The Economics of Mental Ill Health and Prevention

Overview

The costs of mental ill-health are multifaceted and very high. They are incurred both by individuals and their families, and by wider society. Some of the costs are ‘direct’, meaning that they are the costs borne by health and social care services, communities, and by patients and their families in addressing mental ill health. Other costs are ‘indirect’, and include lost productivity due to unemployment or people being absent from work because of their mental ill health, and lost productivity caused by people attending work when they are unwell (so-called ‘presenteeism’).

The direct costs of mental ill health in England in 2013/14 were estimated to be £34bn per year\(^1\). £19bn of this is accounted for by spending on statutory services, of which the NHS spends £9.2bn, approximately 8% of its annual budget. This relatively low amount contrasts unfavourably with the estimated 23% of NHS activity accounted for by mental health. It is also important to note that nationally, spending per person by Clinical Commissioning Groups on mental health varies almost two-fold in relation to underlying need.

Figure 1: Cost of mental health support and services in England 2013/14

![Cost of mental health support and services in England 2013/14](image)


Estimates of the wider costs of mental ill health to society, including factors such as lost productivity, vary. The Chief Medical Officer’s 2013 Annual report estimated them to be £30.3bn in England 2009/10, higher at that point than the direct costs, estimated in the same report to be £21.3bn
annually in England (2009/10 prices). More recent estimates produced by the Independent Mental Health Task force put the level of indirect costs at more than double the earlier estimate, at £70bn annually.

Applying these estimates to the population of Suffolk suggests that mental ill health may be leading to between £400m and £950m each year in indirect costs locally, in addition to over £450m in direct costs. Taken together, mental ill health is responsible for at least one billion pounds of direct and indirect costs in Suffolk each year. Implementing interventions with are both clinically and cost effective therefore has the potential to improve the lives of sufferers and their families and to reduce this significant cost burden.

These high costs fall on individuals and families; on businesses; on the voluntary and community sector; and on statutory services, including health and social care and the criminal justice system. We can gain important different perspectives on these costs by considering these different groups.

The economic cost of one completed suicide of a person of working age is estimated to exceed £1.6m. On average, there are nearly 70 suicides each year in Suffolk. If all these suicides are in people of working age, the economic cost locally could be over £100m each year. We know that approximately 8 out of 10 of these suicides are in people of working age, which suggests that the economic cost to Suffolk could be as high as £85m annually.

Considering employment and businesses, mental illness is one of the leading causes of sickness absence in the UK. Mental health problems such as stress, depression and anxiety led to 15.2 million days of work lost in 2013. Since 2009, perhaps reflecting the impact of the economic crisis, the number of working days lost to ‘stress, depression and anxiety’ has increased by 24%; the number of days lost to ‘serious mental illness’ has doubled.

We also know that being absent from work for an extended period can have serious implications for future work prospects. Research indicates that people who are away from work for more than 6 months have only a 20% chance of returning to work in the next 5 years. The employment rate for adults with mental health problems remains unacceptably low: 43 per cent of all people with mental health problems are in employment, compared to 74 per cent of the general population and 65 per cent of people with other health conditions.

If individuals are unable to work, this also has implications for their employers. The average annual cost of lost employment is £7,230 for someone with depression, and £6,850 for someone with anxiety. (05/06 prices – need to update)

The cost of mental ill health to statutory services is high. It has been estimated that 1 in every £8 spent in England on long-term conditions is linked to poor mental health. Total NHS costs in England 2013 were £112bn, and approximately 80% of these costs (approximately £79bn) were spent on long term conditions. Applying the £1 in every £8 which is estimated to be spent on long term conditions and is linked to poor mental health suggests that nearly £10bn each year is spent in this way. For Suffolk, this equates to £133m per year.
Of the 10m people in England with mental illness, 46% also have a long term physical health problem. This combination of physical and mental health conditions can make it much harder for people to function effectively; for example, compared to people who have diabetes alone, people with both diabetes and depression are four times more likely to have difficulties managing their health, and are seven times more likely to miss work frequently.\(^9\)

Mental health services are often described as “Cinderella services”, suggesting that they are marginalised, under-invested in, and deprioritised. Somewhat at odds with this “Cinderella” label is the finding from South Somerset’s Symphony database that they are very expensive to deliver.\(^{10}\) The Symphony database links together the health and social care activity and costs incurred by a population of 114,000 people in 2013, including mental health, primary care, hospital care, community care and social care. On average, mental health services were found to be more expensive to provide, per patient, than services for patients with stroke, cancer, dementia or heart disease.

Figure 2: Estimated average annual cost per person, by disease

<table>
<thead>
<tr>
<th>Disease</th>
<th>Average cost per person per year (£)</th>
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<tbody>
<tr>
<td>asthma</td>
<td>500</td>
</tr>
<tr>
<td>fracture</td>
<td>1000</td>
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<td>CAD</td>
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<td>COPD</td>
<td>1500</td>
</tr>
<tr>
<td>Stroke</td>
<td>2500</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3500</td>
</tr>
</tbody>
</table>

Source: Kasteridis et al\(^{10}\), University of York, 2014

The same finding also holds true for people with more than one diagnosed condition. If the multiple conditions include a mental health diagnosis, annual average costs for patients with up to 6 co-morbid conditions are higher than for patients with physical co-morbidities alone. The costs of care delivered by mental health services for people with other illnesses can also be significant. The Symphony dataset demonstrates that mental health care costs account for a substantial proportion of the average cost of care for those with alcohol dependence; those suffering from poisoning and the effects of drugs; and those with burns, environmental trauma or eating disorders.
These high costs after diagnosis may be due to the high levels of unmet need for mental health services, particularly while problems are in their early stages and may be less severe. The Mental Health Taskforce describes many of England’s current mental health services as “too little, too late, with treatment being provided (if at all) only after problems have become entrenched and more difficult to manage”.

In continued times of austerity, finding a way to increase spending on effective prevention is arguably even more difficult, as sustaining even the current level of service provision becomes harder. However, the cost of mental health services is forecast to increase over time, mainly due to the forecast increase in overall population, but also due to the increased ageing of the population. The effect of ageing on dementia related costs in particular, in 2007 and estimated for 2026, is significant and can be seen in figure 3 below. Given that projected costs for mental health disorders are forecast to increase by £40bn in real terms by 2026, the economic case for prevention to reduce illness and costs is surely stronger than ever.

Figure 3: Estimated national costs of mental health service provision, 2007 and 2026

![Graph showing estimated national costs of mental health service provision, 2007 and 2026.]


This report has explored whether interventions to prevent different types of mental ill-health are clinically effective. Given this further evidence of very high costs of treatment and care costs; of significant indirect costs to society; and of high costs to individuals and their families, does the evidence also make the case for economic effectiveness?
A number of clinically effective interventions for the prevention of mental ill health have also been assessed on grounds of cost-effectiveness, and sometimes, on their potential to generate net savings to statutory services. The next section of the report considers these interventions in more detail, and quantifies in broad terms the potential gains available to Suffolk from implementing them, considering direct, indirect and intangible costs and benefits. It is important to note that some of these interventions may require spending by one element of statutory services, while generating savings in another. Therefore it is important, as far as possible, to take a system-wide view of the available costs and benefits.

Examples of cost effective interventions and implications for Suffolk – Alcohol Misuse

The reasons we drink, and the consequences of excessive drinking, are both linked with our mental health. Mental health problems can be caused by drinking too much alcohol, and they can also cause people to drink too much\(^\text{12}\).

Across England, it was estimated in 2009/10 that 6.6 million adults were consuming alcohol at hazardous levels, and a further 2.3 million at harmful levels. Hazardous drinking in this context was defined as weekly consumption of 21-50 units for men and 14-35 units for women, and harmful drinking as weekly consumption above 50 units for men, and 35 units for women.

Applying these rates to the population of Suffolk suggests that there may be over 135,000 hazardous drinkers, and over 47,000 harmful drinkers. Alcohol misuse leads to considerable costs for the NHS, for the criminal justice system, and in terms of lost productivity. These costs were estimated to be in excess of £23 billion for England in 2009/10; Suffolk’s proportion of these costs may be in the order of £310 million annually.

Alcohol problems are more common among people with more severe mental health problems. This does not necessarily mean that alcohol causes severe mental illness. Evidence shows that people who consume high amounts of alcohol are vulnerable to increased risk of developing mental health problems and alcohol consumption can be a contributing factor to some mental health problems, such as depression. Therefore, helping people to change their harmful or hazardous drinking patterns can help to protect people from mental health problems, and can also help to stop existing mental health problems becoming more serious.

A brief alcohol screening intervention for use in primary care has been assessed for cost and clinical effectiveness\(^\text{7}\). GPs use the Alcohol Use Disorders Identification Test (AUDIT) to screen patients as they attend for routine appointments, and then give five minutes of advice to those identified as hazardous or harmful drinkers. The cost of the intervention was £17.41 per person screened (2009/10 prices), and the clinical evidence suggests that brief interventions such as this one reduce average alcohol consumption by 12.3\% per head\(^\text{13}\). The effectiveness of the intervention is assumed to decline to zero over 7 years, and, cautiously, no benefits are assumed from a reduction in premature mortality.
Over this 7 year period, the total savings per person screened are estimated to be £204.55. This includes savings to the NHS; the criminal justice system; and the increases in productivity associated with reduced alcohol consumption. Within this total, savings to the NHS amount to £39.07 per person screened, and savings to the criminal justice system amount to £105.00 per person screened. Therefore it can be seen that the savings to statutory services are more than 8 times the cost of the intervention, before any productivity benefits are taken into account.

These potential costs and benefits could be significant for Suffolk. If it is assumed that this intervention is introduced on a large scale, meaning that only 20% of the population aged 16 or over are not included, the potential net benefits including productivity gains are £90 million over 7 years, or more than £12 million per year. If it is assumed that the intervention covers only 50% of the relevant population, £8m could still be saved each year in Suffolk, after costs. In practice, rolling out this intervention so widely may be difficult to achieve, particularly given current capacity pressures in primary care. However, a more targeted approach, possibly focusing on younger men or older at risk drinkers (ref needs assessment alcohol over 50s), or using the wider practice team to deliver the screening and advice, may make the introduction of the clinical and cost-effective approach more feasible.

In addition to screening people to identify risky or harmful drinking which may be contributing to mental health problems, it is also important to help those with diagnosed mental health problems manage their relationship with alcohol. In order for primary care physicians to do this, a first step is recording the alcohol consumption of their patients with a diagnosed serious mental health problem. As can be seen in figure 4 below, there is greater than a two-fold variation in percentage of patients with a serious diagnosed mental health problem who have a record of their alcohol consumption being recorded in the previous year. While some of this variation may be clinically acceptable, it is perhaps unlikely to be entirely clinically warranted. This perhaps suggests that more focus on the link between alcohol and mental health in primary care, which could be achieved through the screening intervention described above, would benefit both those whose drinking behaviour is placing them at potential risk of mental ill health, and those who already have a diagnosed mental illness.
Figure 4: % of patients with a serious diagnosed health problem who have a record of their alcohol consumption in the previous year, by GP Practice, Suffolk

MH007: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of alcohol consumption in the preceding 12 months, by practice, Suffolk,

Source: HSCIC, QOF indicators 2014/15

Examples of cost effective interventions and implications for Suffolk – Suicide Prevention Education

The impact of suicide can be immense, and the costs fall on everyone in society and can be substantial. These costs include direct costs, including emergency services, potential life-saving interventions delivered by the NHS, and investigations to be carried out by the police and the coroner; and of course costs associated with funerals. For those individuals who survive suicide attempts, lengthy physical and psychological rehabilitation may follow.

Suicide also leads to substantial indirect costs. As a result of premature death, individuals lose the opportunity to experience all that life holds, and to contribute productively to the national economy, whether this is through paid work, voluntary activities, or family responsibilities such as looking after children or parents. The pain and grief that suicide can have on immediate family members and friends can be immense and long lasting. These very personal impacts are often called ‘intangible costs’ because they are usually hidden and difficult to value.
Efforts made in Scotland, New Zealand and Ireland to quantify the economic impact of suicide including direct, indirect, and intangible costs, found that each suicide can cost up to £1.3 million\(^2\). More recent data suggests that the total costs of a completed suicide in a person of working age exceed £1.6 million (in 2009 prices)\(^7\). Clearly there is an economic argument which supports interventions to prevent suicide.

On average, 60 people each year take their own lives in Suffolk, of whom 80% are of working age. At a cost of £1.6 million for each suicide, the financial burden of suicide in Suffolk may be as high £72 million each year. In addition to this, there are of course non-fatal suicide attempts, which also incur costs, particularly through the provision of follow up psychiatric inpatient and outpatient care. Despite this, there is also an overall net economic benefit to delaying a completed suicide, estimated to be nearly £70,000 per year, due to the reduction in lost productivity over the person’s lifetime.

There is evidence that suicide prevention education for GPs can be effective as a population-level intervention to prevent suicide. As well as being clinically effective, it can also be cost-effective if it leads to effective treatment, for example, CBT and then ongoing psychological or pharmaceutical support. The ASIST (Applied Suicide Intervention Skills Training) programme has been evaluated as increasing the chance of a GP identifying those at risk from suicide by 20% in the year following the training\(^14\). If those people identified as being at risk are then offered CBT, their future risk of suicide can decrease by up to 50%\(^15\).

The impact of this intervention has been assessed over a 10 year timescale. While the cost of the training (at £200 per GP) is not insubstantial, and ongoing treatment incurs further costs, assumed to be £400 for 10 sessions of CBT, and a further £1,182 each year for ongoing pharmaceutical and psychological therapy, some of those costs are offset by reduced costs for emergency treatment and police/coroners. When productivity losses resulting from a completed suicide are factored in, the intervention becomes extremely cost effective, with returns 20 times higher than the cost of the intervention at 1 year, 5 years and 10 years. The estimated costs to the NHS per Quality Adjusted Life Year (QALY) are estimated as £1,573 at year one, and £2,924 at year 10; extremely cost-effective, given that NICE usually suggests funding interventions at up to £20,000 per QALY gained.

**Examples of cost effective interventions and implications for Suffolk – Crisis: Early detection of psychosis**

Before the onset of full psychosis, it is estimated that each year in England, nearly 16,000 people suffer from early (prodromal) symptoms. For Suffolk, the equivalent figure is perhaps 200 per year. It is clinically possible to detect these early signs of psychosis and take action to address them, reducing the risk of transition to full psychosis, and ensuring more rapid access to treatment if psychosis does develop.

One such service, based in South London, has been evaluated in both clinical and economic terms. The service is designed to find and treat young people (aged 15-35) in the community with prodromal symptoms of psychosis. The service is estimated to reduce the number of patients who go on to develop full psychosis to 20% of those with early symptoms, compared with 35% of patients...
who receive standard care. This would reduce the number of people developing psychosis in Suffolk each year, having first exhibited early symptoms, by approximately 30.

The annual cost of the service (in 2008/9 prices) is estimated to be just under £3,000 per patient per year, compared with a standard care cost of almost £750. This increase in the cost of care means that in year one, NHS costs are higher overall, but the reduction in costs resulting from better outcomes (fewer cases of full psychosis) outweighs this increase by year 2. By year 10, net cost benefits are over £5,500 per person seen, with £2,200 of those benefits taking the form of direct NHS savings, net of the costs of the additional service.

Extrapolating these numbers to Suffolk suggests that such a service could perhaps prevent 300 cases of psychosis locally over 10 years. This would result in direct net NHS savings of £4.4 million in Suffolk over 10 years, and wider benefits to the County valued at over £11 million over the same period. Consideration of these substantial financial benefits alongside the clear clinical case for early intervention and treatment, which can sometimes avert years of severe and ongoing illness, suggests that there is a strong case here for local investment and action.

Examples of cost effective interventions and implications for Suffolk – Crisis: Prevention of recurrent psychosis

Episodes of psychosis frequently lead to extremely high personal and societal costs. They can reoccur throughout a person’s life, leading to debilitating illness that can make family relationships, friendships, employment and wider engagement in society extremely difficult. Recurrent episodes of psychosis lead to increased risk of suicide. It is estimated that the NHS spends about £2 billion each year on treating and managing psychosis, the majority of which is caused by schizophrenia\textsuperscript{16}. If the wider societal costs of schizophrenia are considered, the costs are estimated to rise as high as £11.8 billion each year (2009/10 prices), including wider impacts such as lost output, the cost of informal care, and direct costs to the NHS. This is equivalent to £60,000 each year per person with schizophrenia. Given that between 70-150 people in Suffolk will have a psychotic episode for the first time each year, if half of them go on to be diagnosed with schizophrenia the costs arising from these new cases each year in Suffolk will be between £2 million and £4.5 million\textsuperscript{17, 18, 19}.

There is very clear clinical evidence that treating first-episode psychosis quickly and effectively leads to better long-term outcomes. One way of delivering this care is through Early Intervention in Psychosis (EIP) teams. A number of economic evaluations of this type of care have been completed, with interesting results.

While the cost of providing EIP care is higher than that of standard care, these additional costs have been found to have been rapidly offset by savings from a number of areas, including reduced inpatient bed days, lower relapse rates, and a 50% reduction in the likelihood of compulsory admission, while at the same time achieving better outcomes. These net savings are in the order of £5,500 per patient in the first year of psychosis, and amount to nearly £16,000 by the end of the third year\textsuperscript{20}. Considering the estimate for Suffolk of 70 – 150 new cases each year, providing early intervention services could save the NHS between £1 million - £2.4 million net of increased costs for
each annual cohort of new patients over three years, while at the same time delivering significantly better outcomes. In addition to these NHS savings, it is also estimated that EIP provides benefits through improved employment which are worth £2,000 per person by year three, and later benefits from reduced risks of suicide and homicide amounting to a further £6,000 per person by year ten. Although some of these wider benefits are indirect and intangible costs rather than service savings, they serve to strengthen the case for this approach even further.

Examples of cost effective interventions and implications for Suffolk – Medically Unexplained Symptoms

Patients with medically unexplained symptoms present with symptoms for which there is no readily identifiable physical cause. The symptoms can be triggered or exacerbated by mental or emotional factors. It is estimated that 1 in 100 working age adults who consult their GP have ‘full somatoform disorders’, with a further 1 in 4 suffering from less serious similar issues. Among working age adults, it is thought that medically unexplained symptoms account for 1 in 5 of all primary care consultations, 1 in 14 of all prescriptions, 1 in 4 outpatient attendances, 1 in 12 inpatient bed days, and 1 in 20 A&E attendances. Recent cost estimates suggest that patients with less severe medically unexplained symptoms cost the NHS in England £700 per patient per year, with costs of care for the most complex 5% of patients rising to £3,500 per year. Applying these figures to the working age population of Suffolk suggests that the local costs of caring for patients with medically unexplained symptoms could be in excess of £60 million each year.

Establishing a diagnosis for many of these patients is clearly very difficult; and even when a diagnosis is reached, the patient may be resistant to any idea that mental ill health may be the cause of their problems. Patients with medically unexplained symptoms can present with extremely diverse complaints, at different levels of severity. Despite this, if patients can be persuaded to engage in treatment, evidence suggests that Cognitive Behavioural Therapy (CBT, which could be delivered through the Improving Access to Psychological Therapies programme) is effective in improving patient outcomes, measured both through improvement in symptoms and lower healthcare costs.

The cost-effectiveness of two different approaches to improving the outcomes for patients with medically unexplained symptoms has been assessed, and can be further considered in the context of Suffolk. The first example is the creation of a specialist MUS service, targeted at the 5% of patients with the most severe and persistent problems, many of whom have complex physical and mental health problems which may be compounded by neglect, social isolation or trauma. Such a service, led by a liaison psychiatrist, is estimated to cost £0.6 million per year, for a ‘typical’ CCG with a population of 250,000 people. Providing such a service for Suffolk’s population could therefore cost £1.8 million per year, or approximately £600 per patient with severe symptoms.

The most complex MUS patients are estimated to be costing nearly £10.5 million each year to look after in Suffolk currently, at an average cost of £3,500 each. If the service was able to reduce NHS use by less than 10% it would cover its direct costs; any further reductions in wider service use
would be cost saving for the NHS. If the wider societal costs of sickness absence from work are included, the net benefits of providing such a service are likely to be amplified still further.

**Examples of cost effective interventions and implications for Suffolk - Perinatal Mental Health**

One in five mothers suffers from depression, anxiety or in some cases psychosis during pregnancy or in the first year after childbirth. Mental health problems not only affect the health of mothers but can also have long-standing effects on children’s emotional, social and cognitive development.

The costs of perinatal mental ill health are estimated at £8.1 billion for each annual birth cohort, or almost £10,000 per birth1 – given that there are approximately 7,750 births each year in Suffolk, these costs could be as high as £77.5m each year locally. Nearly three quarters of this cost relates to adverse impacts on the child, rather than the mother. Yet fewer than 15 per cent of localities provide effective specialist community perinatal services for women with severe or complex conditions, and more than 40 per cent provide no service at all.

Recently, two interventions for women in the perinatal period have been clinically and economically evaluated. The first one advocates the use of post-natal screening for depression by health visitors, as part of universal home visits, using a standardised tool7. All women are screened, and those who with post-natal depression that does not resolve in the short term receive psychologically informed support sessions from their health visitors. Considering only the impact on the mothers in the first year (and not the fathers or children), lower treatment costs and reduced productivity losses are offset by increased training and staff costs, meaning there are no cost savings (return on investment of £0.8 per £1 invested). However, over longer time periods, and if the wider impact on the family was included, it is likely that the intervention would be cost saving.

A second, similar intervention, has also been assessed for cost effectiveness11. In this model, women should again all asked screening questions at every routine contact with universal services (potentially also including midwives as well as health visitors). Women who screen positive should be referred to their GP or directly to an Improving Access to Psychological Therapies (IAPT) service for detailed assessment. Psychological therapy should then be provided as appropriate, depending on the findings from the assessment. All therapies should be provided within the timescales recommended by NICE.

This intervention has been economically evaluated by drawing on the separate work done by the Department of Health to economically evaluate IAPT services within the general population25, as little evidence of cost effectiveness specifically within the perinatal population exists. Using data from national modelling and applying it to Suffolk suggests that local annual costs of such an intervention would be £750k. The national evaluation work concluded that the benefits to society (including improvements to the health status of the individuals, measured using Quality Adjusted Life Years (QALYs)) outweighed the costs of expanded treatment services by a factor of six to one; so possible direct and indirect benefits of £4.3m per year could be achieved in Suffolk for the £750,000 additional spend. As part of this, direct savings of £1.75 in public service costs were estimated for every £1 spent on the IAPT service. These findings support those from the health-visitor only model, with both analyses suggesting that spending on interventions to improve the mental health of
women in the perinatal may not be cost-saving to the NHS in the short term, may be so in the medium, to long term; and that they represent excellent value for money when the wider costs of postnatal depression and anxiety to society are included.

**Examples of cost effective interventions and implications for Suffolk - Eating Disorders**

Eating disorders are marked by chronicity, relapse, distress, functional impairment, and risk for future obesity, depression, suicide attempts, anxiety disorders, substance abuse, and morbidity. 1 in 10 patients with an eating disorder will die prematurely, and many will experience up to 10 years of high morbidity. As most individuals with eating disorders do not receive treatment, and treatment is only effective for a subset of patients, the development and dissemination of effective prevention programs offers significant potential.

At present there is very limited data on the costs and potential benefits of prevention and better treatment for people with eating disorders. One estimate suggests that inpatient treatment alone costs just over £15.5m per year in England, equivalent to £0.2m per year in Suffolk.

It is difficult to assess the potential economic benefits of treatment for eating disorders. It is known that people with eating disorders experience lower rates of employment and earnings compared to people without, particularly if the person also has another mental disorder. One approach to assessing cost is therefore to consider the costs of lost employment. Based on UK incapacity claimant data, it has been estimated that the annual cost of lost employment due to eating disorders in England is £35m, equivalent to £0.5m in Suffolk. This does not include losses arising from people taking time off work, but not claiming incapacity benefit. The wider economic losses arising from eating disorders therefore appear to be greater than the levels of spending on current treatment, implying that it could be cost effective to spend more on treatment, for example by increasing coverage rates.

This finding has also been replicated in Australia, where a full cost-benefit analysis, including both productivity costs and the costs of the burden of disease arising from eating disorders found that the benefits of implementing best practice care exceeded costs by 5:1. In this example, the additional tax receipts arising from increased employment more than offset the additional direct care costs required to implement the new clinical care model, which established centres of excellence for the delivery of care and treatment.

**Examples of cost effective interventions and implications for Suffolk - Dementia**

As our population gets older, the number of people expected to develop dementia will increase substantially. This is despite recent evidence that the incidence of dementia in England is declining in recent years, as the overall health of the population improving over time.
The National Institute for Health and Care Excellence in its costing report accompanying Nice Guideline 16 (Delaying or preventing dementia, disability and frailty, NICE, 2015) considers the impact on costs of delaying the progression of dementia in a patient by one year. It includes the costs to the NHS, Local Authorities and Central Government through payment of the attendance allowance. The estimated avoided costs per person per year during which dementia is delayed are as follows:

Table 2: Estimated avoided costs per person per year during which dementia is delayed

<table>
<thead>
<tr>
<th>Public Sector Area</th>
<th>Saving over 1 year per person with dementia (£)</th>
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<tbody>
<tr>
<td>NHS</td>
<td>5,285</td>
</tr>
<tr>
<td>Local Government</td>
<td>5,537</td>
</tr>
<tr>
<td>Central Government</td>
<td>4,228</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15,050</strong></td>
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</tbody>
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Source: Delaying or preventing dementia, disability and frailty, NICE, 2015

This NICE guidance recognises that it is likely to take at least 10 years for any prevention or delaying activities to take effect, but it also suggests that up to 56% of dementia cases may be due to modifiable risk factors. If 1% of these cases, each costing £15,050 per year, could be delayed or prevented by a year, this would save over £60 million of public spending nationally per annum.
Applying these figures to the 14,902 people estimated to have dementia in Suffolk by 2020 suggests that 8,345 of these cases may be due to modifiable risk factors. If 1% of these cases were prevented or delayed by one year, 83 people would have their dementia prevented or delayed each year, saving £1.3m of public spending in Suffolk.

Examples of cost effective interventions and implications for Suffolk – Depression

Depression is one of the most common forms of mental illness, with an estimated 3 – 4 people in every hundred suffering from the condition. However, around one-third of people with depression are not in receipt of services, and there is also evidence of variation in the numbers of people with a diagnosis who actually receive treatment. Some of this variation may be clinically valid, but a proportion of it is likely to be clinically unwarranted. In addition, while waiting times for access to effective treatment, particularly talking therapies, have declined since the Improving Access to Psychological Therapies (IAPT) programme was opened to adults of all ages in 2010, in some areas of the country waiting times remain too long. The 18 week referral to treatment waiting time standard, in place in 2008 for physical health conditions, was only introduced in 2016 for treatments for mental health.

The costs of depression, to both the individual, to the NHS, and to wider society are high. In 2008 it was estimated that the cost of lost employment for each person with depression was £7,226 a year on average\(^3\). In addition, people with depression (and/or anxiety, which is less likely to spontaneously resolve than depression) may visit their GP more frequently and may be more likely to be in receipt of incapacity and other welfare benefits. It was estimated in 2007 that these total costs may be as high as £10,500 per person per year\(^3\).

The most comprehensive recent assessments looking at cost effectiveness in the treatment of depression come from the initial case, and subsequent reviews and cases for service expansion, of the Improving Access to Psychological Therapies (IAPT) programme. This was a nationally determined and funded programme of cognitive behavioural therapy which was designed to dramatically increase the availability of talking therapies on the NHS, and which included the detailed capture of process and outcome measures for every patient taking part. This accumulation of data has enabled more rigorous assessment of costs and benefits in relation to IAPT than almost any other NHS service.

The initial proposals for IAPT argued that, although the treatment cost £750 per patient, it was likely to result in two additional months in work, and two fewer months on incapacity benefits. One month on incapacity benefits was estimated to cost £750 (including benefit payments and reduced tax receipts) – so it can clearly be seen that the treatment is cost saving to the public sector, if not directly to the NHS.

Additional later analysis, which accompanied the decision to fund and roll out adult IAPT further, and to introduce IAPT for children and young people, was able to build on this early evaluation\(^3\). This detailed assessment concluded that IAPT generates £0.68 in savings for the NHS for every £1.00 invested; but if the wider statutory sector, including the NHS, tax receipts and benefit savings, was considered, IAPT generates £1.75 for every £1.00 invested. IAPT is therefore judged to be highly...
cost-effective to the NHS, and is cost-saving to statutory services as a whole, while also representing best clinical practice.

Using information from the Commissioning for Value resources published by Public Health England, it is possible to consider the extent to which IAPT is available in Suffolk, and the levels of success being achieved through IAPT locally.

Figure 6: % of people entering IAPT relative to estimated prevalence of anxiety/depression, Suffolk CCGs

![Graph showing % of people entering IAPT relative to estimated prevalence of anxiety/depression, Suffolk CCGs.](Source: PHE Mental Health Profiles by CCG, February 2016)

Figure 7: Rate of referrals and treatment starts, Suffolk CCGs

![Graph showing rate of referrals and treatment starts, IAPT, Suffolk CCGs.](Source: PHE Mental Health Profiles by CCG, February 2016)
There are small differences between the three CCGs in Suffolk regarding the rate of referrals, and the rate of people starting treatment through IAPT. Great Yarmouth and Waveney CCG (as a whole, including the population who are resident in Norfolk) has highest rate of referrals, but the lowest rate of people starting treatment. West Suffolk CCG has a lower rate of referral but a higher proportion of people starting treatment; this rate is the only one higher than the national average amongst the three Suffolk CCGs. As can be seen in figure XX below, West Suffolk also has the highest proportion of patients moving to recovery, and achieving reliable improvement, amongst the three Suffolk CCGs.

Figure 8: % of people moving to recovery and achieving reliable improvement, IAPT, Suffolk

Source: NHS Rightcare Commissioning for Value Mental Health Profiles

For any intervention to be cost-effective in practice, no matter how detailed the calculation of its theoretical benefits, it needs to be implemented consistently and in line with best practice guidelines. Quality and outcome framework (QOF) data from 2014-15 provides some insight into how well people with a new diagnosis of depression are being managed in Suffolk. NICE guidance suggests that people with a new diagnosis of depression should be reviewed by a GP at between 10 and 56 days since their diagnosis.

As figure 9 below shows, there is almost a nine-fold variation between practices in the extent to which they are delivering and recording care against this standard. While some deviations from this standard may not be very clinically significant, for example, if someone is reviewed one day later than the standard requires, some of this variation is likely to be clinically unwarranted. This level of variation perhaps suggests that some patient care is not being provided optimally in Suffolk, and therefore that the opportunities to benefit from these clinical and cost effective interventions are not being optimised locally.
Figure 9: % of adults newly diagnosed with depression and who received a timely review, GP Practices, Suffolk

Source: QOF 2014-15

Examples of cost effective interventions and implications for Suffolk – Improve the physical health of those with severe mental illness

It is well-known that mental health service users have a mortality rate 3.6 times higher than the general population\textsuperscript{33}; this means that people with severe mental illness die 15-20 years younger than the population average\textsuperscript{34}. While suicide rates among those with severe mental ill health are high, most of the premature deaths are due to the same causes found in the general population; cardiovascular disease; respiratory diseases; and cancer\textsuperscript{35}. Therefore, interventions which are effective against these causes of premature death in the general population also have the potential to improve the health and life expectancy of those with mental ill health, and may reap greater rewards in terms of relative clinical and cost effectiveness.

Supporting people with mental ill health to stop smoking has significant potential to improve outcomes and reduce the costs of care. Rates of smoking are very high amongst those with poor mental health, and the more severe a person’s mental ill health is, the more heavily they are likely to smoke. It is estimated that 59% of people on antipsychotic medication, and 70% of people in inpatient psychiatric facilities are likely to smoke, compared with the average rate of smoking in Suffolk of 20%\textsuperscript{11}. 

Source: QOF 2014-15
An intervention to support those with the most severe mental ill health to stop smoking could include focusing on those people managed through the so-called Care Programme Approach, who tend to have severe mental ill health, and are likely to smoke. Drawing on data from the Royal College of Physicians, it can be assumed that 60% of this population are smokers, and that 69% of the smokers would like to quit. This suggests that, nationally, there are just over 150,000 people under the Care Programme who smoke and who wish to stop, suggesting that in Suffolk there may be around 2,000 people. The most effective intervention evaluated by NICE is a multi-component intervention, including nicotine patches, counselling from a pharmacist, and a behavioural programme. The evidence suggests that 35% of people using this approach manage to stop smoking. The intervention costs £450 per person, but is estimated to save £672 per person in reduced NHS costs; if all the 2,000 people in Suffolk who could benefit were offered the intervention, nearly half a million pounds could be saved, and more importantly, the participants would on average gain an increase in life expectancy of seven years.
References


29. National Institute for Health and Care Excellence. Costing Statement: Dementia, Disability and Frailty in Later Life – Mid-Life Approaches to Delay or Prevent Implementing the NICE Guideline Delaying or Preventing Dementia Disability and Frailty (NG16); 2015.


