Department of Health

# No health without mental health: A cross-Government mental health outcomes strategy for people of all ages

*Supporting document* – The economic case for improving efficiency and quality in mental health

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## Supporting Document - The economic case for improving efficiency and quality in mental health

**Contents**

## INTRODUCTION

1. Mental ill health is the single largest cause of disability in the UK, contributing up to 22.8% of the total burden, compared to 15.9% for cancer and 16.2% for cardiovascular disease[1]. The wider economic costs of mental illness in England have been estimated at £105.2 billion each year. This includes direct costs of services, lost productivity at work and reduced quality of life[2].

2. In 2008/9, the NHS spent 10.8% of its annual secondary healthcare budget on mental health services, which amounted to £10.4 billion[3]. Service costs which include NHS, social and informal care costs amounted to £22.5 billion in 2007 in England[4].

3. Although the NHS as a whole was protected from cuts in the 2010 Spending Review, rising demand means that the NHS has to find up to £20 billion in efficiency savings by 2014. As nearly 11% of England's annual secondary care health budget is allocated to mental health care, the mental health sector cannot be exempt from having to make savings. There are many interdependencies between physical and mental health, so any efficiencies in mental health services need to be carefully thought through so that false economies and greater costs elsewhere in the healthcare and social care system are avoided. The Coalition Government has made it clear that it expects parity of esteem between mental and physical health services.

4. Estimates of the cost of different mental disorders across the life course in England have been made and are detailed in **Annex A**. Estimated annual costs for different conditions are: depression £7.5 billion, anxiety £8.9 billion[4], schizophrenia £6.7 billion[5], and dementia £17 billion[6]. The estimated annual costs of medically unexplained symptoms[1] are £18 billion.[7]

5. Good mental health and wellbeing, and not simply the absence of mental illness, have been shown to result in health, social and economic benefits for individuals, communities and populations [8] [9] [10] [11]. Such benefits include:

   - better physical health;
   - reductions in health-damaging behaviour;
   - greater educational achievement;
   - improved productivity;
   - higher incomes;
   - reduced absenteeism;
   - less crime;
   - more participation in community life;
   - improved overall functioning; and
   - reduced mortality.

[1] Medically unexplained symptoms (MUS) are persistent physical complaints that do not yet have a readily recognisable medical cause. The pain, worry and other symptoms are, nevertheless, real and cause distress. The term somatisation disorder is also sometimes used.

**6.** Therefore, improved wellbeing and resilience against adversity and mental ill health impact across a broad range of areas and have significant economic implications.

7. Although future costs of mental ill health are forecast to double in real terms over the next 20 years, some of this cost could be reduced by greater focus on whole-population mental health promotion and prevention, alongside early diagnosis and intervention.[12]

8. A wide range of effective evidence-based early interventions can be applied in health and social care and beyond, across other sectors. These can build individual and population resilience, prevent problems starting or developing further, and improve outcomes.

9. There is increasingly robust evidence that a range of innovative and preventative approaches can also reduce costs by improving outcomes and increasing quality and productivity[13]. Such approaches are also supported in consensus statements from the voluntary sector.[14]

10. **Areas for potential intervention** include:

    1. early identification and intervention as soon as mental health problems emerge;
    2. the promotion of positive mental health and prevention of mental health problems in childhood and adolescence;
    3. the promotion of positive mental health and prevention of mental health problems in adults;
    4. addressing the social determinants and consequences of mental health problems; and
    5. improving the quality and efficiency of current services.

11. These approaches are not mutually exclusive. Local solutions, which reduce spending, may include elements of all these approaches. Different types of intervention can realise benefits over the short, medium and longer term and often in areas other than health. For instance, the majority of economic savings from investment in mental health promotion for children and families often accrue through reductions in crime and improved earnings. By contrast, reducing the number of people who miss their appointments may decrease immediate costs to the NHS. Research, evaluation and innovation are critically important so that we learn what works and what does not and can disseminate effective practice.

12. Each type of approach is detailed in the following sections. Some of the evidence given is also reported within the Impact Assessment (IA), which accompanies *No health without mental health; a cross-Government outcomes strategy for people of all ages*.

13. The Department of Health commissioned additional economic modelling from the London School of Economics (LSE) for a range of interventions with a good evidence base, which will be shortly published as a further supporting document on the DH website. These are listed at paragraph ten above (interventions 1-4). The quantity

and quality of the evidence base for each intervention varies. The criteria for inclusion were that the evidence base of effectiveness was sufficiently robust and included economic evaluation, although not all were UK based.  In carrying out the modelling, a number of assumptions were made. The results are, therefore, theoretical estimates of potential savings and are still to be formally peer reviewed. However, they do give indications of promising areas for further local analysis, planning and commissioning. Any comparisons across interventions should allow for the very different assumptions made in the modelling work.

## 1. Early identification and intervention as soon as mental health problems emerge

### Conduct disorder - parenting interventions for families

1.1 Conduct disorder is the most common mental disorder in childhood and adolescence. It leads to a range of difficulties and associated costs for children, families and society across the life course. Half of all children with conduct disorder develop anti-social personality disorder as adults[15], and conduct disorder is associated with a 70 fold increased risk of being imprisoned by the age of 25[16]. The annual cost of crime in England and Wales committed by adults who had conduct disorder as children and adolescents has been estimated at £22.5 billion[17]. There is good evidence that parenting interventions are effective[18.]. The Analysis of the Impact on Equality (AIE) gives estimates of net savings to the Exchequer from providing parent-training programmes to cohorts of children with conduct disorders. Many of the benefits from childhood interventions extend into adult life. Total gross savings over 25 years have been estimated at £9,288 per child and thus exceed the average cost of the intervention by a factor of around eight to one[19].

### Early intervention for psychosis

1.2 NHS Early Intervention teams target people in the general population aged 15 to 35 years experiencing a first episode of psychosis. The IA gives estimates of savings that could be made if current early intervention services were extended to cover the total population in England. Over 10 years, net savings to the NHS would amount to £290 million increasing to around £550 million if wider economic savings were taken into account.

### Early detection of psychosis

1.3 Early detection services identify early symptoms of psychosis. There is evidence that early treatment may reduce the number of people who go on to develop psychotic illness from 35% to 15%[20 21]. Analysis in the IA compares the impact of current care with the effects of extending early detection services across England. Over 10 years, net savings of around £330 million to the NHS were estimated, and around £140 million to the wider public sector, increasing to £1.7 billion if wider costs are taken into account.

### Screening and brief intervention in primary care for alcohol misuse

1.4 The overall economic and social costs of alcohol misuse in England in 2006/07 were estimated at £17.7 - £25.1 billion[22]. Brief nurse-delivered interventions in primary care have been shown to be effective in reducing alcohol consumption[23]. They involve discussion of and giving information about alcohol consumption and possible approaches. The IA gives estimated savings from screening and brief intervention for alcohol misuse in primary care. The potential annual net savings modelled are around £40 million to the NHS and a further £40 million to the criminal justice system. There are also £220 million in productivity gains and £190 million in other benefits.

Total gross savings are £204.55 per person over 7 years following the intervention[24].

**Early diagnosis and treatment of depression at work**

1.5 A number of previous studies in different workplaces have shown that early diagnosis and treatment at work can be effective in tackling depression and reducing productivity losses[25]. Cognitive Behavioural Therapy (CBT) has been shown to be effective in reducing the risk of depression in the workplace[26]. The IA describes economic modelling work undertaken by the LSE on the benefits of workforce screening for depression of all employees. These benefits come from lower absenteeism and improved productivity.

## 2. Promotion of positive mental health and prevention of mental disorder in childhood and adolescence

2.1 As half of lifetime mental ill health is already present by the age of 14, prevention targeted at younger people can result in greater personal, social and economic benefits than intervention at any other time in the lifespan. The following interventions to improve mental health and prevent mental illness in children and young people were subject to economic modelling by the LSE.

**Health visitor interventions to reduce postnatal depression**

2.2 Postnatal depression is associated with worse outcomes for the children of affected mothers. Health visitor-delivered intervention for mothers with postnatal depression has been shown to be effective. The economic benefits resulting from a reduction in lifetime disadvantages to these children have been estimated as providing a net benefit[27]. A further ongoing evaluation of potential national savings is being undertaken, and will be published in due course.

**Prevention of conduct disorder through social and emotional learning programmes**

2.3 Reviews of social and emotional learning programmes show improvement in social-emotional skills, attitude about self and others, social behaviour and academic performance in children as well as reduced emotional distress and conduct problems[28] [29]. Economic estimates suggest cost savings over two years are more than twice the initial investment with cumulative net savings per child of £6,639 after five years and £10,032 after 10 years[30].

**School-based violence prevention programmes**

2.4 Economic modelling has been undertaken to estimate benefits for six-year-old children receiving school-based violence prevention programmes. This shows the interventions become cost effective and cost saving within three years. Net savings are £829 per child at year six, increasing to £1,721 per child at year seven, £6,446 at year 10 and £8,223 at year 15[31]. In the first six years, most savings accrue to the public sector, particularly the NHS and Education. After six years, there are greater

savings because of reduced lost output due to crime as well as reduced victim costs. Actual total savings are higher, as estimates do not include crime-related costs incurred by children under the age of 10 or the educational and health impacts on other children in a class with a disruptive child.

**School-based interventions to reduce bullying**

2.5 Averaged across all children, whether bullied or not, the economic savings of school-based bullying prevention programmes are £1,080 per school pupil[32]. The intervention costs only £15.50 per pupil and results in improved psychological wellbeing. The measured benefits are long-term in nature and accrue mainly to individuals in the form of higher incomes. However, there will also be associated increased tax revenues and savings in social security expenditure, since victimisation is associated with higher rates of worklessness as well as reduced earnings when in work.

2.6 There is growing evidence of the cost effectiveness of a number of other interventions including both the nurse home visiting programme[33] as well as Family Intervention Projects [34] and Multi-dimensional treatment foster care[35] [36]. However, economic modelling was not commissioned in these intervention areas.

**3. Promotion of positive mental health and prevention of mental disorder in adulthood**

**Time banks and community navigators**

3.1 Developing social capital through projects that build community capacity can benefit the community at large, as well as individuals, recipients and providers involved in such initiatives. [37] [38] Time banks use hours of time rather than pounds as a community currency. Participants contribute their own skills, practical help or resources in return for services provided by fellow time bank members. Separate economic modelling by the LSE found that the cost of each time bank member would average less than £450 per year, but a conservative estimate of the economic value of the contribution of each member would exceed £1,300. [39]

3.2 The IA also describes the economic benefits of community navigator services, which help people to follow more effective pathways through local services. A separate economic analysis by the LSE estimated that supporting each person through a community navigator service would cost a little under £300[40].
In addition, the costs of visits to a Citizens' Advice Bureau or Jobcentre Plus (around £180) should also be taken into account. The benefits of these schemes to individuals include fewer GP visits, increased employment and more rapid return to work. These benefits have been estimated at about £900 per person per year, with even greater benefits if account is take of improved quality of life.

**Work-based mental health promotion**

3.3 The promotion of mental wellbeing of employees can have economic benefits for business from increased commitment and job satisfaction, staff retention, improved productivity and performance, and reduced staff absenteeism[41]. Multi-component health promotion programmes[2] have been shown to significantly reduce the risk of stress, improve work performance and reduce absenteeism[42]. Economic modelling found that initial investment of £40,000 in such a promotion programme in a large sized multinational company could potentially result in net savings of over £340,000 over a 12-month period. This would equate to a nine fold annual return on investment from productivity gains and reduced absenteeism[43]. Potential additional benefits to the health system from reduced illness are not included. It is not clear to what degree these findings can be generalised to other workplaces, but clearly this is an area worthy of further exploration.

**Suicide prevention**

3.4 The cost of suicide is calculated by attributing economic costs to the distress suffered by relatives of the person who has committed suicide. [44] This accounts for 70% of the total costs, and lost output accounts for 30% of the cost. Economic modelling work has estimated that suicide-training courses provided to all GPs in England could result in net savings of over £500 million after one year and further considerable savings over the longer term[45].

3.5 Further economic modelling has shown significant annual savings following the installation of a safety barrier around a bridge suicide hot spot. Taking a one-year cohort and estimating savings over 10 years gave savings of £2.6-3.0 million for those who did not attempt suicide by another method. The savings would be £2.1-2.5 million for those who attempted suicide by another method.[46]

## 4. Addressing social determinants and consequences of mental health problems

4.1 Economic modelling has shown savings from interventions which aim to tackle social determinants and consequences of mental ill health.

**Debt advice**

4.2 Low income and debt are associated with higher rates of mental illness. Studies suggest that the effect of low income on mental health may largely be explained by the effect of debt[47]. Moreover, people with mental health problems are more likely to get into problematic debt. Rates of debt in people with no mental health problems are 8%. The rates for those with depression and anxiety are 24%, and for those with psychosis 33%. The IA gives estimates of the costs associated with face-to-face debt

[2] These include personalised health information and advice, tailored health improvement web-portal, wellness literature, and seminars and workshops focusing on wellness issues.

advice over 5 years as around £250 million. Associated savings are estimated at around £30 million to the NHS, and around £50 million on legal costs with around £220 million from productivity gains. However, these figures exclude several important benefits such as debt repayments to creditors and health and wellbeing gains to individuals[48]..

**Befriending for older people**

4.3 Older people can experience social isolation and loneliness. This increases their risk of depression, other mental health problems and poor wellbeing[49] [50]. The prevalence of loneliness among older people has been estimated at between 5% and 16% in the UK[51]. Loneliness is also associated with cognitive decline in older adults[52]. Befriending interventions for older people are often organised by the voluntary sector, using volunteers. They aim to alleviate social isolation and loneliness and prevent or reduce depression in this group. The LSE work shows that preventing loneliness could reduce health service use by older people and lead to substantial savings. This is based on befriending interventions piloted under the Brighter Futures Group programme[53].

**Reducing stigma and discrimination**

4.4 A systematic review found that stigma and discrimination related to mental illness have a range of financial impacts through effects on employment, income, public views about resource allocation and healthcare costs[54]. A decision model was used to estimate the economic impact of an anti-stigma campaign. It assumed that a campaign would increase the number of people with depression accessing services and that they therefore would stay in or return to work. This extra benefit amounted to £421 per person[55].

4.5 The IA considers the economic impact of the *Time to Change* programme and concludes that:

- the economic benefits of such a campaign would outweigh the costs at least eightfold if the programme resulted in only an additional 1% of people with depression accessing services and gaining employment; and

- if as a result of the campaign, 10% more people with psychosis accessed early intervention services the savings could be around £5.5 million per year.

4.6 There are other interventions in this area with good evidence of cost effectiveness, but for which similar economic modelling has not been undertaken. Examples are set out below.

**Targeted employment support for those recovering from mental health problems**

4.7 A review of Individual Placement and Support programmes (IPS) for those recovering from mental health problems found that the employment rate was 61% for people using IPS compared with 23% for people using traditional services[56]. A multi-site European trial found lower rates of hospital use for IPS clients than for those in

traditional services with savings of £6,000 per client due to reduced inpatient costs over an 18-month period[57].

**Housing support services**

4.8 The Department of Health's Care Services Efficiency Delivery Unit undertook a series of audits of housing-based support service in mental health, which suggest that housing-based support services for people with mental health problems could deliver cost savings to health and social care of £10,000 – £20,000 per year per client[58]. One audit estimated that supported housing for men with enduring mental illness could save £11,000 - £20,000 each year per client[59] . Another audit showed that supported housing for women with multiple, complex needs including mental health problems could save local authorities and the NHS £12,000 each year per client[60]. The estimates exclude costs from ambulance use and police and court costs. A further audit of supported housing for people with moderate mental health needs, after discharge from hospital, estimated savings of £22,000 for each client per year across the wider health and social care system[61]. The Case Services Efficiency Unit also calculated savings resulting from homecare re-enablement such as one to one support[62].

**Warm housing**

4.9 The risk of common mental health problems is almost double for people living in fuel poverty[63]. The estimated annual cost of this to the NHS is £859 million in England. The cost of insulation and heating interventions to ensure warm homes is £252 million.[64] Government grants exist for such interventions, which have been shown to halve the rates of common mental health problems.[65]

## 5. Improving the quality and efficiency of current mental health services

5.1 The NHS as a whole needs to identify up to £20 billion of efficiency savings by 2014 to deliver quality improvements and to meet demographic and other pressures. A number of projects are underway within mental health services, both locally and nationally in support of the Quality, Innovation, Productivity and Prevention (QIPP) initiative. These contribute towards improved productivity and reducing waste while improving service quality and better health outcomes.

5.2 The Department of Health has been working with the NHS, providers and commissioners, the Audit Commission and other stakeholders to identify ways of improving quality and reducing costs.

5.3 Current initiatives include:

- improvements to the acute care pathway;
- managing 'out of area' placements in acute and secure services more efficiently; and

- addressing unmet psychological needs in people with medically unexplained symptoms or long term conditions such as diabetes, respiratory illness or heart disease.

**Improvements to the acute care pathway**

5.4 There are examples of innovative practice along the whole of the acute care pathway. An Improvement Tool for providers has been developed within the NHS Confederation. It is based on available data, existing evidence and good practice examples. It supports local health and social care economies to scope potential for improving quality, efficiency and effectiveness; develop focused action plans; and review quality and cost improvements.

5.5 In its work with partner organisations on QIPP, the Department of Health analysts have estimated potential savings from improvements in the acute care pathway. This work suggests potential national gross savings of around £224 million per annum by 2014/15. This is based on a reduction in the number of bed days (as a proportion of the number of people with mental health problems) in those PCT areas with the highest bed-day usage (i.e. *above* the upper quartile level) to the quartile level. The analysis does control for various socio-economic factors that explain variation between PCT areas.

5.6 Examples of approaches that may help to achieve this reduction include:

- Improving recognition of mental health problems in primary care to ensure effective early treatment and referral to secondary services where appropriate can reduce the need for inpatient care;

- Early intervention for people with 'at risk mental states' can also reduce inpatient stays and costs (see paragraph 1.2 above) [66];

- Comprehensive use of crisis resolution and home treatment services including medical staffing and medications management to avoid unnecessary hospital admissions [67];

- Reducing the numbers of inappropriate assessments referred to crisis resolution and home treatment teams in order to provide more capacity for home treatment;

- Alternatives to admission, for example voluntary sector-run crisis houses[68], acute day care and investment in peer support workers, which may reduce admissions;

- Appropriate diversion to and input from other services. It is also important to make sure people get support from the most appropriate agency as speedily as possible in the least restrictive environment. For example, timely assessment and diversion to other services including assertive outreach services and voluntary services as appropriate;

- The whole care pathway, especially the inpatient stay, must be effective to avoid unnecessarily long stays in hospital. Sharing best practice, process mapping and Lean Management (or other similar techniques) may help to achieve this[69];

- Ensuring appropriate and balanced capacity across the various elements of inpatient provision, e.g. acute wards, psychiatric intensive care units, low secure beds, and rehabilitation services;

- Reducing delayed discharge through integration of housing options and housing pathways, effective use of supported housing, better access to social housing and the means to act as guarantor or to pay the bond to access private rented accommodation. Working with partner organisations on QIPP, the Department of Health has estimated that local areas could potentially make net savings of around £70m per year from reducing delayed discharges.

5.7 These approaches may result in reductions in bed numbers, and in only the more disturbed patients being admitted to or remaining in hospital. This can have an impact on inpatient environments and the quality of care and potentially the number of untoward incidents. It has implications for investment in skills, education and training of staff.

5.8 Different approaches may be effective for particular groups and should be considered when commissioning services. For example:

- Effective approaches and case management in the community for people with personality disorder to reduce frequency and length of inpatient admissions. NICE guidelines also highlight how treatment of conduct disorder can prevent antisocial personality disorder (ASPD), since half of children with conduct disorder develop ASPD as adults [70];

- Ensuring effective treatment for individuals with co-morbidity of mental illness with alcohol or drug misuse to reduce lengths of stay, readmissions and levels of disturbance on wards; and

- Ensuring the availability of appropriate specialist services to, for example, individuals with eating disorders, older people with physical health needs, homelessness and other special needs.

**Managing 'out of area' placements in acute and secure services more efficiently**

5.9 There are several aspects to managing 'out of area' placements more efficiently. They include:

- reducing unplanned 'out of area' placements; and
- reducing 'out of area placements' in medium secure services.

**Reducing unplanned 'out of area' placements**

5.10 Out of area services are placements for people with mental health or social care needs who are using mental health services (often medium-term treatment/ rehabilitation, specialist or long–term care services) outside their home area. Sometimes local services would have been a practical alternative if available at the time of placement or at a later stage.

5.11 Being placed out of area can mean that individuals receive care far from their families, friends and familiar surroundings. Lengths of stay may be longer as there is less continuity of care and it can be harder to arrange discharge, so costs can be higher. A number of areas have undertaken work to improve local systems and prevent people having to leave their area to access services. Practical tools, including an implementation kit and briefing materials, are being developed.

5.12 Specialist inpatient services for children and young people are in short supply in some areas so that that young people are admitted far away from families and friends, sometimes in out of area placements and sometimes in the private sector. This can be disruptive to their family life, friendships, relationships and education.

5.13 An example is included on the NHS Evidence QIPP Collection site[71]. It sets out the benefits of strengthening mental health commissioning in this area across the NHS and local authorities to ensure an approach that takes into account the whole system. A range of evidence of effective commissioning approaches and implementation are also included giving details of improved individual and system outcomes as well as actual and projected savings.

**Reducing Out of Area placements in medium secure services**

5.14 Medium secure services are low volume but high cost. Even a small 1% efficiency improvement/cost reduction in medium secure services could save as much as £5 million nationally. Commissioners in many regions report an increased demand for services, a demand higher than the rate at which patients are currently progressing through the system. To manage the potential for increasing costs we have to manage the increasing demand.

5.15 The Department of Health is identifying national best practice, successes and innovations at a local and regional level. Applying this locally will help commissioners develop different approaches across the care pathway to improve patient experience, speed up recovery and reduce the time individuals spend in secure settings. The Department of Health is developing a 'toolkit' to support commissioners and providers. Plans for the toolkit include:

- Best practice gateway processes, supported by defined admission thresholds and decision-making matrices;
- Model care pathways which identify expected patient outcomes to support procurement of pathways rather than beds;
- Communication tool for patients to inform personal decision-making about care and empowerment in a secure system; and

- Revised best practice guidance for medium secure services.

5.16 Success requires multi-agency/stakeholder co-operation and involvement. High-level engagement with the Ministry of Justice for example, will be critical to achieving the outcomes needed but local level ownership and understanding will be essential for the work to take effect. This work also supports the delivery of the Health & Criminal Justice Board's objectives.

**Reducing physical and mental co-morbidity**

5.17 Physical illness increases the risk of mental health problems. For instance, compared with the general population, people with long term conditions including diabetes, hypertension and coronary artery disease have double the rate of depression [72] and those with chronic obstructive pulmonary disease, cerebro-vascular disease and other chronic condition have triple the rate[73]. People with two or more long term physical conditions are seven times more likely to have depression[74]. Meeting the mental health needs of people with physical conditions in primary and secondary care through early treatment of mental illness, and targeted promotion interventions, can both reduce the impact of and prevent development of mental illness in these higher risk groups.

5.18 Mental health problems also increase the risk of physical illness. For instance, depression increases the risk of mortality by 50%[75] and doubles the risk of coronary heart disease in adults[76]. People with schizophrenia and bipolar disorder die on average 16–25 years sooner than the general population.[77] [78] They have higher rates of respiratory, cardiovascular and infectious disease and have higher rates of obesity, abnormal lipid levels and diabetes. They are also less likely to benefit from mainstream screening and public health programmes. A range of interventions to promote physical health and reduce health risk behaviour can prevent subsequent physical illness as well as promote wellbeing and recovery. This can lead to significant savings through reduced later service use and other improved outcomes. Such interventions are more effective if introduced early.

**5.19** Therefore, the physical and mental health interface is where system efficiencies and savings can be found and improvements made across the patient pathway – to both prevent physical illness in those with mental illness and prevent mental illness in those with physical illness. Such approaches also improve outcomes for individuals with co-morbid mental health problems and a range of long-term conditions. These include diabetes, chronic obstructive airways disorder, cardio-vascular disease, and a number of neurological conditions. The Department of Health is undertaking work to gather the most up-to-date evidence and examples of best practice. This will help to inform policy and practice development so that mental health co-morbidity is considered throughout.

**Early detection and treatment of depression in diabetes**

5.20 Economic modelling based on European data suggests that providing collaborative care to the 432,000 people with depression and type II diabetes

might be cost effective[79]. The intervention may cost around £140m but potentially result in net savings to the NHS and Social Care of around £10m and around further £10m from improved productivity. It may also result in around 31,000 Quality Adjusted Life Years (QALY)[3] gained. This is therefore cost effective as benefits are higher than costs. A QALY is valued at £60,000 each. This intervention results in £1.9 billion in QALY gains. These estimates do not include potential savings from averted diabetes complications including the productivity losses due to premature mortality

**Medically unexplained symptoms**

5.21 Medically unexplained symptoms have a significant economic impact. 22% of all people attending primary care have sub-threshold levels of somatisation disorders and a further 5% of individuals have clinical somatisation disorders[80]. They account for 8% of all prescriptions, 25% outpatient care, 8% inpatient bed days and 5% accident and attendances[81]. Those with medically unexplained symptoms are 50% more likely to attend primary care and 33% more likely to attend acute secondary care [82]. The NHS cost in England amounts to £3.1 billion (2008/9) with a further £5.2 billion attributable to lost productivity and £9.3 billion reduced quality of life.[83]

5.22 Estimates given in the IA are based upon the LSE economic modelling. These suggest that an investment in Cognitive Behavioural Therapy approaches of around £70m may result in approximately £180m savings to the NHS and around £60m to the individuals (from improved workforce productivity) in 5 years. Finally, there are potentially around 3,000 QALYs gained from providing Cognitive Behaviour Therapy (CBT) for the around 75,000 people with medically unexplained symptoms

Table 1: Costs and savings associated with CBT provision for people with MUS

| 2010/11 prices | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | Total |
|---|---|---|---|---|---|---|
| **Costs** | | | | | | |
| CBT awareness training | £1m | - | - | - | - | £1m |
| CBT cost | £7m | £19m | £37m | - | - | £63m |
| Cost of GP time | £3m | | | | | £3m |
| **Total Cost** | £11m | £19m | £37m | - | - | £67m |
| **Savings** | | | | | | |
| GP savings | - | £1m | £4m | £3m | £2m | £11m |
| Prescriptions | - | - | £1m | £1m | £1m | £3m |
| Outpatient consultations | - | £1m | £3m | £3m | £2m | £9m |
| Inpatient treatment | £4m | £17m | £41m | £36m | £24m | £123m |
| A&E Care | £1m | £5m | £12m | £10m | £7m | £34m |
| **Total Savings** | £5m | £24m | £61m | £53m | £36m | £179m |
| **Benefits** | | | | | | |

[3] Quality adjusted life year (QALY): A year of life adjusted for its quality or its value. A year in perfect health is considered equal to 1.0 QALY. The value of a year in ill health would be discounted. For example, a year bedridden might have a value equal to 0.5 QALY. (Websters New Medical Dictionary 2010)

| | | | | | | |
|---|---|---|---|---|---|---|
| Workforce productivity | £2m | £9m | £21m | £18m | £12m | £61m |
| QALYs gained | 105 | 414 | 1,014 | 884 | 573 | 2,991 |

## 3. **CONCLUSION**

3.1 Mental ill-health costs England more than an estimated £105 billion each year. These costs include costs to the NHS, the costs of reduced educational outcomes, reduced employment and productivity and increased crime, as well the wider impact on reduced quality of life. Mental health problems impact across every part of society and spending by every Government department.

3.2 Evidence-based interventions highlight the health and associated economic savings of intervening early as soon as mental illness has arisen, preventing mental illness and promoting mental health. The resulting savings occur in health and across other areas in the short, medium and longer term.

3.3 Alongside the range of measures, which can be taken to develop the resilience of whole communities, there is also significant scope for the imaginative re-design of services which support people who live with a mental illness. Services can be safer, more timely, more personalised and increasingly cost effective.

3.4 There are further opportunities to improve patient experience, health outcomes and the use of resources by addressing unmet psychological needs, which present as medically unexplained symptoms or as a co-morbidity within long-term conditions.

3.5 The benefits to be realised from this economic case work in tandem with the clinical evidence for good mental health and with what people say they want. It makes financial sense to invest in building and maintaining good mental health and resilience for communities, families and individuals and to provide the most effective and affordable services at times when they are needed.

**ANNEX Costs of different mental disorders across the life course**

- **Mental illness during childhood and adolescence** results in UK costs of £11,030 to £59,130 annually per child.[84]
- **Conduct disorder:** Lifetime costs of a one year cohort of children with conduct disorder (6% of the child population) has been estimated at £5.2 billion[85]. Cost of crime attributable to adults who had conduct problems in childhood is estimated at £60 billion a year in England and Wales, of which £22.5 billion a year is attributable to conduct disorder and £37.5 billion a year to sub-threshold conduct disorder.[86]
- **Depression:** Total annual costs of depression in England in 2007 were £7.5 billion, of which health service costs comprised £1.7 billion and lost earnings £5.8 billion.[87] However, this does not include informal care or other public service costs. It has been estimated that lower productivity accounts for a further £1.7–£2.8 billion and human costs for another £9.9–£12.4 billion, bringing the total annual cost of depression to £20.2–23.8 billion a year.
- **Anxiety:** Health service costs of anxiety disorders in 2007 were £1.2 billion. The addition of lost employment brings the total costs to £8.9 billion.[88]
- **Medically Unexplained Symptoms:** Annual NHS cost of MUS in England amount to £3.1 billion (2008/9) with a further £5.2 billion in lost productivity and £9.3 billion reduced quality of life.[89]
- **Schizophrenia:** Total costs of schizophrenia were approximately £6.7 billion per year in England in 2004–05[90]. Cost of treatment and care was £2 billion, annual costs of welfare benefits were £570 million and the cost to families of informal care and private expenditure amounted to £615 million. Costs of lost productivity due to unemployment, absence from work and premature mortality were £3.4 billion.
- **Dementia:** Total annual UK costs of dementia are £17 billion.[91] Accommodation accounted for 41% of the total, health services eight per cent, social care services 15% and estimated costs for informal care support and lost employment 36%. Numbers with dementia in England are predicted to rise from 680,000 in 2007 to 1.01 million people by 2051. Long-term care for older people with cognitive impairment in England could rise from £5.4 billion to £16.7 billion between 2002 and 2031.
- **Suicide:** Average cost per suicide is £1.7 million in England[92], £1.3 million in Scotland[93] and £1.5 million in Ireland[94].
- **Alcohol misuse** is estimated to cost the health service £2.7 billion every year and results in output losses of £6.0-7.3 billion due to sickness absence, reduced employment and premature death while annual cost of alcohol related crime and disorder is £9-15 billion[95]. Total cost of alcohol misuse is estimated at £17.7–£25.1 billion a year, which includes costs of treating alcohol-related disorders and disease, crime and anti-social behaviour, loss of productivity in the workplace and social support for people who misuse alcohol and their families.
- **Smoking:** Annual direct cost of smoking to the NHS is £5.2 billion[96] with smoking responsible for 462,900 hospital admissions in 2008/9.[97] Almost half of total tobacco consumption is by those with mental disorder[98].
- **Inequality:** Annual cost of inequality in England has been estimated as £56-68 billion[99].

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