MHEEN II Policy Briefing 5

Employment and mental health: Assessing the economic impact and the case for intervention

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Summary

Employment is a fundamental component of quality of life, the main source of income for most people, commonly a major influence on someone's social network, and a defining feature of social status. The interconnections between mental health problems and employment are many and various. As well as the link with individual well-being, employment is a major contributor to national and European productivity and competitiveness, and obviously also has implications for the sustainability of social welfare systems. At a policy making level, across much of Europe increasing rates of absenteeism, early retirement and exclusion from the labour force due to mental health problems, particularly stress and depression, now account for an ever greater share of long term social welfare benefits.

This loss of the opportunity to work is by far the single greatest contributor to the costs of poor mental health in Europe. In this briefing paper, we look at MHEEN findings on the economic impacts of poor mental health on economic productivity, highlighting the importance and potential cost effectiveness of both improving opportunities for people with mental health problems to return to the workforce, as well as investing in interventions to promote mental well-being in the workplace.

Why work matters

Work plays a vital part in all our lives. For the individual it provides an opportunity to earn wages, which in turn provides greater financial security. Employment can have two distinct effects on mental health. It can be protective: individuals value the opportunities offered by employment and this helps to keep them well. It also provides social status and identity, a sense of achievement and a means of structuring one's time (Jahoda 1981). For employers there are productivity gains, while society benefits from potential economic growth and thus more revenue through taxation.

On the other hand, a poor working environment can be detrimental to mental health (Wilhelm, Kovess et al 2004), and stressors associated with the workplace can also trigger mental health problems (Moreau et al 2004). The lack of employment is also associated with poor health status, and in particular an increased chance of poor mental health (Kessler et al 1987; Nordenmark et al 1999; Warr 1987). That employment is good for us is implied by the wealth of evidence that unemployment is bad for us (Ozamiz and Gumplmaier 2001). It is consistently associated with poor mental health outcomes for individuals (Montgomery et al 1999) and their families, and the concomitant increased risk of social exclusion (Office of the Deputy Prime Minister 2004). People with mental health problems who become unemployed are also at greater risk of long-term unemployment compared to the general population (Watt 1996).

European policy context

Maintaining high levels of productivity and competitiveness are key objectives of the EU's Lisbon process. We have noted that a poor working environment can however have a negative impact on mental health (Cox, Leka et al 2004); vulnerability to mental health problems may be even more of a challenge as the nature of the workplace continues to change in Europe so as to adapt to the challenges of competing in a global marketplace.

This highly competitive atmosphere has implications both for the security of employment and the demands made on today's employees. It can cause considerable productivity losses, which

hamper the performance of companies and organisations. In the EU, overall work-related stress is now thought to affect one third of the workforce (Ivanov 2005). A mentally healthy workforce would thus be of benefit not only to workers and their families, but also employers (through a reduced need to find replacement labour to cover absenteeism and premature retirement) and the government (which would not have to make social welfare payments to those out of work because of mental health problems and would receive more tax revenues from those working).

To compound these challenges the structure of the workforce in Europe is also changing: it is ageing and now has greater female and migrant participation (Cox et al 2002). Companies must respond quickly to these changing circumstances, facing a constant drive to maintain or increase market share and profits, while also forcing down costs.

A second goal at both EU and national level is to promote social inclusion; one key way in which this might be achieved is by helping to facilitate opportunities for people with mental health problems to return to employment. As we shall illustrate in this paper, employment rates for those with mental health problems remain low, even when compared with the employment rate of people with physical disabilities.

In this briefing paper, we look at MHEEN findings on the economic impacts of poor mental health on economic productivity, highlighting the importance and potential cost effectiveness of both improving opportunities for people with mental health problems to return to the workforce, as well as investing in interventions to promote mental well-being in the workplace.

Methods

A systematic review was undertaken by MHEEN to identify the cost effectiveness of workplace mental health promoting interventions. This was accompanied by a questionnaire completed by members of the MHEEN network that sought to identify current and future evaluations in this area. Additionally, another bespoke questionnaire was developed to collect information across the network on the impacts of poor mental health on employment; and to identify gaps where information needed to answer these questions were not available. Data sought included employment rates for people with mental health problems, access to disability benefits, the impact of mental health problems on lost productivity, and barriers to employment. We also collated information on policy and legislation concerned with helping people return to work and/or on work place mental health promotion.

What are the consequences of poor mental health for economic activity?

Today as many as one in four (132 million) Europeans are affected by mental health problems each year, which MHEEN have estimated to cost every European household more than €2,200 per annum. These costs fall on many different budgets, but by far the most important of these is lost productivity in the workplace. This typically far exceeds the direct health and social care costs of mental health problems.

The short-term impacts on business can be substantial. One English survey of human resource professionals conducted by the Chartered Institute of Personnel and Development (CIPD) reported that 40% of all companies identified had rising levels of stress-related absenteeism. These rates were at their highest in the public sector, where 76% of respondents cited stress as a leading cause of absence in their workplace, compared with 49.6% of those based in the

private sector. The average cost of absence, per employee per year, rose to €1021 compared with €927 in 2006 (Chartered Institute of Personnel and Development, 2007).

Lost productivity can be characterised in a number of ways: short and long term absenteeism, early retirement, reduced employment opportunities, presenteeism, days out-of-role, and reduced lifetime productivity due to premature mortality. There is a growing body of literature on the impact of 'presenteeism' or 'work cutback', whereby individuals remain at work but do not function effectively (Sanderson & Andrews, 2006). One US study suggested that this may be five times or more greater than the costs of absenteeism (Kessler & Frank, 1997), whilst another US study of workers with depression found that this was associated with 7.2 hours per worker per week of lost productive time, or 86% of total time losses including absenteeism (Stewart et al, 2003). Poor mental health can also impact on the employment and income of family members who have to spend time supporting their loved ones. For the working population, productivity losses have been the focus of policy attention in recent years, given a trend indicating increases in short and long term absenteeism and premature retirement due to mental health problems across Europe.

Global costs of poor mental health

A growing number of European studies have sought to estimate these economic impacts. Caution must though be exercised, given that these estimates are often calculated using different methodologies, nonetheless, all serve to illustrate the substantial impacts of poor mental health on the economy. Some of these have looked at total productivity losses from all mental health problems. For instance, one Swedish study estimated that two thirds of total mental health care costs were due to lost productivity (Institute of Health Economics 1997). In Switzerland, productivity losses made up 59% of the total costs of mental disorders in 2004 (Table 1) (Jäger et al 2008).

Table 1: The costs of mental disorders in Switzerland in 2004

€ PPP million	Healthcare costs	Direct non-medical costs	Indirect costs	Total cost
Addiction	391	74	893	1,358
Affective disorders	664		1,954	2,618
Anxiety disorders	625		467	1,091
Psychotic disorders	445	83		527
All mental disorders	2,124	157	3,314	5,595

Source: Jäger M et al (2008)

Elsewhere, two English studies have estimated that the productivity losses from mental illness are more than twice those of the direct health care costs (Patel and Knapp 1998; Sainsbury Centre 2003).

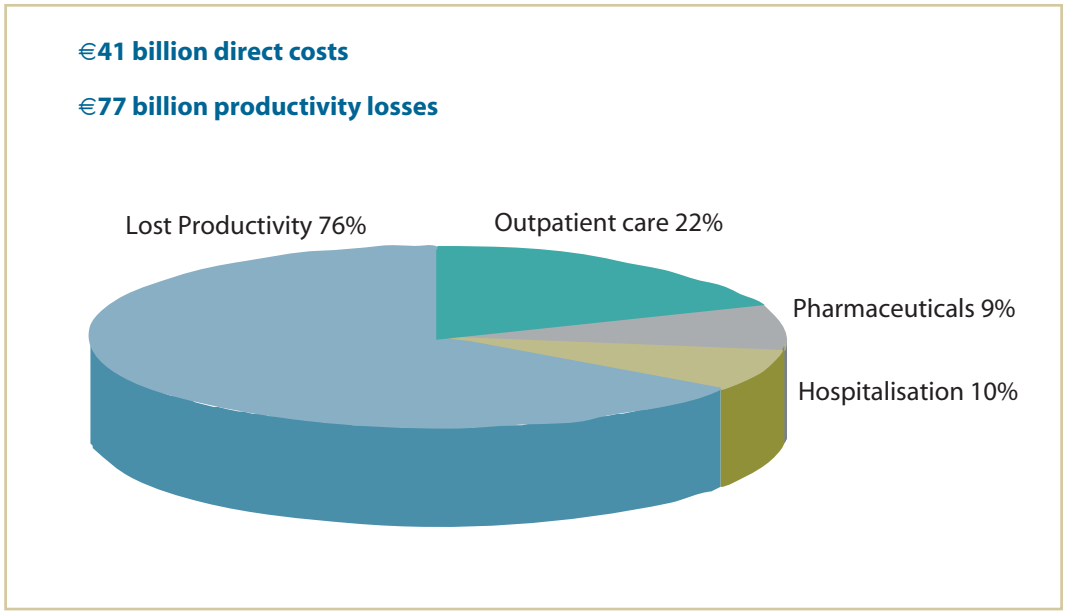
Total disability benefit payments in Great Britain (England, Scotland, and Wales) in 2007 as reported by the Department of Work and Pension also amounted to €3.9 billion, with the largest contribution (40%) attributed to "mental and behavioural disorders". In Great Britain, the total number of individuals claiming disability benefits for mental health problems is now greater than the total number of claimants for unemployment benefits. Meantime, in France it has been estimated that 31.9 million lost working days and 25% of illness-related social security expenditure is due to stress (Bejean and Sultan-Taieb 2005). In Belgium, 29% of long-term sickness was due to psychiatric disorders (Bruffaerts 2008) while Ireland reports that 65% of people with mental health problems are economically inactive, of which a large proportion are likely to be on a disability pension (Census 2006).

In Finland, the total burden of mental health problems is estimated to account for 2.4% of GDP, 80% of which was due to lost productivity, while in the Netherlands the total costs of employee drop-out and disability due to mental health problems have been estimated to be approximately 0.5% of GDP or €1.44 billion per annum (Jarvisalo et al 2005). In 2002 in Germany, data collected by MHEEN indicated that eighteen million working days were lost costing employers approximately €1.59 billion. Furthermore, in Norway, the Norwegian Institute of Public Health estimated that in 2006 the total societal costs due to mental illness were approximately 100 billion NOK (€12.5 billion) per year; again, the majority of costs are due to lost productivity. (Norwegian Institute of Public Health 2006)

Depression and anxiety disorders

The same high impacts can be seen when turning to studies looking at depression and related disorders. Again, they are dominated by the cost of lost productivity because so many people with depression experience absence from work, premature retirement, or long-term unemployment. The total costs of depression in the EU have been estimated at €118 billion per

Figure 1: Total costs of depression in the European Union



Source: Sobocki et al (2006)

annum of which 64% are due to productivity losses (Sobocki et al 2006). This level of lost productivity is more than twice that estimated by Leal et al (2006) for cardiovascular disease in the EU (€35 billion).

At Member State level, one study in Portugal concluded that depression implied losses of approximately €50 million (at 1992 prices) of which 80% were due to losses in productivity due to a temporary incapacity to work. This was equivalent to 50% of the Portuguese National Health budget (Ramos et al 1996). In Sweden, the total cost of depression in 2005 has been estimated at €3.5 billion; 83% of this was accounted for by productivity losses. (Sobocki et al 2007). In England, the total costs of adult depression in 2002 were estimated to be €15.46 billion or €309.2 per head of population. Treatment costs accounted for only €636 million of this total; the vast majority of costs were due to lost employment because of absenteeism and premature mortality (Thomas and Morris 2003).

Schizophrenia

Similarly, while the costs of schizophrenia often fall to a host of budgets, the impacts of unemployment are substantial; accounting for 40% of total costs of €10.4 billion in England (Mangalore and Knapp 2007). Individuals with schizophrenia and other psychotic disorders are particularly disadvantaged when it comes to finding and maintaining employment, in part because of the stigma associated with these conditions. An earlier study in Italy reported a higher share of total costs being due to productivity losses. Tarricone et al (2000) estimated that the annual mean costs of schizophrenia were nearly 50 million Lire (approximately €27,000), of which 70% were indirect costs, including lost productivity. In Norway, the indirect costs associated with the 12,000 people with schizophrenia are estimated to be 8400 man-labour years, or about 5 billion NOK (€628 million) per year. (Torgalsbøen 2000).

Can we see any trend in productivity losses over time?

Data collected by MHEEN confirm a trend of increasing absenteeism and early retirement due to mental illness (and particularly depression) across Europe for both men and women. Mental health problems in some countries are now overtaking musculoskeletal problems, most notably back pain, as the leading cause of days of absence from work (Jarvisalo et al 2005). Workers experiencing stress and mental health problems are more likely to seek early retirement (Harkonmaki et al 2006). This increased risk of early retirement is becoming ever more critical as workforces across most of Europe age rapidly.

The reasons for this trend are complex, as of course there are links between back pain and depression for instance (Sullivan et al 1992); but it might also reflect a lessening of the stigma associated with stress-related problems, which previously might have been diagnosed and recorded formally as lower back pain to protect workers' sensitivities. Whatever the cause, many examples of increased impact can be seen.

In Finland, for example, Karpansalo et al (2005) reported that employed men with depression retired almost two years earlier than their non-depressed colleagues. 20% of all sickness benefits and 42% of all disability pensions are now paid out for people with mental health problems. Overall, around 50% of all people recorded as suffering from depression are now on long-term disability pensions. This has been growing steadily over a thirteen-year period (Jarvisalo et al 2005).

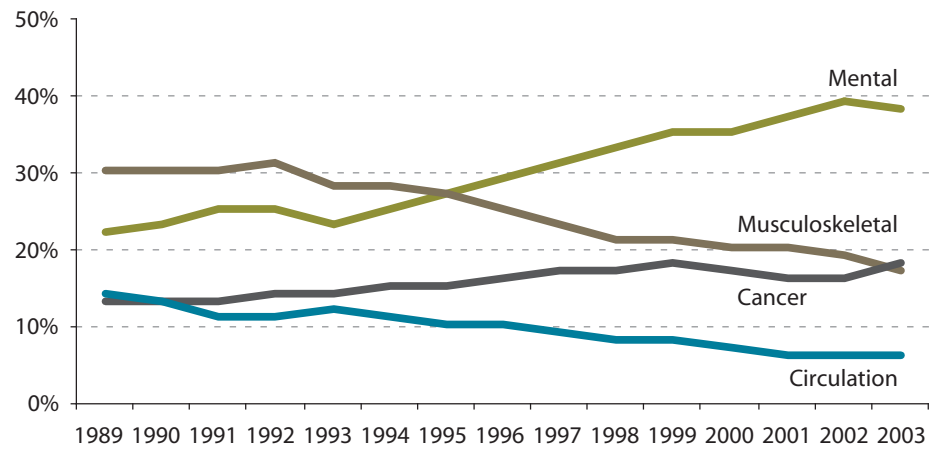
Data from Sweden suggest that retirement due to mental health problems occurs at an earlier age than for other health problems, leading to long-term reliance on disability benefits, exclusion from the workforce and the loss of positive advantages that employment brings. In 2002, 28% of early retirements were due to mental health problems, by 2005 this had risen to 35% (Swedish Social Insurance Agency 2007).

In Iceland, in 1996, the proportion of all individuals on disability benefits due to mental health problems was 28% for women and 31% for men. By December 2005, this number had increased to 31.3% for women and 40.8% (Thorlacius and Steffanson 2007). The General Workers Union in Spain have also estimated that between 50% and 60% of sick leave and disability claims are due to stress at work. (McDaid et al 2005a)

In the Netherlands between 1970 and 2003, although the overall level of health in the working population did not change, there was a steady increase in the risk of workers being registered as disabled because of a psychological disorder; by 2003, 35% of those leaving work became disabled because of these disorders (Statistics Netherlands 2004). In Switzerland, in 1986, only 20% of disability benefits were due to mental health problems, by 2005, this had increased to 37% (IV-Statistik 2005).

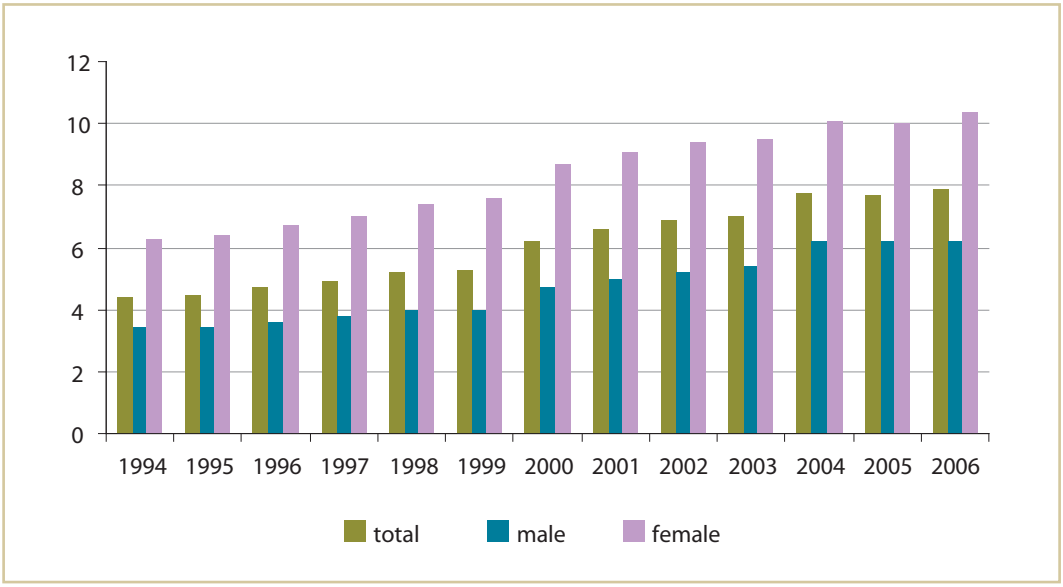
Figure 2 illustrates trends in causes of early retirement in Germany between 1989 and 2003 (German Federal Health Monitoring 2007). Since 1996, mental health problems have become the leading cause of early retirement. In 2003, approximately 38% of all new cases of early retirement were due to mental health problems. Moreover, the mean age of early retirement due to mental health problems in 2003 was below 48 years of age. The number of days of absenteeism due to mental health problems has also increased over the last decade, as illustrated by data from one of the largest health insurers – the AOK Sickness Fund (Figure 3) (German Federal Health Monitoring 2007).

Figure 2: Causes of early retirement in Germany



Source: German Federal Health Monitoring (2007)

Figure 3: Absenteeism days due to mental illness for AOK Sickness Fund in Germany



Source: German Federal Health Monitoring (2007)

A similar trend can be seen in Austria, despite restrictions on eligibility (Gardowsky 2002); 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% (Zechmeister 2004). The duration of absenteeism in Austria has increased more for women (72% increase) compared to men (37% increase).

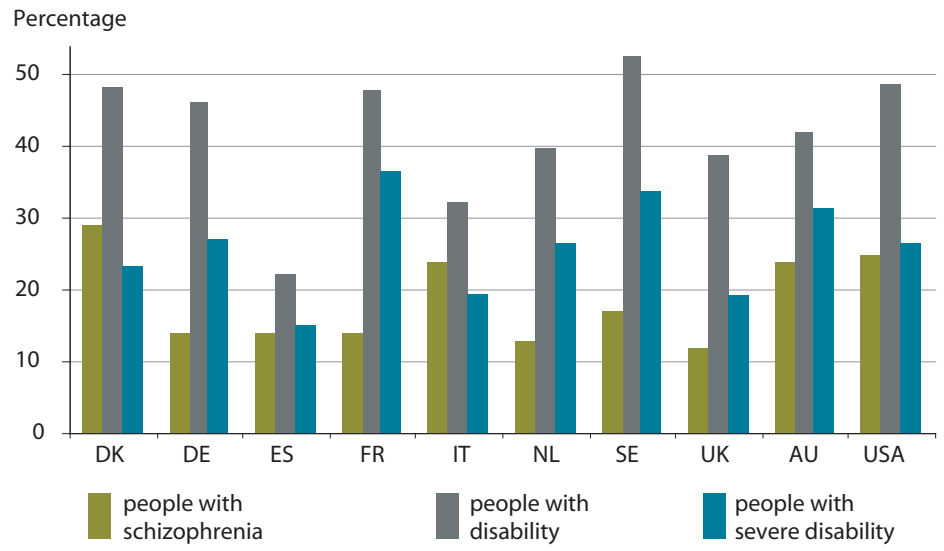
One thing to note is that restrictions in access to benefits have begun to help reduce claims for disability benefits in some countries such is the case in Sweden. Although in Sweden mental health problems account for a large share of the payout in sickness benefits, the total number of those ill due to mental illness has fallen. In June 2005, there were 61,789 benefit claims, by June 2007 this had fallen to 53, 421. A caveat about the data is that not all cases registered at the Swedish Social Insurance Agency receive benefits of 100%. (Swedish Social Insurance Agency).

What do we know about employment rates for people with mental health problems?

Data on employment rates for people with mental health problems are limited in most countries. In many instances, the breakdown of employment statistics by health status is simply not available. What data is available often comes from research studies. This is the case in Germany, where no national statistics exist but data on mental ill health illness can be found in the context of research studies. This is the case for schizophrenia where research has shown that employment rate is 14%. (Marwaha et al 2007).

It is clear that in almost all the MHEEN countries, people with mental health problems have lower employment rates compared with the general population. One major complication in analysing employment patterns however is the designation of many of the long-term chronically ill including those with mental health problems as being economically inactive,

Figure 4: Employment rates of people with schizophrenia[1] in comparisons to severely disabled and all disabled people in selected countries in the late 1990s



Source: Killian and Becker (2007). Data adapted from Marwaha and Johnson 2003 and Eurostat.

rather than unemployed, for example, as in France where such people claim disability rather than unemployment benefit and thus do not figure in the unemployment statistics. In Austria and Ireland, whether someone is counted as being unemployed is dependent on being registered as being willing and 'able to work', itself dependent on certain psychological tests. The majority of countries with data report employment rates of between 20% and 30%, although there are some outliers (see Figure 4). Research suggests that these differences may in part be a product of different socioeconomic contexts including the structure and availability of disability benefit systems (Drake et al 1998; Kilian and Becker 2007).

To give one such example, Italy has reported employment rates of 46.5% for all diagnoses compared with 18.4% in the UK. One reason for this may be the comparatively restrictive access to disability benefits in Italy. Research in England also suggests that individuals with mental health problems have up to a 40% lower chance of obtaining employment compared with other disability groups (Berthoud 2006). Denmark, in contrast, also has high rates of employment, but this may be due to the promotion of active labour market inclusion policies.

In countries in central and eastern Europe, where the economic climate remains challenging, rates of employment may be very low indeed. In Table 2, data from Poland indicates that the employment rate for people with mental health problems was 10.3% compared with 48% for the general population, while Table 3 indicates that only 27.5% of those registered with mental health problems in Norway were employed – this was the lowest employment rate of all disability categories (AKU 2006).

In Ireland, in the latest National Census (2006), of the total number of people aged 15–64 who indicated that they had a mental health related disability (46,827), only 16,319 (35%) were in the labour force. This is in contrast to the labour force participation rate for the same age group in the general population of over 71%. Older data also indicated that while 22% of people with

Table 2: Employment rates in Poland 1995 and 2000

	1995 (%)	2000 (%)
Economic activity for people with mental health problems:	**11.6**	**15.6**
in comparison to all disabled people	20.5	18.7
in comparison to all population	58.4	56.6
Employment rate for people with mental health problems:		**10.3**
disabled persons		15.6
entire population		48.0
Unemployment rate for people with mental health problems:	**30.0**	**34.1**
in comparison to all disabled people	16.9	16.8
in comparison to all population	14.9	13.1
All unemployed disabled total due to mental health problems	**4.0**	**9.3**

Source: GUS (2005)

Table 3: Norway employment rates by disease category for 2006

2006	Total	Employed	%
Disabled persons total	1,353	614	45.4
01 hands and arms (including rheumatism)	258	102	39.5
02 leg and feet (including rheumatism)	303	116	38.3
03 back and neck (including rheumatism)	473	198	41.9
04 eyes/blindness	53	28	52.8
05 ears/deafness	55	37	67.3
07 allergy	32	19	59.4
08 lungs (asthma)	94	42	44.7
09 heart disease	97	39	40.2
10 abdomen, kidney, liver	40	18	45.0
11 diabetes	34	17	50.0
12 epilepsy	13	5	38.5
13 mental health	**153**	**42**	**27.5**
14 reading and writing	42	26	61.9

Source: AKU, Norwegian Bureau of Statistics

mental health problems in 2002 were in employment, only 3% were described as unemployed and the remainder deemed economically inactive (Central Statistics Office 2002).

In addition, the unemployment rate for the same age group in the general population was 8.6% and 28.4% for people with a psychological or emotional related disability. Data from the Irish Quarterly National Household Survey (QNHS) also indicated that the number of people aged 15 to 64 classified as having a longstanding health problem or disability due to "mental, nervous, or emotional" problems had risen to 30,500 in 2004 compared with 28,700 in 2002. In 2002, 6,300 were estimated to be in employment, 800 were unemployed, and the remaining 21,500 were not economically active. Despite the increase in the number of people with a mental, nervous, or emotional related disability in 2004, the number employed fell to 4,200 and the number of unemployed increased to 1,200, while the number economically inactive rose to 25,100. The survey also found that the number of hours worked by persons suffering from a mental illness was 29.5 hours per week compared to the average in the country of 36.8 hours in 2004. (QNHS, 2002 and 2004)

Elsewhere in Sweden, national survey data reported that in 2006, there were 919,000 people with disabilities of which 578,000 were employed and 341,000 were not working. Of this number, 77,240 people were disabled due to mental illness. Only 9.7% of these people were considered to have a normal work capacity (Statistics Sweden 2007). In addition, 34% of disabled people worked part-time, compared to 24% in the total population. Employment among people with illness (including mental health problems) has fallen during the last decade. This is attributed to the general upturn in the economy, and changes to the Swedish Social Insurance Agency, which increased rehabilitation and lowered maximum sick pay. Paradoxically, the decreased number of people temporarily receiving sickness pay due to mental illnesses (see above) could also be an effect of an increase in early retirement on the basis of mental disease.

Barriers to employment

The MHEEN group also collated information on some of the barriers to the employment of people with mental health problems. Despite the low rates of employment, studies indicate that the majority of individuals with severe mental health problems want to work in regular employment settings. Moreover research demonstrates that work increases their self-esteem and quality of life (Latimer, Bush et al 2004). One study of users of psychiatric services in the UK reported that 90% wanted to enter (or return to) work (Grove 1999). Another study of service users with schizophrenia in three countries, Germany, US and Switzerland, reported the same subjective attitude towards work and employment, with those in employment reporting a better quality of life than the unemployed, in all three countries (Priebe, Warner et al 1998).

What then are the barriers to employment? Although the importance of different barriers varied between MHEEN countries, perhaps the most notable barriers reported (despite the existence of legislative measures) are stigma and discrimination in Greece by the need for a World Psychiatric Association anti-stigma campaign, Norway (Gjesdal and Bratberg 2001), Sweden (Labour Market Situation for the Disabled 2002) and the UK (Boardman, Grove et al 2003). Manning and White (1995) and Rinaldi and Hill (2000) have also suggested that the principal barrier to employment is a reluctance on the part of employers to take on an individual with a mental health problem.

In Ireland, the National and Economic Social Forum (NESF) commissioned a survey by Millard Brown IMS that found that one third of employers felt that people with mental health difficulties are less reliable than other employees. Over half of employers thought it was a

Table 4: Level of incapacity/disability pension in Portugal in 2006

Number of contributing working years	Minimum amount of the incapacity pension
Less than 15	€230.16
15–20	€256.72
21–30	€283.28
More than 30	€354.10

Source: Portal do Cidadao Portugal. http://www.portaldocidadao.pt/PORTAL/pt

considerable risk to employ someone with mental health difficulties. An earlier survey for the National Disability Authority found that only 55% of people thought that individuals with mental health problems should have the same access to employment as everybody else, compared to 82% in the case of physical disability (NESF 2007).

In a study conducted in Poland by the State Disability Fund, 95% of employers reported that they did not want to employ a person with schizophrenia for any position (PFRON 1999). In another Polish public opinion poll, 63% of respondents indicated that they would accept a person with mental health problems as a collaborator, but 70% objected to them being given employment which involved any responsibilities, including childcare, medical or governmental positions (Centrum 2005).Similarly in the EU Optiwork study which looked at barriers to the return to work of people with disabilities, data from focus groups of employers in several European countries indicated that employers were reluctant to take on people with mental health problems, believing them to be less productive that people with physical disabilities (McDaid & Matosevic 2008).

Another major barrier to the employment of people with both common and severe mental health problems is the 'benefit trap' (Graça 1999). It occurs because many social welfare systems have built-in disincentives to returning to work, reflecting a fine balance that exists between supporting people who cannot work and the creation of disincentives to returning to work for those who can (Boardman, Grove et al 2003). Disability benefits typically are greater than unemployment benefits; moreover, in order to gain access to some specialist services in some countries it is necessary to be registered as disabled (McDaid et al 2005b).

In some countries, these benefits can also be linked to a percentage of former salary. Countries at the high end of the spectrum include Switzerland, where on average a 100% disability benefit ranges from €670 to €1340 per month depending on a person's previous salary. In Norway, on average, an individual living alone receives approximately a €1250 disability pension per month (MHEEN 2007). Disability pensions in central and eastern Europe are much lower. For instance in Bulgaria, a person with schizophrenia receives approximately €50/month, which is half the minimum national wage. In Lithuania, in 2006 the average disability pension was €125 and an incapacity pension €110 (Lithuanian National Census 2001). In Portugal, two social welfare benefits are available: disability pensions for permanent incapacity and illness subsidies for temporary incapacity. The minimum amount paid out for an incapacity pension depends on the number of years of working contributions (Table 4).

For those out of work and unable to work for a long period due to a mental health problem, in systems where disability payments are of more value, the incentives to collect these benefits are obvious. However, this often represents a transfer out of the economically active population, and in some countries then constitutes a barrier to future access to employment schemes. In some countries, individuals classified as having disabilities are explicitly banned from seeking work. This is the case in Bulgaria, where there are three benefit groups: (1) Loss of capacity for work greater than 90%, (2) loss of capacity between 50–90% and (3) loss of capacity less than 50%) Those in the second group (66.3% of the total registered disabled population) are only allowed to engage in a limited amount of work under a "labour contract" while those in the third group cannot work at all. In some countries, the fear of the loss of any job and the difficulty in reclaiming benefits also acts as a disincentive to seek work. In England, a governmental report noted that psychiatrists were often reluctant to encourage individuals to take paid employment specifically because of the delay in reclaiming benefits, which might cause undue hardship (ODPM 2004). In Ireland, the NESF report on Mental Health and Social Inclusion (2007) reported that the fear of loss of welfare benefits was a powerful barrier to employment for people with mental health problems.

The economic case for helping people with mental health problems remain in the workforce

Workplace mental health promotion

The growing impact on social welfare systems has meant that many national governments in Europe have begun to turn their attention to the employment difficulties experienced by people with common mental health problems, including stress and depression. This includes encouraging greater awareness among employers as to their workplace responsibilities for promoting better mental wellbeing and reducing worker stress; one example of this being the Framework Agreement on Stress in the workplace signed by the European Social Partners in 2004 (Monks et al 2004).

What do we know about cost-effectiveness?

Despite the increased policy focus and obvious economic implications, evidence to support the economic case for workplace mental health promotion interventions remains limited, although the evidence that is available suggests that there may well be substantial scope for economic benefits such as increased productivity and reduced need to pay disability benefits through investment in the workplace.

An important caveat is that robust evidence from the UK and other parts of Europe lags far behind studies coming out of the United States, in particular that from the various Employee Assistance Programmes (EAP) companies may provide. This is perhaps unsurprising given that US employers are usually responsible for picking up the health care costs of their employees (Dewa et al 2007). The tradition of evaluating EAP programmes is longstanding: for instance, one EAP run by the McDonnell-Douglas company managed to reduce both work loss days by 25% and turnover by 8% of people with mental health problems (McDonnell Douglas 1990).

It should also be noted that the evidence on the business case of these interventions, particularly in Europe, may be generated by evaluators who may have a commercial interest in the programme under review, rather than being the subject of rigorous peer review.

Nonetheless, despite issues of generalisability from US research and issues on quality of studies, there are some tantalisingly interesting insights into the economic case for workplace mental health promotion, which we briefly flag up below.

Workplace screening and enhanced care management

There are a number of studies looking at the value of investing in screening for depression followed by access to specialist advice and support. Among the studies identified, Wang and colleagues (2006) constructed a decision analytic model to assess the mid-term (five-year) potential cost effectiveness of a programme of enhanced depression care (i.e. delivered by mental health professionals rather than primary care workers). This programme consisted of a one-time workplace-based depression screen for all employees and telephone based care management by trained clinicians for those with positive results for depression. Usual care was defined as the normal pattern of treatment seeking and treatment use in the absence of the screening programme. Incremental gains in Quality Adjusted Life Years (QALYs) through use of the programme were modest – just 0.002 at an incremental cost of $39.90. Taking into account the low costs of the intervention, from a societal perspective the cost per (QALY) gained was just $19.976, a value normally considered to be cost effective in high-income countries. The study also calculated the costs and benefits to employers. The costs to employers of the intervention were more than exceeded by the costs of absenteeism, presenteeism, and employee turnover avoided. Per 1,000 employees subjected to the depression screen, over a five-year period net savings of $2,895 would be realised.

Wang and colleagues (2007) followed up their modelling study with a randomised controlled trial using the same intervention and targeted at 604 workers. Those individuals identified as having depression related disorders received counselling by telephone to encourage them to obtain psychotherapy and/or antidepressants. Participants reluctant to enter treatment were offered structured telephone-based cognitive behavioural psychotherapy (CBT). Overall, individuals in the control group had significantly better mental health outcomes, higher rates of job retention and more hours worked (an additional two weeks) at twelve months compared to those individuals receiving usual care alone. Again, the authors concluded that the financial benefits to employers in terms of recovered hiring, training, and salary costs suggest that many employers would experience a positive return on investment from outreach and enhanced treatment of depressed workers.

Lo Sasso and colleagues (2006) assessed the economic case to employers in the US of investing in enhanced depression care, making use of data from a randomised trial looking at 198 workers employed in a range of positions by different companies. Benefits recorded included self-reported productivity and absenteeism; costs included intervention and treatment costs. Overall there was an average net benefit per worker as a result of investment in enhanced depression treatment of $30 in year 1, increasing to $257 in year 2. Net benefits were higher in those companies that relied more on team working, where the costs of recruitment were high or where there were penalties for output shortfalls.

Rost et al (2004) looked at the impact of a primary care depression management on productivity at work and absenteeism over a two-year period in a randomised controlled study in the US. Individuals were screened for depression in primary care and those meeting criteria received depression treatment from specialist mental health professionals. Again, the intervention was found to significantly improve productivity by 6.1% at an estimated value of $1,439 per full time employee benefiting and tended to improve rates of absenteeism – a

decrease of 10.6 days over 24 months per individual with depression in the intervention group.

Smith et al (2002) examined the impact of an enhanced primary care depression intervention on employment and workplace relationships on 262 employed patients with depression from twelve primary care practices located across ten American states. Compared with those individuals who only received usual care, individuals were significantly more likely to be in employment at one-year follow up (92% vs 82%) and also to have fewer workplace conflicts. The programme was deemed to have economic benefits because it helped avoid the need for employers to recruit new workers, helped ensure that taxes would be collected for individuals still in employment and avoided the need to make welfare payments.

As yet, in Europe no similar cost effectiveness studies appear to have been conducted. One French programme may however provide evidence in the near future. Électricité de France and Gaz de France have implemented the APRAND programme (Action de Prévention des Rechutes des troubles Anxieux et Dépressifs) for their 140,000 employees. The aim is the early identification of anxiety and depressive disorders by company occupational health physicians, as well as by primary care doctors and social workers. Results indicate that, of those workers on long-term sick leave identified as having anxiety or depressive disorders, the cohort that subsequently participated in additional preventative activities had an increased 10% to 20% probability of recovery or remission at twelve months, compared with those who received usual care alone. Work is now planned to determine the impact of this intervention on absenteeism rates and thus economic performance (Godard et al 2006).

Several of the above studies make mention of the role of cognitive beavioural therapy (CBT). Further studies looking at the role of CBT in employees in a European context are needed, although some initial evidence from one study not specifically targeted at individuals in the workplace concluded that computerised CBT would be cost effective, even at low levels of effectiveness gain, because of the positive impact it would have in reducing productivity losses due to absenteeism from work (McCrone et al 2004).

General workplace health promotion programmes

A number of (largely US) studies have evaluated the impact of very broad workplace health promotion programmes on both physical and mental health and the implications for workplace productivity (Pelletier 2005). One recent UK study makes an interesting addition to the literature. Mills et al (2007) used a quasi-experimental design to evaluate the effects of a multi-component health promotion programme delivered over a twelve month period on change in health risk status (including stress and depression) and work performance in 618 office based employees in three units of Unilever PLC. The health promotion programme provided participants with a personalised health and well-being report, which highlighted the personal health areas in need of improvement, and gave practical suggestions as to how to achieve the recommended changes. Intervention group participants were also given unlimited access to a password-protected personalised health, well-being, and lifestyle web portal that included articles, assessments, and interactive online behaviour-change programmes. Participants also received tailored emails every two weeks on personal wellness topics relevant to them, as well as packs of information and seminars on key health topics. Those in the intervention group were found to have significantly reduced health risks, reduced absenteeism, and improved workplace performance. The cost of the intervention to the company was £70 per employee; these costs were more than outweighed by improvements in absenteeism and work performance.

Stress management schemes

In the UK and other parts of Europe there is some literature, mostly from corporate publications and small scale uncontrolled studies, on the economic case for stress management programmes. A recent survey in England by the Chartered Institute of Personnel and Development (2007) found that 42% of employers assert that they are developing schemes to protect mental health, acknowledging that this, in addition to the obvious health benefits, can help improve their companies' economic performance.

For example, evaluation of London Underground's stress-reduction programme for all 13,000 of its employees suggests that there was a reduction in absenteeism costs of €705,000 in its first two years. This is eight times greater than the cost of the scheme. In addition, improved productivity and some positive healthy lifestyle changes were observed (Business in the Community 2005).

Another example from the corporate literature is that of the insurer Royal and Sun Alliance, which introduced a risk assessment and stress management programme in 2000. The evaluation of the programme highlighted significant financial and clinical success with benefits for both the employer and their employees. Results indicated a 3:1 return on investment. Success was also reflected in the reduction of long-term sickness absence levels, and the satisfaction levels of staff and managers. There were also statistically significant reductions in levels of anxiety and depression within the participant group of employees (Tehrani 2004).

An older evaluation took place in a Belgian pharmaceutical company, where high levels of stress related absence were linked to the prevailing economic climate, which fuelled a sense of job insecurity. The company invested in a stress management course for those employees identified as being at risk, while also setting up training for company management on how to recognise the signs of stress. Although this evaluation concluded that gains achieved by the scheme in terms of a reduction in absenteeism were just 1%, the costs avoided by the company from stress-related absenteeism were so substantial that a net gain of €600,000 was still realised (Polemans et al 1999). This is just one of a number of company produced studies that suggest workplace mental health promoting strategies are likely to generate much greater gains than the costs of programme implementation.

Challenges in the economics of workplace health promotion

The work of the MHEEN group suggest that the economic case is encouraging; the profound impacts of poor mental health in terms of absenteeism, reduced performance at work and the costs associated with recruiting new staff are substantial. From the public purse perspective, there are substantial lost opportunities to earn tax revenues, whilst public funds have to be channelled into social welfare payments for those who withdraw from the labour market. All of these costs suggest that interventions with even very modest levels of effectiveness in the workplace have the potential to be cost effective. Caution must though be exercised over the quality of evaluations, particularly if evaluating organisations stand to gain commercially from their use.

Another challenge is that much of the work to date has focused on large, often multi-national corporations. There is also a need to look at the economic case in respect of small and medium sized enterprises; these organisations often do not have the resource to invest in substantial workplace mental health promoting initiatives. The key major limitation, however, is the lack of robust UK and European data. There are clear issues in generalising the results of US based data

to the UK and other contexts. Yet outside the US there has to date been far less resources committed to the rigorous evaluation of workplace based mental health interventions.

Assessing the cost effectiveness of intervention to help people with mental health problems return to work

Data on employment rates for people with mental health problems are limited in most MHEEN countries. In many instances, the breakdown of employment statistics by specific health status is simply not available. However, the situation is beginning to change; recent years have seen a shift to incorporate this information into national statistics and in many countries, information systems have been introduced or revised to include questions on diagnosis. What is clear is that data collated by anxiety and depressive disorders as well as psychoses in the MHEEN countries; indicate that, where available, employment rates for people with severe mental health problems are nearly always lower than those reported by people with severe physical health problems. As reported in a paper published by MHEEN members, exceptions include Denmark and Italy where employment rates are significantly higher than the norm (Kilian and Becker 2007).

Measures taken to help people with severe mental illness to return to work are very different to those taken in relation to people who maintain a link to their former workplace or with the wider labour market. The services and approaches available share much in common with people who have been long-term physically disabled; but there are obstacles that are either specific or more pronounced for people with mental illnesses, including stigma, ignorance, and discrimination. One study in Germany, for instance, reported that there were strong negative responses to people with schizophrenia returning to their place of employment (Schulze and Angermeyer 2003).

Systems that have been set up to try to integrate the long-term disabled into work have evolved over many years and some, in practice, may constitute an alternative, or are parallel to, the open labour market. One difficulty in judging the effectiveness of these systems is that many were not set up with any intention of getting individuals back into the open labour market. Their primary goal was to bring structured activity into individuals' lives as a way of fostering rehabilitation. This makes any attempt to assess their effectiveness difficult to judge, as return to employment is not always their objective, and effectiveness data where available vary substantially. What is clear however is that vocational employment systems, which do not immediately seek to return individuals to employment, help return no more than 10% to 20% of people with all disabilities to open employment. When it comes to people with severe mental illnesses these return to employment rates are often lower. In contrast, interventions which seek to return individuals directly to open employment and then provide support and accommodation to help maintain individuals at work (Individual Placement and Training – IPS) do appear to have some success and potentially may be cost effective (Latimer 2005).

Much of this evidence is from North America and, where evidence is available, it is difficult to generalise any findings on cost effectiveness in comparison to other types of intervention because these are highly context specific; for instance there are many factors which influence participation in supported employment programmes (Ruiz-Quintanilla et al 2005), moreover many analyses in fact focus on individuals with learning disabilities (Tines et al 1990, Wehman et al 2003, McCaughrin et al 1993). One recent study in Canada however, concluded that the success of the IPS model was generalisable to the very different context to be found in Canada (Latimer et al 2006). A six country European Commission supported randomised controlled trial

also found that the IPS approach was much more effective in helping promote the employment of people with mental health problems compared to existing vocational services (Burns et al 2007). The results of the cost effectiveness analysis are due to be published in 2008.

Increasingly, evidence on effectiveness from North America suggests that economic productivity is also enhanced more by supported employment schemes, measured in terms of more hours of work and higher wage rates than those seen by individuals receiving vocational rehabilitation (Crowther et al 2001; Cook et al 2005). Other earlier North American studies have suggested that, at worst, supported employment is cost neutral, in that the costs of running the programme are offset by alternative services such as day care that are no longer provided. In one review of a number of US IPS type programmes, Latimer reported that converting day treatment or other less effective vocational programmes to supported employment can be cost-saving or cost neutral from the hospital, community centre, and government points of view. The costs of introducing supported employment schemes are modest, but these schemes do need to substitute for existing services to ensure that they are at least cost-neutral (Latimer, 2001).

In her review, Schneider (2003) identifies a study by Dixon and colleagues which looks at the cost effectiveness of IPS compared with enhanced vocational rehabilitation – no difference could be determined in terms of earning power of participants although it was believed that it is statistically highly likely that IPS both costs more and produces more competitive employment (Dixon et al 2002).

Other analyses suggest that the costs of IPS interventions may outweigh the gains in terms of benefit payments avoided, and income tax payments as for instance shown in one Australian study (Chalamat et al 2005). In the UK one variant on the supported employment model aims to work with willing employers to help find open employment jobs. Data from this uncontrolled small-scale programme in London contrasts with that in the Australian study in that it has helped individuals gain and retain employment, initially with jobs within a local Hospital Trust. Perkins et al (2002) estimated a net gain of £1900 per person participating in the programme, through a reduction in benefits paid and taxes collected.

It is important however to consider broader measures of outcome, as well as narrow measures such as rate of return to employment. In comparison to other interventions, higher rates of employment can be associated with other benefits such as reduced need for health care services, increased levels of social inclusion and improved quality of life. For instance, there is some evidence that while the majority of individuals may still move in and out of employment after receiving supported employment, their use of health and other support services may be reduced considerably during times of employment. One 11-year US evaluation followed 3,000 employment service clients for 48 months, reporting that overall costs were reduced because the use of health services was much lower during periods of stable employment (Perkins et al 2005).

Legislative and policy actions

The MHEEN group also looked at the existence of legislation and policies that have been in place that might tackle discrimination in the labour market. For the most part, available legislative measures address mental health as a part of disability issues generally, rather than referring to specific legislation for people with mental health problems. These policies and legislative measures cover a number of specific themes, for example many countries have

Table 5: Initiatives to help promote return to work in selected EEA countries

Country	Initiative
UK	The Department of Work and Pension's Pathways to Work Programme, provides support for people with mental health problems to find and retain jobs in the open labour market
Ireland	Localised initiatives including the PINEL Programme which offers a 20 week training course for people with mental health problems in Dublin to help access employment
Sweden	Social Insurance Agency will provide a rehabilitation programme for anyone receiving sick pay for sixty continuous days. The programme aims to stimulate people to return to work as soon as possible
Poland	Adaptation of a law allowing the an individual with mental or physical health problems the ability to work on the open market and to participate in various forms of rehabilitation. It further obligates that local governments organise professional training and provide sheltered workshops
Norway	New national strategic plan for mental health and employment covering the period 2007–2012 has strengthened the focus on employment. The aim is to prevent people with mental health problems from being expelled from employment and to reduce barriers to employment.

policies on employment quotas, directing the number of people with a severe disability that should be employed by companies over a certain size (they do not specify the type of disability – so those with mental health problems are often excluded).

There are also anti-discrimination laws and closely related laws to promote inclusion rather than prevent discrimination. In some countries, Germany and Portugal for example, some employers receive a tax rebate if they employ an individual with a disability. In other countries, grants are available to adapt workplaces to make them more amenable to people with disabilities. Governments may also finance sheltered employment: in Bulgaria, the Ministry of Labour and Social Affairs provides economic incentives to firms owned by people with disabilities. Elsewhere, services that originally provided sheltered employment are being transformed into services to help support reintegration into open employment. One such example is the publicly funded company Remploy in the UK, which is gradually downsizing its own in-house businesses and aims to find 20,000 jobs for disabled people in mainstream employment every year by 2012. It also operates a Return to Work business, which advises employers on how to retain staff with disabilities or illness. By the end of 2008, it will have opened twenty high street recruitment branches providing a range of recruitment, advice, and development services to prepare people with disabilities for jobs in mainstream employment.

The existence of active return to work policies across Europe is increasing (See examples in Table 5). These combine a range of regulatory measures and economic incentives for individuals and employers. Measures to promote mental health in the working place have also been

introduced. At a European level, a Framework Agreement on Stress in the workplace was signed by the European Social Partners in 2004 (Monks et al 2004). Its principle objective was to increase awareness among employers and employees of the signs of work related stress and to provide guidance on how to combat the issue. Early indications suggest that significant progress in introducing measures and legislation has been achieved in several EU countries, including the Czech Republic where the Agreement was put into law under the 2006 Labour Code, while in some other countries existing legislation already covers the areas set out in the Agreement (European Trade Union Confederation 2007). For instance, in Norway the Working Environment Act regulates employer's obligations and responsibilities in terms of the working environment. The act has several implications with respect to how the working environment should be adjusted to minimize the probability for work related stress, sufferings and conflicts, and how leadership should be performed in that respect.

Another sign of the growing attention placed on mental health in the workplace has been the inclusion within the WHO Action Plan on Mental Health for Europe for work towards the creation of "healthy workplaces by introducing measures such as exercise, changes to work patterns, sensible hours and healthy management styles" and the inclusion of "mental health in programmes dealing with occupational health and safety" (World Health Organization, 2005).

The way forward

A number of observations can made in terms of further reducing the risks of poor mental health in the workplace and helping the reintegration of people with mental health problems into the labour force. The case for increased investment in mental health is compelling: the potential positive benefits to the economy far outweigh investment in effective health, social and labour market policies, yet mental health has generally remained a low priority for governments across Europe, as illustrated by the small number of countries spending more than 10% of their health budgets on mental health (McDaid, Knapp et al 2008).

We have indicated that effective cost interventions to help integrate or reintegrate people with mental health problems into the workplace and the labour force that available. The use of incentives both to help encourage those who can work return to work and employers to become more active in their recruitment policies 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. The social welfare and disability benefits intended to act as a safety net may in fact operate as perverse incentives for individuals to leave employment or remain economically inactive. However, the majority of people with mental health problems in surveys state that they would like to work. Reform of disability benefits alone is unlikely to be sufficient to promote change. There is a need for a package of measures, including enforcement of anti-discrimination legislation, vocational rehabilitation services, availability of support and adaptations in the workplace, flexible working arrangements and disability awareness training for the rest of the workforce (Anderson et al 2007).

Much action, of course, needs to take place at workplace level. The public sector, as a major employer in many European countries, is in a key position to be a driving force here, implementing innovative actions, and evaluating their effect. Public agencies should address factors contributing to poor mental health in the workplace and implement policies to encourage reintegration. We have highlighted the important role that some major companies across Europe are already playing in promoting well-being at work; the potential to replicate such models, where proven to be effective, is high. It may be in the interests of governments to

work in partnership with the private sector, as both can benefit from improved mental well-being in the workplace. Improved coordination between those working in the public health field and those working in occupational safety and health can be strengthened. Potentially legislation and action programmes to ensure that mental health is included within occupational safety and health might be enacted.

More can also be done to further strengthen the evidence base on the cost effectiveness of both workplace mental health promotion and return to work interventions. As we have illustrated, the evidence based is growing, but there may well be substantial scope for economic benefits such as increased productivity and reduced need to pay disability benefits through investment in the workplace. A major limitation of the evidence base to date is that much data comes from the US where the context is very different. Further comparative in-depth analysis of the impact of disability benefits on the willingness to return to work would be welcome. In some countries, this has entailed welfare benefits reform to reduce incentives to remain unemployed, (Teague 1999) with some impact on those claiming disability benefits (Jarvisalo et al 2005). Some countries have announced reforms of disability benefit systems so as to target them more effectively at those for whom employment may not be appropriate or possible. An example is the ongoing attempt in England to reform access to disability benefits and usher individuals towards vocational rehabilitation (Henderson et al 2005). Similarly, the role of employer or private insurance-related disability benefits should be investigated, including their impacts on the employment of people with mental health problems, for instance via the provision of counselling and support not funded by health and social welfare systems.

Mental health, perhaps more than any other health area is subject to discrimination and stigma, thus it is also vital to examine the effectiveness of legislation and human rights instruments in facilitating the participation of individuals in the labour force. Again little information is currently available on the success of legislation, which not only can protect fundamental human dignity but also potentially have significant economic benefits; however, appropriate evaluation is needed to test this.

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About MHEEN

The Mental Health Economics European Network (MHEEN I) was established in 2002 with 17 and extended in 2004 to 32 countries. The Network is coordinated by the PSSRU at the London School of Economics and Political Science and Mental Health Europe, based in Brussels, and supported with funding from the European Commission. For further information about the Network visit the MHEEN website at www.mheen.org.

The Group comprises the following partners: Martin Knapp, David McDaid, Helena Medeiros (London School of Economics, United Kingdom); Mary Van Dievel, John Henderson, Mari Fresu (Mental Health Europe, Brussels); Ingrid Zechmeister (Austria); Ronny Bruffaerts (Belgium); Hristo Dimitrov (Bulgaria); Anna Anastasiou (Cyprus); Petr Hava (Czech Republic); Taavi Lai (Estonia); Pekka Rissanen (Finland); Jean-Pierre Lépine (France); Reinhold Kilian (Germany); Athanassios Constantopoulos (Greece); Judit Simon (Hungary); Kristinn Tómasson (Iceland); Brendan Kennelly, Eamon O'Shea (Ireland); Francesco Amaddeo (Italy); Liubove Murauskiene (Lithuania); Kasia Jurczak (Luxembourg); Ray Xerry (Malta); Silvia Evers (Netherlands); Vidar Halsteinli, Solveig Ose (Norway); Katarzyna Prot-Klinger (Poland); Mónica Oliveira (Portugal); Raluca Nica (Romania); Pětr Nawka (Slovakia); Mojca Dernovsek (Slovenia); Luis Salvador-Carulla (Spain); Jenny Berg, Linus Jonnson (Sweden); Matthias Jaeger (Switzerland); Mehtap Tatar (Turkey); Sonia Johnson, Giuseppi Tibaldi, Tomasz Adamowski, Luis Salvador-Carulla, Torleif Ruud, Thomas Kallert, Petr Nawka (ESMS - European Service Mapping Schedule Network); Karl Kuhn (ENWHP – European Network for Workplace Health Promotion); Eva Jané-Llopis (IMHPA – Implementing Mental Health Promotion Action); Heinz Katschnig, Graham Meadows, Julien Mouques (Expert Advisers).