

# WHAT'S IT WORTH?

The Social and Economic Costs  
of Mental Health Problems  
in Scotland



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## SAMH Purpose, Vision, Values and Mission

### OUR CORE PURPOSE

SAMH is dedicated to mental health and well-being for all.

### OUR VISION

Our vision is of a society where people are able to live their lives fully regardless of present or past circumstances.

### OUR CORE VALUES

Our values underpin everything we do. We believe that everyone has the right to be treated with dignity, respect and equality. We believe that everyone is entitled to hope and choice and to achieve personal fulfilment.

### OUR MISSION

SAMH will lead by example. SAMH will be innovative, purposeful and challenging in all that it does. SAMH will campaign for rights and rights-based services, challenge stigma and discrimination and promote inclusion. SAMH will work to raise the aspirations and expectations of people who use services, people who deliver services and society as a whole.

SAMH will promote mental health and well-being within community and corporate life.

SAMH (Scottish Association for Mental Health) is the leading voluntary sector organisation in its field in Scotland, providing supported accommodation and support at home, training, employment, structured day services and crisis support for people who experience mental health and related problems, homelessness, addictions and other forms of social exclusion. Meaningful involvement of those who use our services and a recovery ethos underpin all our work

SAMH campaigns on a range of mental health issues to influence policy and improve care services in Scotland, whilst working to challenge the stigma and discrimination experienced by people who live with mental health problems and other forms of social exclusion. In addition, we operate an information service, offering general mental health information and specialist legal and benefits advice.

Visit our website for further information on our work: [www.samh.org.uk](http://www.samh.org.uk)

## Foreword

**M**ental health problems impact on almost everyone in Scotland. If you don't experience problems with your own mental health, then you will very likely know someone who experiences problems with theirs. As the World Health Organisation has stated, 'there is no health without mental health'.

The Scottish Executive has recognised the importance of mental health and well-being for the nation. It has designated mental health as one of three national clinical priorities; invested significantly in health and social care; and introduced a range of policy initiatives and legislative drivers. Yet there is still a very long way to go.

Expectations surrounding people with mental health problems in Scotland are still worryingly low. Assumptions are routinely made about the negative long-term impact of mental health problems on people's ability to work; to lead fulfilling lives; and to sustain relationships. A culture has developed both in mental health services and in society, which has fostered a maintenance approach to mental health problems, rather than expecting and supporting recovery. Good practice does exist, but it is patchy and inconsistent. Myths, stigma and discrimination still surround mental health problems.

SAMH believes that the situation described in this report is more a consequence of negative and outdated attitudes and behaviours than an inevitable consequence of mental health problems themselves. We commissioned this report to highlight the scale of the challenge.

Most people will be aware that NHSScotland, local authorities, and the voluntary and community sectors provide a range of services for people with mental health problems. However, very few people will have any idea what the total cost of these services is, and there is even less awareness of the wider costs related to mental health problems. These wider costs include absence from work and monies paid in welfare benefits, as well as the human costs, such as the impact on people's lives and relationships and, of course, suicide.

SAMH therefore commissioned the Sainsbury Centre for Mental Health (SCMH) to produce an analysis of these costs.

The social and economic cost of mental health problems in Scotland amounts to a staggering £8.6 billion – this equates to 9 percent of Scotland's Gross Domestic Product. It is perhaps surprising that investment in health and social care amounts to just £1.5 billion, or just under 17.5 percent of the total costs. SAMH believes that the most compelling finding is that the biggest percentage of overall costs (55 percent) is

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attributable to the human costs of mental health problems. When compared to similar studies in England and Northern Ireland, the findings are broadly consistent.

The costs of mental health problems can be interpreted as a measure of the potential benefits to be derived from prevention and more effective intervention - a cost saved or averted is a benefit gained. What's It Worth shows that the potential benefits of improved outcomes, increased recovery rates and reduced prevalence or severity of mental health problems are also extremely high.

We believe that these findings add considerable impetus to the push for meaningful change within the mental health system and beyond. They reinforce the need for mental health promotion and prevention work to continue with added vigour, and for the barriers to mental health and well-being to be systematically dismantled.

We hope that this paper will lead to recognition of the central importance of mental health and well-being, and that it will stimulate debate and action that will help us to achieve a mentally healthy Scotland. SAMH looks forward to adding our voice to that debate. We have already identified a number of key priority areas and these are outlined in our Agenda for Action, which is being published alongside this report.

The best way to reduce these costs is to build the resilience of all citizens and create an accepting, respecting society where people who have a mental health problem can recover not only the meaning in their lives, but also their ability to make a meaningful contribution to society. A Scottish Executive truly committed to creating a smart, successful Scotland, in which all its citizens are included, cannot afford to ignore these findings.

**Shona Neil**  
Chief Executive

## The Social And Economic Costs Of Mental Health Problems In Scotland

**M**ental health problems result in substantial costs, which are borne both by individuals and their families and by the wider community. Prevalence of mental health problems is very high – one person in four will experience a mental health problem in the course of a year<sup>1</sup>. Coupled with additional factors, such as stigma and discrimination, they can have widespread repercussions, with adverse effects on many areas of people's lives including educational performance, employment, income, personal relationships and social participation. No other health problem matches mental health problems in the combined extent of prevalence, persistence and breadth of impact.

Costs associated with mental health problems take various forms and can be analysed in various ways. This report attempts to identify and quantify all the main costs of mental health problems in Scotland and then to combine these to give a total cost expressed as a monetary value. Cost is defined broadly to include any adverse effect of mental health problems, wherever it falls and whether or not it is conventionally measured in monetary terms.

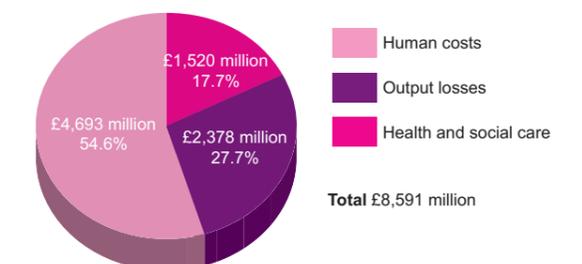
Using this approach, costs can be grouped together under three main headings:

1. The costs of **health and social care** for people with mental health problems,

including services paid for by the NHS and local authorities and also the informal care provided by family and friends;

2. The costs of **output losses** in the Scottish economy that result from the adverse effects of mental health problems on people's ability to work; and
3. A monetary estimate of the less tangible but crucially important **human costs** of mental health problems, representing their impact on the quality of life.

Broad estimates of costs in Scotland for 2004/05 under these three headings are as follows:



Placing the total of £8.6 billion in context, it is equivalent in monetary value to about 9 percent of Scotland's Gross Domestic Product (GDP) and is also more than the total amount spent in Scotland by the NHS on all health conditions combined, which was £7.7 billion in 2004/05<sup>2</sup>.

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## Rationale and Methodology

**A**s already noted, the term 'cost' in this paper should be interpreted in the broadest sense to include any adverse effect of mental health problems, whether affecting individuals or society more generally. Cost defined in this way does not necessarily indicate an amount of money that is actually spent. Some of the costs described below do refer to cash outlays, but others need to be interpreted as quantitative measures of welfare or well-being to which a monetary value has been attached.<sup>3</sup>

Figures for the total impact of mental health problems on people's welfare have a number of potential uses:

### Highlighting the scale of the issue

An estimate of the aggregate costs of mental health problems gives some measure of their importance as a matter of public concern. More awareness of the overall impact of mental health problems among policy makers, and in the population more widely, can help to promote better-informed debate on matters of public policy and more understanding attitudes towards people who have experience of mental health problems.

### Assessing the benefits of action to tackle it

The figures provide a broad measure of the potential benefits to be achieved through prevention and more effective intervention in terms of improved outcomes, increased recovery rates, and reduced prevalence or severity of mental health problems. Specific interventions aimed at improving mental health must be justified in their own right in terms of efficiency and effectiveness, but the evidence this study provides gives some indication of the scale of the potential benefits.

### Informing health and social care spending decisions

Estimates of the costs of mental health problems to Scotland can help to inform debate and decision-making about priorities and the use of resources within the NHS and social services, particularly when combined with comparable data on other causes of health problems. Similarly the figures can contribute to decisions on priorities for research and development.

### Showing the distribution of costs

The figures on the costs of mental health problems also give a picture of how the economic and social impacts are distributed across different groups in the population. This information may help to steer priorities for allocation within the total of public spending to prevent and treat mental health problems, whether this relates to spending on health, social and other relevant services, or on research.

In all of these cases, figures for the total cost of mental health problems provide a relevant context and background for further analysis and discussion.<sup>4</sup>

As far as methodology is concerned, this paper applies and adapts the methods of analysis used in a recent study of the economic and social costs of mental health problems in England, published by SCM<sup>5</sup>. These methods have also been used in a study of the costs of mental health problems in Northern Ireland, produced jointly by SCM and the Northern Ireland Association for Mental Health<sup>6,7</sup>.

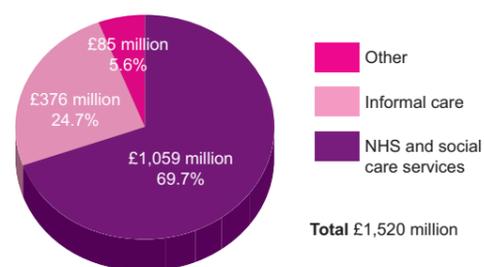
The remaining sections of this paper describe the cost estimates for Scotland in detail, following the classification of cost components used in the introduction. All figures relate to the financial year 2004/05: the most recent year for which full information is currently available.

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## 1. The Costs Of Health And Social Care

The estimated costs of health and social care for people with mental health problems in Scotland in 2004/05 are given below. As can be seen, the main elements are public spending on mental health services and the attributed costs of informal care.

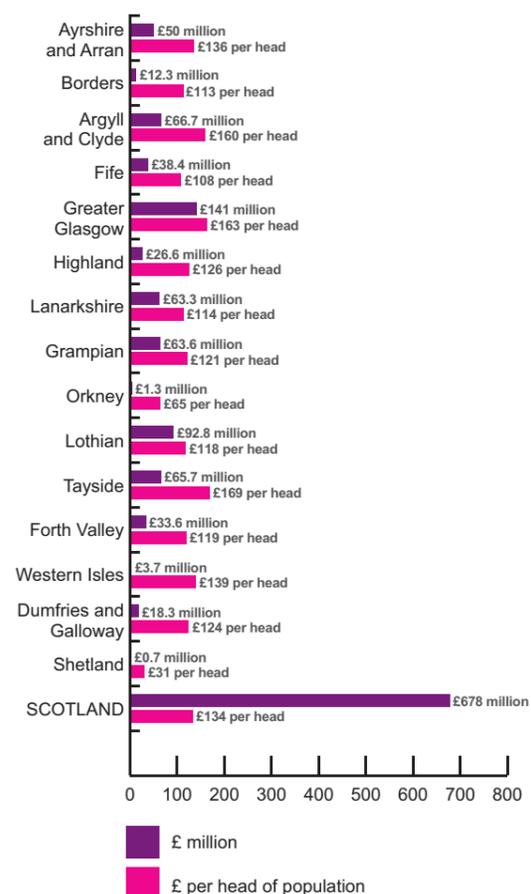


Further detail on these components of expenditure is as follows:

### 1. NHS and Social Care Services

Within the total of £1,059 million for public spending on mental health care, the largest single element is the cost of specialist or secondary mental health services provided by NHS Health Boards (psychiatric inpatient services, outpatient and day care services, community psychiatric teams, etc).

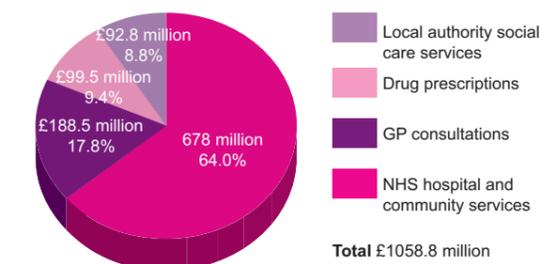
The following table details this spend by individual Health Boards:



As can be seen, expenditure on these services in 2004/05 was £678 million (including £61.7 million on resource transfers for people moving from hospital to local authority care)<sup>8</sup> The other components are:

- **£188.5 million for the cost of GP consultations, based on evidence that around 30 percent of all consultations with family doctors are associated with mental health problems<sup>9</sup>;**
- **£99.5 million for the cost of drug prescriptions, broken down between £88.9 million for ingredient costs and £10.6 million for dispensing costs; ingredient costs include £58.7 million on antidepressants and £24.0 million on anti-psychotics<sup>10</sup>; and**
- **£92.8 million for the cost of mental health services paid for by local authorities, including £20 million funded by the Mental Illness Specific Grant allocated by the Scottish Executive Health Department<sup>11</sup>.**

### The Costs of NHS and Local Authority Care in Scotland, 2004/2005



The figure of £1,059 million for NHS and social care services expenditure on mental health care compares with an overall aggregate of £9,579 million for NHS and social care services spending in Scotland in 2004/05 on all health conditions combined<sup>12</sup>, which equates to 11.1 percent of the total. This is very much in line with the corresponding figure for England of 11.8 percent (2002/03) as calculated by SCMh, particularly taking into account the evidence from surveys of psychiatric morbidity carried out by the Office for National Statistics (ONS) that the overall prevalence of mental health problems is slightly lower in Scotland than south of the border<sup>13</sup>.

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## 2. Informal Care<sup>14</sup>

The estimate of £376 million for informal care relating to mental health problems in Scotland, is based on recent Office for National Statistics work and takes into account population size, relative pay rates and survey data on the prevalence of mental health problems, and on the overall extent of caring in Scotland compared with the rest of the country<sup>15</sup>.

## 3. Other Costs

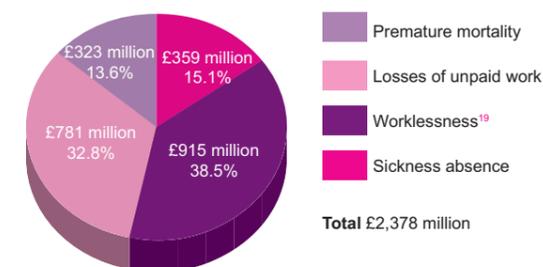
Other costs of care include:

- **Private spending on mental health services (by individuals and charitable and voluntary organisations);**
- **The costs of accommodation for people who are homeless and who have mental health problems;**
- **The costs of administration for social security benefits paid to those unable to work or in need of care because of mental health problems<sup>16</sup>.**

It should be noted that, while including the costs of administering social security benefits, the total (£1,520 million) excludes the much larger cash cost of the benefits themselves<sup>17</sup>. It is estimated that the value of cash benefits paid to people in Scotland with mental health problems amounted to around £1.1 billion in 2004/05<sup>18</sup>. The total (£1,520 million) also excludes the costs associated with people with mental health problems within the criminal justice system, specialist addiction services, and people whose physical health problems or disability impacts on their mental health but whose mental health problem is undetected.

## 2. The Costs Of Output Losses

**M**ental health problems have a variety of adverse effects on employment and output. The costs to the Scottish economy are shown below:



### 1. Sickness Absence

Taken together, stress, anxiety and depression constitute the single most important cause of sickness absence from paid employment in the UK, accounting for around 60 million lost working days each year. The cost to the national economy is over £4.5 billion a year<sup>20</sup>. In a typical year, about 30 times as many working days are lost from sickness absence because of mental health problems as from industrial disputes.

Scotland's share of the national output loss was nearly £360 million in 2004/05. This takes into account the size of the working population, the prevalence of mental health problems and average wages in Scotland relative to those in the rest of the country.

### 2. Worklessness

Within this section economic inactivity is particularly important. There are now around 2.8 million people on Incapacity Benefit in the UK, of whom 35 percent - 1 million people – cite mental health problems as the main reason for their claim. This is more than the total number of unemployed people on Jobseeker's Allowance.

The higher average rate of worklessness among people with mental health problems is equivalent to nearly 500,000 person-years of lost employment in the UK. On the basis of average earnings in 2004/05, this represented a loss to the economy of over £12 billion<sup>21</sup>. The cost in Scotland is estimated at £915 million, taking into account size of workforce, prevalence of mental health problems and the level of earnings in Scotland relative to the UK average.

### 3. Unpaid Work

Mental health problems can reduce the capacity of individuals to undertake unpaid work as well as paid work. As noted above, with reference to informal care, such activity is not included in national income as conventionally measured, but is nevertheless an economic benefit and any loss of such output should therefore be counted as a cost. Drawing on the ONS accounts for unpaid household activity and on prevalence data, an estimate of £781 million for losses of

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unpaid work attributable to mental health problems in Scotland in 2004/05 is also included.

## 4. Premature Mortality

Suicide is a serious issue in Scotland. There were 835 suicides in Scotland in 2004<sup>22</sup>, nearly twice as many as in England relative to population size<sup>23</sup>. Suicide rates are particularly high among men in the younger age groups. Whilst the primary impact of suicide is clearly in terms of the human loss and the impact of bereavement on others, there is inevitably also a financial cost.

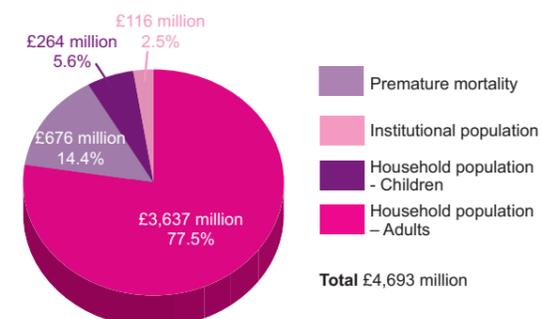
Taking into account the overall reduction in expected years of working life and average earnings, the cost of lost output that is attributable to premature mortality associated with mental health problems is valued at £323 million in Scotland for 2004/05.

## 3. Human Costs

**A**s just described, mental health problems can reduce the capacity of those affected to work and it is clear that this negative impact on the output of the Scottish economy is a genuine cost. On the other hand, in assessing the overall impact of mental health problems, it is also clear that this so-called “human capital” approach tells only part of the story.

Undoubtedly, the most important and compelling costs of mental health problems are the less tangible ones of suffering, distress and disability. The approach taken in this study is to attempt to place a monetary valuation on these reductions in the quality of life caused by mental health problems.<sup>24</sup>

Broad estimates of the human costs of mental health problems in Scotland are:



While subject to a considerable margin of error, the estimated total is nevertheless of interest. It suggests that the human costs of mental health problems are more than four times the costs of all mental health services in Scotland provided by the NHS and local authorities.

### 1. Household Population

A detailed account of the methodology used for quantifying and valuing human costs is given in the SCMH paper on the costs of mental health problems in England [see Note 5]. In brief, two main steps are involved:

- **Using survey evidence on a general measure of health status (the Quality-Adjusted Life Year or QALY) to quantify the adverse effects of mental health problems on the quality of life in the population each year. This results in an estimate of the total number of QALYs lost annually as a result of mental health problems; and**
- **Deriving an estimate of the monetary value of a QALY and using this to convert the estimated number of QALYs lost each year to a monetary equivalent.<sup>25</sup>**

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The overall result of these calculations is an estimate of £3,637 million for the human cost of mental health problems among all adults living in private households in Scotland. A similar computation for children, again using ONS survey evidence on prevalence<sup>26</sup>, yields a further cost of £264 million.

## 2. Institutional Population

The above estimates are based on data from household surveys and so do not include those members of the population living in institutional care. The main additional groups to be covered are people who are in institutions specifically because of mental health problems, i.e. patients in psychiatric hospitals and residential homes, and also people in prisons, where the incidence of mental health problems is known to be particularly high<sup>27</sup>. The costs shown are based on numbers of individuals in the relevant sub-groups, together with QALY-related information that is available for matching sub-groups in England<sup>28</sup>, giving a total cost of £116 million.

## 3. Premature Mortality

The human costs of mental health problems, as calculated above, are those associated with morbidity or reduced quality of life in the living population, but allowance should also be made for the human costs of the premature mortality that results from suicides attributable to mental health problems.

The cost estimate of £676 million is based on the number of suicides in Scotland as reported on page 14 and a cost per case which – again for equity reasons – is the same as used in the SCMH paper on the costs of mental health problems in England<sup>29</sup>.

## The Costs Of Mental Health Problems In Context

**The estimate of £8.6 billion for the aggregate cost of mental health problems in Scotland in 2004/05 must be set in context. It is a very large figure and, for example, is equivalent in monetary value to 8.9 percent of Scotland's GDP. This comparison should be treated with caution, as the figure for mental health problems includes a number of cost elements which are not reflected in national income as conventionally measured.**

The total of £8.6 billion is also more than the amount spent in Scotland by the NHS on all health conditions combined, which was £7.7 billion in 2004/05.

A recent study using fully comparable methods of calculation has found that in England the costs of mental health problems are greater than the total costs of crime<sup>30</sup> and it is likely that this applies in Scotland, although further research would be needed to establish the point.

### Comparisons between Scotland and England

The figure of £8.6 billion for the aggregate cost of mental health problems in Scotland in 2004/05 is equivalent to a cost of £1,690 per head of population. The corresponding figure in England is £1,720, a difference of

less than 2 percent<sup>31</sup>. This mainly reflects a small difference in the overall prevalence of mental health problems between the two countries, as recorded in ONS surveys of the prevalence of mental health problems.

An alternative comparison is to look at the costs of mental health problems relative to the size of national income in the two countries. As noted above, the costs of mental health problems in Scotland as estimated in this study are equivalent in monetary value to 8.9 percent of GDP. The corresponding figure in England is 8.5 percent. In relation to the size of the economy, therefore, the impact of mental health problems is slightly larger in Scotland than in England. This reverses the order when the comparison is based on costs per head of population, reflecting the fact that GDP per head is about 6 percent lower in Scotland. It is nevertheless clear that, whichever comparison is used, any difference in the relative scale of mental health costs between Scotland and England is very minor.

### Comparisons between Mental Health Problems and Other Health Conditions

Comparative information on the monetary costs of other major health conditions, calculated on the same basis as described

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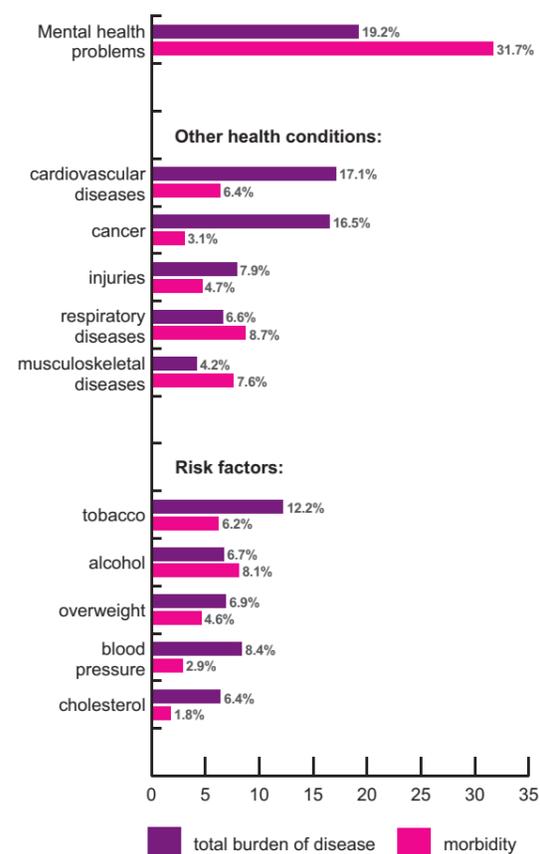
above for mental health problems, is unfortunately not available, whether for Scotland or England or the UK as a whole. Reference may be made instead to work by the World Health Organisation (WHO) on the cost or burden of disease<sup>32</sup> using a composite non-monetary measure, the disability-adjusted life year or DALY, which combines morbidity and premature mortality in a single figure<sup>33</sup>.

Estimates prepared by the WHO for Western European countries, including the UK, show that mental health problems now account for more DALYs lost per year than any other health condition. Thus the figures for 2002 indicate that 19.2 percent of the total loss of DALYs in these countries was attributable to mental health problems (including suicide), compared with 17.1 percent for cardiovascular disease and 16.5 percent for cancer<sup>34</sup>.

The WHO work also includes an analysis of the overall burden of disease by major risk factor. This shows, for example, that in the Western European countries as a whole 12.2 percent of total DALYs lost per year are associated with smoking, 6.7 percent with alcohol misuse, 6.4 percent with raised cholesterol and 6.9 percent with obesity. According to these figures, the costs of mental health problems are greater than the costs of smoking and drinking combined, and also nearly three times greater than the costs of obesity, which is now seen as

a major public health problem. (Again it should be stressed that these figures are broad averages across all Western European countries.)

## Mental Health Problems Compared with other Health Conditions, Western European Countries, 2002



Of the total cost of ill-health in Western Europe, just under half is attributable to premature mortality and just over half to non-fatal outcomes. Mental health problems, including suicide, account for less than 5 percent of all premature mortality but for over 30 percent of all morbidity and disability. No other single health condition accounts for more than 10 percent of the total burden associated with non-fatal outcomes.

The huge cost of mental health problems as a cause of morbidity and disability is confirmed by other statistics. For example:

- **Around 30 percent of all GP consultations in Scotland are associated with mental health problems (and a similar proportion applies in other parts of the UK);**
- **One third of all sick leave among people in paid employment in the UK is because of stress, anxiety and depression;**
- **About 35 percent of all people on Incapacity Benefit are receiving this benefit because of mental health problems.**

All these statistics appear to be telling a consistent story: that mental health problems currently account for around a third of all morbidity and disability in the living population.

A final observation on the costs of poor mental and physical health is that, looking ahead, the share of mental health problems in the overall total is likely to increase. This is not so much because of any clear evidence that the prevalence of mental health problems is increasing, but rather because the burden imposed by the two other leading health conditions (cardiovascular disease and cancer) is declining.

This reflects falling death rates from these conditions associated with advances in medical treatment and past falls in the prevalence of smoking. The relative size of the burden associated with mental health problems is therefore likely to increase even if the numbers of people affected remain broadly unchanged. On any reasonable assessment of priorities, this should lead to a rising share for mental health in NHS and social care service budgets, to provide care, treatment and support services and preventative work.

## Conclusions: The Social And Economic Case For Investing In Mental Health

**Whether measured in absolute or relative terms, the very substantial scale of costs currently associated with mental health problems should be readily apparent from the previous analysis. For the most part these costs fall directly on individuals and their families, in the form of reduced quality of life and lower incomes. However, it is also clear that mental health problems have a substantial impact on the wider community, in terms of social and economic costs and the consequences of social exclusion. SAMH believes these facts reinforce the case for action and highlight the fact that better mental health must be everybody's business.**

The wider costs of mental health problems take various forms and include the following:

- **Opportunity costs:** calculations given previously show that the costs of health and social care provided for people with mental health problems amounted to around £1.5 billion in Scotland in 2004/05. If mental health problems were meaningfully prevented and addressed in the future, some of these resources could be used for other purposes, whether in the NHS and social services or elsewhere in the economy.

- **Costs to taxpayers:** most of the costs of health and social care take the form of public spending by the NHS and local authorities and this has to be financed. An alternative way of representing these costs is therefore as a cost to taxpayers. As noted earlier, the value of social security benefits paid to people with mental health problems is also a cost falling on taxpayers. In addition, mental health problems have a variety of adverse effects on employment, and hence earnings, and some of the gross earnings that are lost as a result of mental health problems would have been subject to tax. For any given level of total public spending, other taxpayers must make up this loss of revenue. A rough calculation suggests that taken together these effects imply a total cost to taxpayers of around £2.6 billion in 2004/05.

- **Costs to business:** the adverse impact of mental health problems on companies also takes various forms. Firstly, sickness absence because of mental health problems involved a cost of over £350 million to Scotland's employers in 2004/05. Secondly, there is a further cost, not quantified here because of lack of data but almost certainly substantial, arising from the fact that mental health problems in the workforce reduce productivity in a range of ways other than sickness absence (impaired performance at work, shorter

productive hours, etc). Thirdly, mental health problems cause large numbers of individuals to drop out of the labour market, so reducing the size of the available workforce and putting upward pressure on wages. And fourthly, the adverse impact of mental health problems on income from employment implies lower consumer spending in the Scottish economy and hence reduced demand for the goods and services produced by local businesses. This loss of paid work due to mental health problems amounted to around £1.6 billion in 2004/05 and, while not all of this would have been spent locally, the cost to companies in Scotland in terms of lost business was undoubtedly substantial.

The wider social and economic costs of mental health problems are almost certainly much larger than the corresponding costs of any other health condition. This is not only because of high rates of prevalence but also because mental health problems are particularly concentrated in the population of working age; for example, the ONS survey of the prevalence of mental health problems among adults conducted in 2000, shows that they are almost three times as high among people in their 20's as among those in their 70's<sup>35</sup>.

The majority of serious mental health problems begin early in life. Evidence suggests that half of all cases of long-term mental health problems begin by age 14, and three-quarters by the age of 24<sup>36</sup>. Unlike heart disease or most cancers, mental health problems cause disability in the prime of life, when those affected would normally be at their most productive. It is this particular association with age, so untypical of poor health generally, that drives up the wider costs of mental health problems and further strengthens the case for action to improve mental health and well-being.

A quantified example of such preventative action is Choose Life. Reference was made earlier to the high suicide rate in Scotland (nearly double the rate in England). In response to this problem, the Scottish Executive launched its Choose Life strategy in December 2002, which is a 10-year action plan aimed at reducing suicides by 20 percent by 2013<sup>37</sup>. It can be calculated from the cost estimates given here that the benefits of meeting this target have a monetary value of around £220 million a year. Benefits on this scale are likely to justify substantial investment in interventions aimed at delivering the target.

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## Notes

<sup>1</sup> Bird L. (1999) *The Fundamental Facts*, The Mental Health Foundation, London

<sup>2</sup> Total NHS spending in Scotland is given in Table 3.5 of HM Treasury (2006) *Public Expenditure Statistical Analyses 2006 Cm 6811*.

<sup>3</sup> Perhaps the best way of interpreting the figures is as a valuation of how much better off people would be if there were no mental health problems. This includes being better off in terms of income, but also – and more importantly – better off in terms of reduced suffering and distress and in related dimensions such as a reduced risk of premature death or suicide. All of these contribute to improved well-being and are in principle amenable to monetary valuation. The costs of mental health problems therefore correspond to a measure of the benefits to be secured if mental health problems were eliminated.

<sup>4</sup> A possible criticism is that it is not possible or desirable to evaluate all the costs of mental health problems in monetary terms. However, few policy decisions are made on ethical grounds alone and most, including those about public spending on mental health, have to be weighed against many other desirable ends, from general health care to crime prevention, national defence, public transport or protection of the environment. Trade-offs are inevitably made between the costs of extra spending and the social benefits the spending can bring. Deriving monetary values for these benefits, where it is feasible to do so, can lead to more transparent decision-making and better policy priorities.

<sup>5</sup> The Sainsbury Centre for Mental Health (2003) *The Economic and Social Costs of Mental Illness Policy Paper 3*.

<sup>6</sup> The Northern Ireland Association for Mental Health in collaboration with The Sainsbury Centre for Mental Health (2004) *Counting the Cost: the Economic and Social Costs of Mental Illness in Northern Ireland*.

<sup>7</sup> Some information on methodology is given in the description of individual cost items in this paper, but readers interested in a fuller account on methodology are referred to the SCMH paper on the costs of mental health problems in England – see Note 5.

<sup>8</sup> See Table R240 in ISD Scotland (2006) *Scottish Health Service Costs (Costs 2005)*, available at: [http://www.isdscotland.org/isd/info3.jsp?pContentID=360&p\\_applic=CCC&p\\_service=Content.show&](http://www.isdscotland.org/isd/info3.jsp?pContentID=360&p_applic=CCC&p_service=Content.show&).

<sup>9</sup> The estimate of 30 percent is quoted in Chapter 2 of Scottish Executive (2003) *Health in Scotland: Report of the Chief Medical Officer* and is applied to total spending on Primary Medical Services of £628.4 million in 2004/05, as given in Table R290 of the ISD publication referenced in Note 8.

<sup>10</sup> All figures derived from statistics in the section of the ISD Scotland website dealing with prescribing and dispensing, available at [http://www.isdscotland.org/isd/info3.jsp?pContentID=1038&p\\_applic=CCC&p\\_service=Content.show&](http://www.isdscotland.org/isd/info3.jsp?pContentID=1038&p_applic=CCC&p_service=Content.show&).

<sup>11</sup> See Table 4A of Scottish Executive (2005) *Scottish Local Government Financial Statistics 2004/05*.

<sup>12</sup> The total of £9,579 million includes NHS expenditure of £7,664 million (see Note 2) and social services expenditure of £1,915 million (see Table 3 of the publication referenced in Note 11).

<sup>13</sup> The most recent surveys are: for adults, Office for National Statistics (2001) *Psychiatric Morbidity among Adults Living in Private Households, 2000*; and for children, Office for National Statistics (2005) *Mental Health of Children and Young People in Great Britain, 2004*.

<sup>14</sup> Survey evidence indicates that in the UK as a whole people suffering from mental health problems receive about 21 million hours a week of unpaid care from family and friends. An estimate of the total amount of informal care provided to all sick and disabled adults is given in Hirst, M. (2002) *Costing Adult Care Social Policy Research Unit, University of York*. Of this total, 16.5 percent is attributable to mental illness, as calculated in The Sainsbury Centre for Mental Health (2003) – see Note 5. Such unpaid work is not included in national income as conventionally measured, but is clearly of value on any broad measure of economic well-being. In recognition of this, the ONS has recently prepared a set of national accounts which attributes a monetary value to caring and other forms of unpaid activity by households, on the basis of what it would cost if undertaken as paid work by a third party. Full details can be found on the ONS website: [www.statistics.gov.uk/hhsa](http://www.statistics.gov.uk/hhsa).

<sup>15</sup> Comparative pay rates are included in the statistics on Regional Economic Indicators regularly published by the Office for National Statistics, available at <http://www.statistics.gov>.

[uk/StatBase/Product.asp?vlnk=9472](http://uk/StatBase/Product.asp?vlnk=9472). Information on the prevalence of mental health problems is available in the references listed in Note 9 above, while data on caring in Scotland compared with the rest of Great Britain can be found in Office for National Statistics (2002) *Carers 2000*.

<sup>16</sup> It is estimated by SCMH that in England the combined cost of these items represented between 5 and 6 percent of the total costs of health and social care relating to mental health problems, and in the absence of detailed information it is assumed that the same proportion applies in Scotland.

<sup>17</sup> This is because social security payments are a transfer of purchasing power from one group in society (taxpayers) to another (benefit recipients) and do not entail any loss of output or use of resources (other than those tied up in administration). The economy as a whole is therefore no worse off.

<sup>18</sup> The figure of £1.1 billion is based on a calculation for England in 2002/03 given in the SCMH paper referenced in Note 5, adjusted for the relative size of the working age population and the prevalence of mental health problems in Scotland and uprated to 2004/05 values.

<sup>19</sup> This category of costs covers both unemployment (people with mental problems looking for work but unable to find it) and economic inactivity (those who are not looking for work and have therefore dropped out of the labour force because of mental health problems).

# WHAT'S IT WORTH?

The Social and Economic Costs of Mental Health Problems in Scotland

<sup>20</sup> Based on data in Confederation of British Industry (2005) *Who Cares Wins: Absence and Labour Turnover 2005* London: CBI.

<sup>21</sup> Based on a calculation for England in 2002/03 given in the SCMH paper referenced in Note 5, adjusted for the size of the working population and increased to 2004/05 values in line with the growth of money GDP per head.

<sup>22</sup> In line with previous studies it is assumed that around 90 percent of these deaths were associated with mental health problems.

<sup>23</sup> See Scottish Public Health Observatory (2006) *Suicide: key points*, available at [http://www.scotpho.org.uk/web/site/home/Healthwell-beinganddisease/suicides/sucide\\_keypoints.asp](http://www.scotpho.org.uk/web/site/home/Healthwell-beinganddisease/suicides/sucide_keypoints.asp).

<sup>24</sup> To the extent that any such attempt is regarded as novel or contentious, the approach described should be seen as experimental and justified on the grounds that it is better to be roughly right than precisely wrong. It is clearly wrong to ascribe a zero value to the human costs of mental illness. More refined estimates will depend on developments in both methodology and data availability.

<sup>25</sup> The main problem in applying this approach to Scotland is the absence of survey evidence using the QALY measure of health status. However, as noted earlier, comparative information is available on the overall prevalence of mental health problems in Scotland and England, based on the ONS surveys of psychiatric morbidity in Great Britain. To calculate the number of QALYs lost in Scotland as a result of mental health problems, the procedure used here has been to take the England

figures for QALYs lost per thousand population (separately for men and women) and then to adjust these downwards to allow for the slightly lower prevalence of mental health problems in Scotland as indicated by the ONS survey data. As a result of this calculation, it is estimated that because of mental ill-health, around 110,000 QALYs are lost annually in Scotland among adults living in private households.

The remaining step is to convert this number to a monetary equivalent and for this purpose the value of a QALY is taken to be of the order of £33,000 in 2004/05 prices, based on a figure of £30,000 for 2002/03 as used in the SCMH study of the costs of mental illness in England, uprated in line with the growth of money GDP per head. The derivation of this number is explained in detail in the SCMH paper, where among other things it is noted that a figure of the magnitude suggested appears to be being used to inform official guidance on the cost-effectiveness of health technology and other procedures in the NHS. Given the general principle that resources are made available to fund broadly equivalent standards of NHS care in all parts of the UK, it seems appropriate to take the same monetary value for a QALY in Scotland as in England.

<sup>26</sup> Office for National Statistics (2005) – see Note 13.

<sup>27</sup> See, for example, Office for National Statistics (1998) *Psychiatric Morbidity among Prisoners in England and Wales*.

<sup>28</sup> Numbers for the various sub-groups in Scotland are given in the following sources: patients in psychiatric hospitals, in ISD Scotland (2006) *Annual Trends in Available Beds Statistics Release 25 May 2006*; residents with mental health problems in care homes, in Scottish Executive (2005) *Care Homes Statistics Release September 2005*; residents with mental health problems in private nursing homes, in Scottish Executive (2003) *Scottish Community Care Statistics 2002* (the latest available version of this publication); and people in prisons, in Scottish Executive (2005) *Prison Statistics Scotland, 2004/05 Statistics Bulletin CrJ/2005/8*.

<sup>29</sup> Allows for uprating to 2004/05 values.

<sup>30</sup> The comparison is made in the SCMH paper referenced in Note 5, drawing on evidence on the costs of crime given in Brand, S. and Price, R. (2000) *The Economic and Social Costs of Crime Home Office Research Study 217*.

<sup>31</sup> The Scottish figure of £1,690 and the English figure of £1,720 both relate to 2004/05, the latter being based on an update of the cost estimates for 2002/03 given in the SCMH paper referenced in Note 5.

<sup>32</sup> It should be noted that 'disease' is the generic term used by WHO to include both mental and physical health problems and does not reflect SAMH's understanding of the nature of mental health problems.

<sup>33</sup> Full details of the WHO project on the burden of disease are available at [http://www.who.int/topics/global\\_burden\\_of\\_disease/en/](http://www.who.int/topics/global_burden_of_disease/en/). Notwithstanding some differences in methods of quantification,

the disability-adjusted life year used by WHO is conceptually equivalent to the quality-adjusted life-year used in this paper to estimate the human costs of mental illness.

<sup>34</sup> No other condition exceeded 8 percent. It should be emphasised that all these figures represent an average among Western European countries as a group and will differ from one individual country to another. For example, the relative importance of cardiovascular disease in Scotland is above the average, reflecting high rates of mortality from this condition. WHO does not publish information for individual countries.

<sup>35</sup> This is in sharp contrast to other health conditions, which almost invariably increase in frequency with age and are most common among the population beyond the age of retirement.

<sup>36</sup> Kessler, R.C. et al. (2005) *Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication Archives of General Psychiatry 62 pp.593-602*.

<sup>37</sup> See the Scottish Executive's Choose Life website at <http://www.chooselife.net/web/site/AboutChooseLife/AboutChooseLife.asp>.



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