
LONDON MENTAL HEALTH

The invisible costs of mental ill health



MAYOR OF LONDON

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Foreword

Churchill called depression his ‘black dog’. Many other public figures have more recently spoken of their battles with mental ill health. Yet it remains a topic, we, the British people are reluctant to discuss.

It’s not just our famous ‘stiff upper lip.’ There are still many misconceptions about what mental ill health is, how it happens and what can be done about it. The result is those struggling with mental ill health often go unnoticed and unsupported. Yet, there is much we are doing to improve our mental health and prevent mental ill health.



As Mayor, I have a duty of care for all Londoners and that includes the one in four who studies show will be affected by mental ill health this year. This affects us all and costs the city in ways many of us often don’t recognise or understand.

Mental ill health impacts on business and industry, through sickness absence and worklessness. It also limits educational achievement and affects our relationships with others. Indeed, the effects of mental ill health impact upon each and every aspect of our lives.

This report highlights how much mental ill health affects London, and is a rallying cry for us to increase yet further our response to this very pressing and pervasive issue. This is not only a report for health and social care professionals. With this report, I speak to London’s elected and business leaders whose responsibilities are also affected by the wider costs of mental ill health. It is these leaders who, the evidence increasingly suggests, have a key role in reducing that burden.

This report is only one part of a much wider narrative. I will continue to contribute through my role as Mayor and Chair of the London Health Board, which has identified mental health as a priority. However, tackling such a large problem requires us to continue to work together.

With this report, I call on each of you to do your part. We must use the sound data and strong evidence base of this report to improve the mental health and wellbeing of this great city’s inhabitants.

Above all, it is time to talk to Londoners about our mental health – with our loved ones and colleagues, professionally and in public. It is time we all recognised that mental ill health is an issue for everyone.

A handwritten signature in black ink, which appears to be 'Boris Johnson'.

Boris Johnson
Mayor of London

Key findings

This report aims to, where possible, quantify the impact of mental ill health in London in order to highlight the scale of the problem. It does this through analysing the wider economic and social impacts of mental ill health. As such the measurement and quantification of the costs of mental ill health go beyond usual measures of economic output, or Gross Value Added (GVA) to consider, amongst other things, so-called 'non-market' impacts, for instance the impact on individuals' quality of life from mental ill health. The intention is for this to provide for a more 'all-encompassing' measure of the economic and social costs of mental ill health to London.

The wider impacts of mental ill health result in around **£26 billion** each year in total economic and social costs to London.

The wider impacts of mental ill health affect almost every aspect of a person's life, from their education and employment to their physical health and the quality of their relationships. Across the population, the net effects of these wider impacts substantially affect London's economy, infrastructure and population. Because of this, mental health is not simply an issue for health and social care. It is an issue for everyone.

Unfortunately, mental ill health remains one of the least understood of all health problems, and stigma stops people from addressing it. It is time we faced up to mental ill health and the effects it has on our community. To that end, this report seeks to shed some light on the scope and scale of mental ill health in London.

Mental health is important to London

In any given year, an estimated 1 in 4 individuals will experience a diagnosable mental health condition. A third of these will experience two or more conditions at once. Mental ill health is the single largest source of disease burden, more than cancer and cardiovascular disease, and the costs extend well beyond health and social care.

Close to £7.5 billion is spent each year to address mental ill health in the London community. This includes spending on health and social care to treat illness, benefits to support people living with mental ill health, and costs to education services and the criminal justice system. However, these costs are only a part of the total £26 billion lost to London each year through such issues as reduced productivity and reduced quality of life.

It is costing government

Mental ill health impacts the most vulnerable the most, and many of the related costs fall to the public sector. At least 1 in 10 children is thought to have a clinically significant mental health problem, meaning 111,000 young people in London. The impacts of childhood psychiatric disorders cost London's education system approximately £200 million per year.

It also costs to social care. Forty five per cent of looked after children aged 5 to 17 experience a mental health disorder, and 65,000 older Londoners experience dementia (a figure that is expected to almost double over the next 30 years). In social care costs alone, London boroughs spend around £550 million a year treating mental disorder, and another £960 million is spent each year on benefits to support people with mental ill health. These costs do not even tackle the problem. Informal and unpaid carers are left to contribute £1.2 billion worth of support each year to people with mental disorders.

It hinders the economy

Though diagnosis rates lag significantly behind most physical illnesses, an estimated 914,300 adults of working age in London are affected by a common mental disorder such as anxiety and depression. Many more are affected by a severe and enduring mental ill health. Mental ill health hampers London businesses each year by limiting employee productivity and reducing the potential workforce. £920 million alone is lost annually to sickness absences in the city, and a further £1.9 billion is lost to reduced productivity. The costs extend more widely, though, to amount to a staggering sum total of £10.4 billion lost each year to London business and industry.

It raises the costs of crime

Individuals with mental ill health are more likely to be the victims of crime than the perpetrators, but the costs to the criminal justice system are significant. The London criminal justice system spends approximately £220 million per year on services related to mental ill health, and other losses such as property damage, loss of stolen goods and the lost output of victims cost London another £870 million each year.

The current solutions are not sustainable

As stated earlier, roughly £7.5 billion is spent each year in London to combat mental ill health. Health costs for treating mental disorder amount to £2.8 billion per year, and another £550 million is spent on social care. These costs are already too high, and treatment costs are expected to grow over the next two decades.

Mental health issues also prevent physical health conditions from being addressed properly. Roughly £1 in every £8 spent on long-term health conditions can be linked to poor mental health, which translates to an additional £2.6 billion in treatment costs each year in London.

Despite these substantial costs, diagnosis and treatment rates for mental disorders are poorer than most physical health conditions, meaning that even with these large costs we are not sufficiently addressing the problem of mental ill health in our community. The costs are being felt elsewhere, in schools and businesses, crime and families.

Mental health is more than mental ill health

It is not all about mental disorder. London also has the UK's highest proportion of the population with high levels of anxiety. Nearly half of Londoners are anxious, and almost a third report low levels of happiness. Life satisfaction and feelings of worth are lower than the national average.

If we can begin to address these very basic and too-often ignored problems in our city, we can begin to unburden ourselves of both the moral and economic costs of mental ill health.

MENTAL ILL HEALTH IN LONDON

1 in 4 British adults experience at least one diagnosable mental disorder in any given year.

And 1 in 6 adults experience mental ill health at any given time.¹

London's total estimated population for 2013 is approximately 8,400,200 people.² Although the above statistic would indicate that 2,100,050 of them will experience clinical levels of mental ill health this year, calculating the actual figures is far more difficult.

Many factors, such as age, gender and lifestyle, may contribute to a person's likelihood of developing mental ill health, and some people may experience more than one mental disorder during the course of their lives or even at the same time.

Rather than arriving at a sum total, this report seeks to understand mental health in London by looking at how mental ill health is manifested in the city. It considers how common certain conditions are in London and seeks to give a picture of mental health across our lifetime – from children and young people, to working age adults to older people. Finally, it looks at how mental ill health varies across different aspects of our community, such as gender and ethnicity.

'Mental health' versus 'mental ill health'

First, though, it may be useful to more clearly define what mental health is. 'Mental health' is an inexact and umbrella term often ascribed to what would more accurately be termed 'mental ill health.' In this usage, the term often refers to a variety of clinical illnesses and disorders. However, mental health is actually a much more expansive issue and includes not only general stress and depression but also positive states such as happiness and a sense of worth. These positive states affect our lives and our community every bit as much as the more talked-about negative ones.

It is also important when looking at mental health to understand its idiosyncratic nature. A person's mental health, whether good or poor, can manifest in different and individual ways, at different stages

¹ The Office for National Statistics Psychiatric Morbidity report, 2001 – <http://discover.ukdataservice.ac.uk/catalogue/?sn=4653&type=Data%20catalogue>

² GLA, 2012 Round of Demographic Projections – SHLAA – <http://data.london.gov.uk/datastore/package/gla-population-projections-2012-round-shlaa-borough-sya>

of life. One person's idea of happiness is not always the same as another's, and the things that worry one person are not always the same as what worries another.

What is more, the causes and symptoms of mental ill health are not always clear or understandable, nor are they always accurately described by a pre-existing, diagnostic label. This report uses clinical definitions of mental ill health because they are commonly recognised and understood, and the overwhelming majority of gathered evidence is based around clinical diagnoses. However, these diagnoses provide a very incomplete picture of 'mental health' in our city. It is therefore worthwhile to first look at the wider issues of population stress and wellbeing.

Population stress and wellbeing

Just as a person's physical health is much more than what physical diseases they have or do not have, so too is mental health more than the presence or absence of mental disorder. A person with no diagnosable disorder may still be very sad or anxious, and a person with life-altering schizophrenia may still feel very happy and fulfilled.

Office of National Statistics figures offer some insight into these levels of general stress and wellbeing that exist regardless of clinical diagnosis. Compared with other regions, London has the largest proportion of the population reporting high levels of anxiety. Forty one point three per cent of London adults reported high levels of anxiety compared with the UK average of 38.5%, and rates were higher in inner London than outer London. Life satisfaction and feelings of worthwhileness are also particularly low in the capital compared with the UK.

Table 1: Measures of general wellbeing

	UK	London	Inner London	Outer London
% with high anxiety	38.5	41.3	42.1	40.9
% with low happiness	28.4	29.7	30.6	29.1
% low life satisfaction	23.0	26.2	26.3	26.2
% with low worthwhileness	19.3	22.0	23.1	21.2

Source: ONS Annual Population Survey, 2012/13

Half of all lifetime mental disorder starts by the age of 14 and 75% by the mid 20's.³

Early life and maternal mental health

Mental health begins in the first moments of life, even before a child can walk or talk. The impacts of these early years can resonate across a lifetime. Measuring the mental health of pre-school children is challenging, however, as it is difficult to separate clinically relevant symptoms of mental ill health from normal, developing behaviours in children under five years of age.

For this reason, it is perhaps more useful at this stage to look at maternal mental health. One of the strongest predictors of wellbeing in early years is the mental health and wellbeing of the mother or caregiver.

During pregnancy and in the first year after birth, mothers can be affected by a range of mental disorders. Collectively, these issues are termed perinatal mental disorders (for clinical definitions see Appendix 1). Prevalence of these disorders vary according to type. For instance, while a relatively small number in London, fewer than 300, experience postpartum psychosis, it is estimated that approximately 4,000 new mothers experience severe depressive illness. A further 13-20,000 new mothers experience mild to moderate depressive illness and anxiety states.⁴

Perinatal mental disorders are particularly significant as they have the potential to interfere with or prevent the development of mother-child attachment and the caregiving relationship. This can lead to longstanding, harmful effects on the child's emotional, social and cognitive development.⁵

School-aged children and young people

Mental health and mental disorder become more distinguishable beyond the early years, as communication improves and the child develops a more interactive personality. Unlike most disabling physical diseases, though, most mental ill health begins relatively early in life. The initial onset of most mental disorders usually occurs in childhood or adolescence, though diagnosis and treatment are often delayed into later life when the disorder can be more costly, severe and difficult to treat.

England estimates show that, overall, 10% of children aged 5-16 have a common mental disorder.⁶ There are currently 1.1 million people in London between the ages of 5 and 16,⁷ which indicates that

³ Meltzer H, Gatward R, Goodman R, Ford T (2000) The mental health of children and adolescents in Great Britain HMSO: London.

⁴ Births by Area of Usual Residence of Mother, England and Wales, 2012. – <http://www.ons.gov.uk/ons/rel/vsob1/births-by-area-of-usual-residence-of-mother--england-and-wales/2012/index.html>

⁵ Guidance for Commissioners of perinatal mental health services, Joint Commissioning Panel for Mental health – http://www.rcpsych.ac.uk/pdf/perinatal_web.pdf

approximately 111,000 children in the capital have a common mental disorder. Rates are significantly worse amongst looked after children. National estimates suggest that 45% of looked after children aged 5 to 17 years experience a mental health disorder, 37% have clinically significant conduct disorders, 12% have emotional disorders, such as anxiety or depression, and that 7% were are hyperkinetic.⁸

Table 2: Common mental disorder in children

Diagnosis	Percentage of London children aged 5-16	Number of affected children in London, 2013
Anxiety disorder	3.3%	38,000
Depression	0.9%	10,000
Conduct disorder	5.8%	67,000
Attention deficit hyperactivity disorder	1.5%	17,000
Any disorder	9.7%	111,000

NB: Columns do not add up as individuals may meet the criteria for more than one category.

Source: Child and Adolescent Mental Health Survey, 2004

Suicide and self-harm in adolescents

One aspect of young people's mental health not addressed in the previous section is suicide and self-harm. Fortunately, the suicide rate in young people is relatively low compared with working age and older adults.⁹ Despite this, 7.2% of children aged 11-16 in the UK reported that they had tried to harm or kill themselves at some point. One point seven per cent of UK parents with children aged 5-10 years old said their child had tried to harm or kill themselves. In London, these percentages equate to 38,900 and 10,400 children respectively.¹⁰

Much more common amongst young people is self-harm, for which the average age of onset is 12. At least 1 in 15 young people aged 11 to 25 deliberately self-harm.¹¹ In London, this translates to 108,000 people.

⁶ ONS, 2005. Mental health of children and young people in Great Britain, 2004. – <http://www.esds.ac.uk/doc/5269/mrdoc/pdf/5269technicalreport.pdf>

⁷ GLA, 2012 Round of Demographic Projections – SHLAA – <http://data.london.gov.uk/datastore/package/gla-population-projections-2012-round-shlaa-borough-sya>

⁸ Meltzer, H. Gatward, R. Corbin, T. Goodman, R. Ford, T. (2003) The mental health of young people looked after by local authorities in England. Office for National Statistics. London. HMSO.

⁹ ONS. Suicides in the UK, 2011. – <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tc%3A77-288089>

¹⁰ ONS, 2005. Mental health of children and young people in Great Britain, 2004. – <http://www.esds.ac.uk/doc/5269/mrdoc/pdf/5269technicalreport.pdf>

¹¹ Mental Health Foundation, 2006. *Truth Hurts. Report of the National Inquiry into Self-harm among Young People.* –

Adults of working age

As stated in the previous section, many disorders diagnosed in adulthood actually have their onset in childhood or adolescence. It is therefore not surprising that many of the mental disorders present in children and young people are also present later in working age adults. However, at working age we also see the onset of severe and enduring illnesses, such as schizophrenia and bipolar disorder that are very rare in younger age groups.

Common mental disorders

There are an estimated 5,778,000 people between the ages of 16-64 currently living in London. According to the 2007 Adult Psychiatric Morbidity Survey, 15.8% of adults in this age group have a common mental health problem. In London, that equates to 914,300 working age adults with symptoms strong enough to meet the thresholds for a clinical diagnosis.

Table 3: Common Mental Disorders in Adults 16-64

Diagnosis	Percentage of the London population	Number of affected people in London, 2013
Mixed anxiety and depressive disorder	9.0%	521,600
Generalised anxiety disorder	4.6%	263,600
Depressive episode	2.4%	141,100
All phobias	2.1%	122,600
Obsessive compulsive disorder	1.5%	85,800
Panic disorder	1.1%	61,400
Any common mental disorder	15.8%	914,300

NB: Columns do not add up as individuals may meet the criteria for more than one category.

Source: Adult Psychiatric Morbidity Survey, 2007

Severe and enduring mental disorders

Severe and enduring mental disorders are, as the name suggests, much less prevalent than common mental disorders. They are, however, typically much more persistent and pervasive. As a result, they often result in much more significant impairment to the individual and a higher rate of premature mortality.

Due to their relative rarity, and due to differences in assessment methods and diagnostic criteria, there is some variation in estimates of the prevalence of severe and enduring mental disorders. While it is beyond the scope of this report to reconcile this variation, we have sought to include several forms of estimation so as to create as comprehensive picture as possible.

One method of estimating severe and enduring mental disorder in the London community is to base it on a national sample. The National Survey of Psychiatric Morbidity in the UK found a population prevalence of probable psychotic disorder of 5 per 1,000 in the age group 16 to 74 years. In London, this translates to 31,400 people.

Another method of estimating severe and enduring mental ill health in the London community is via London GP registers. In 2011-12 there were 89,289 people in London recorded at GP surgeries as diagnosed with schizophrenia, bipolar disorder and other psychoses.

The London prevalence was 1% of people on GP registers, compared to 0.82% for England, and was the highest prevalence of all regions in the country. Prevalence varied significantly across London, ranging from 0.62% in Havering to 1.47% in Islington.¹²

Eating disorders

In the most recent Adult Psychiatric Morbidity Survey, 7% of the London population aged 16 and over exhibited signs of an eating disorder. Based on 2013 population estimates, this translates to 471,429 people in the capital who meet clinical threshold for an eating disorder.

Table 4: Eating disorders

Diagnosis	Percentage of the London population	Number of affected adults in London, 2013
Bulimia	2.8%	188,572
Anorexia	0.7%	47,143
Eating disorder not otherwise specified	3.5%	235,715
Any eating disorder	7.0%	471,429

Source: Adult Psychiatric Morbidity Survey, 2007

The Adult Psychiatric Morbidity Survey also showed that a quarter of those showing signs of an eating disorder were male. Despite this women made up 91% of hospital admissions for eating disorders in 2011/12.

Suicide and self-harm in adults

As stated earlier, suicide is much more common in adult years than adolescence. Between 2008 and 2010, there was an average of 579 suicides per year in London. However, many more people attempt suicide. Four point six per cent of adults in London, or 310,000 individuals, have attempted suicide in their lifetime. A further 4.2% of adults, 283,000 in London, have thought about suicide in the last year. Additionally, 4.6% of adults, around 310,000 in London, say they have deliberately self-harmed without the intention of killing themselves.¹³

¹² Quality and Outcomes Framework (QOF) Prevalence Indicators 2011-12 – <http://www.hscic.gov.uk/catalogue/PUB08135>

¹³ Health & Social Care Information Centre. Adult Psychiatric Morbidity Survey - 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

Personality disorders

Similar to severe and enduring mental disorders, issues with assessment and diagnosis have made estimating the prevalence of personality disorders problematic. Previous studies have suggested that as many as 1 in 5 people could meet the criteria for a personality disorder. However, a larger and more rigorous UK study in 2006 suggested that, at any given time, about 1 in 20 adults will have a personality disorder. In London this equates to 337,000 people.¹⁴

Two very prominent personality disorders are borderline personality disorder and antisocial personality disorder. Borderline personality disorder (BPD) is characterised by persistent personal and emotional instability. Individuals with BPD have difficulty maintaining relationships and are at greater risk of self-harm and suicide. Per the APMS, 0.4% of the UK population over the age of 16 meets the diagnostic criteria for BPD. In London, this equates to 26,900 people.

Antisocial personality disorder (ASPD) is characterised by a pervasive disregard for the rights of others. Individuals with ASPD are believed to be responsible for a disproportionately large number of crimes and incidents of violence. It is estimated that ASPD occurs in 0.6% of adult men over the age of 18 and 0.1% of adult women. In London, this translates to 22,600 adults.¹⁵

Older people

There are currently an estimated 952,000 people in London aged 65 and over, representing 11% of the city's population. This proportion is projected to increase to 13% by 2030. The percentage of people aged 75 and over will also increase, growing from 5% in 2013 to 7% in 2030. This is equivalent to over 180,000 more people aged 75 and over.

When discussing the mental health issues of older people, most immediately think of dementia. However, older people experience many of the same difficulties and disorders as the rest of the population.

Between 10–16% of people over 65 have depression, and an estimated 2–4% has severe depression. Older people living alone or in residential/nursing care and those with physical illnesses or disabilities are more at risk, with some 40% affected by depression.¹⁶ Recognition rates are lower than for younger people. Only one third of older people with depression discuss their symptoms with their GP, and fewer than half of these will receive adequate treatment. Older people have a similar risk of suicide compared to younger adults. However a suicide attempt in an older person is more likely to be successful.¹⁷ Psychosis is also common in older people, with 20% of people over 65 developing psychotic symptoms by age 85.¹⁸

¹⁴ Royal College of Psychiatrists – <http://www.rcpsych.ac.uk/expertadvice/problemsdisorders/personalitydisorder.aspx>

¹⁵ Health & Social Care Information Centre. Adult Psychiatric Morbidity Survey - 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

¹⁶ Adults In Later Life with Mental Health Problems, Mental Health Foundation quoting Psychiatry in the Elderly, 3rd edition, Oxford University Press, 2002

¹⁷ Joint Commissioning Panel for Mental Health: Guidance for commissioners of older people's mental health services (May 2013) – <http://www.jcpmh.info/wp-content/uploads/jcpmh-olderpeople-guide.pdf>

¹⁸ Joint Commissioning Panel for Mental Health: Guidance for commissioners of older people's mental health services (May 2013) – <http://www.jcpmh.info/wp-content/uploads/jcpmh-olderpeople-guide.pdf>

65,000 Londoners live with dementia and, if London follows the predicted national picture, numbers will almost double within the next 30 years.¹⁹

Dementia

Dementia affects 5% of people over the age of 65, 20% of those over 80, and 32% of those aged 90 and over.²⁰ As London has a younger population than the rest of England, the prevalence of dementia is lower than the rest of England.

The condition occurs predominantly but not exclusively among older people and prevalence increases with age. The table below uses GLA 2013 population estimates to give a summary version of Dementia UK age specific prevalence rates for London. It is worth noting that, based on these estimates, more than 1,700 Londoners under the age of 65 are living with early onset dementia.²¹

Table 5: Dementia by age

Age group	Dementia prevalence	Londoners in age group	Londoners with dementia
People aged over 80	1 in 6	266,100	44,400
People aged 70–79	1 in 25	396,300	15,900
People aged 65–69	1 in 100	289,600	2,900
People aged 40–64	1 in 1400	2,402,500	1,700
Total		3,354,500	64,800

Source: Dementia UK prevalence summary from JCPMH, 2013

Evidence suggests that only 40% of cases of dementia in the UK are diagnosed. In 2012-13 there were 33,333 people recorded on London GP practice registers as having dementia. This is around half of the expected prevalence. Nought point four per cent of the registered population in London have dementia; a lower proportion than the 0.6% recorded nationally. London's younger population with a lower proportion of people aged over 65 is likely to be a major contributing factor.²²

¹⁹ Joint Commissioning Panel for Mental Health; Guidance for commissioners of dementia services (February 2013)

²⁰ National Institute For Clinical Excellence, 2004

²¹ Joint Commissioning Panel for Mental Health; Guidance for commissioners of dementia services (February 2013)

²² Joint Commissioning Panel for Mental Health; Guidance for commissioners of dementia services (February 2013)

People with mental ill health are two to four times more likely to die prematurely.

Comorbidity

Comorbidity is the presence of two or more conditions in a person at the same time. For instance, a person with heart disease may also have diabetes. Comorbidity, though, occurs with mental disorders as well as physical ones. As stated earlier in this report, a substantial proportion of the London population meets the criteria for two or more mental disorders.

The Institute of Public Care (PANSI) estimates that just under a quarter of adults (23.0%) meet the criteria for at least one psychiatric condition. Of those with at least one condition: 68.7% meet the criteria for only one condition, 19.1% meet the criteria for two conditions and 12.2% meet the criteria for three or more conditions. This means that in London, as many as 484,800 adults may have more than one mental health condition.

People experiencing a physical health condition are also more likely to suffer mental ill health. Thirty per cent of the population have one or more chronic or long-term physical conditions, such as diabetes, arthritis or HIV/AIDS. The presence of a long-term physical health condition increases the risk of mental ill health by two to three times over that of the general population.²³

The reverse is also true. Mental ill health may often increase the risk of physical illness. People struggling with mental disorder may engage in riskier behaviours or may be less able to care for themselves as a result of their illness. The result is that people with mental health conditions are two to four times more likely to die prematurely, mainly from physical causes like cardiovascular disease.²⁴

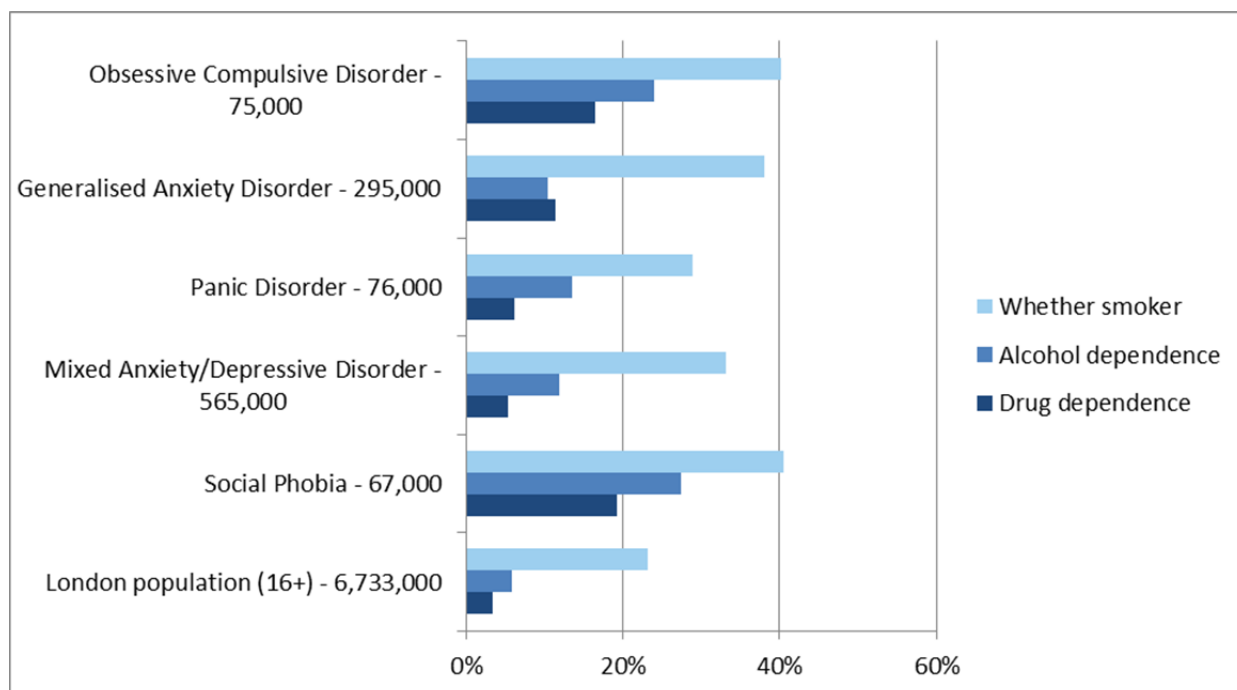
One particular type of co-morbidity is the abuse of alcohol and drugs. Similar to physical illness, substance misuse and mental ill health have a two-way relationship. The presence of mental ill health increases the likelihood of substance misuse via self-medication and increased risk taking. Conversely, substance misuse can result in a host of behavioural and cognitive issues, such as depression or psychosis, that are characteristic of mental ill health.

It is well documented that misuse of alcohol and drugs is higher among those with mental disorder, as are rates of smoking. For example, rates of drug dependence amongst people with social phobia are six times as high as those of the general population. People with obsessive compulsive disorder have a fourfold increase in the risk of developing alcohol dependence, and generalised anxiety disorder is associated with a 9% increase in the risk of being a smoker.²⁵ The chart on the following page illustrates the increased prevalence of smoking, alcohol and substance misuse amongst some groups of the population with mental ill health.

²³ 'Long-term conditions and mental health: The cost of co-morbidities.' The King's Fund and Centre for Mental Health 2012 – http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

²⁴ 'Long-term conditions and mental health: The cost of co-morbidities.' The King's Fund and Centre for Mental Health 2012 – http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

²⁵ Adult Psychiatric Morbidity Survey, 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>



Source: Adult Psychiatric Morbidity Survey, 2007

Mental health inequalities

Londoners experience stark and unacceptable differences in their well-being and length of life. Many different factors, such as genetics, environment and lifestyle, interact and compound to influence how long and how healthily a person lives. Mental health is no different in this respect. It is shaped by these factors and shapes them in turn. The end result is that mental ill health does not affect all people equally.

Research shows that different ethnic groups have very different experiences of mental distress and recovery. They may have higher rates of incidence than other groups, different routes into and out of treatment services, and different outcomes afterwards.

There is evidence that much of the variation amongst ethnicities can be attributed to associated factors, such as income, employment, lifestyle and physical health. Other factors associated with ethnicity include discrimination, experiences of migration and traumatic events. Even culturally determined beliefs about age and gender roles, the meaning of health and wellbeing and levels of stigma associated with mental ill health and treatment services are influential.

However, different rates of mental ill health remain for some groups even after taking many of these factors into account. For example, White populations have the highest rates for suicidal thoughts, self-harm and alcohol dependence;²⁶ and rates of schizophrenia are higher among Black Caribbeans

²⁶ McManus S, Meltzer H, Brugha T, et al (2009) Adult psychiatric morbidity in England, 2007. Results of a household survey. Health and Social Information Centre, Social Care Statistics. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

and Black Africans compared with the White British population and after adjustment for socio-economic status and age.²⁷

Another way in which ethnicity impacts mental ill health is through the different ways in which groups of people tend to access and experience services. In general, people from black and minority ethnic groups are more likely to enter the mental health services at a time of crisis or breakdown. They are more likely to be referred via the courts or the police rather than by a GP, and more likely to receive medication rather than talking therapies such as psychotherapy. Afro-Caribbean people in particular are more likely to be detained in hospital under the Mental Health Act and more likely to experience poor outcomes from treatment.²⁸

It is important to note that many of the findings associated with variations in ethnicity are not entirely consistent across different studies. The relative prevalence of mental health conditions across different ethnic groups is a complex topic, influenced by many factors not directly associated with ethnicity, and the reasons behind observed differences are often not well understood.

Similar to the differences in disorder between ethnicities, there is some evidence that mental ill health can vary based on gender and sexuality. For instance, eating disorders are more common among women throughout life and there is a higher probability of PTSD in all female age groups excluding 16 – 24 years.²⁹

There is also a difference in gender related to suicide and self-harm. More women than men are believed to think about and attempt suicide, and women are more likely than men to say they have self-harmed. Men, however, are more likely to die as a result of a suicide attempt. In the three years between 2008 and 2010, 1302 men committed suicide in London compared with 425 women.³⁰

Analysis of a large UK-wide sample of adults found that people who identify as non-heterosexual have higher rates of unhappiness, anxiety and depression. They are also more likely to suffer from obsessive-compulsive disorder, phobic disorder, psychosis and acts of self-harm.³¹ Research has found that the rate of suicide attempts is twice as high and particularly high for men.³² Use of alcohol, drugs and cigarettes are also higher among some gay, lesbian and bisexual groups.³³

²⁷ Kirkbride JB, Barker D, Cowden F, et al (2008) Psychoses, ethnicity and socioeconomic status. *Br J Psychiatry* 193:18–24. – <http://www.ncbi.nlm.nih.gov/pubmed/18700213>

²⁸ Mental Health Foundation – <http://www.mentalhealth.org.uk/help-information/mental-health-a-z/B/BME-communities/>

²⁹ Health & Social Care Information Centre. Adult Psychiatric Morbidity Survey - 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

³⁰ Health & Social Care Information Centre. Adult Psychiatric Morbidity Survey - 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

³¹ Chakraborty, A. et al. Mental health of the non-heterosexual population of England. *British Journal of Psychiatry*, Vol. 198, February 2011, pp. 143–48. – http://bjp.rcpsych.org/content/198/2/143.abstract?ijkey=9a44090b64de0d1e6b721de2c486615518710560&keytype=tf_ipsecsha

³² King, M. et al. A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. *BMC Psychiatry*, Vol. 18, August 2008, 8:70.

³³ Chakraborty, A. et al. Mental health of the non-heterosexual population of England. *British Journal of Psychiatry*, Vol. 198, February 2011, pp. 143–48. –

As with ethnicity, the reasons for these differences are complex, poorly understood, and confounded by many factors. For instance, some of the variance may be attributed to expectations associated with gender roles or experiences of discrimination and social stigma. While it is important to have an awareness of the inequalities associated with mental health, it is also very important to avoid generalisation or bias.

THE WIDER IMPACTS OF MENTAL ILL HEALTH IN LONDON

Mental ill health is the single largest cause of disability in the UK, contributing up to 22.8% of the total burden of disease, compared to 15.9% for cancer and 16.2% for cardiovascular disease.³⁴

This section aims to analyse, and where possible quantify, the impact of mental ill health in London in order to highlight the scale of the problem.

The authors of this report chose to analyse the wider economic and social impacts of mental ill health. As such the measurement and quantification of the costs of mental ill health go beyond usual measures of economic output, or Gross Value Added (GVA). The consideration here looks at so-called 'non-market' impacts, as well as the market impacts usually measured within GVA, for instance the impact on individuals' quality of life from mental ill health. The intention is for this to provide for a more 'all-encompassing' measure of the economic and social costs of mental ill health to London.

Additional notes on the methodology employed throughout this section are provided in Appendix 2.

Economic and social costs: reductions in quality of life

People with poor mental health

Mental disorder directly impacts on the quality of life people experience through, for example, unpleasant symptoms or by limiting their activities. This direct deterioration in quality of life can be quantified and valued, and, through such tools as health surveys, it can also be measured.

Adults

One such survey is the Health Survey for England. In the 2011 survey³⁵ London respondents with either moderate or extreme anxiety or depression reported an average happiness level of 6.6 out of 10. This compared to a level of 7.2 reported by those without anxiety or depression.

Other data from the same survey produced further evidence that adults with mental health issues have lower quality of life. Respondents were asked to rate five components³⁶ of health related to quality of life on a three point scale³⁷ and the results were used to produce an index value. For example, a person with no problems on any of the dimensions would have an index value of 1 (referred to as one 'quality adjusted life year' or QALY), but if they were to develop moderate anxiety or depression their index value would fall to around 0.85, suggesting the health related quality of life they experience had declined by around 15%.

A simple comparison of the QALY index values between those with at least moderate anxiety or depression and those without unsurprisingly shows that the former group have QALY index values around 0.29 lower. Some of this difference can be attributed to a higher incidence of other health

³⁴ *No Health Without Mental Health: A Cross-Government Mental Health Outcomes Strategy for People of All Ages*, Department of Health, 2011. – <https://www.gov.uk/government/publications/no-health-without-mental-health-a-cross-government-mental-health-outcomes-strategy-for-people-of-all-ages-a-call-to-action>

³⁵ Health & Social Care Information Centre, Health Survey for England, 2011. – <http://discover.ukdataservice.ac.uk/catalogue/?sn=7260&type=Data%20catalogue>

³⁶ Mobility, self-care, usual activities, pain/ discomfort, anxiety/ depression

³⁷ No Problems (1), Moderate Problems (2), Extreme Problems (3). There is also a version of the survey that uses a five point scale.

problems in those with depression or anxiety. The London figures suggest that individuals with anxiety or depression have around 1.3 other health problems (out of a maximum of 4), compared to just 0.4 among those without.

However, an alternative comparison can be made between the current health states of those with depression or anxiety and the health states they would experience without these issues. This comparison suggests that anxiety and depression are responsible for a slightly smaller QALY loss of around 0.13 on average. As this figure is derived from a health questionnaire and directly focuses on the reduction in quality of life from mental health issues, it should provide a reasonable measure of this impact.

The human component (that is the intrinsic enjoyment of life) of a QALY has been valued at around £42,000 per QALY in current prices. Therefore, the human costs resulting from the average QALY loss of 0.13 are valued at around £5,000 per year.

Given that an estimated 1.1m adults (15.9% of those aged 16 and over) in London have a common mental disorder, the overall scale of quality of life losses due to poor mental health is therefore substantial at around **£5.75bn** for the estimated 138,000 QALYs lost each year in London.

Children

To create a comprehensive picture of the costs to quality of life, we must also look at the cost to children and young people. As the Health Survey for England does not collect the same data for children, it has been assumed, following Sainsbury Centre for Mental Health (2003)³⁸ that the prevalence of anxiety and depression in children is half that seen in adults but that the size of the QALY loss is the same. Under these assumptions an estimated 0.13m children have reduced quality of life due to poor mental health, and the overall quality of life losses for this group amount to around **£0.71bn**.

Research by the Institute of Education³⁹ finds that children with higher levels of emotional, behavioural, social and school wellbeing have, on average, higher levels of academic achievement and are more engaged in school. These benefits also extend to later years, meaning children with better emotional wellbeing make more progress in primary school and are more engaged in secondary school. As children move through the school system, emotional and behavioural wellbeing become more important in explaining school engagement, while demographic and other characteristics become less important.

Adding together the losses for both adults and children brings the total for London to around **£6.5bn** worth of quality of life reductions each year.

People who commit suicide

A third group to consider when looking at reductions in quality of life is those who end their lives prematurely. Based on Department for Transport figures⁴⁰, each person who commits suicide

³⁸ The Sainsbury Centre, 2003. Policy Paper 3. *The economic and social costs of mental illness* – http://www.centreformentalhealth.org.uk/pdfs/costs_of_mental_illness_policy_paper_3.pdf

³⁹ Department for Education, 2012. *The impact of pupil behaviour and wellbeing on educational outcomes*. – <https://www.gov.uk/government/publications/the-impact-of-pupil-behaviour-and-wellbeing-on-educational-outcomes>

⁴⁰ Department for Transport, 2011. *The Accidents Sub-Objective* – <http://www.dft.gov.uk/webtag/documents/archive/1208/unit3.4.1.pdf>

represents a human cost of around £1.1m. In 2011 London experienced 583 suicides (among people aged over 15). Using a similar approach to above, it can be concluded that the human costs of suicide in London amount to around **£0.65bn** each year.

Economic and social costs: intergenerational impact

Mental health of future generations

There is evidence of an intergenerational correlation in mental ill health. Johnston et al. (2011)⁴¹ for example, report that a child whose mother reported feeling miserable and depressed is around 63% more likely to report the same difficulties than the average child. This study, however, is not able to separate any genetic element of transmission of mental ill health across generations from elements related to parenting issues or exposure of children to mental ill health.

Royal College of Psychiatrists (2011)⁴² includes a discussion of some of the ways parental mental disorder can impact on children. The report mentions not only genetic risks, but the direct influence of specific symptoms (such as parents having delusional thoughts about their children), behaviours associated with mental disorder leading to neglect, and indirect effects through mental disorder-related financial difficulties or stigma.

Children's outcomes

Johnston et al. (2011) looks at the relationship between children's economic outcomes and the mental health problems of their parents, finding that even after controlling for the child's own mental health when they reach adulthood, a one standard deviation worsening of the mother's mental health reduced their income at ages 30 to 34 by around 2%.

The evidence of poor outcomes among the children of mental disorder sufferers is also echoed in Royal College of Psychiatrists (2011) which describes evidence of increased criminality in adulthood among the children of depressed mothers. The report also cites research which suggests the children of mothers with schizophrenia have worsened labour market outcomes and increased chances of premature death.

Economic and social costs: lost output

Increased worklessness

The Adult Psychiatric Morbidity Survey⁴³ provides some evidence that a smaller proportion of those with common mental health disorders work than those without such disorders. In London, 68% of people of working age without a common mental health disorder reported that they had done paid work in the week the survey was carried out in 2007 compared to 48% of those with a common mental health condition.

⁴¹ Johnston DW, Schurer S, Shields MA, 2011. Discussion paper. *Evidence of the long shadow of poor mental health across three generations*. Institute for the Study of Labor, Bonn. – <http://ftp.iza.org/dp6014.pdf>

⁴² Royal College of Psychiatrists, 2011. *Parents as patients: supporting the needs of patients who are parents and their children*. – <http://www.rcpsych.ac.uk/files/pdfversion/cr164.pdf>

⁴³ HSCIC. Adult Psychiatric Morbidity Survey, 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

This increased level of worklessness has costs at the individual level, as being out of work is associated with lower income and therefore reduced consumption and quality of life. There are also costs at the societal level, as fewer people working means that there is less output produced in the economy. The best means of estimating these costs is valuing the output that would have been produced if there were no difference in worklessness between those with and without mental ill health.

One way to do this would be to follow the QALY approach outlined at the beginning of this section but to use instead the output component, which is valued at around £22,000 per QALY. Based on 22% of 5.6 million working age adults in London experiencing some form of anxiety or depression⁴⁴, this produces an estimate of lost output related to poor mental health in London of around £3.5bn.

An alternative and more commonly used approach involves wage rates and employment rate differentials. As mentioned above, the Adult Psychiatric Morbidity survey reports that just 48% of working age individuals with a common mental disorder had a job in 2007. When compared with rates for those without a common mental health disorder, this suggests that around 180,000 additional individuals were out of work, though causation has clearly not been established. Based on these figures and the median wage in London, the estimated value of lost wages due to increased worklessness associated with common mental health disorders in London is estimated at around £5.49bn.

Other estimates of lost earnings have been done in other reports such as King's Fund (2008) *Paying the Price*⁴⁵. This report estimates the lost earnings in 2007 associated with a number of mental health conditions⁴⁶ for the whole of England and arrives at a figure of £26.1bn. If this figure is updated (to take into account inflation) and apportioned (to remove lost output relating to non-London regions) then the estimated value of lost earnings in London in 2012 prices is around £6.04bn.

Moving from these estimates of lost earnings to estimates of lost output requires an adjustment for components of labour costs above earning.⁴⁷ This produces estimates of lost output due to worklessness associated with poor mental health at **£6.86bn** (based on the 2007 Adult Psychiatric Morbidity Survey figures) and **£7.55bn** (based on the figures from the King's Fund report). These estimates are noticeably higher than the QALY based value, but may be more useful given that this approach is more common in previous research.

Impending worklessness among young people

As the above shows, having a common mental disorder in adulthood is clearly associated with adverse labour market outcomes. A similar finding is also true of young people with mental ill health who have

⁴⁴ This is the proportion of those aged 16 and over that reported having moderate or extreme anxiety or depression in the 2011 Health Survey for England.

⁴⁵ Kings Fund, 2008. *Paying the price. The cost of mental health care in England to 2026.* – http://www.kingsfund.org.uk/sites/files/kf/Paying-the-Price-the-cost-of-mental-health-care-England-2026-McCrone-Dhanasiri-Patel-Knapp-Lawton-Smith-Kings-Fund-May-2008_0.pdf

⁴⁶ Depression, Anxiety disorders, Schizophrenic disorders, Bipolar disorder (and related conditions), Eating disorders and Personality disorders

⁴⁷ The main non-wage labour costs are national insurance and pension contributions. This adjustment is made because the value of output produced by a unit of labour is assumed to be equal to the cost of this labour.

poorer educational outcomes and are more likely to find themselves not in education, employment or training (NEET) according to Cornaglia et al. (2012)⁴⁸.

The report finds that having poor mental health is associated with an increased probability of being NEET of 2.7 percentage points for girls and 3.3 percentage points for boys (though this effect is not statistically significant). Given that research by the University of York⁴⁹ in 2010 puts the lifetime resource cost of being NEET at around £104,000, most of which is due to reduced employment and productivity, future worklessness of children with mental health problems could lead to substantial output losses.

Increased sickness absence

The 2013 CBI⁵⁰ / Pfizer Absence and Workplace Health Survey⁵¹ reports that UK employees are absent from work an average of 5.3 days per year. The survey also reports that anxiety, stress and depression are widely considered by employers to be among the main causes of absences.

The ONS Labour Force Survey (LFS) asks workers for the reasons behind their absences. Based on these responses, LFS figures for the whole of Great Britain suggest that 38% of absence days are due to stress, anxiety and depression, making these conditions more common causes than musculoskeletal disorders (around 28% of absence days) or infectious diseases (1%). This estimate of 38% is similar to the proportion of absences attributed to mental ill health in Sainsbury Centre for Mental Health (2007)⁵² which uses a figure of 40% based on four sources (CBI, CIPD⁵³, HSE and ONS).

Assuming that this pattern holds for London, around 6.63m working days are lost each year due to stress, anxiety or depression. Using the median annual wage in London (£30,000), the value of these lost days in terms of lost output can be estimated at around £1.08bn according to the CBI figures.

More than a third of sickness absence days are due to stress, anxiety and depression, making these conditions more common causes than musculoskeletal disorders or infectious diseases.

⁴⁸ Cornaglia F, Crivellaro E, McNally S, 2012. *Mental Health and Education Decisions*. LSE. – <http://cee.lse.ac.uk/ceedps/ceedp136.pdf>

⁴⁹ Coles B, Godfrey C, Keung A, et al, 2010. Estimating the life-time cost of NEET. University of York. – http://www.york.ac.uk/media/spsw/documents/research-and-publications/NEET_Final_Report_July_2010_York.pdf

⁵⁰ CBI, 2013. *Fit for Purpose. Absence and workplace health survey 2013*. – http://www.cbi.org.uk/media/2150120/cbi-pfizer_absence___workplace_health_2013.pdf

⁵¹ The Sainsbury Centre for Mental Health, 2007. Policy Paper 8. *Mental Health at Work: Developing the business case*. – http://www.centreformentalhealth.org.uk/pdfs/mental_health_at_work.pdf

⁵² For example see Sainsbury Centre for Mental Health (2007) as above.

⁵³ The Chartered Institute of Personnel Development.

An alternative estimate can be produced to take into account the frequent finding that sickness absences are more common among lower paid workers⁵⁴ and therefore that using average wages overstates the size of the loss. If instead the earnings of someone at the 40th percentile of the distribution are used, the estimate of the value of lost output from mental ill health related sickness falls to **£0.92bn**.

Reduced productivity

Reduced productivity due to individuals attending work despite ill health is often referred to as presenteeism. Reports looking at the cost of mental ill health, such as Sainsbury Centre for Mental Health (2007), have often assumed that 1.5 times as many working days are lost due to presenteeism as are lost due to mental ill health related absences.

When this assumption is applied to CBI data, the number of working days lost due to stress, anxiety or depression-related presenteeism is estimated to be 9.95m. Using the same approach as above, the value of lost output is therefore estimated as £1.62bn.

However, this approach does not take into account the frequent finding that presenteeism is more common among higher paid workers.⁵⁵ As such, using average wages understates the size of the loss. If instead, the earnings of someone at the 60th percentile of the London distribution are used the estimate increases to **£1.89bn**.

Lost output due to premature death

In London in 2011 there were 583 suicides of individuals aged 15 or over⁵⁶. While the human costs have already been covered above, each suicide also represents a loss in terms of lost output.

Department for Transport (DfT) research⁵⁷ suggests that the lost output resulting from a suicide is worth around £0.58m on average. This means that the total cost of suicides in London in 2011 was around **£0.34bn** in terms of lost output alone.

It should be noted here that physical health disparities also account for premature death in mental health sufferers. LSE (2012) reports that age specific death rates for people with depression are around 1.5 times greater than for people without depression, and although suicides will play a part in this statistic, behavioural effects (such as higher smoking rates among mental ill health sufferers) and physiological effects (such as mental ill health undermining the immune system) are also relevant.

Premature mortality also has affects beyond the lost output of the individual. One example of this is through transport delays. There were 55 fatal and non-fatal suicide attempts on the London Underground, Docklands Light Railway and London Overground in 2011/12⁵⁸. These incidents are clearly tragic: the direct human and output losses associated with these incidents are covered elsewhere.

⁵⁴ For example see Sainsbury Centre for Mental Health (2007) as above.

⁵⁵ For example see Sainsbury Centre for Mental Health (2007) as above.

⁵⁶ ONS. Suicides in the UK, 2011. –

<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-288089>

⁵⁷ Department for Transport, 2011. The Accidents Sub-Objective. –

<http://www.dft.gov.uk/webtag/documents/archive/1208/unit3.4.1.pdf>

⁵⁸ GLA, 2012. Written answers from the Mayor. p.93. –

[http://www.london.gov.uk/moderngov/documents/b6917/Minutes - Appendix 3 - Written answers from the Mayor - Appendices A-I Wednesday 04-Jul-2012 10.00.pdf?T=9](http://www.london.gov.uk/moderngov/documents/b6917/Minutes%20-%20Appendix%203%20-%20Written%20answers%20from%20the%20Mayor%20-%20Appendices%20A-I%20Wednesday%2004-Jul-2012%2010.00.pdf?T=9)

These incidents also affect the productivity of others. Analysis of three recent incidents suggests a loss of around 38,000 customer hours per incident⁵⁹. This means that the 55 fatal and non-fatal suicide attempts in 2011/12 resulted in around 2m lost customer hours. If these hours are valued using Department for Transport guidelines,⁶⁰ then the total estimated annual cost of lost time due to transportation delays resulting from suicide attempts is around **£16.5m**.

Economic and social costs: caring

Value of informal care

One of the more significant external economic costs of mental ill health in London comes through informal care provision. The 2009/10 GfK NOP Survey of Carers in Households⁶¹ reports that around 10% of adults in London, approximately 670,000 people are carers. The survey also reports that, for the whole of England, mental health problems are the reason for the care in around 13% of instances. Assuming this pattern broadly holds for London, there are an estimated 88,000 people providing informal care to others due to a mental health issue.

The same survey reports that carers spend an average of 32 hours each week providing care. This equates to around 1,700 hours per carer per year. If valued using the median care assistant wage in London, this represents care worth almost £14,000 per carer and an estimated **£1.21bn** for the overall cohort of individuals providing informal care for people suffering with mental health problems.

Carers' wellbeing

A recent survey by Carers UK⁶² points to some of the wellbeing impacts of providing informal care. For example 84% of those surveyed said that caring had a negative impact on their health, 44% reported that they have been in debt due to caring, and 52% expected their quality of life to deteriorate in the next year.

There are similar findings in the Survey of Carers in Households which reports that 42% of carers thought their personal relationships, social life and leisure had been affected by their caring. Of those affected, 69% had less time for leisure activities, 32% were too tired to go out and 23% were now unable to go on holiday.

Economic and social costs: crime

Crime victim's wellbeing

The relationship between mental ill health and crime has been researched frequently. Some papers find a link between certain conditions and certain types of crime.⁶³ Others find that any relationship

⁵⁹ <http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/1592.aspx>

⁶⁰ Department for Transport, 2012. Values of time and vehicle operating costs. – http://www.dft.gov.uk/webtag/documents/expert/pdf/u3_5_6-vot-op-cost-120723.pdf

⁶¹ HSCIC, 2010. Survey of Carers in Households. – http://www.esds.ac.uk/doc/6768/mrdoc/pdf/6768_survey_of_carers_in_households_2009_10_england.pdf

⁶² Carers UK, 2013. *The State of Caring* – http://www.carersuk.org/media/k2/attachments/State_of_caring_report_PDF_version.pdf

⁶³ Van Dorn R, Volavka J, and Johnson N, 2011. Mental disorder and violence: is there a relationship beyond substance misuse? *Social Psychiatry and Psychiatric Epidemiology*. –

between mental ill health and offending largely disappears when comorbidity with substance abuse is taken into account.⁶⁴ Still others find that mental ill health sufferers are more likely to be the victims of crime than its perpetrators.⁶⁵

One relationship where there does seem to be some clarity is the link between conduct disorder in childhood or adolescence and offending later in life. The Sainsbury Centre for Mental Health (2009)⁶⁶ estimates that around 30% of criminal activity can be related to conduct disorder, with another 50% estimated to be related to moderate or mild conduct problems.

Using Home Office estimates of the costs associated with various crime types, the cost of crime in London in 2012-13 can be estimated at around £4.0bn.⁶⁷ Around £1.06bn to £1.22bn of the estimated costs of crime in London are the costs of physical and emotional harm to crime victims. Applying the above figure of 30% gives an estimated annual cost of physical and emotional harm of crime related to conduct disorder in London to be **£0.32bn to £0.37bn**.

Lost output due to crime

As noted previously, the cost of crime in London is estimated at around £3.5bn to £4.0bn of which around 30% is thought to be associated with conduct disorder. Given that in the region of £0.20bn to £0.23bn of this overall cost represents lost output, approximately **£0.06bn to £0.07bn** of this can be associated with mental ill health.

Property damage, theft and anticipatory spending related to crime

Anticipatory costs and property damage or theft account for around £1.45bn to £1.66bn of the estimated costs of crime in London. Following the same approach as above, around **£0.43bn to £0.49bn** of these costs can be related to mental ill health.

Economic and social costs: Public expenditure real resource costs

For the purposes of looking at the total economic and social costs to society of mental ill health account needs to be taken of public expenditure on mental ill health. This expenditure represents a 'real resource cost' to society; the resources used to deal with mental ill health cannot, then, be used for an alternative purpose. The total value of public expenditure on mental ill health issues (as set out in more detail in the following fiscal costs sections) ranges from £6bn to £7bn.

The real resource costs figures used here account for all the figures in the total fiscal costs table (see Figure 3) with the exception of lost taxes and spending on benefits. Spending on benefits is excluded as it represents a 'transfer payment' from one group of society to another with no 'consumption' of

<http://www.kendras-law.org/consequences/mental-disorder-violence-2011.pdf>

⁶⁴ Fazel S, Lichtenstein P, Grann M, et al, 2010. Bipolar Disorder and Violent Crime. *Archives of General Psychiatry*, 67(9), 931-938. – <http://archpsyc.jamanetwork.com/article.aspx?articleid=210872>

⁶⁵ Hughes K, Bellis MA, Jones L, et al, 2012. Prevalence and risk of violence against adults with disabilities: a systematic review. *The Lancet*, 2012. – http://www.who.int/disabilities/publications/violence_children_lancet.pdf

⁶⁶ Sainsbury Centre for Mental Health, 2009. *The chance of a lifetime. Preventing early conduct problems and reducing crime*. – http://www.centreformentalhealth.org.uk/pdfs/chance_of_a_lifetime.pdf

⁶⁷ It should be noted that this estimate appears lower than previous estimates of the cost of crime because it uses more recent estimates of the economic and social costs of crime from the Home Office. Using past estimates would suggest the economic cost of crime in London could be around £6.4bn.

resources. 'Lost taxes' are excluded from the table because including them would mean double counting some of the 'output losses' measured earlier in the economic and social costs table.

Economic and social costs: totals

The range of economic and social costs of mental ill health discussed above are summarised in the table on the following page. The total economic and social costs of mental ill health in London are clearly substantial at an estimated £25bn to £27bn. This equates to approximately £2,990 to £3,210 per person in London and is equivalent to around 8.9 to 9.5% of London's GVA⁶⁸.

⁶⁸ It should be noted that the comparison with GVA is not strictly accurate as it is not a like for like comparison. As set out in the text, the estimate of the total economic and social costs of mental ill health to London incorporate some 'non-market' aspects which are not included in the calculation of GVA. In this instance, framing the economic and social costs as a proportion of London's GVA acts simply to provide some idea of the scale of costs.

The total economic and social costs of mental ill health in London equates to approximately £2,990 to £3,210 per person.

Table 6: Economic costs summary

	Lower estimate	Central or average estimate £ms	Upper estimate £ms
Quality of life reductions	£ms	£ms	£ms
Individuals with poor mental health		6,460	
Individuals that commit suicide		650	
Output losses	£ms	£ms	£ms
Increased worklessness	6,860	7,200	7,550
Increased sickness absences		920	
Reduced productivity		1,890	
Lost output due to premature death		340	
Lost output due to transport delays		20	
Economic costs related to caring	£ms	£ms	£ms
Value of informal care		1,210	
Economic costs related to crime	£ms	£ms	£ms
Crime victims' wellbeing	320	340	370
Lost output due to crime	60	60	70
Other economic costs related to crime	430	470	500
Public expenditure costs	£ms	£ms	£ms
Real resource costs	6,010	6,510	7,020
Totals	25,150	26,060	26,970

NB: Figures in this table rounded to the nearest £10 million.

Fiscal costs: public spending on treatments

This section looks at the fiscal costs of mental ill health in London. That is, it looks at the financial costs that accrue to the public sector from mental ill health.

Public spending on mental health treatments

Healthcare provision is generally classified through three tiers: primary care (the patient's first point of contact with the health system), secondary care (more specialised services into which patients are referred) and tertiary care (even more specialised services in which patients receive advanced treatments). A range of sources have been used to assess the costs of each type of care in London.

Turning first to mental disorder related primary care, LSE (2012) *How Mental Illness Loses Out in the NHS*⁶⁹ reports that 2010/11 spending in England on primary care was estimated at £3.1bn. Of this, £1.9bn was from GP consultations and £1.2bn was from prescriptions. If these figures are uprated (to take inflation since 2010/11 into account) and apportioned (to remove expenditure on non-London regions) the estimate of London's share of this spending is **£0.60bn**.

Looking next at secondary care and tertiary care, the 2011/12 National Survey of Investment in Mental Health⁷⁰ gives a detailed picture of spending on adults of working age (18-64) and those aged 65 and over. The regional figures within the report show that around **£1.43bn** of the £6.63bn total investment in working age adult mental health services in England, was spent in London.

Added to this is the spending on secondary and tertiary mental health services for those aged 65 and over. The 2011/12 National Survey of Investment in Mental Health reports that overall investment in England for this group was around £2.83bn of which London's share is about £0.37bn. This figure includes some spending on primary care however, which is not the case for the data on working age adults. After removing this, the estimated expenditure in London on secondary and tertiary care for those aged 65 and over amounts to around **£0.20bn** in 2011/12.

Secondary and tertiary care for children also needs to be included. LSE (2012) reports that around £0.8bn was spent on mental health related secondary and tertiary care services for children in England in 2010/11. Following the same process of uprating and apportioning as used above gives an estimate of spending in London at around **£0.16bn**.

LSE (2012) covers two additional areas of secondary and tertiary care - substance misuse treatments and care for organic mental disorders⁷¹ (as well as other areas that fall outside the scope of the 2011/12 National Survey of Investment in Mental Health). Uprating and apportioning the figures for England-wide spending in 2010/11 gives estimates of **£0.21bn** and **£0.31bn** for each of these care areas respectively in London.

The estimates of spending in London on mental health treatment services are summarised in the table on the following page.

⁶⁹ LSE, 2012. *How mental illness loses out in the NHS*. – <http://cep.lse.ac.uk/pubs/download/special/cepsp26.pdf>

⁷⁰ Department of Health, 2013. *Investment in mental health in 2011 to 2012*. –

<https://www.gov.uk/government/publications/investment-in-mental-health-in-2011-to-2012-working-age-adults-and-older-adults>

⁷¹ Decreased mental function as a result of a medical disease, other than a psychiatric illness.

Table 7: Mental health related public treatment spending

	Children	Working age adults	Individuals aged 65+	Total
Primary care	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>
GP consultations	--	--	--	0.37
Prescriptions	--	--	--	0.23
Total	--	--	--	0.60
Secondary and tertiary care	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>
Secondary and tertiary care	0.16	1.43	0.20	1.79
Substance misuse	--	--	--	0.21
Other (including organic mental disorders)	--	--	--	0.31
Total	--	--	--	2.31
All types of care	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>	<i>£bns</i>
Total	--	--	--	2.92

Sources: LSE and Department for Health

Public spending on physical health treatments (for conditions caused or worsened by mental ill health)

A further category of spending is physical healthcare relating to conditions that are either caused or worsened by mental ill health. LSE (2012) estimates the magnitude of this spending for England overall, reporting that increased treatment costs due to co-morbidity with mental ill health among those with long-term physical conditions amounted to between £8bn and £13bn⁷² in 2010/11. The report estimates that another £3bn is spent treating patients with medically unexplained symptoms, much of which, it argues, represents untreated mental health problems.

Following a similar approach of uprating and apportioning these estimates suggests that spending in London on the increased treatment costs of long-term physical conditions due to co-morbidity with mental conditions is between £1.56bn and £2.53bn. Adding spending on medically unexplained symptoms of around £0.58bn provides a total estimate of between **£2.1bn and £3.12bn**.

⁷² The £13bn figure is not included in the full report but is included in one of the underlying evidence reports. – <http://cep.lse.ac.uk/textonly/research/mentalhealth/PARSONAGE-NAYLOR-16-01-12.pdf>

For £8 spent treating a long-term condition, £1 is linked to a co-morbid mental health condition.⁷³

Public spending on social care for sufferers of mental disorders

Social care costs for mental disorder sufferers are estimated for the whole of England in 2010/11 in Parsonage and Naylor (2012)⁷⁴ at around £2.8bn. Using the same approach as above to apportion some of this to London and take inflation into account yields an estimate of the level of spending in London in 2011/12 of around **£0.55bn**.

Other public spending

Spending on welfare benefits for sufferers of mental ill health

There is some evidence of higher rates of benefits receipt among sufferers of mental ill health in London.

Analysis of the 2007 Adult Psychiatric Morbidity Survey⁷⁵ suggests that people with common mental health disorders claim benefits in proportions at least as high as those without these disorders, and in some benefit categories claim in much higher proportions. For example, 35% of survey respondents with common mental health disorders in London lived in households claiming housing benefit compared to just 14% of respondents without. The other types of benefits that Londoners with common mental health disorders appear to claim in greater proportions are child benefit, disability living allowance, income support and jobseeker's allowance.⁷⁶

The fact that greater proportions of people with common mental health disorders receive benefits than those without does not mean, however, that mental ill health is the cause of the receipt of benefits. For this reason, the authors of this report have chosen a more conservative approach to estimating the amount spent on benefits as a result of mental ill health. This is done by focusing on disability living allowance⁷⁷, incapacity benefit and employment support allowance, as receipt of these benefits are predicated on having some form of medical condition.

In 2011/12 a total of around £1.70bn was spent on disability living allowance for those with mental health problems. Based on the proportion of claimants who live in London, it is estimated that around **£0.20bn** went to recipients in the capital. Around 65,000 people claimed incapacity benefit in

⁷³ 'Long-term conditions and mental health: The cost of co-morbidities.' The King's Fund and Centre for Mental Health 2012 – http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

⁷⁴ Parsonage M and Naylor C, 2012. *Mental health and physical health: a comparative analysis of costs, quality of service and cost-effectiveness*. For LSE. – <http://cep.lse.ac.uk/textonly/research/mentalhealth/PARSONAGE-NAYLOR-16-01-12.pdf>

⁷⁵ HSCIC. Adult Psychiatric Morbidity Survey, 2007. – <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

⁷⁶ The Survey is from 2007 meaning there have been changes to the benefits system since it was carried out.

⁷⁷ Employment Support Allowance is replacing Incapacity Benefit but the replacement is not yet complete.

November 2012 in London, and another 81,000 claimed employment support allowance. As the average weekly payment for claimants with a mental health condition is around £100 in London, the estimated total spending on these two related benefits is around **£0.76bn**.

Education services spending

Around one in ten children aged 5-15 in Britain has a conduct, hyperactivity or emotional disorder. Recent research⁷⁸ finds that there are huge costs to the public sector, particularly to the education system, associated with child psychiatric disorder. The research estimates that the additional health, social care and education costs associated with child psychiatric disorders totalled £1.47bn in 2008.

Focusing on the costs accruing to the education sector only, uprating the cost estimate for inflation and apportioning to London suggests the costs of child psychiatric disorders to London's education system are around **£0.2bn** a year.

Criminal justice spending

An estimated 20% (£0.7bn - £0.8bn) of the overall cost of crime in London comes from criminal justice spending. If around 30% of this is attributable to conduct disorder (see section 4.4) that amounts to around **£0.21bn to £0.24bn** of spending in London.

Fiscal costs: lost taxes

In addition to the output lost as a result of increased worklessness (outlined in section 4.2 above), there are also losses of taxation income. Assuming the average direct and indirect tax rates are both 18%⁷⁹, then the estimated tax losses associated with worklessness related to mental ill health amount to around **£1.98bn or £2.17bn** using the two estimations of lost earnings presented earlier in the report.

Fiscal costs: totals

The fiscal cost components covered above are outlined in the table below. Clearly there are significant fiscal costs associated with mental ill health in London amounting to an estimated £8.95bn to £10.15bn. This is equivalent to around £1,100 to £1,200 for each of the 8.4m individuals in London. The size of the estimated fiscal cost represents between 3.2% and 3.6% of London's GVA.

⁷⁸ Snell T, Knapp M, Healey A, et al, 2013. Economic impact of childhood psychiatric disorder on public sector services in Britain: estimates from national survey data. *Journal of Child Psychology and Psychiatry*, 54(9). 977-98.

⁷⁹ LSE for the Schizophrenia Commission, 2012. *Effective interventions in schizophrenia. The economic case.* – <http://www.lse.ac.uk/LSEHealthAndSocialCare/pdf/LSE-economic-report-FINAL-12-Nov.pdf>

The costs of child psychiatric disorders to London's education system are around £200 million a year.

Table 8: Fiscal costs summary

	Lower estimate £ms	Central or average estimate £ms	Upper estimate £ms
Public spending on mental health treatments			
Primary care		600	
Secondary and tertiary		2,310	
Physical health treatments	2,140	2,630	3,120
Social care		550	
Spending on benefits			
Disability living allowance		200	
Incapacity benefit/ employment support allowance		760	
Education services		200	
Criminal justice spending	210	220	240
Lost taxes	1,980	2,070	2,170
Totals	8,950	9,550	10,150

Conclusions

This section of the report has aimed to estimate the total economic and social costs of mental ill health to London's society as a whole together with the fiscal costs – those financial costs falling to the public sector - associated with mental ill health in London. Both costs are considerable. The total economic and social costs of mental ill health in London range from £25bn to £27bn per year. Even if we look from the narrower viewpoint of the public sector, the costs falling to it from mental ill health in London are considerable at between £9bn to £10bn per year.

The public sector costs of mental ill health in London are between £9 billion and £10 billion per year.

The economic and social costs estimate clearly comes with a great deal of uncertainty, but should serve to indicate the magnitude of the welfare loss that poor mental health imposes on London each year. As Table 6 shows the most significant parts of this overall cost are the lost output associated with higher rates of worklessness among individuals with common mental disorders, the quality of life losses experienced by individuals in poor mental health and the real resource costs from public spending on mental ill health.

The estimated fiscal cost should also be viewed with caution, but again highlights the extent to which mental ill health affects public expenditure and tax income in the capital. Within the fiscal cost, spending on treatments is the largest component, but lost tax income associated with higher rates of worklessness among individuals with common mental disorders also represents an important element.

APPENDICES

Appendix 1: Glossary of clinical terms

Common mental disorders are conditions that impair a person's happiness or ability to function but do not affect their insight or cognition. This category of illness is found in both young people and adults and includes such conditions as anxiety, depression, obsessive-compulsive disorder, and post-traumatic stress disorder. There is considerable variation in the severity of common mental health disorders.

Conduct disorder is a prolonged set of behaviours characterised by a persistent disregard for the basic rights of others or age-appropriate societal norms. Symptoms of conduct disorder include aggression and bullying, deception and theft. It occurs in both genders but is more common in boys.

Dementia is an overall term that describes a wide range of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities. Alzheimer's disease is the most well-known form of dementia and accounts for 60-80% of cases.

Eating disorders include anorexia and bulimia and are characterised by a persistent preoccupation with food and weight that is severe enough to affect behaviour and physical health.

Personality disorders are sets of persistent and pervasive characteristics that greatly affect an individual's personality. People with personality disorders may have difficulty maintaining relationships or may be prone to aggressive or risky behaviour.

Perinatal mental disorders are mental health issues that arise during pregnancy and the first postpartum year. They include both mental health problems that arise during or soon after pregnancy, such as anxiety and depression in the weeks following birth, and those that were present before the pregnancy, such as schizophrenia which may become worse or recur during or pregnancy and the postpartum period.

Severe and enduring mental disorders affect a person's thinking and perception of reality via symptoms such as hallucinations, delusions and disorganised thinking. Common conditions in this cluster include schizophrenia and bipolar disorder. People with severe and enduring mental disorders may display very overt and severe symptoms or may have a remitting/relapsing condition.

Severe and enduring mental disorders are often the least understood, and consequently most feared, of mental disorders. For instance, it is often thought that someone experiencing a severe and enduring mental disorder is dangerous when in fact a person with such illness is more likely to be a victim of violence than a perpetrator.

Self-harm describes a wide range of actions that people do to deliberately harm themselves without intending to end their lives. It includes such behaviours as cutting and burning, and it is largely done in such a way as not to be discovered by other people.

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Data Disclaimers

This report includes some data from the UK Data Archive. Readers should note that the original data creators, depositors or copyright holders, the funders of the data collections (if different) and the UK Data Archive bear no responsibility for their further analysis or interpretation.

The datasets used were:

NatCen Social Research and University College London. Department of Epidemiology and Public Health, Health Survey for England, 2011 [computer file]. Colchester, Essex: UK Data Archive [distributor], April 2013. SN: 7260 , <http://dx.doi.org/10.5255/UKDA-SN-7260-1>

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Appendix 3: Economic methodology

Economic costs: direct reductions in quality of life

People with poor mental health

- The 2011 Health Survey for England⁸⁰ includes a set of questions from the EuroQol 5D 3L survey. This means it is possible to calculate respondents' health states and convert these health states into QALY index values. The conversion was done using an index calculator from the Economics Network⁸¹. The UK values based on time trade off questions were used.
- Health states for those with (those reporting a value of 2 or 3 equivalent to moderate or extreme problems) and without anxiety/ depression were calculated and compared. As were happiness levels and the number of other problems on the Euroqol 5D measure.
- The estimate of lost wellbeing is made by calculating the health states and QALY index values of those with some anxiety or depression and then calculating the health states of these same individuals if they did not have their anxiety or depression problems. For example, someone with extreme anxiety or depression but no other problems has a health state of 11113. If they did not have any anxiety problems their health state would be 11111, which elicits a QALY index value 0.59 QALYs higher (1.00 against 0.41).
- This procedure was carried out for every London respondent aged 16 or over in the health survey who had at least moderate anxiety and depression. The average difference in QALY states with and without depression and anxiety problems was 0.13.
- The Health Survey for England was also used to estimate the prevalence of depression/ anxiety in London. This equates to around 1.07m individuals based on the GLA 2012 population projections (SHLAA).
- Given the estimated QALY loss is around 0.13, the total QALY loss in one year for all of those affected is an estimated 0.14m QALYs.
- These QALYs are valued using the human cost element of the Department for Transport figure for the value of a prevented fatality (as output losses are covered elsewhere in the report). The lifetime human cost element is £1.04m (in 2009 prices) and so is around £1.11m in 2012 prices after an uplift factor of 1.07 based on the GDP deflator is applied.
- Following the approach in DH (2010)⁸² this lifetime cost is divided by the average QALY loss from a road traffic fatality (26.7 QALYs) to estimate the human cost element of a quality adjusted life-year. This cost is around £42,000. Applying this cost to the total estimate of QALYs lost due to anxiety and depression gives a total cost of around £5.75bn for adults.

⁸⁰ <http://discover.ukdataservice.ac.uk/catalogue/?sn=7260&type=Data%20catalogue>

⁸¹ http://www.economicsnetwork.ac.uk/health/EQ_5D_index_calculator.xls

⁸² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216003/dh_120108.pdf

- Increasing this for quality of life reductions in children is done by using a prevalence rate of 8%, half the rate in adults. The QALY loss was still taken as 0.13 and 2012 population projections (SHLAA) data was again used to extrapolate up to population level.

One of the key caveats with this part of the analysis is that the Health Survey for England does not include people in prisons or in mental institutions. This means the proportion of the London population with anxiety or depression problems is likely to be larger than the survey suggests. These individuals will, however, be included within the census figures used to extrapolate the proportions to numbers of people. Another concern which is explained in more detail at the end of this appendix is the appropriateness of the QALY valuation which is based on DfT analysis.

People who commit suicide

- The ONS provide data⁸³ on the number of suicides of people aged 15 and over by region which show that 583 people committed suicide in London in 2011.
- The Department for Transport provides estimates⁸⁴ of the value of prevented road traffic fatalities in terms of the lost output (around £0.55m in 2009 prices), human costs (around £1.04m in 2009 prices) and medical/ ambulance costs avoided (around £940 in 2009 prices).
- The human costs associated with a fatality are uprated to 2012 prices giving a figure of around £1.11m. This is then multiplied by the number of suicides to give the estimate of related human costs losses.

A key limitation of this analysis is that it is not possible to know conclusively whether mental disorder was a factor in all of the suicides in London.

Economic costs: lost output

Increased worklessness

- The estimate of the number of QALYs lost is the same as used in the preceding section.
- The valuation of the QALY loss however, uses the output component rather than the human value component of the DfT and DH based QALY valuation. This value is around £22,000 per QALY in 2012 prices and means the estimated output loss is £3.53bn based on 15.8%⁸⁵ of the 5.6m working age adults in London (Census 2011 figures) experiencing some form of anxiety or depression, and therefore an estimated average QALY loss of 0.13.
- The 2007 Adult Psychiatric Morbidity Survey results for London respondents were analysed for the alternative valuation of increased worklessness. This involved calculating the proportions of respondents aged 16 to 64 with and without a neurotic disorder that had done paid work in the week of the survey, with these proportions being estimated as 48% and 68% respectively. This difference in employment rates was then applied to the estimated number of individuals aged 16 to 64 in London with a neurotic disorder. This number stands at around 900,000 and was calculated using the same survey. If 68% of this group were in paid work then only 280,000 would not be working but as it is estimated that just 48% of this group are in paid work around 460,000 are not. This means the increased rates of worklessness seen in sufferers

⁸³ <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-288089>

⁸⁴ <http://www.dft.gov.uk/webtag/documents/archive/1208/unit3.4.1.pdf>

⁸⁵ This is the proportion of those aged 16 and over that reported having moderate or extreme anxiety or depression in the 2011 Health Survey for England

of neurotic disorders are associated with an estimated extra 180,000 Londoners being out of work.

- Given that the median wage in London is around £30,000 (according to ONS ASHE) an estimate of lost earnings can be arrived at by multiplying the wage by the additional people out of work. Doing this gives an estimate of the lost earnings of around £5.49bn. These lost earnings are increased to reflect non-wage elements of labour cost which are assumed to be 25% of the wage.
- The final estimate uses figures from Kings Fund (2008)⁸⁶ which are uprated using GDP deflators to 2012 prices (the uplift factor used is 1.13). The resulting figure is then increased by 25% to add in non-wage labour costs.
- The figures are then apportioned assuming 20% of the lost output relates to London. The 20% figure comes from estimates of the number of neurotic individuals of working age in each region (with estimates based on the Adult Psychiatric Morbidity Survey and the census). These estimated numbers are then weighted by median wages in each region and the proportion of this weighted total that is in London is 20%.

The main issue with this estimate is that no causation has been established; higher levels of worklessness among the sufferers of common mental disorders may not be a result of these disorders. It is also a limitation that the estimates are in part based in the 2007 Adult Psychiatric Morbidity Survey, however there was not a more recent version of this survey available to use at the time of writing. It would also be reasonable to question whether the median wage is the appropriate wage rate to use for this group.

Increased sickness absences

- The 2013 CBI Absence and Workplace Survey⁸⁷ reports that the average number of absence days per worker is around 5.3 per year in the UK.
- HSE analysis of the labour force survey suggests that in Great Britain, 38% of absences due to illness or injury are a result of stress, anxiety or depression. If this proportion is applied to the average number of days taken off, then an estimated 2.03 days (using the CBI figure) per year are taken off due to these causes.
- HSE analysis of the LFS suggests that the number of FTE workers in London is around 3.3m suggesting that around 6.6m or 0.9m days are lost per year from stress, anxiety or depression related absences.
- ASHE reports that the median wage in London is around £30,000. Given that there are 261 workdays per year, 8 public holidays and statutory leave of 20 days per year a full time worker will work an estimated 233 days per year. This means the median wage cost per actual day worked in London is around £130. If 'on-costs' (such as pension contributions) equivalent to 25% are added to this then the cost from the employer's perspective of a day's work from a median worker is around £160.
- Multiplying this daily labour cost by the number of days lost gives an overall cost of around £1.08bn.
- The alternative estimate using the wage at the 40th percentile (around £26,000) follows the same approach as above.

⁸⁶ http://www.kingsfund.org.uk/sites/files/kf/Paying-the-Price-the-cost-of-mental-health-care-England-2026-McCrone-Dhanasiri-Patel-Knapp-Lawton-Smith-Kings-Fund-May-2008_0.pdf

⁸⁷ http://www.cbi.org.uk/media/2150120/cbi-pfizer_absence___workplace_health_2013.pdf

Reduced productivity

- The estimate of days lost due to mental health related absences is multiplied by a factor of 1.5 to give the estimated number of days lost due to presenteeism. This is the same approach as used in The Sainsbury Centre for Mental Health (2007) Mental Health at Work⁸⁸.
- The estimates of days lost to presenteeism are then valued using the same approach as the days lost to sickness absences.
- The alternative estimate using the wage at the 60th percentile (around £36,000) follows the same approach as above.

The ratio of 1.5 which has been used is clearly somewhat arbitrary but use is supported by some evidence cited in The Sainsbury Centre for Mental Health (2007).

Lost output due to premature death

- The ONS provide data⁸⁹ on the number of suicides of people aged 15 and over by region which show that 583 people committed suicide in London in 2011.
- The Department for Transport provides estimates⁹⁰ of the value of prevented road traffic fatalities in terms of the lost output (around £0.55m in 2009 prices), human costs (around £1.04m in 2009 prices) and medical/ ambulance costs avoided (around £940 in 2009 prices).
- The cost of lost output associated with a fatality is uprated to 2012 prices giving a figure of around £0.58m. This is then multiplied by the number of suicides to give the estimate of related output losses.

A key limitation of this analysis is that it is not possible to know conclusively whether mental disorder was a factor in all of the suicides in London.

Transport delays

- A written answer to a Mayoral question⁹¹ provides data on the number of fatal and non-fatal suicide attempts on the Underground, Docklands Light Railway and London Overground. These data put the total number of attempts at 55 in 2011/12.
- Transport for London publishes monthly performance reports⁹², some of which report the number of customer hours lost due to 'person under train' incidents. The most recent three of these events caused losses of 40,000, 27,000 and 47,000 customer hours respectively. The average of these losses, 38,000 customer hours was used in calculations, multiplying it by the 55 incidents, giving an estimate of the total number of lost customer hours at around 2m.

⁸⁸ http://www.centreformentalhealth.org.uk/pdfs/mental_health_at_work.pdf

⁸⁹ <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-288089>

⁹⁰ <http://www.dft.gov.uk/webtag/documents/archive/1208/unit3.4.1.pdf>

⁹¹ [http://www.london.gov.uk/moderngov/documents/b6917/Minutes - Appendix 3 - Written answers from the Mayor - Appendices A-I Wednesday 04-Jul-2012 10.00.pdf?T=9](http://www.london.gov.uk/moderngov/documents/b6917/Minutes_-_Appendix_3_-_Written_answers_from_the_Mayor_-_Appendices_A-I_Wednesday_04-Jul-2012_10.00.pdf?T=9)

⁹² <http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/1592.aspx>

- These hours are divided into working, commuting and other (e.g. leisure) time using results from Oxford Economic Forecasting (2005)⁹³ which suggest 4% of trips on the underground are business trips, 41% are commuting and the remaining 55% are for other purposes.
- Department for Transport figures⁹⁴ value an hour of working time for an underground user at £45.90 (in 2010 prices) while an hour of time during commuting and other purpose trips is valued at £6.46 and £5.71 (in 2010 prices) respectively. If these values are updated (using a factor of 1.04 based on GDP deflators) and weighted using the trip purpose data above, then the weighted value of an hour of time for underground customers is £7.88. This means the value of the estimated number of customer hours lost due to suicide attempt related transport delays is around £16.5m.

Using a sample of just three ‘person under train’ incidents to estimate the number of lost customer hours decreases the reliability of this estimate. It is also noted that the evidence on journey purpose used in this estimate is quite old.

Economic costs: caring

Value of informal care

- The 2009/10 Carers in Household Survey⁹⁵ reports that 10% of London adults are informal carers. 2012 population projections (SHLAA) put the number of adults in London at 6.7m and therefore the estimated number of carers is around 670,000.
- The same survey reports that for around 13% of carers, the main person they care for needs this care due to a mental health problem. This suggests around 88,000 of the London carers are providing care due to mental health problems.
- The survey reports the distribution in the number of hours of care provided and from this data it is possible to estimate the average number of caring hours provided per week. This is done by multiplying the proportions for each category by the mid-point of that category (e.g. 4.5 hours is the figure used for those in the range 0 to 9 hours).
- The estimated average number of hours per week are grossed up to an annual basis and multiplied by the estimated number of care givers.
- The total number of care hours are then valued using the median wage for care workers and home carers in London (£8.21 taken from ASHE⁹⁶).

A limitation of this estimate is that some of the figures used are not London specific such as the proportion of carers that care for people due to a mental health problem. The estimate of average caring hours is also necessarily imprecise.

Economic costs: crime

Crime victims’ wellbeing

- The Home Office provides estimates⁹⁷ of the average cost of crime for a range of crime types. Their analysis covers security expenditure, insurance administration, property stolen and

⁹³ http://www.london.gov.uk/mayor/economic_unit/docs/time_is_money.pdf

⁹⁴ http://www.dft.gov.uk/webtag/documents/expert/pdf/u3_5_6-vot-op-cost-120723.pdf

⁹⁵ http://www.esds.ac.uk/doc/6768/mrdoc/pdf/6768_survey_of_carers_in_households_2009_10_england.pdf

⁹⁶ <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2012-provisional-results/index.html>

damaged, emotional and physical impact on victims, lost output, victim services, health services and criminal justice costs.

- The costs have been updated to 2012 prices using a factor of 1.04 (based on the GDP deflator).
- The ONS provides data on crimes of different types by police force area⁹⁸. The crime types used by the ONS and Home Office do not exactly match so the following mapping has been carried out:

ONS	Home Office
Action fraud	Not available
All other theft offences	Theft – not vehicle
Bicycle theft	Theft – not vehicle
Criminal damage and arson	Average of criminal damage (personal) and criminal damage (commercial)
Domestic burglary	Burglary in a dwelling
Drug offences	Not available
Fraud offences	Not available
Homicide	Homicide
Miscellaneous crimes against society	Not available
Non-domestic burglary	Burglary not in a dwelling
Possession of weapons offences	Not available
Public order offences	Not available
Robbery	Average of robbery – personal and robbery – commercial
Sexual offences	Sexual offences
Shoplifting	Shoplifting
Theft from the person	Theft – not vehicle
Vehicle offences	Not available
Violence with injury	Average of serious wounding and other wounding
Violence without injury	Common assault

- This allows the cost of around 560,000 London crimes to be estimated with around 250,000 falling within the categories that do not have a clear equivalent in the Home Office analysis. These 560,000 crimes represent a cost of around £2.76bn, roughly £4,900 per crime. Using this £4,900 figure to value the remaining 250,000 crimes gives a total estimate of around £4.0bn.
- The Taxpayers' Alliance figure is taken from its recent report⁹⁹ and updated using a factor of 1.15 which is based on the GDP deflator.
- This overall cost estimate is split between the different cost components using Home Office figures¹⁰⁰ for the grand total cost of crime which suggest 8% of the costs are security

⁹⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/97813/IOM-phase2-costs-multipliers.pdf

⁹⁸ <http://www.ons.gov.uk/ons/rel/crime-stats/crime-statistics/period-ending-march-2013---supplementary-tables/rft-recorded-crime-data-at-police-force-area-level-from-2002-03.zip>

⁹⁹ http://tpa.typepad.com/home/files/the_cost_of_crime_in_london.pdf

¹⁰⁰ <http://webarchive.nationalarchives.gov.uk/20110218135832/rds.homeoffice.gov.uk/rds/pdfs/hors217.pdf>

expenditure, 1% insurance administration, 32% stolen and damaged property, 31% emotional and physical impacts on victims, 6% lost output, 0% victim services (after rounding), 2% health services and 20% criminal justice costs.

- The 31% ‘emotional and physical impacts on victims’ part of the total cost of crime is multiplied by 30% (the proportion of crime said to be attributable to conduct disorder in Sainsbury Centre for Mental Health (2009)¹⁰¹). This is done for both estimates (£4.0bn and £3.5bn) of the total cost of crime in London.

The attribution of 30% of the costs of crime to mental ill health is based on research but this research uses New Zealand data and reports that the estimates produced on the proportion of crime attributable to conduct disorder should be considered as ‘broad orders of magnitude’. Another issue with this estimate is that the mapping between crime data and cost of crime estimates is imprecise and the adjustment for crime types that could not be mapped is largely arbitrary.

Lost output due to crime

- The 6% ‘lost output’ component of the total cost of crime is multiplied by 30% (the proportion of crime said to be attributable to conduct disorder). This is done for both estimates (£4.0bn and £3.5bn) of the total cost of crime in London.

Property damage, property theft and anticipatory spending related to crime

- The 8% ‘security expenditure’, 1% ‘insurance administration’ and 32% ‘stolen and damaged property’ components of the total cost of crime is multiplied by 30% (the proportion of crime said to be attributable to conduct disorder). This is done for both estimates (£4.0bn and £3.5bn) of the total cost of crime in London.

Economic costs: totals

GVA – gross value added – is an economic measure of the value of goods and services produced in an area or sector.

The totals cover all areas of economic cost that have been analysed. One issue to note is that different estimates of cost use different definitions of mental ill health. Estimates of increased worklessness, for example, cover individuals with common mental disorders, while estimates of the quality of life reductions cover those who reported having moderate or extreme anxiety or depression.

Fiscal costs: public spending on treatments

Public spending on mental health treatments

Secondary and tertiary care spending has been taken from the 2011/12 National Survey of Investment in Mental Health¹⁰². This survey covers some primary care spending related to those aged 65 and over but does not capture primary care for adults of working age, nor does it include any

¹⁰¹ http://www.centreformentalhealth.org.uk/pdfs/chance_of_a_lifetime.pdf

¹⁰² <https://www.gov.uk/government/publications/investment-in-mental-health-in-2011-to-2012-working-age-adults-and-older-adults>

information on mental health spending on services for children. Information on these areas of spending has therefore been taken from a different source; LSE (2012) How Mental Illness Loses out in the NHS

Mental health related primary care

- Spending in England is £3.1bn in 2010/11 according to LSE (2012)¹⁰³. This figure is updated from 2010/11 prices to 2011/12 prices using HM Treasury GDP deflator figures¹⁰⁴ which give the increase in the GDP deflator during this period as 2.29%.
- A share of 19% of the total spending in England is allocated to London. Nineteen per cent is the proportion of spending covered in the working age and elderly National Investment in Mental Health Surveys¹⁰⁵ that is directed to London.

Mental health related secondary and tertiary care for working age adults

- Spending at the London level is contained in the 2011/12 National Survey of Investment in Mental Health and the figure is taken directly from here and not adjusted.

Mental health related secondary and tertiary care for those aged 65 and over

- Spending at the London level for this age group is contained in the 2011/12 National Survey of Investment in Mental Health but this includes a number of areas of primary care; day services, homecare, primary and community care (PCS), residential and specialist housing.
- These elements are removed by reducing the London estimate of spending (£0.37bn) by the England proportion of this spending that goes on the primary care areas listed above (46.2%).

Mental health related secondary and tertiary care for children

- As spending on secondary and tertiary care for children is not available from the 2011/12 National Survey of Investment in Mental Health, a figure has been taken from LSE (2012).
- Spending in England is £0.8bn in 2010/11 according to LSE (2012).
- This figure is updated from 2010/11 prices to 2011/12 prices using HM Treasury GDP deflator figures which give the increase in the GDP deflator during this period as 2.29%
- A share of 19% of the total spending in England is allocated to London for the same reason as in the primary care estimate.

Substance misuse and other secondary and tertiary care

- The amounts spent in England on these areas are £1.1bn and £1.6bn respectively in 2010/11 according to LSE (2012).
- This figure is updated from 2010/11 prices to 2011/12 prices using HM Treasury GDP deflator figures which give the increase in the GDP deflator during this period as 2.29%.
- As was the case previously, a share of 19% of the total spending in England is allocated to London.

Public spending on physical health treatments (for conditions caused or worsened by mental ill health)

¹⁰³ <http://cep.lse.ac.uk/pubs/download/special/cepsp26.pdf>

¹⁰⁴ <https://www.gov.uk/government/publications/gdp-deflators-at-market-prices-and-money-gdp-march-2013>

¹⁰⁵ <https://www.gov.uk/government/publications/investment-in-mental-health-in-2011-to-2012-working-age-adults-and-older-adults>

- Spending in England on the increased costs of treatment due to co-morbidity is £8bn in 2010/11 according to LSE (2012). The same report gives spending on medically unexplained symptoms as £3bn in 2010/11.
- This figure is uprated from 2010/11 prices to 2011/12 prices using HM Treasury GDP deflator figures which give the increase in the GDP deflator during this period as 2.29%.
- As was the case previously, a share of 19% of the total spending in England is allocated to London.

Public spending on social care for sufferers of mental disorders

- Parsonage and Naylor (2012)¹⁰⁶ gives spending on social care for sufferers of mental disorders in England as around £2.8bn.
- This figure is uprated from 2010/11 prices to 2011/12 prices using HM Treasury GDP deflator figures which give the increase in the GDP deflator during this period as 2.29%.
- As was the case previously, a share of 19% of the total spending in England is allocated to London.

All of these figures above, where based on apportionment, should be considered as approximations rather than exact spending amounts. It is also noted that it would have been desirable to use the NHS pay and prices index for uprating (instead of the GDP deflator) however this was not available for the years needed.

Other public spending

Spending on benefits for mental ill health sufferers

Prevalence of claiming benefits for mental ill health sufferers

- The 2007 Adult Psychiatric Morbidity Survey¹⁰⁷ results for London respondents were analysed for this section.
- This involved comparing the proportions of respondents with and without a neurotic disorder that claimed (or lived in a household that claimed in the case of housing benefit) various types of benefit.

Disability living allowance claims

- DWP provide data on disability living allowance expenditure by main disabling condition¹⁰⁸. The spending on mental health causes is reported as £1.7bn in 2011/12 for the UK.
- This overall spending is apportioned between the regions using data on the number of claimants with mental disorders¹⁰⁹ as the main cause in each region. For this process the conditions considered as mental ill health are: neurological disorders, Parkinson's disease, chronic fatigue syndrome, learning difficulties, psychosis, psychoneurosis, personality disorder, dementia, behavioural disorder, alcohol and drug abuse, hyperkinetic syndromes and other cognitive disorders.

¹⁰⁶ <http://cep.lse.ac.uk/textonly/research/mentalhealth/PARSONAGE-NAYLOR-16-01-12.pdf>

¹⁰⁷ <http://discover.ukdataservice.ac.uk/catalogue?sn=6379>

¹⁰⁸ <https://www.gov.uk/government/publications/disability-living-allowance-expenditure-by-reported-medical-condition-and-rate-paid>

¹⁰⁹ <http://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=138>

- London accounts for around 12% of claimants with these conditions and therefore 12% of the spending is assumed to be related to London, giving an estimate of around £0.20bn.

This estimate assumes that claimants from different regions, on average, claim the same amount, which may not be the case.

Incapacity benefit claims

- The number of individuals in London (as of November 2012) claiming incapacity benefit (around 65,000) and employment support allowance (around 81,000) due to a mental ill health diagnosis can be obtained from Nomis.
- Nomis also has data on the average amount received each week by incapacity benefits recipients with mental ill health which stands at around £100.
- This amount is multiplied by 52 to get an annual figure and by the total number of claimants across the two benefits to get the estimated total spending on these benefits in London due to mental ill health. The estimate is around £0.76bn.

A caveat with this estimate is that average weekly payments for employment support allowance have been assumed to be the same as those for incapacity benefit.

Education services

- GB education services expenditure taken from ‘Economic impact of childhood psychiatric disorder on public sector services in Britain: estimates from national survey data’ Table 4.
- Estimate uprated using GDP deflator.
- Costs apportioned to London on the basis of London’s child population as a share of GB population.

Criminal justice spending

- The 20% ‘criminal justice’ component of the total cost of crime is multiplied by 30% (the proportion of crime said to be attributable to conduct disorder). This is done for both estimates (£4.0bn and £3.5bn) of the total cost of crime in London.

Fiscal costs: lost taxes

- The estimates of lost earnings associated with mental ill health are multiplied by 18% to give direct tax losses and 18% to give indirect tax losses. Both figures come from LSE (2012)¹¹⁰.

Fiscal costs: totals

The totals cover all areas of fiscal cost that have been analysed.

One issue to note is that different estimates of cost use different definitions of mental ill health. The estimates of criminal justice spending, for example, relate to individuals that had conduct disorder during childhood, while the first of the lost taxation estimates (that based on data from the 2007 Adult Psychiatric Morbidity Survey) relates to individuals with common mental disorders.

¹¹⁰ <http://www.lse.ac.uk/LSEHealthAndSocialCare/pdf/LSE-economic-report-FINAL-12-Nov.pdf>

The values of a prevented fatality and a quality adjusted life year

Introduction

This report has used Department for Transport's (DfT) value of a prevented fatality and Department of Health's (DH) value of a QALY in the production of various estimates. This short summary explains where these figures come from and helps readers make an informed decision regarding their interpretation.

The value of a prevented fatality

In 1997 DfT commissioned researchers from the Universities of Newcastle, York, Bangor and Brighton to carry out some face-to-face interviews with members of the public who had been selected by a market research firm. The aim of this exercise was to elicit a value to place upon a prevented road traffic fatality.

A total of 167 interviews were completed and respondents were asked both contingent valuation¹¹¹ and modified standard gamble¹¹² questions. Following analysis of the results, the researchers reported that the willingness to pay for a prevented fatality among this sample was between £0.75m and £1.25m, with DfT deciding to use the mid-point of this range.

In formulating a figure for the value of a prevented fatality for appraisal purposes, DfT added on two elements that are assumed to be excluded from individuals' willingness to pay responses. These are the present value of net¹¹³ lost output produced by the victim, and the cost of medical and ambulance costs. This gives the total value of a prevented fatality.

When this value is presented to the public however, slightly different headings are shown. These are:

- Human costs: the result of subtracting the difference between net and gross output losses from the willingness to pay values
- Output losses: the present value of gross output losses
- Medical and ambulance costs.

The medical and ambulance costs are very small so will not be discussed.

The figures for gross and net output come from a 1993 study by D O'Reilly. This report estimates lifetime earnings for a range of different groups taking into account a range of relevant factors such as age, gender and life expectancy. An assumption that real output per head increases by 2% per year is used, and a discount rate of 6% is applied to estimate the present values of gross output. This estimate of net output comes from using national accounts data which were interpreted as showing that net output was around 20% of gross output.

¹¹¹ http://en.wikipedia.org/wiki/Contingent_valuation

¹¹² <http://www.ncbi.nlm.nih.gov/books/NBK11818/>

¹¹³ It is assumed the willingness to pay includes an allowance for consumption that would have been enjoyed by the individual who avoids a fatal accident.

The value of a quality adjusted life year (QALY)

A 2010 report by the Department of Health¹¹⁴ uses the DfT value of a prevented fatality figure to estimate the value of a QALY. They do this by using the items below to estimate the number of QALYs lost in a road traffic fatality

- Data on the age and gender of those who die in road traffic accidents
- Figures for the remaining life expectancy at different ages
- Research covering the average QALY profile across the lifespan
- A 1.5% discount rate (within which is included an assumption of future GDP growth) applied to QALYs themselves.

The resulting estimate from this exercise is 26.7 QALYs.

DH then divide the value of a prevented fatality figure from DfT by 26.7 to get an estimate of the value of a QALY which is rounded (to avoid any suggestion of spurious accuracy related to using an unrounded figure) to £60,000 in 2009 prices.

Issues and appropriateness of use

There are a range of issues with the value of a prevented fatality and QALY values even when used in their normal context. These issues include:

- the small sample size used in the DfT survey
- the age of the underlying research
- the use of a 6% discount rate on the output estimates instead of the standard 3.5% recommended in the Green Book
- the adjustment from gross to net output.

Clearly this report has not used these figures in their normal context and although other similar pieces of research have used these figures, it is entirely reasonable to question their use here. The main reasons for their use were comparability in approach to past research, and the fact that methods which might have better captured the quality of life impacts of mental health (such as wellbeing valuation¹¹⁵) are much more computationally advanced.

Readers who are interested in finding out more should consult the following resource which was essential in writing this section:

Nera Economic Consulting (2011) Updating the VPF and VPIs

<http://assets.dft.gov.uk/publications/pgr-economics-rdg-updatingvpfvpi-pdf/vpivpfreport.pdf>

¹¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216003/dh_120108.pdf

¹¹⁵ For example see Fujiwara (2013): <http://cep.lse.ac.uk/pubs/download/dp1233.pdf>

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Chinese

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Hindi

यदि आप इस दस्तावेज की प्रति अपनी
भाषा में चाहते हैं, तो कृपया निम्नलिखित
नंबर पर फोन करें अथवा नीचे दिये गये
पते पर संपर्क करें

Vietnamese

Nếu bạn muốn có văn bản tài liệu
này bằng ngôn ngữ của mình, hãy
liên hệ theo số điện thoại hoặc địa
chỉ dưới đây.

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি
(কপি) চান, তা হলে नीचेर ফোন নম্বরে
বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος
εγγράφου στη δική σας γλώσσα, παρακαλείστε να
επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυ-
δρομικά στην παρακάτω διεύθυνση.

Urdu

اگر آپ اس دستاویز کی نقل اپنی زبان میں
چاہتے ہیں، تو براہ کرم نیچے دئے گئے نمبر
پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

Turkish

Bu belgenin kendi dilinizde
hazırlanmış bir nüshasını
edinmek için, lütfen aşağıdaki
telefon numarasını arayınız
veya adrese başvurunuz.

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى
الاتصال برقم الهاتف أو مراسلة العنوان
أدناه

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ
ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ
ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં
જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર
ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

