

# **MENTAL HEALTH ECONOMICS EUROPEAN NETWORK I**

November 2002 - November 2004

## **EXECUTIVE SUMMARY**

### **The Challenge**

Mental health problems account for nearly 20% of the total burden of ill health in Europe, second only to cardiovascular disease. This estimate is conservative, and there are many other impacts. Poor mental health has an impact on physical health; the levels of co-morbidity and (non suicide-related) mortality are significantly higher than in the general population. In some cases there are also adverse impacts on the health of other family members due to the rigours of caring or (for vulnerable family members such as children and the aged) because of neglect.

Adverse health consequences are only one element of the overall impact of mental health on society. People with mental health problems are at great risk of being socially excluded, and may suffer from stigma and discrimination. They may experience relationship problems, homelessness or come into contact with the criminal justice system. They are vulnerable to inappropriate involuntary detention and potential abuse of their human rights.

### **Costs of mental health problems in Europe**

The economic costs of mental health problems are substantial, with one cautious estimate from the International Labour Organisation putting these at between 3% and 4% of total European GNP. The majority of these economic costs, unlike most other health issues are incurred outside the health care system. For instance, in a study of childhood conduct disorder in England the health care system only accounted for 16% of costs, with other factors such as the lost employment opportunities of parents, the need for special education, social care and household repairs contributing considerably to costs. Typically economic studies show that lost employment, absenteeism and sick leave, reduced performance at work, lost leisure opportunities and premature mortality account for between 60% and 80% of the costs of both depression and schizophrenia.

There are a growing number of national cost estimates available, although as methods used vary, making direct comparisons between countries remains difficult. For instance, official estimates of the total health care costs of all mental and behavioural disorders in Germany in 2002 were estimated to be €22.44 billion; 62% incurred by women. This included costs for depression of €4.025 billion, schizophrenia and associated disorders €2.756 billion, and neurotic disorders including stress €2.825 billion. The average cost per head of population was €270 in 2002.

There are many specific estimates of the costs of depression. For instance, one recent study from England estimated total costs of adult depression alone in 2002 to be €15.46 billion or €309.2 per head of population; treatment costs accounted for only €636 million, and the vast majority of costs were due to lost employment because of absenteeism and premature mortality. Millions of working days are lost each year throughout Europe because of mental health problems, e.g. 31.9 million working days in France in 2000 were attributed to depression.

Although a much smaller absolute number of people have schizophrenia compared with depressive disorders, costs remain substantial. Studies in Hungary and England both reported that health and social care costs account for around one third of all costs with the other two thirds due to lost employment. The economic impact of schizophrenia in several studies in the Netherlands and Belgium has been estimated to be equivalent to around 2% of all health care costs, even without including lost productivity costs or other adverse economic consequences.

Many costs and consequences arising from poor mental health are less well reported. The costs of reduced performance at work by people with untreated mental health problems such as depression may be five times as great as those for absenteeism, but very few studies have examined this issue. There are also long term fiscal impacts, as mental health problems are a leading cause of early retirement or receipt of a disability pension. Substantial costs for family carers may be overlooked: for schizophrenia alone, families may provide between 6 and 9 hours per day of support, while for dementia and related disorders the contributions of caregivers can make up more than 70% of total costs, with some carers providing 24 hour a day support. Some adverse impacts are difficult to value in monetary terms but add still further to the costs of mental health problems. An example is that the rate of marriage or cohabitation for people with psychoses is much lower than in the general population.

Finally, mental health problems can have economic impacts over long time periods. One study that looked at the relationship between childhood mental health problems and various agency costs in adulthood found that children with a diagnosis of 'conduct problems' at age 10 were likely to incur over an additional £16,000 in costs between the ages of 10 and 27 years, while children with a diagnosis of 'conduct disorder' (more severe than conduct problems) incurred over £60,000 additional costs between these ages. For both the conduct problem and conduct disorder groups, the largest proportion of additional costs was for criminal justice services, followed by extra educational provision, foster and residential care and state benefits; health care costs were smaller. Effective interventions in childhood therefore have the potential to bring about substantial cost reductions over long periods and to be highly cost-effective.

### **What contribution can economics make?**

Of course it is not enough to know that there are substantial costs associated with poor mental health or even that effective interventions are available to help promote and regain positive mental health and well-being. The level of resources available for all health problems will never be enough to meet all needs. Scarcity is a permanent and pervasive feature of all societies. In the face of such scarcity, choices have to be made between alternative uses of the same resource or service.

Decision makers face two key questions when considering whether to use or recommend a particular form of treatment for a specified mental health problem. The first is the clinical question, which asks whether a treatment or promotion strategy is effective in improving patient health, or – when considering two or more treatment options – which of them has the better or best outcomes. Once the decision maker knows about effectiveness, s/he wants an answer to the second question: is it cost-effective? That is, does the treatment achieve the improved individual outcomes or quality of life at a cost that is worth paying? These two questions (Is the intervention effective? Is it worth it?) sit at the heart of cost-effectiveness analysis, and well conducted cost-effectiveness studies can be powerful tools for strengthening the case for investment in mental health. There are a number of different approaches available, and some allow comparisons to be made not only between interventions for improvement of mental health but also with other potential uses of resources both within and outside the health care sector.

While the evidence base on cost-effectiveness of interventions for mental health is growing, most studies have taken place in North

America, Western Europe or Australasia, and their results may not be generalisable to other settings. A continuing challenge, therefore, is to further improve our understanding of cost effectiveness in other country settings, taking account of local circumstances, available resources and system structures. Most cost-effectiveness studies have looked at pharmaceutical treatments, and more can and should be done to evaluate other interventions including those for the promotion of positive mental well-being.

Cost effectiveness should not be confused with cost containment. Cost-effective interventions may actually require more resources than existing services. It may be difficult to divert resources to proven cost-effective interventions because of fragmented budgets. For example a health care budget holder may have less incentive – indeed may legally be prevented from – spending more to address a particular mental health problem where the benefits accrue to a budget holder in a different sector e.g. social care or criminal justice. Moves towards the provision of joint budgets across sectors may be one approach to overcoming this problem of ‘silo budgeting’.

### **Funding for mental health in Europe**

Another challenge is to ensure that mental health receives a fair share of available health system funding. The historically low level of funding for mental health within many European systems appears to be both inefficient, because of the substantial benefits that effective interventions would bring, and inequitable given that mental health problems account for nearly 20% of all health problems in Europe.

Estimates of expenditure on mental health services were sought across all countries in the Mental Health Economics European Network (MHEEN). In five of the 17 MHEEN countries – Austria, Finland, Greece, Italy and Norway – no estimates on funding are reported. This is a reflection in part of the difficulties of collecting or aggregating information in systems where healthcare is devolved to local governments as well as because of the fragmentation of systems providing mental health services. The highest estimates of expenditure on mental health are to be found in Luxembourg and the UK (England) – 13% and 12% of the national health budget respectively – with the lowest estimates of just under 5% reported in Portugal and some autonomous regions in Spain. However, extreme caution must be applied to these estimates because of the challenges in identifying mental health-specific expenditure, and the differing extent to which the denominator and numerator in

calculations of this kind include social care, housing and related services.

Drawing any firm conclusions from these estimates is therefore a difficult exercise, as without also estimating the costs related to mental health across sectors a meaningful comparison across countries is not possible. This also suggests that mental health expenditure may not be a good indicator for benchmarking mental health systems across Europe. Nevertheless, any estimates of funding below 5% of total health expenditure should prompt questions as to whether this indicates an unfair allocation of resources to mental health given that mental health problems in total contribute more than 20% to the overall disease burden in Europe.

To put these figures in some context, looking beyond these 17 countries to the whole of Europe, MHEEN obtained estimates of expenditure proportion for 28 European countries, largely drawn from the 2001 WHO Atlas on Mental Health. These range between just over 13% to less than 2%, of which only four countries allocate more than 10% of their health budgets to mental health, 16 spend between 5% and 10%, with the remainder under 5%. The lowest reported budgets of less than 2% are all found in former Soviet bloc states, almost certainly a legacy of the low priority attached to the alleviation of mental health problems in the USSR. In fact, generally speaking, most European countries are spending relatively high proportions of their health budgets on mental health compared to the situation in most of the rest of the world.

### *Methods of funding*

Although the level of resources for mental health available through the publicly financed health budget varies considerably, methods of funding mental health care are broadly equitable, differing little to those for health care in general. They rely largely on taxation and social insurance, respecting the principles of solidarity and universality. This does not mean that such systems operate equitably. Systems where there is high reliance on out-of-pocket payments at the point of need (such as in Portugal) are likely to be inequitable. Out-of-pocket payments may be particularly inappropriate for people with mental health problems, who may already be unwilling to come into contact with services because of fears of being stigmatised and labelled by the community, and who are already disadvantaged economically by the effects of chronic illness. Research has shown that as many as two-thirds of those with mental health problems do not come into contact with services, yet primary care service providers should be a key area for the

early identification of mental health problems, and allow for the subsequent prevention of more serious consequences. More work needs to be done to determine the extent to which current systems of health financing in Europe are equitable, and ideally this needs to take into account services provided in other sectors such as social care.

Some countries, most notably the Netherlands, have specific long-term care insurance systems which may cover many of the costs associated with mental health problems. For-profit private insurance currently only plays a small role in the provision of mental health services, but there is some evidence that it is growing. If this helps provide supplemental coverage, for instance for workplace mental health promotion and treatment, then this would help address a gap in current service provision, and it may be highly appropriate for employers and employees to contribute directly to this. Most mental health problems unfortunately remain excluded from private health insurance packages in Europe, or if they are covered benefits are severely restricted. As experience from the United States indicates, without adequate regulation, protection and use of community rather than risk-rating of premiums, this situation is unlikely to change. A future challenge may therefore be to ensure that where states shift towards more reliance on private insurance, that mental health disorders are fully covered in the same way as other conditions.

#### *Fairly allocating resources*

A fair share of the health budget is not enough to ensure that resources are fairly allocated to mental health. Equity also depends on the way in which pooled funds raised through social insurance or taxation are allocated directly to mental health or indirectly to those whose role at a local level is to purchase health services. Most MHEEN countries still determine budgetary allocations for health on the basis of long standing historical allocations and political pressure alone, rather than on some objective basis of needs assessment. Such allocation arrangements are likely to be both inefficient and inequitable as resources may not be targeted to the most effective interventions, nor targeted at those groups with greatest capacity to benefit. It may also mean that mental health continues to be a low priority.

Where information is available on the level of psychiatric need within countries, for instance through regular surveys of psychiatric morbidity, this can be used to support decisions about allocating resources from the central to the local level. This the case, for instance, in England where local purchasers receive a share of the

national health budget, based not only on the age and gender composition of their local populations but also using a measure of psychiatric need. In systems where such data are not currently available, it may be necessary to protect mental health budgets, given the low priority otherwise received within health care systems. This would need to be regularly reviewed to ensure that such an allocation is consistent with the level of need within a country.

The reimbursement processes for service providers might also be improved by the use of tariffs that fully cover the costs of providing mental health services. With sufficient data on resource utilisation and costs in both tax and social insurance financed systems, diagnosis-related group (DRG) unit costs that estimate the average costs for treating a mental health problem can be used to ensure that mental health-related services provided in secondary and specialist care facilities receive a level of reimbursement fully covering the typical costs of providing services.

However, DRG payments systems used in several countries such as Austria and Spain have had problems in ensuring sufficient funding is received for mental health services. This is of particular importance given moves in several other European countries – including France, the UK and the Netherlands – to implement their own versions of DRG-based payment mechanisms. Further exploration of incentives to encourage the efficient flow of funds for mental health is also required, for instance might performance-related target payments to health and social care professionals help to promote greater investment and uptake of mental health services, as has been observed in some other areas.

Another way of facilitating the equitable use of funds to meet needs, particularly within the community, is by providing so called 'direct payments' to those with mental health problems, empowering them to purchase services best meeting their needs. This system has been introduced in some countries, e.g. UK and the Netherlands, and while not fully evaluated yet may avoid some of the problems of funding services across different sectors.

### **Funding services for mental health outside the health sector**

Another concern to ensure equitable access arises where mental health promotion and treatment services are funded and provided *outside* the health sector. Few countries provide a fully comprehensive range of services within the health care system. Increasingly, community-based services are shifted out of health and into the social care sector, potentially having significant

implications both for entitlement and access to services. In contrast to the universality and solidarity found in European health care systems, access to services within social care systems may be restricted, subject perhaps to means testing, significant co-payments or other eligibility criteria not related to need for care. Here the challenge is to ensure that any continuing shift of funding out of the health sector does not introduce or exacerbate inequities in access to or provision of services.

Access to housing and long-term care services in particular are subject to means assessment, so before an individual qualifies for assistance their ability to pay (or in some cases the ability to pay of family members as well) must first be assessed, and they may be expected to contribute most of their own income, as well as run down capital, savings and other assets before (as a last resort) they becoming eligible for state or other subsidised assistance. Out-of-pocket payments for non-health sector services can form a very high proportion of total costs, impacting on ability to access services. Within the EU-15 only Sweden currently appears to fund all social care services 100% through taxation subject to assessment of need and regardless of patient income.

### **Mental health and employment: economic implications**

As we have noted, a major contributor to the economic costs of mental health problems is lost productivity in the workplace, which typically far exceeds direct health and social care costs. Lost productivity can be characterised in a number of ways: short- and long-term absenteeism, early retirement, reduced employment opportunities, work cutback, days out-of-role and reduced lifetime productivity due to premature mortality. It can also impact on the employment and income of family members acting as carers. As such it is a cost burden of both common and serious mental health problems. However, there are distinct differences between the two groups both in terms of consequences and strategies for intervention.

#### *Individuals in the workforce at risk of developing mental health problems*

There are those people in the working population who may be at risk of developing common mental health-related problems such as depression and anxiety-related disorders, leading to increases in short- and long-term absenteeism and premature retirement. While there appears to be a trend of increasing absenteeism and early retirement due to mental illness (and particularly depression) across Europe for both men and women, the growth in absenteeism has

been greater for women. It is not clear how much of this is an artefact of increasing female participation in the labour market in more recent years rather than a genuine increase in the prevalence of mental health problems.

Again there are high costs associated with productivity losses. For instance, one study in Sweden estimated that 66% of total mental health care costs were due to lost productivity, while 80% of the economic burden of depression in Portugal is attributed to lost productivity. Some countries have reported increases in both the number of days of absence and the number of cases reported due to mental health problems. In Sweden mental health problems account for approximately 27% of all cases of long-term sick leave, in the Netherlands 35% of long-term absenteeism has been attributed to mental health problems, while in Belgium it has been reported that 29% of long-term sickness was due to psychiatric disorders in 2001. In Austria, while total days of absenteeism for all causes decreased by 13% between 1993 and 2002, days of absenteeism due to mental health problems increased by 56%.

Employees' mental health problems and their impact on an organisation's productivity and medical costs are critical human resources issues. The cost of lost productivity could be a driver to encourage employers to improve mental health in the workplace, where there is growing awareness of the social and economic cost of mental health difficulties. However, little information is available on the cost effectiveness of workplace health promotion strategies in Europe, although there is some evidence from the US that investing in treatment and support for individuals currently on disability benefits can be cost-effective, and also that comprehensive workplace strategies which involve counselling and support can significantly reduce the number of work loss days and staff turnover. More needs to be done to assess both the effectiveness and cost effectiveness of such strategies in Europe.

#### *Individuals with severe mental health problems*

For individuals with more severe mental health problems, lost productivity tends to be of a different nature and is characterised by reduced opportunities to enter and participate in the labour market, even though studies suggest as much as 90% of this population state a desire to work. They face a higher risk of discrimination in the labour market compared to those without disabilities and also those with physical and/or sensory disabilities, and may be vulnerable to permanent exclusion from the labour market.

The MHEEN group found evidence that employment rates for people with more severe mental health problems are very low, and that the majority of people may often be counted as economically inactive rather than unemployed. In Ireland in 2002, 22% of a sample population of people with mental health problems were in employment, with only 3% unemployed and the other 75% classed as economically inactive. Similarly, in Belgium employment rates range from just 2.3% to 11.0%, and unemployment rates range from 4.4% to 23.7%, leaving a substantial proportion of people as economically inactive.

There are a number of interventions intended to help individuals with severe mental health problems obtain employment. Vocational rehabilitation services are reported to have undergone a shift in recent years. In what is beginning to be perceived as the most appropriate process, the emphasis has shifted away from 'train and place' and towards 'place and support', the idea being that supporting a person in a competitive job is a better way of conveying the benefits associated with employment. However, there have been few economic evaluations of these approaches. Incentives to help encourage those who can work actually to return to work should be examined. Disability benefits will always be a sensitive issue but our findings indicate that to some extent they act perversely as a barrier to returning to employment, this needs further exploration. The economic impact of legislation against discrimination might also be considered.

### **Capacity building in mental health economics in Europe**

The MHEEN group looked at the extent to which economic evidence is used in the decision-making process with respect either to having interventions reimbursed under social health insurance programmes, or permitting their use within tax-based systems. Secondly, the group looked at the extent to which economic evaluations of mental health interventions have been conducted. Another activity was to consider the overall capacity for undertaking economic evaluation and whether or not examples of impact on policy could be cited.

At least eight MHEEN countries do formally consider evidence of cost effectiveness when making decisions on the appropriateness of new drugs and other interventions, but the role of economic evaluation remains minimal in five other MHEEN countries, partly due to a very low number of health economists (Luxembourg, Belgium and Greece have no local health economics associations) and structural issues (e.g. multiple sickness funds) which have

meant that, until recently at least, there were few incentives to use economic evaluation in the decision-making process.

While this and other evidence of the increased demand for economic evidence is encouraging, there continue to be significant challenges across all countries in facilitating the *use* of economic evidence. Moreover, very few studies looking at the economics of mental health promotion have been conducted, although some work has been done looking at the long-term cost-effectiveness of early intervention to tackle childhood and adolescent mental health problems.

Instead most mental health economic evaluation in Europe (and elsewhere) has focused on pharmaceuticals, with only a small number of studies looking at non-pharmaceutical interventions such as cognitive behavioural therapy. The extent to which these studies have influenced policy and practice also remains unclear. The highest profile situation is in England and Wales where the National Institute for Clinical Excellence (NICE) have conducted eight appraisals of interventions for mental health problems. In principal NICE rulings should be mandatory for all local health purchasers in England, but recent evidence suggests that in many instances the implementation of NICE guidance has been poor.

One reason for the poor uptake of economic evidence, even in countries where health economics is well established, is the poor way in which such information is communicated. Until recently, dissemination and implementation of evidence have been overshadowed by the need to *produce* evidence, but it is clearly essential to facilitate improved use of economic evidence in the decision-making process. Economic information needs to be both relevant to decision makers' needs, and presented in accessible forms.

It is also important to present information to different target audiences in ways that can be clearly understood. To help strengthen the 'receptor capacity' for evidence, some have argued for an investment in training a new cadre of professionals, who would have expertise both in the policy making arena and also in scientific disciplines such as epidemiology and health economics. These so called 'knowledge brokers' could act as conduits between the policy making process and economic research, helping to facilitate use of the latter as part of the decision making process.

The MHEEN group has an important role to play in building capacity across Europe for both the conduct and interpretation of the results of economic evaluation. This is not only through the dissemination

of MHEEN findings but also through developing and strengthening contacts with policy makers and other stakeholders both within countries and at the European level. MHEEN can also play a role in the challenge of determining whether the results and conclusions of a study produced in one context or setting can be generalised or adapted to fit other contexts or settings. It can encourage and further develop methods of economic evaluation, and by promoting the use of common standards, information can be presented in a transparent fashion, allowing, for instance, different costs to be applied to resource use in different local settings.

Ultimately, well-conducted economic evaluations can make significant contributions to our understanding in almost every aspect of policy and practice development in the mental health field. They can support decisions relating to the funding and provision of services and can help to improve the efficiency with which scarce mental health resources are allocated.

## **Conclusion**

The economic costs of mental health problems are substantial, yet there is a growing evidence base on interventions both for good mental health promotion and treatment of disorders. There are still limitations to what we know about the funding of mental health services, and also about the cost-effectiveness of interventions for mental health promotion, non-pharmaceutical treatments and rehabilitation. There is a need to look at the role that could be played by economic incentives in targeting resources towards areas of need, and also in encouraging individuals to remain or return to the labour market.

For this it is important to strengthen further our information base on how mental health services are currently funded and what is available across Europe, in order to help decision makers allocate resources and identify gaps in access to essential services. This should focus not only on health care systems, but also look at other sectors such as social care. Another key task is to build up information on the costs of services across and within countries. Although there is a gradually accumulating body of evidence on the cost-effectiveness of different interventions, this needs to be adapted to different country contexts, taking account of organisational structures, service availability, cultural constraints, level of income and costs of health care interventions.

Most fundamentally, however, mental health economists need to work with other stakeholders to convey to decision makers the message that economics can be used as a powerful tool to

strengthen the objective case for investment in mental health, and furthermore that economic analysis can also contribute much to discussions on how financial incentives can be used to promote reform. Equally, there is a need for economists and others to be more responsive to the needs of policy makers and undertake research that can answer key and enduring policy questions.