | 15+          | 2,397              |
| 3. Belgium: Flandre Region           | 1997 Belgian National Health Survey                               | GHQ-12; SF-36                         | 15+          | 2,914              |
| 4. Belgium: Wallonie Region          | 1997 Belgian National Health Survey                               | GHQ-12; SF-36                         | 15+          | 2,901              |
| 5. Belgium: Province of Liege        | 1997 Epidemiology of psychiatric<br>problems in Province of Liege | CIDI 2.1; SF-36<br>(DSM IV)           | 15+          | 1,040              |
| 6. Belgium: Pr of Luxembourg         | 1997 Epidemiology of psychiatric<br>problems in Prov. Luxembourg  | CIDI 2.1 (DSM IV)                     | 18–54        | 1,244              |
| 7. Finland: national                 | 1978-80 Mini Finland Health Survey                                | GHQ-36                                | 30+          | 7,217              |
| 8. Finland: national                 | 2000 'Health 2000'                                                | CIDI; GHQ-12                          | 30+          | 8,028              |
| 9. France: Paris                     | 1994-96 Comparative study Paris,<br>Sardinia & migrants           | CIDI-S; (ICD 10)                      | 18+          | 2,260              |
| 10 France: Normandy                  | 1996 Santé des bas Normands                                       | CIDI-S; (DSM-IV)                      | 18+          | 1,445              |
| 11. France: Ile de France            | 1991 Santé des Franciliens                                        | CIDI-S; (DSM-IIIR)                    | 18+          | 1,183              |
| 12. Germany: national                | 1999 German Health Survey,<br>Mental Health Supplement            | M-CIDI; SF-36<br>(DSM IV)             | 18–65        | 4,181              |
| 13. Germany: Lubeck & region         | 2000 TACOS                                                        | M-CIDI; (DSM IV)                      | 18–64        | 4,075              |
| 14. Italy: Sardinia                  | 1994-96 Comparative study Paris,<br>Sardinia & migrants           | CIDI-S; (ICD 10)                      | 18+          | 1,040              |
| 15. Netherlands: national            | 1996 NEMESIS                                                      | CIDI 1.1; SF-36;<br>GHQ-12 (DSM IIIR) | 18–64        | 7,076              |
| 16. Spain: Catalonia                 | <1994 Mental disorders in the gen.<br>population of Catalonia     | GHQ-12                                | 14+          | 8,400              |
| 17. UK: England                      | 1995 Health Surveys of England<br>for 1993 and 1995               | GHQ-12                                | 16+          | 15,553             |
| 18. UK: England, Wales<br>& Scotland | 1987 The Health and Lifestyle Survey                              | GHQ-30                                | 18+          | 9,003              |
| 19. UK: Northern Ireland             | 1997 The First Northern Ireland<br>Health and Well-being Survey   | GHQ-12; SF-36                         | 16+          | 2,093              |

#### Notes:

*M-CIDI is the Munich version of the German CIDI. Only CIDI gives a 'probable diagnosis', so only in these surveys is a taxonomic system given. Sample sizes are with respect only to the particular measures under analysis.*

# References

## Introduction

- 1 Decision No 1786/2002/EC of the European Parliament and of the Council of 23 September 2002 adopting a programme of Community action in the field of public health (2003-2008) – *Commission Statements Official Journal L 271, 09/10/2002, P0001 – 0012*
- 2 World Health Organization (2003). *Investing in Mental Health*. Geneva, World Health Organization.
- 3 Korkelia, JA, Lehtinen, V, Bijl, RV, Dalgard, OS, Kovess, V, Morgan, A and Salize, HJ (2003) Establishing a set of mental health indicators for Europe. *Scand J Public Health*, 31: 1-8
- 4 Ayuso-Mateos, JL, Vazquez-Barquero, JL, Dowrick, C, Lehtinen, V, Dalgard, OS, Casey, P, Wilkinson, C, Lasa, L, Page, H, Dunn, G, Wilkinson G and the ODIN group. Depressive disorders in Europe: prevalence figures from the ODIN study. (2001) *Brit J Psychiatry*, 179, 308-316.
- 5 The ESEMeD/MHEDEA 2000 Investigators. *Acta Psychiatr Scand* 2004; 109 (Suppl 420): 1-64.
- 6 The European Opinion Research Group (2002) *The Mental Health Status of the European Population*. Eurobarometer 58.2 Public Health Approach on Mental Health in Europe

## Comparing Mental Health in Europe

- 1 World Health Organization, Regional Office for Europe Health for All Database  
[www.who.dk/hfad](http://www.who.dk/hfad)
- 2 Organisation for Economic Co-operation and Development  
[www.oecd.org/statsportal/](http://www.oecd.org/statsportal/)
- 3 Eurostat's Newcronos reference databank  
[www.europa.eu.int/newcronos/](http://www.europa.eu.int/newcronos/)
- 4 World Health Organization Global Alcohol Database
- 5 European Monitoring Centre for Drugs and Drug Addiction. *Annual Reports on the state of the drug problem in the European Union and Norway*. Lisbon, EMCDDA.
- 6 The ESEMeD/MHEDEA 2000 Investigators. *Acta Psychiatr Scand* 2004; 109 (Suppl 420): 1-64.
- 7 Singleton, N., Bumpstead, R., O'Brien, M., Lee, A., and Meltzer, H. *Psychiatric Morbidity Among Adults Living in Private Households*. National Statistics. 154. 2001. London, The Stationery Office.

## Mental Health Status in Europe

- 1 The European Opinion Research Group (2002) *The Mental Health Status of the European Population*. Eurobarometer 58.2 Public Health Approach on Mental Health in Europe
- 2 The ESEMeD/MHEDEA 2000 Investigators. *Acta Psychiatr Scand* 2004; 109 (Suppl 420): 1-64.

- 3 Lehtinen V, 2003. Personal communication.
- 4 Kovess, V., Alonso, J., de Graaf, R., Demyttenaere, K., An European approach of Rural-urban differences in Mental Health: the ESeMED comparative study. *Acta Psychiatrica Scandinavica* (submitted)
- 5 Meyer et al, 2001. Transitions in Alcohol Consumption and Smoking (TACOS). *Neurology, Psychiatry & Brain Research*.
- 6 Wittchen H -UL, Carter RM, Pfister H, Montgomery SA & Kessler RC, 2000. Disabilities and quality of life in pure and comorbid generalized anxiety disorder and major depression in a national survey. *International Clinical Psycho-pharmacology*, 15 (6): 319-328.
- 7 Bijl RV, van Zessen G & Ravelli A, (1998) Prevalence of psychiatric disorder in the general population: results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Soc Psychiatry Psychiatr Epidemiol* 33: 587-595.
- 8 Carta MG, Kovess V, Hardoy MC, Morosini PL, Murgia S & Carpiello B, 2002. Psychiatric disorders in Sardinian emigrants in Paris: a comparison with Parisians and Sardinians resident in Sardinia. *Social Psychiatry and Psychiatric Epidemiology* 37: 112-117.
- 9 Kovess V & Mouchiroud C, 2000. *Defining urbanicity and its effect on mood: comparisons between two French regions*. Paris, MGEN Foundation.
- 10 Jenkins, R., Lewis, G., Bebbington, P., et al (1997) The national psychiatric morbidity surveys of great Britain – initial findings from the household survey. *Psychological Medicine*, 27, 775-789.
- 11 Singleton, N., Bumpstead, R., O'Brien, M., Lee, A., and Meltzer, H. *Psychiatric Morbidity Among Adults Living in Private Households*. National Statistics. 154. 2001. London, The Stationary Office.
- 12 Paykel ES, Brugha T, Fryers T (2004) Size and burden of depressive disorders in Europe. In: *European Review on Size and Burden of Mental Disorders*. To be published in European Neuropsychopharmacology.
- 13 Torrey EF. Prevalence studies in schizophrenia. *Br J Psychiatry* 1987;150:598-608.
- 14 Häfner H, an der Heiden W. Epidemiology of schizophrenia. *Can J Psychiatry* 1997;42:139-151.
- 15 Lehtinen V, Joukamaa M, Lahtela K, Raitasalo R, Jyrkinen E, Maatela J, Aromaa A. Prevalence of mental disorders among adults in Finland: basic results from the Mini Finland Health Survey. *Acta Psychiatr Scand* 1990;81:418-425.
- 16 Hovatta I, Terwilliger JD, Lichtermann D, Mäkiyö T, Peltonen L, Lönnqvist J. Schizophrenia in the genetic isolate of Finland. *Am J Med Genetics* 1997;74:353-360.
- 17 Böök JA. (1953) A genetic and neuropsychiatric investigation of a North-Swedish population. *Acta Genet (Basel)* 4:345-414.
- 18 Jablensky, A., McGrath, J. J., Herrman, H., Castle, D. J., Gureje, O., Morgan, V., and Korten, A. *People Living with Psychotic Illness: An Australian Study* 1997-98. 4, 103. 1999. Canberra, Commonwealth of Australia. National Survey of Mental Health and Wellbeing.

## Suicide

- 19 Christi P, Stone DH, Corcoran P, Williamson E, Petridou E. (2003) EUROSAVE Working Group. Suicide mortality in the European Union. *Eur J Public Health*, 13: 108-14.
- 20 Murray CJL, Lopez AD. (1997) Mortality by cause for eight reasons of the world: Global Burden of Disease Study. *Lancet*, 349:1269-1276.
- 21 McIntosh, JL. Epidemiology of suicide in the elderly. *Suicide Life Threat Behav*, 1992; 22: 15-35.
- 22 Pelkonen M, Marttunen M. (2003) Child and adolescent suicide: epidemiology, risk factors and approaches to prevention. *Paediatr Drugs*, 5(4): 243-265.

## Alcohol, tobacco and drugs

- 23 Murray CJL, Lopez AD. *The global burden of disease. A comprehensive assessment of mortality and disability from disease, injuries and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard University Press, 1996
- 24 World Health Organization (2000) *European Alcohol Action Plan 2000-5*. Copenhagen, WHO Regional Office for Europe
- 25 European Monitoring Centre for Drugs and Drug Abuse (EMCDDA). *Annual Report 2003: The state of the drugs problem in the European Union and Norway*
- 26 European Monitoring Centre for Drugs and Drug Abuse (EMCDDA). *Annual Report 2001: The state of the drugs problem in the European Union and Norway*

## Protective and Risk Factors

### Gender

- 1 Kahn R.S., Wise P.H., Kennedy B.P., Kawachi I. State income inequality, household income, and maternal mental and physical health : Cross-sectional national survey. *British Medical Journal*; 321(7272): 1311-5; 2000.
- 2 Emslie C., Hunt K., Macintyre S. (1999) Problematizing gender, work and health: the relationship between gender, occupational grade, working conditions and minor morbidity in full-time bank employees. *Social Science and Medicine*. 48: 33-48
- 3 World Health Organization (2002). *World report on violence and health*, Geneva: WHO.
- 4 Schmidtke, A., Bille-Brahe, U. DeLeo, D; Kerkhof, A; Bjerke, T; Crepet, P; Haring, C; Hawton, K; Lonnqvist, J; Michel, K; Pommereau, X; Querejeta, I; Phillipe, I; Salander-Renberg, E; Temesvary, B; Wasserman, D; Fricke, S; Weinacker, B; Sampaio-Faria, JG. Attempted suicide in Europe: rates, trends and sociodemographic characteristics of suicide attempters during the period 1989-1992. Results from the WHO/EURO Multicentre study on parasuicide. *Acta Psychiatrica Scandinavica*. 93: 327-338; 1996

### Age

- 5 European Commission (2000). *Report on the state of young people's health in the European Union*. Luxembourg: Office for Official Publications of the European Communities.

- 6 Lutz W, Scherbov S. First probabilistic population projections for the European Union. In: Lutz W, editor. *Kompandium der Familienforschung in Österreich 1999*. Vienna: Schriftenreihe des ÖIF Nr.7, 1999: 123-139.
- 7 Dunham NC, Sager MA. Functional status, symptoms of depression, and the outcomes of hospitalization in community-dwelling elderly patients. *Arch Fam Med* 1994; 3(8):676-80; discussion 681.
- 8 Wells KB, Stewart A, Hays RD, Burnam MA, Rogers W, Daniels M, Berry S, Greenfield S, Ware J. The functioning and well-being of depressed patients. Results from the Medical Outcomes Study. *JAMA* 1989; 262(7):914-919.
- 9 Conwell Y, Duberstein PR, Cox C, Herrmann JH, Forbes NT, Caine ED. Relationships of age and axis I diagnoses in victims of completed suicide: a psychological autopsy study. *Am J Psychiatry* 1996; 153(8):1001-1008.
- 10 Rovner BW, German PS, Brant LJ, Clark R, Burton L, Folstein MF. Depression and mortality in nursing homes. *JAMA* 1991; 265(8):993-996.
- 11 Ganzini L, Smith DM, Fenn DS, Lee MA. Depression and mortality in medically ill older adults. *J Am Geriatr Soc* 1997; 45(3):307-312.
- 12 Agüero-Torres H, Fratiglioni L, Guo Z, Viitanen M, Winblad B. Prognostic factors in very old demented adults: a seven-year follow-up from a population-based survey in Stockholm. *J Am Geriatr Soc* 1998; 46(4):444-452.
- 13 Morgan K, Dallosso HM, Arie T, Byrne EJ, Jones R, Waite J. Mental health and psychological well-being among the old and the very old living at home. *Br J Psychiatry* 1987; 150:801-807.
- 14 Lindesay J, Briggs K, Murphy E. The Guy's/Age Concern survey. Prevalence rates of cognitive impairment, depression and anxiety in an urban elderly community. *Br J Psychiatry* 1989; 155:317-329.
- 15 Livingston G, Hawkins A, Graham N, Blizzard B. The Gospel Oak Study: Prevalence rates of dementia, depression and activity limitation among elderly residents in Inner London. *Psychological Medicine* 1990; 20(1):137-146.
- 16 Prince MJ, Harwood RH, Blizzard RA, Thomas A, Mann AH. Impairment, disability and handicap as risk factors for depression in old age. The Gospel Oak Project V. *Psychol Med* 1997; 27(2):311-321.
- 17 Osborn DP, Fletcher AE, Smeeth L, Stirling S, Bulpitt CJ, Breeze E, Ng ES, Nunes M, Jones D, Tulloch A. Factors associated with depression in a representative sample of 14 217 people aged 75 and over in the United Kingdom: results from the MRC trial of assessment and management of older people in the community. *Int J Geriatr Psychiatry* 2003; 18(7):623-630
- 18 Beekman AT, Deeg DJ, van Tilburg T, Smit JH, Hooijer C, van Tilburg W. Major and minor depression in later life: a study of prevalence and risk factors. *J Affect Disord* 1995; 36(1-2):65-75.
- 19 Madianos MG, Gournas G, Stefanis CN. Depressive symptoms and depression among elderly people in Athens. *Acta Psychiatrica Scand* 1992; 86:320-326.

- 20 Fuhrer R, Antonucci TC, Gagnon M, Dartigues JF, Barberger-Gateau P, Alperovitch A. Depressive symptomatology and cognitive functioning: an epidemiological survey in an elderly community sample in France. *Psychol Med* 1992; 22:159-172.
- 21 Schwarz R, Gunzelmann T, Hinz A, Brähler E. Anxiety and depression in the general population over 60 years old. *Dtsch Med Wochenschr* 2001; 126(21):611-615.
- 22 Gostynski M, Ajdacic-Gross V, Gutzwiller F, Michel JP, Herrmann F. Depression among the elderly in Switzerland. *Nervenarzt* 2002; 73(9):851-860.
- 23 Copeland JR, Dewey ME, Wood n, Searle R, Davidson IA, McWilliam C. Range of mental illness among the elderly in the community. Prevalence in Liverpool using the GMS-AGECAT package. *Br J Psychiatry* 1987; 150:815-823.
- 24 Copeland JR, Gurland BJ, Dewey ME, Kelleher MJ, Smith AM, Davidson IA. Is there more dementia, depression and neurosis in New York? A comparative study of the elderly in New York and London using the computer diagnosis AGECAT. *Br J Psychiatry* 1987; 151:466-473.
- 25 Saunders PA, Copeland JR, Dewey ME, Gilmore C, Larkin BA, Phaterpekar H, Scott A. The prevalence of dementia, depression and neurosis in later life: the Liverpool MRC-ALPHA Study. *Int J Epidemiol* 1993; 22(5):838-847.
- 26 Beekman AT, Deeg DJ, van Tilburg T, Smit JH, Hooijer C, van Tilburg W. Major and minor depression in later life: a study of prevalence and risk factors. *J Affect Disord* 1995; 36(1-2):65-75.
- 27 van Ojen R, Hooijer C, Bezemer D, Jonker C, Lindeboom J, van Tilburg W. Late-life depressive disorder in the community. I. The relationship between MMSE score and depression in subjects with and without psychiatric history. *Br J Psychiatry* 1995; 166(3):311-5,319.
- 28 Lobo A, Saz P, Marcos G, Dia JL, De la Camara C. The prevalence of dementia and depression in the elderly community in a southern European population. The Zaragoza study. *Arch Gen Psychiatry* 1995; 52(6):497-506.
- 29 Madianos MG, Gournas G, Stefanis CN. Depressive symptoms and depression among elderly people in Athens. *Acta Psychiatr Scand* 1992; 86:320-326.
- 30 Lauritzen LU, Korner EA. Occurrence of dementia and depression in an elderly Danish population. 1996; 158(39):5453-5456.
- 31 Kivela SL, Pakkala K, Laippala P. Prevalence of depression in an elderly population in Finland. *Acta Psychiatr Scand* 1988; 78(4):401-413.
- 32 Pakkala K, Kesti E, Kongas-Saviaro P, Laippala P, Kivela SL. Prevalence of depression in an aged population in Finland. *Soc Psychiatry Psychiatr Epidemiol* 1995; 30(3):99-106.
- 33 Paivarinta A, Verkkoniemi A, Niinisto L, Kivela SL, Sulkava R. The prevalence and associates of depressive disorders in the oldest-old Finns. *Soc Psychiatry Psychiatr Epidemiol* 1999; 34(7):352-359.
- 34 Palsson S, Larsson L, Tengelin E, Waern M, Samuelsson S, Hallstro T, Skoog I. The prevalence of depression in relation to cerebral atrophy and cognitive performance in 70- and 74-year-old women in Gothenburg. The Women's Health Study. *Psychol Med* 2001; 31(1):39-49.
- 35 Skoog I, Nilsson L, Landahl S, Steen B. Mental disorders and the use of psychotropic drugs in an 85-year-old urban population. *Int Psychogeriatr* 1993; 5(1):33-48.
- 36 Copeland JR, Gurland BJ, Dewey ME, Kelleher MJ, Smith AM, Davidson IA. Is there more dementia, depression and diagnosis in New York? A comparative study of the elderly in New York and London using the computer diagnosis AGECAT. *Br J Psychiatry* 1987; 151:466-473.
- 37 Linden M, Kurtz G, Baltes MM, Geiselmann B, Lang FR, Reischies FM, Helmchen H. Depression in the very elderly. *Nervenarzt* 1998; 69(1):27-37.
- 38 Fichter MM, Bruce ML, Schröppel H, Meller I, Merikangas K. Cognitive impairment and depression in the oldest old in a German and in U.S. communities. *Eur Arch Psychiatry Clin Neurosci* 1995; 245(6):319-325.
- 39 Meller I, Fichter MM, Schröppel H. Depression and dementia in the community- results of the Munich Age Study. *TW Neurologie Psychiatrie* 1999; 12(10):912-921.
- 40 Meller I, Fichter MM, Schröppel H. Depression und Demenz in der Altenbevölkerung. *TW Neurologie Psychiatrie* 1996; 10:912-921.
- 41 Carpiello B, Carta MG, Rudas N. Depression among elderly people. A psychosocial study of urban and rural populations. *Acta Psychiatr Scand* 1989; 80(5):445-450.
- 42 Turrina C, Perdoni G, Bianchi L. Disturbi psichici (DSM-III-R) viella popolazione anziana del quartiere di Verona-Sud. Dati preliminari. *Spes Freniat* 1991; 64:1006-1013.
- 43 Magnusson H. Mental health of octogenarians in Iceland. An epidemiological study. *Acta Psychiatr Scand Suppl* 1989; 349:1-112.
- 44 Lawlor B, Bruce I, Swanwick G. Prevalence of mental illness in an elderly community dwelling population using AGECAT. *Journal of Psychol Med* 1994; 11:157-159.
- 45 Lawlor B, Bruce I, Swanwick G. Prevalence of mental illness in an elderly community dwelling population using AGECAT. *Journal of Psychol Med* 1994; 11:157-159.
- 46 Beekman AT, Copeland JR, Prince MJ. Review of community prevalence of depression in later life. *Br J Psychiatry* 1999; 174:307-311.
- 47 Copeland JR, Beekman AT, Dewey ME, Hooijer C, Jordan A, Lawlor BA, Lobo A, Magnusson H, Mann AH, Meller I, Prince MJ, Reischies F, Turrina C, deVries MW, Wilson KC. Depression in Europe. Geographical distribution among older people. *Br J Psychiatry* 1999; 174:312-321.
- 48 Veith RC, Raskind MA. The neurobiology of aging: does it predispose to depression? *Neurobiol Aging* 1988; 9(1):101-117.
- 49 Palsson S, Skoog I. The epidemiology of affective disorders in the elderly: a review. *Int Clin Psychopharmacol* 1997; 12 Suppl 7:S3-13:S3-13.
- 50 Mönking HS, Hornung WP. Prevalence and treatment of depressive syndromes in homes for the aged. Survey of a rural catchment area. *Psychiatr Prax* 1998; 25(4):183-185.
- 51 Schumacher J, Zedlick D, Frenzel G. Depressive mood and cognitive impairment in results of old age nursing homes. *Z Gerontol Geriatr* 1997; 30(1):46-53.
- 52 Weyerer S, Mann AH, Ames D. Prevalence of depression and



- dementia in residents of old age homes in Mannheim and Camden (London). *Z Gerontol Geriatr* 1995; 28(3):169-178.
- 53 Harrison R, Savla N, Kafetz K. Dementia, depression and physical disability in a London borough: a survey of elderly people in and out of residential care and implications for future developments. *Age Ageing* 1990; 19(2):97-103.
- 54 Saunders PA, Copeland JR, Dewey ME, Gilmore C, Larkin BA, Phatherpekar H, Scott A. The prevalence of dementia, depression and neurosis in later life: the Liverpool MRC-ALPHA Study. *Int J Epidemiol* 1993; 22(5):838-847.
- 55 Ernst C, Angst J. Depression in old age. Is there a real decrease in prevalence? A review. *Eur Arch Psychiatry Clin Neurosci* 1995; 245(6):272-287.
- 56 Lindesay J, Briggs K, Murphy E. The Guy's/Age Concern survey. Prevalence rates of cognitive impairment, depression and anxiety in an urban elderly community. *Br J Psychiatry* 1989; 155:317-329.
- 57 Lehtinen V, Joukamaa M, Lahtela K, Raitasalo R, Jyrkinen E, Maatela J, Aromaa A. Prevalence of mental disorders among adults in Finland: basic results from the Mini Finland Health Survey. *Acta Psychiatr Scand* 1990; 81(5):418-425.
- 58 Flint AJ. Epidemiology and comorbidity of anxiety disorders in the elderly. *Am J Psychiatry* 1994; 151(5):640-649.
- 59 Lobo A, Launer LJ, Fratiglioni L, Andersen K, Di Carlo A, Breteler MM, Copeland JR, Dartigues JF, Jagger C, Martinez-Lage J, Soininen H, Hofman A. Prevalence of dementia and major subtypes in Europe: A collaborative study of population-based cohorts. Neurologic Diseases in the Elderly Research Group. *Neurology* 2000; 54(11 Suppl 5):S4-S9.
- 60 Heeren TJ, Lagaay AM, Hijmans W, Rooymans HG. Prevalence of dementia in the 'oldest old' of a Dutch community. *J Am Geriatr Soc* 1991; 39:755-759.
- 61 Ott A, Breteler MM, van Harskamp F, Claus JJ, van der Cammen TJ, Grobbee DE, Hofman A. Prevalence of Alzheimer's disease and vascular dementia: association with education. The Rotterdam study [see comments]. *BMJ* 1995; 310(6985):970-973.
- 62 Boersma F, Eefsting JA, van den Brink W, Koeter M, van Tilburg W. Prevalence of dementia in a rural Netherlands population and the influence of DSM-III-R and CAMDEX criteria for the prevalence of mild and more severe forms. *J Clin Epidemiol* 1998; 51(3):189-197.
- 93 Thomassen R, van Schaick HW, Blansjaar BA. Prevalence of dementia over age 100. *Neurology* 1998; 50(1):283-286.
- 64 Brayne C, Calloway P. An epidemiological study of dementia in a rural population of elderly women. *Br J Psychiatry* 1989; 155:214-219.
- 65 O'Connor DW, Pollitt PA, Hyde JB, Fellows JL, et al. The prevalence of dementia as measured by the Cambridge Mental Disorders of the Elderly Examination. *Acta Psychiatrica Scandinavica* 1989; 79(2):190-198.
- 66 Livingston G (1990) to find
- 67 Clarke M, Jagger C, Anderson J, Battcock T, Kelly F, Stern MC. The prevalence of dementia in a total population: a comparison of two screening instruments. *Age Ageing* 1991; 20(6):396-403.
- 68 Cognitive function and dementia in six areas of England and Wales: the distribution of MMSE and prevalence of GMS organicity level in the MRC CFA Study. The Medical Research Council Cognitive Function and Ageing Study (MRC CFAS) *Psychol Med* 1998; 28(2):319-335.
- 69 Coria F, Gomez de Caso JA, Minguez L, Rodriguez-Artalejo F, Claveria LE. Prevalence of age-associated memory impairment and dementia in a rural community [see comments]. *J Neurol Neurosurg Psychiatry* 1993; 56(9):973-976.
- 70 Lopez Pousa S, Llinas Regla J, Vilalta Franch J, Lozano Fernandez de Pinedo L. The prevalence of dementia in Girona. *Neurologia* 1995; 10(5):189-193.
- 71 Lobo A, Saz P, Marcos G, Dia JL, De la Camara C. The prevalence of dementia and depression in the elderly community in a southern European population. The Zaragoza study. *Arch Gen Psychiatry* 1995; 52(6):497-506.
- 72 Pi J, Olive JM, Roca J, Masana L. Prevalence of dementia in a semi-rural population of Catalunya, Spain. *Neuroepidemiology* 1996; 15(1):33-41.
- 73 Gournas G, Madianos MG, Stefanis CN. Psychological functioning and psychiatric morbidity in an elderly urban population in Greece. *Eur Arch Psychiatry Clin Neurosci* 1992; 242(2-3):127-134.
- 74 Letenneur L, Jacqmin H, Commenges D, Barberger-Gateau P, Dartigues JF, Salamon R. Cerebral and functional aging: first results on prevalence and incidence of the Paquid cohort. *Methods Inf Med* 1993; 32(3):249-251.
- 75 Obadia Y, Rotily M, Degrand-Guillaud A, Guelain J, Ceccaldi M, Severo C, Poncet M, Alperovitch A. The PREMAP Study: prevalence and risk factors of dementia and clinically diagnosed Alzheimer's disease in Provence, France. Prevalence of Alzheimer's Disease in Provence. *Eur J Epidemiol* 1997; 13(3):247-253.
- 76 Roelands M, Wostyn P, Dom H, Baro F. The prevalence of dementia in Belgium: a population-based door- to-door survey in a rural community. *Neuroepidemiology* 1994; 13(4):155-161.
- 77 Rocca WA, Bonaiuto S, Lippi A, Luciani P. Prevalence of clinically diagnosed Alzheimer's disease and other dementing disorders: A door-to-door survey in Appignano, Macerata Province, Italy. *Neurology* 1990; 40(4):626-631.
- 78 Corso EA, Campo G, Triglio A, Napoli A, Reggio A, Lanaia F. Prevalence of moderate and severe Alzheimer dementia and multi- infarct dementia in the population of southeastern Sicily. *Ital J Neurol Sci* 1992; 13(3):215-219.
- 79 Prencipe M, Casini AR, Ferretti C, Lattanzio MT, Fiorelli M, Culasso F. Prevalence of dementia in an elderly rural population: effects of age, sex, and education. *J Neurol Neurosurg Psychiatry* 1996; 60(6):628-633.
- 80 D'Alessandro R, Pandolfo G, Azzimondi G, Feruglio FS. Prevalence of dementia among elderly people in Troina, Sicily. *Eur J Epidemiol* 1996; 12(6):595-599.
- 81 Ferini-Strambi L, Marcone A, Garancini P, Danelon F, Zamboni M, Massucci P, Tedesi B, Smirne S. Dementing disorders in north Italy: prevalence study in Vescovato, Cremona Province. *Eur J Epidemiol* 1997; 13(2):201-204.



- 82 De Ronchi D, Fratiglioni L, Rucci P, Paternico A, Graziani S, Dalmonte E. The effect of education on dementia occurrence in an Italian population with middle to high socioeconomic status. *Neurology* 1998; 50(5):1231-1238.
- 83 Andersen K, Lolk A, Nielsen H, Andersen J, Olsen C, Kragh-Sorensen P. Prevalence of very mild to severe dementia in Denmark. *Acta Neurol Scand* 1997; 96(2):82-87.
- 85 Engedal K, Haugen PK. The prevalence of dementia in a sample of elderly Norwegians. *International Journal of Geriatric Psychiatry* 1993; 8:565-570.
- 86 Juva K, Sulkava R, Erkinjuntti T, Valvanne J, Tilvis R. Prevalence of dementia in the city of Helsinki. *Acta Neurol Scand* 1993; 87(2):106-110.
- 87 Skoog I, Nilsson L, Palmertz B, Andreasson LA. A population-based study of dementia in 85-year-olds. *N Engl J Med* 1993; 328(3):153-158.
- 88 Fratiglioni L, Forsell Y, Aguero-Torres H, Winblad B. Severity of dementia and institutionalization in the elderly: prevalence data from an urban area in Sweden. *Neuroepidemiology* 1994; 13(3):79-88.
- 89 von Strauss E, Viitanen M, De Ronchi D, Winblad B, Fratiglioni L. Aging and the occurrence of dementia: findings from a population-based cohort with a large sample of nonagenarians. *Arch Neurol* 1999; 56(5):587-592.
- 90 Cooper B, Bickel H. Prävalenz und Inzidenz von Demenzerkrankungen in der Altenbevölkerung: Prevalence and incidence of dementing illness in the elderly population: Findings of a longitudinal study in Mannheim. *Nervenarzt* 1989; 60(8):472-482.
- 91 Fichter MM, Meller I, Schroppel H, Steinkirchner R. Dementia and cognitive impairment in the oldest old in the community. Prevalence and comorbidity. *Br J Psychiatry* 1995; 166(5):621-629.
- 92 Reischies FM, Geiselman B, Gessner R, Kanowski S, Wagner M, Wernicke F, Helmchen H. Demenz bei Hochbetagten. Ergebnisse der Berliner Altersstudie. *Nervenarzt* 1997; 68(9):719-729.
- 93 Riedel-Heller SG, Busse A, Aurich C, Matschinger H, Angermeyer MC. Prevalence of dementia according to DSM-III-R and ICD-10. *British Journal of Psychiatry* 2001; 179:250-254.
- 94 Riedel-Heller SG, Busse A, Angermeyer MC. Are cognitively impaired individuals adequately represented in community surveys? Recruitment challenges and strategies to facilitate participation in community surveys of older adults. A review. *Eur J Epidemiol* 2000; 16:827-835.
- 95 Lobo A, Launer LJ, Fratiglioni L, Andersen K, Di Carlo A, Breteler MM, Copeland JR, Dartigues JF, Jagger C, Martinez-Lage J, Soininen H, Hofman A. Prevalence of dementia and major subtypes in Europe: A collaborative study of population-based cohorts. Neurologic Diseases in the Elderly Research Group. *Neurology* 2000; 54(11 Suppl 5):S4-S9.
- 96 Murray, J., Dunn, G, Williams, P, Tarnopolsky, A. Factors affecting the consumption of psychotropic drugs. *Psychol Med* 1981; 11: 551-560
- 97 Riska, E. Klaukka, T. Use of psychotropic drugs in Finland. *Soc Sci Med* 1984; 19: 983-989
- 98 Siciliana, O, Bellantuono, C, Williams P, Tansella M. Self reported use of psychotropic drugs and alcohol abuse in south-verona. *Psychol Med* 1985; 15: 821-826
- 99 Pakesch, G, Loimer, N., Rasinger, E., Tutsch, G., Katschnig, H. The prevalence of psychoactive drug intake in a metropolitan population. *Pharmacopsychiat* 1989; 22: 61-65
- 100 Weyerer, S, Dilling, H. Psychiatric and physical illness, sociodemographic characteristics, and the use of psychotropic drugs in the community: results from the upper Bavarian field study. *J Clin Epidemiol* 1991; 44: 303-311
- 101 Helmchen H, Baltes MM, Geiselman, B, Kanowski, S, Linden, M, Reischies, FM, Wagner, M, Wilms H-U, Psychische Erkrankungen im Alter. In Mayer KU, Baltes, B, editors, Berliner Altersstudie Berlin: Akademischer Verlag, 1996: 185-219
- 102 Ohayon, MM, Caulet, M, Psychotropic medication and insomnia complaints in two epidemiological studies. *Can J Psychiatry* 1996; 41: 457 - 464
- 103 Paternetti, S, Bisserte JC, Alperovitch, A. Psychotropic drugs, anxiety and depression in the elderly population. The EVA study. *Rev Epidemiol Sante Publique* 1998; 46:253-362
- 104 Forsell, Y, Winblad, B, Psychiatric disturbances and the use of psychotropic drugs in a population of nonagenarians. *Int J Geriatr Psychiatry* 1997; 12: 533-536
- 105 Copeland, JR, Davidson IA, Dewey, ME, Gilmore C, Larkin BA, McWilliam C., Range of mental illness among the elderly in the community. Prevalence in Liverpool using the GMS-AGECAT package. *Br J Psychiatry* 1987; 150:815-823
- 106 Ostling, S, Skoog, I. Psychotic symptoms and paranoid ideation in a nondemented population-based sample of the very old. *Arch Gen Psychiatry* 2002; 59: 53-59

### Social inequalities

- 107 Melzer D; Fryers T; Jenkins R. *Social Inequalities and the Distribution of the Common Mental Disorders*. Maudsley Monograph 44, Psychology Press, Hove & New York, 2004
- 108 Acheson D. *Independent Inquiry into Inequalities in Health*. London: The Stationery Office, 1998.
- 109 Marmot M, Wilkinson R. *Social Determinants of Health*. Oxford: Oxford University Press, 1999.
- 110 Annual Health Surveys for England (HSE), annually from 1993
- 111 National Psychiatric Morbidity Survey of Great Britain (household sample), 1993
- 112 Health and Life-style Survey (HLS), 1984-85 and follow-up, 1991-92. British Household Panel Survey (BHPS), 1991-92
- 113 Netherlands Mental Health Survey and Incidence Study (NEMESIS), 1996
- 114 Edmonton Survey of Psychiatric Disorders (Canada), 1983-86
- 115 Australian National Survey, 1997
- 116 USA Epidemiologic Catchment Area Program (ECA), 1980-83
- 117 USA National Co-morbidity Study (NCS), 1990-92

**Work, unemployment and low-income**

- 119** Dupré D (2001), 'Work-related health problems in the EU 1998-1999, European Commission Statistics in Focus, Theme 3 - 17/2001.
- 120** International Labour Office website [www.ilo.org](http://www.ilo.org)

**Rural – Urban**

- 120** Dohrenwend BP, Dohrenwend BS (1974) Psychiatric disorders in urban setting. In: Caplan G (ed) *American handbook of psychiatry*. Basic Book Inc, New York, Vol 2: Child and Adolescent Psychiatry: Sociocultural and Community Psychiatry, pp 424–449
- 121** Mueller D (1981) The current status of urban/rural differences in psychosocial disorder: an emerging trend of depression. *J Nerv Ment Dis* 169:18–27
- 122** Marsella AJ (1992) *Urbanization and mental disorders: an overview of theory and research, and recommendations for interventions and research*. Mental Health Division, World Health Organization, Geneva
- 123** Leighton DC, Harding JS, Macklin DB, MacMillan AM, Leighton AH (1963) *The character of danger: psychiatric symptoms in selected communities*. Basic Books Inc, New York
- 124** Leighton AH (1959) *My name is legion: foundations for a theory of man in relation to culture*. Basic Books Inc, New York
- 125** Gaviria FM, Richman J, Flaherty JA, Wintrob RM, Martinex H, Pacheco CG, Pathak DS (1986) Migration and mental health in Peruvian society: toward a psychosocial model. *Soc Psychiatry* 21:193–199
- 126** Brown GW, Prudo R (1981) Psychiatric disorder in a rural and an urban population: 1. Aetiology of depression. *Psychol Med* 11:581–589
- 127** Paykel ES, Abbott R, Jenkins R, Brugha TS, Meltzer H (2000) Urban- rural mental health differences in Great Britain: findings from the National Morbidity Survey. *Psychol Med* 30:269–280
- 128** Bijl RV, Ravelli A, van Zerssen G (1998) Prevalence of psychiatric disorder in the general population: results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Soc Psychiatry Psychiatr Epidemiol* 33:587–595
- 129** Kovess-Masfety, V, Lecoutour X, Delavelle S., Urbanicity and mood disorders: Comparisons between two French regions. *Social Psychiatry and Psychiatric Epidemiology* (SPPE) (submitted)
- 130** Väisänen E (1975) Mielenterveyden häiriöt Suomessa. Erityisesti maantieteellisiin ja sosiaalisiin tekijöihin kohdistuva tutkimus (English summary: Psychiatric disorders in Finland. A comparative study with special reference to geographical and social factors). *Kansaneläkelaitoksen julkaisu* AL: 2, Helsinki
- 131** Brown GW, Prudo R (1981) Psychiatric disorder in a rural and an urban population: 1. Aetiology of depression. *Psychol Med* 11:581–589
- 132** Sievwright H, Tyrer P, Casey P, et al. (1991) A three year followup of psychiatric morbidity in urban and rural primary care. *Psychol Med* 21:495–503

- 133** Madianos MG, Stefanis CN (1992) Changes in the prevalence of symptoms of depression and depression across Greece. *Soc Psychiatry Psychiatr Epidemiol* 27:211–219
- 134** Lehtinen V, Joukamaa M (1994) Epidemiology of depression: prevalence, risk factors and treatment situation. *Acta Psychiatr Scand*, suppl 377:7–10
- 135** Meltzer H, Gill B, Petticrew M, et al. (1995) The prevalence of psychiatric morbidity among adults aged 16–64 living in private households. *OPCS Surveys of Psychiatric Morbidity in Great Britain*. Report 1. OPCS Social Survey Division, London
- 136** Bijl RV, Ravelli A, van Zerssen G (1998) Prevalence of psychiatric disorder in the general population: results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Soc Psychiatry Psychiatr Epidemiol* 33:587–595
- 137** Ayuso-Mateos JL, Vázquez-Barquero JL, Dowrick C, et al. (2001) Depressive disorders in Europe: prevalence figures from the ODIN study. *Br J Psychiatry* 175.

**Immigration**

- 138** UN (2002). Press Release POP/844. *Number of world's migrants reaches 175 million mark*. [www.un.org](http://www.un.org)
- 139** Salt (2001). *Current trends in international migration in Europe*. Council of Europe.
- 140** El País Journal, 06-08-01/11-11-2003. [www.elpais.es](http://www.elpais.es)
- 141** Lurbe i Puerto, K. (2002). *Incursión sociológica sobre la enajenación de l@s otr@s. Estudio sobre el tratamiento de la diferencia étnica en la salud mental*. Trabajo de investigación. Dir: Dra. Carlota Solé. Universitat Autònoma de Barcelona.
- 142** Selten, J.P. & Sijben, N. (1994). First admission rates for schizophrenia in immigrants to the Netherlands. The Dutch National Register. *Social Psychiatry and Psychiatric Review*, 29 (2).
- 143** Schrier, AC., van de Wetering, BJ., Mulder, PJ., Selten, GP. (2001). Point prevalence of Schizophrenia in immigrants groups in Rotterdam: data from outpatients facilities. *Eur Psychiatry* 16:162-6.
- 144** London, MM. (1986). Mental Illness among immigrant minorities in the United Kingdom. *British Journal of Psychiatry*, 149.
- 145** Cochrane, R & Bal, S.S. (1987). Migration and schizophrenia: an examination of five hypotheses. *Social Psychiatry*, 22.
- 146** Dean et al (1981). First Admissions of native-born and immigrants to psychiatric hospitals in south-east England. *British Journal of Psychiatry*, 139.
- 147** Littlewood, R. & Lipsedge, M. (1988). Psychiatric illness among British Afro-Caribbeans. *British Medical Journal*, 296.
- 148** Zolkowska, K., Cantor-Grae, E., Mc Neil, TF. (2001). Increased rates of psychosis among immigrants to Sweden: is migration a risk factor for psychosis? *Psychol Med* 31:669-78.
- 149** Bhugra, D. (2000). Migration and Schizophrenia, *Acta Psychiatrica Scandinavica Suppl.* 102:68-73.
- 150** Selten, JP., Veen, N., Feller, W. (2001). Incidence of psychotic disorders in immigrants groups to the Netherlands. *Br J Psychiatry* 179:269.

- 151 Eaton W, Harrison G. (2000). Ethnic disadvantage and schizophrenia, *Acta Psychiatrica Scandinavica*, Supp 102:38-43.
- 152 Sharpley, M., Hutchinson, G., Mc Kenzie, K., Murray, RM. (2001). Understanding the excess of psychosis among the African-Caribbean population in England. Review of current hypotheses, *Br J Psychiatry Suppl* 40:60-8.
- 153 Hansen, C., Yagdiran, O., Mass, R., Krausz, M. (2001). Schizophrenic disorders among Turkish migrants in Germany . A controlled study. *Psychopathology*, 34: 203-8.
- 154 Karmi, G. (1997). Migration and Health in UK. In: A. Huismann, C. Weilandt and Greiger, (eds), *Country Reports on Migration and Health in Europe*. Bonn: Wissenschaftliches Institut der Ärzte Deutschlands e.V.
- 155 Patel SP and Gaw AC. (1996). Suicide among immigrants from the Indian subcontinent: a review. *Psychiatr Serv* 47:517-21.
- 156 de Jong J, *The plight and resilience of refugees*, Lecture at the DTGPP Satellite Conference, Ethnicity & Mental Health in Europe, Essen Germany, September 2003
- 157 Storch, G. and Poutska, F. (2000). *Prax Kinderpsychol Kinderpsychiatr* 49:199-208.
- 158 Balajaran, R., Busulu, L., Adelstein, A.M. and Shukla, V. (1984). Patterns of mortality among immigrants to England and Wales from the Indian subcontinent. *British Medical Journal*, 289.
- 159 Hjem, A. and Allebeck, P. (2004). Alcohol related disorders in first and second generation immigrants in Sweden: a national cohort study. *Addiction*. In press
- 160 Giannopoulou, I. (1988). *Patterns of alcohol and drug use and indicators of psychological distress among migrant greek adolescents*. In: Congrès International sur l'alcoolisme et les toxicomanies. Oslo, Vol 2.
- 161 Bendahman, H. (1993). *Cultures marginalité et déviance: de l'inquiétante étrangeté de l'autre à l'exclusion sociale*. Thionville: Espace Ressource.
- 162 Akbiyik, O. (1990). Un centre d'accueil pour toxicomanes migrants. *Bull:Liaison CNDT*.16.
- 163 Caballero, L. (2003). *Addiction disorders among migrants*. Lecture at the DTGPP Satellite Conference, Ethnicity & Mental Health in Europe, Essen Germany, September 2003.
- 164 Jacob, KS., Bhugra, D., Lloyd, KR., Mann, AH. (1998). Common mental disorders, explanatory models and consultation behaviour among Indian women living in the UK. *J R Soc Med* 91:66-71.
- 165 Bengi-Arslan, L., Verhulst, FC., Crijnen, AA. (2002). Prevalence and determinants of minor psychiatric disorder in Turkish immigrants living in The Netherlands. *Soc Psychiatry Psychiatr Epidemiol* 37:118-24.
- 166 ten Have, ML., Bijl, RV. (2002). Inequalities in mental health care and social services utilisation by immigrant women. *The European Journal of Public Health* 9:45-51.
- 167 Crijnen, AA., Bengi Arslan, L., Verhulst, FC. (2000). Teacher-reported problem behaviour in Turkish immigrant and Dutch children: a cross cultural comparison. *Acta Psychiatrica Scandinavica* 102:439-44.
- 168 Iglesia, E., Robertson, E., Johansson, SE., Engfeld, P., Sundquist, J. (2003). Women, International migration and self-reported health. A population based study of women of reproductive age. *Soc Sci Med* 56:111-24.
- 169 Garrone, G. (1988). Migration and Mental Health in Europe. *Antropologia Medica* 4:23-31.
- 170 Baarnhiem, S., Ekblad, S. (2000). Turkish migrant women encountering health care in Stockholm: a qualitative study of somatization and illness meaning. *Cult Med Psychiatry* 24:431-54.
- 171 Esteban y Pena, MM. (2001). Motives for consultation and demographic characteristics of a community of 'undocumented' immigrants in the district of Usera-Villaverde (Madrid). *Aten Primaria*, 27:25-8.
- 172 Carta, MG., Carpiello, B. and Rudas, N. (1991). L'émigration senegalaise et marocaine en Sardaigne. *Psychopathologie Africaine* XXIII, 3, 329-352.
- 173 Carta, MG, Kovess, V, Hardoy, MC, Morosini, PL, Murgia, S, Carpiello, B (2002). Psychiatric disorders in Sardinian immigrants in Paris: A comparison with Parisians and Sardinians resident in Sardinia. *Social Psychiatry and Psychiatric Epidemiology* 37:112-117.
- 174 Mavreas, VR. and Bebbington, PE. (1988). Greeks, British Greek Cypriots and Londoners: a comparison of morbidity. *Psychol Med* 18:433-42.
- 175 Emmenegger, T. (1988). Illness and migration: problems of adjustment of the return migrant. *Studi Emigr.* 25:127-36.
- 176 Carta, MG, Hardoy MC, Chetkovik-Backmans M, Consul ME, Carpiello B (2004). *Depressive disorders in sardinian emigrants in argentina: Why are women more at risk for depression?* University of Cagliari. In press.
- 177 Carey-Wood, J., K. Duke (1995). *The settlement of refugees in Britain: Home Office Research Study* 141. London, Home Office.
- 178 Brent and Harrow Health Agency, Brent and Harrow Refugee Groups, Northwest London Training and Enterprise Council (1995) *Brent and Harrow Refugee Survey*. London: Brent and Harrow Health Agency.
- 179 Bhui, K, Abdi, A, Abdi, M, Pereira, S, Dualeh, M, Robertson, D, Sathyaamoorthy, G, Ismail, H. (2003). Traumatic events, migration characteristics and psychiatric symptoms among Somali refugees-preliminary communication. *Social Psychiatry Epidemiology*, 38:35-43.
- 180 Mollicca, RF, McInnes, K, Sarajlic, N, Lavelle, J, Sarajlic, I, Massagli, M (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. *JAMA*, 282(5): 433-9.
- 181 Mollica, RF., Sarajlic, N., Chernoff, M., Lavelle, J., Vukovic, IS. Massagli, MP. (2001). Longitudinal study of psychiatric symptoms, disability, mortality, and emigration among Bosnian refugees. *JAMA*, 286(5): 546-54.
- 182 de Jong J, *The plight and resilience of refugees*, Lecture at the DTGPP Satellite Conference, Ethnicity & Mental Health in Europe, Essen Germany, September 2003

### Responses to mental health problems across Europe

1 Kovess-Masfety V, Alonso J, Brugha T, Capuano F, Mental health services utilisation in six European countries: Belgium, France, Germany, Italy, the Netherlands and Spain, *British Journal of Psychiatry* (submitted)

### Annex 1 Survey of surveys

1 Jorm AF, Angermeyer MC & Katschnig H, 1993. *Public knowledge and attitudes about mental disorders*. Report to the Austrian Research Fund 1993.

2 Kittel F, Ribourdouille M & Dramaix M, 2001. Mental health data analysis from the National Health Survey, Belgium 1997. *Archives of Public Health*, 50 (5 & 6): 347-357

3 Ansseau M & Reggers J, 1999. *Epidémiologie des troubles psychiatriques dans la province de Liège et leur prise en charge*. Plate-forme Psychiatrique Liégeoise. (Report)

4 Ansseau M & Reggers J, 1999. *Epidémiologie des troubles psychiatriques dans la Province de Luxembourg*, Plate-forme de Concertation Psychiatrique de la Province de Luxembourg. (Brochure)

5 Lehtinen V, Joukamaa M, et al., 1990. Prevalence of mental disorders among adults in Finland: basic results from the Mini Finland Health Survey. *Acta Psychiatr Scand*: 81: 418-425

6 Lehtinen V, 2003. Personal communication.

7 Carta MG, Kovess V, Hardoy MC, Morosini PL, Murgia S & Carpiello B, 2002. Psychiatric disorders in Sardinian emigrants in Paris: a comparison with Parisians and Sardinians resident in Sardinia. *Social Psychiatry and Psychiatric Epidemiology* 37: 112-117.

8 Kovess-Masfety, V. Lecoutour X, Delavelle S., Urbanicity and mood disorders: Comparisons between two French regions. *Social Psychiatry and Psychiatric Epidemiology* (SPPE) (submitted)

9 Wittchen H -U, Carter RM, Pfister H, Montgomery SA & Kessler RC, 2000. Disabilities and quality of life in pure and comorbid generalized anxiety disorder and major depression in a national survey. *International Clinical Psycho-pharmacology*, 15 (6): 319-328.

10 Meyer et al, 2001. Transitions in Alcohol Consumption and Smoking (TACOS). *Neurology, Psychiatry & Brain Research*.

11 Bijl RV, van Zessen G & Ravelli A, (1998) Prevalence of psychiatric disorder in the general population: results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Soc Psychiatry Psychiatr Epidemiol* 33: 587-595.

12 Rajmil L, Magarolas RG; Gamisnas MR, Rodríguez P-EM & Benedicto AS, 1998. Prevalencia de trastornos mentales en la población general de Catalunya: *Gaceta Sanitaria, Miércoles*, 12, 4, 153-159.

13 Bennett N, Dodd T, Flatley J, Freeth S & Bolling K. (1995) *Health Survey for England 1993*. London: HMSO.

14 Bost L, Dong W, Hedges B, Primatesta P, Prior G, Purdon S & di Salvo P. (1997) *Health Survey for England 1995*. Volume I: Findings (eds. P Prescott-Clarke & P Primatesta). London: HMSO.

15 Cox BD, Blaxter M, Buckle ALJ, Fenner NP, Golding JF, Gore M, et al., 1987. *The Health and Lifestyle Survey. Preliminary report of a nationwide survey of the physical and mental health, attitudes and lifestyle of a random sample of 9,003 British adults*. Health Promotion Research Trust.

16 O'Reilly D & Browne S, 2001. *Health and Health Service Use in Northern Ireland: Social Variations. A report from the Health and Social Well-being Survey 1997*. Belfast; The Queen's University



**European Commission**

Directorate General for Health and Consumer Protection  
Directorate C2 – Health Information

Jean-Monnet building, L – 2920 LUXEMBOURG

Internet address: [http://europa.eu.int/comm/health/ph\\_information/information\\_en.htm](http://europa.eu.int/comm/health/ph_information/information_en.htm)



ISBN : 92-894-8320-2