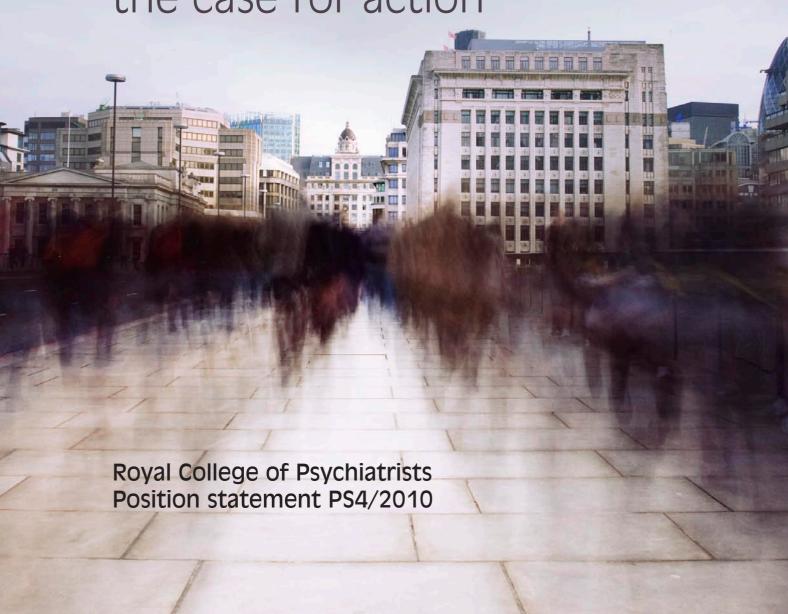


No health without public public mental health

the case for action



No health without public mental health

The case for action

Position Statement PS4/2010 October 2010

Royal College of Psychiatrists London

Approved by Council: October 2010

Contents

Preface	
Executive summary and recommendations	7
1 Epidemiology and impact of mental illness	11
2 Mental health and inequalities	18
3 Economic costs of mental illness	19
4 Mental health underlies physical health	21
5 Effects of positive mental health and well-being	22
6 Interventions to reduce mental illness and promote mental	2
well-being	24
7 Cost effectiveness of prevention and promotion	31
8 Conclusions	33
References	34

Preface

In the past two decades there emerged evidence to suggest that over three-quarters of psychiatric disorders develop below the age of 25. We also know that some childhood disorders will lead to ongoing problems in adulthood. It is important that psychiatrists and other mental health professionals be aware of strategies related to prevention at all levels, whether on the primary, secondary or tertiary level. As psychiatrists, we must take the lead in educating the public, patients and their carers about these issues. I welcome the proposed *Public Health White Paper*, which will have mental health strategy at its core. I am delighted and proud that the Royal College of Psychiatrists has led the way in developing a public mental health strategy in partnership with various stakeholders. I would like to thank all those who contributed to this, in particular Professor Kamaldeep Bhui, the College Lead on Public Health, and Dr Jonathan Campion, for their hard work in developing this Position Statement.

Professor Dinesh Bhugra President of the Royal College of Psychiatrists

Public mental health focuses on wider prevention of mental illness and promotion of mental health across the life course.

The Royal College of Psychiatrists believes that mental health is a central public health issue and that it should be a priority across all government departments. This position statement sets out the contribution that public mental health makes to a wide range of health and social outcomes for individuals and society.

Executive summary and recommendations

Mental health is a public health issue. Mental illness is the largest single source of burden of disease in the UK. No other health condition matches mental illness in the combined extent of prevalence, persistence and breadth of impact. Mental illness is consistently associated with deprivation, low income, unemployment, poor education, poorer physical health and increased health-risk behaviour. Mental illness has not only a human and social cost, but also an economic one, with wider costs in England amounting to £105 billion a year.

Despite the impact of mental illness across a broad range of functional, economic and social outcomes, and despite ample evidence that good mental health underlies all health, mental health is not prominent across public health actions and policy. Public health strategies concentrate on physical health and overlook the importance of both mental illness and mental well-being. Positioning mental health at the heart of public health policy is essential for the health and well-being of the nation. It will lead to healthy lifestyles and reduce health-risk behaviours, thereby both preventing physical illness and reducing the burden of mental illness.

Most mental illness begins before adulthood and often continues through life. Improving mental health early in life will reduce inequalities, improve physical health, reduce health-risk behaviour and increase life expectancy, economic productivity, social functioning and quality of life. The benefits of protecting and promoting mental health are felt across generations and accrue over many years. Promotion and prevention is also important in adulthood and older years, with people in later life having specific mental health needs. Effective population mental health strategies will improve well-being, resilience to mental illness and other adversity, including physical illness. Targeted strategies will also prevent future inequalities and reduce existing inequalities.

All sectors of society have a role to play in improving the mental and physical health of the population and doctors are an important group to facilitate this.³ Many psychiatrists already adopt a public mental health approach in their work such as when assessing the needs and assets of their local populations, informing commissioners of the expected prevalence of specific disorders and anticipating levels of service provision, as well as opportunities for health promotion. Clinical engagement in commissioning for public mental health is essential to ensure that effectiveness, quality and safety are prioritised and waste of resources is avoided. Psychiatrists could have a key role as advocates and leaders for public mental health. All health professionals should be involved in informing local and national policies and actions and in local implementation of public health policy.

For all these reasons significant investment to promote public mental health is needed. As well as reducing associated personal and social costs, such investment will lead to significant economic savings which also have an important role in wider economic recovery. Significant costs arise from the lack of such investment. Cost-effective interventions exist to both prevent mental illness and to promote wider population mental health, initiatives that complement the treatment of mental illness. Effective public mental health action will reduce the present and future disease burden and cost of mental illnesses.

THE ROYAL COLLEGE OF PSYCHIATRISTS' WORK ON PUBLIC HEALTH

As a consequence of the College's commitment to public mental health, the College hosted five stakeholder seminars in 2009 covering public mental health across the lifespan. These were organised jointly with other partners, including the Department of Health, the NHS Confederation and the Faculty of Public Health. The conclusions from these seminars have been incorporated into this position statement. Subsequently, Professor Kamaldeep Bhui was appointed College Lead on Public Health and, with Dr Jonathan Campion, Ms Katie Gray, Dr Jo Nurse, Dr Laurence Mynors-Wallis and members of the College Policy Unit, particularly Dr Rowena Daw, produced this document. Recommendations in this position statement are drawn from the evidence base set out below and build on the public health seminars.

RECOMMENDATIONS

Mental illness is the largest single source of burden of disease in the UK. It has an impact on every aspect of life, including physical health and risk behaviour. There are large personal, social and economic costs associated with mental illness. Cost-effective interventions exist to both prevent mental illness and promote wider population mental health. The Royal College of Psychiatrists urges the Government to prioritise public mental health as part of their public health policy.

Key points and features that should be part of a public mental health strategy:

- There is no public health without public mental health. Investment is needed to promote public mental health. This will enhance population well-being and resilience against illness, promote recovery, and reduce stigma and the prevalence of mental illness.
- The Royal College of Psychiatrists strongly supports the findings of the Marmot Strategic Review of Health Inequalities in England post 2010. It recognises that inequality is a key determinant of illness, which then leads to even further inequality. Government policy and actions should effectively address inequalities to promote population mental health, prevent mental ill health and promote recovery.
- Physical health is inextricably linked to mental health. Poor mental health is associated with other priority public health conditions such as obesity, alcohol misuse and smoking, and with diseases such as cancer,

- cardiovascular disease and diabetes. Poor physical health also increases the risk of mental illness.
- Interventions which apply across the life course need to be provided. Since the majority of mental illnesses have childhood antecedents, childhood interventions which protect health and well-being and promote resilience to adversity should be implemented. If mental health problems occur there should be early and appropriate intervention. Strategies to promote parental mental health and effectively treat parental mental illness are important since parental mental health has a direct influence on child mental health.
- Older people also require targeted approaches to promote mental health and prevent mental disorder, including dementia. Action is needed to promote awareness of the importance of mental health and well-being in older age as well as ways to safeguard it. Ageist attitudes need to be challenged and values promoted that recognise the contributions older people make to communities, valuing unpaid, voluntary work as we do economic productivity.
- An effective public health strategy requires both universal interventions, applied to the entire population, and interventions targeted at those people who are less likely to benefit from universal approaches and are at higher risk, including the most socially excluded groups. Such groups include children in care or subject to bullying and abuse, people of low socioeconomic status, those who are unemployed or homeless, those with addictions or intellectual disability, and other groups subject to discrimination, stigma or social exclusion. Health promotion interventions are particularly important for those recovering from mental illness or addiction problems. Those with poor mental health as well as poor physical health require effective targeted health promotion interventions.
- 7 The prevention of alcohol-related problems and other addictions is an important component of promoting population health and well-being. The College supports the development of a minimum alcohol pricing policy and a cross-government, evidence-based addictions policy.
- 8 Smoking is the largest single cause of preventable death and health inequality. It occurs at much higher rates in those with mental illness, with almost half of total tobacco consumption and smoking-related deaths occurring in those with mental disorder. Therefore, mental health needs to be mainstreamed within smoking prevention and cessation programmes.
- 9 A suicide prevention strategy should remain a government priority and should include strategies to address and reduce the incidence of self-harm.
- 10 Collaborative working is required across all government departments in view of the cross-government benefits of public mental health interventions across a range of portfolios, such as education, housing, employment, crime, social cohesion, culture, sports, environment and local government. Actions to combat stigma related to mental illness should be included in these strategies.
- Doctors can be important leaders in facilitating local and national implementation of public mental health strategies. Many psychiatrists

- already adopt a public mental health approach in their work and influence national and local strategy. Psychiatrists should be supported in assessing the needs of their local population for health promotion.
- 12 Psychiatrists should be engaged in the commissioning process and inform commissioners of the expected prevalence of specific disorders to anticipate levels of service provision and unmet need, and to help prioritise resource allocation. Support and training are required to facilitate this.
- 13 Commissioners should take into account the effects of mental health and mental illness across the life course as well as the economic benefits of protecting and promoting mental health and well-being.
- 14 Commissioners should consider the existing arrangements and adequacy of services for comorbid disorders and unexplained medical symptoms where cost-effective interventions could be provided.

1 Epidemiology and impact of mental illness

In the UK, one in four people will experience mental illness in their lifetime, whereas one in six will experience mental illness at any one time. Mental illness is the single largest source of burden of disease in the UK.

IMPACT OF MENTAL ILLNESS

In 2004, 22.8% of the total burden of disease in the UK was attributable to mental disorder (including self-inflicted injury), compared with 16.2% for cardiovascular disease and 15.9% for cancer, as measured by Disability Adjusted Life Years (DALYs).^{a,4} Depression alone accounts for 7% of the disease burden, more than any other health condition. It is predicted that by 2030, neuropsychiatric conditions will account for the greatest overall increase in DALYs.⁵

Population levels of different types of mental illness are presented in $\mbox{Box 1}.$

Mental Illness over the life course

Half of all lifetime cases of diagnosable mental illness begin by age 14¹⁶ and three-quarters of lifetime mental illness arise by mid-twenties. However, 60–70% of children and adolescents who experience clinically significant mental health problems have not been offered evidence-based interventions at the earliest opportunity for maximal lifetime benefits.¹⁷ Furthermore, in a UNICEF survey in 2007 the UK ranked at the bottom on children's well-being compared with North America and 18 European countries,¹⁸ and ranked 24th out of 29 European countries in another survey in 2009.¹⁹

Unlike other health problems such as cancers and heart disease, most mental illness begins early and may persist over a lifetime, causing disability when those affected would normally be at their most productive. Approximately 11 million people of working age in the UK experience mental health problems and about 5.5 million have a common mental disorder. A significant proportion of the population experience subthreshold symptoms,

a DALYs are a measure of the total length of time over which a specific illness is disabling to an individual over the course of their lifespan. One DALY can be thought of as one lost year of 'healthy' life.

Box 1 Mental Illness in England

- 10% of children and young people have a clinically recognised mental disorder: of 5- to 16-year-olds, 6% have conduct disorder, 18% subthreshold conduct disorder and 4% an emotional disorder
- 17.6% of adults in England have at least one common mental disorder and a similar proportion has symptoms which do not fulfil full diagnostic criteria for common mental disorder⁸
- postnatal depression affects 13% of women following childbirth²⁶²
- in the past year 0.4% of the population had psychosis⁸ and a further 5% subthreshold psychosis⁹
- 5.4% of men and 3.4% of women have a personality disorder; 10 0.3% of adults have antisocial personality disorder8
- 24% of adults have hazardous patterns of drinking, 6% have alcohol dependence, 3% illegal drugs dependence¹⁰ and 21% tobacco dependence¹¹
- 25% of older people have depressive symptoms which require intervention: 11% have minor depression and 2% major depression;¹² the risk of depression increases with age – 40% of those over 85 are affected
- 20–25% of people with dementia have major depression whereas 20–30% have minor or subthreshold depression¹³
- dementia affects 5% of people aged over 65 and 20% of those aged over 80¹⁴
- in care homes, 40% of residents have depression, 50-80% dementia and 30% anxiety 12
- a third of people who care for an older person with dementia have depression¹⁵

which, although not meeting criteria for diagnosis of mental illness, have a significant impact on their lives.

RISK FACTORS FOR MENTAL ILLNESS

The World Health Organization's (WHO's) Commission on the Social Determinants of Health highlighted the importance of social circumstances in influencing health and well-being and the structural factors at wider policy and economic levels that lead to health inequities.²⁰ A public health approach recognises the importance of addressing wider determinants across the life course to both prevent mental illness and promote well-being.

Risk factors for mental illness in childhood can be grouped as child, parental and household factors. Regarding parental factors, alcohol, tobacco and drug use during pregnancy increase the likelihood of a wide range of poor outcomes that include long-term neurological and cognitive-emotional development problems.²¹ Maternal stress during pregnancy is associated with increased risk of child behavioural problems,²² low birth weight is associated with impaired cognitive and language development, poor parental mental health with four- to five-fold increased risk of emotional/conduct disorder¹⁷ and parental unemployment with two- to three-fold increased risk of emotional/conduct disorder in childhood. Child abuse and adverse childhood experiences result in several-fold increased risk of mental illness and substance misuse/dependence later in life.²³ Looked-after children, those with intellectual disability and young offenders are at particularly high risk.

Risk factors for poor mental health in adulthood include unemployment,²⁴ lower income,⁸ debt,²⁵ violence,²⁶ stressful life events,²⁴ inadequate housing,⁸ fuel poverty²⁷ and other adversity. Poor mental health is also associated with increased risk-taking behaviour and poor lifestyle choices. In particular, smoking is responsible for a large proportion of the excess mortality of people with mental illness.²⁸

HIGHER-RISK GROUPS

Risk factors disproportionately affect the mental health of people from higher-risk and marginalised groups. Those at higher risk include looked-after children, children who experienced abuse, Black and minority ethnic individuals, b,29-31 those with intellectual disability and homeless people. Prisoners have a twenty-fold higher risk of psychosis, with 63% of male remand prisoners having antisocial personality disorder, compared with 0.3% of the general population. Such groups are also at a higher risk of stigma and discrimination. Targeted intervention for groups at higher risk of mental illness can prevent a widening of inequalities in comparison with the general population.

Poor mental health underlies risk behaviours, including smoking, alcohol and drug misuse, higher-risk sexual behaviour, lack of exercise, unhealthy eating and obesity. Risk factors and behaviours cluster in particular groups. For instance, low income and economic deprivation is particularly associated with the 20–25% of people in the UK who are obese or continue to smoke.³⁴ This population also experiences the highest prevalence of anxiety and depression.²⁴ Clustering of health-risk behaviours in childhood is a particular problem that leads to greater lifetime risks of mental illness, as well as social, behavioural, financial, and general health problems.

Consequences of poor mental health

HEALTH AND SOCIAL OUTCOMES

Mental ill health has a significant impact on a range of outcomes. In the case of children and young people, this includes poor educational achievement, and a greater risk of suicide and substance misuse, antisocial behaviour, offending and early pregnancy.³⁵

Poor mental health in childhood and adolescence is further associated with a broad range of poor health outcomes in adulthood, including higher rates of adult mental illness, as well as lower levels of employment, low earnings, marital problems and criminal activity.³⁶ In particular, conduct disorder is associated with increased risk of subsequent mental illness, including mania, schizophrenia, obsessive–compulsive disorder,³⁷ depression and anxiety,^{7,35} suicidal behaviour,^{35,38} and substance misuse.³⁵ Conduct disorder is associated with increased risk of personality disorder, with 40–70% of children with conduct disorder developing antisocial personality disorder as adults.³³

Royal College of Psychiatrists 13

_

b Black and minority ethnic individuals have a three-fold increased risk of psychosis²⁹ (seven-fold increased risk in African–Caribbeans³⁰) and a two- to three-fold increased risk of suicide.³¹

REDUCED LIFE EXPECTANCY AND INCREASED PHYSICAL ILLNESS

Individuals with mental illness experience increased levels of physical illness and reduced life expectancy (Box 2).

SUICIDE AND SELF-HARM

Suicide remains a significant cause of death and its prevention is a major public health issue.⁴⁹ Higher rates of suicide and self-harm occur in particular groups. For instance, increased rates of suicide have been found in those with severe mental illness (twelve-fold increase),⁵⁰ those with previous self-harm (thirty-fold increase)⁵⁰ and groups with high rates of mental illness such as prisoners (five-fold increase for male prisoners and twenty-fold increase for female prisoners).⁵¹ Young men and some Black and minority ethnic groups (African–Caribbean and African young men and middle-aged and older South Asian women) are also at higher risk.³¹ Self-harming behaviour is highest among those with a mental disorder. It contributes to poor physical health and compounds social isolation.⁴⁹ The rate of self-harm, especially among young people, has risen significantly over the past decade and now accounts for at least 200 000 hospital admissions per year in England.

ALCOHOL MISUSE

Over a fifth of men (21%) and 14% of women in England drink more than twice the recommended guideline amounts of, respectively, 3-4 units daily and 2-3 units daily at least one day a week. 10,52 The risk of hazardous drinking increases following two or more stressful life events. 54

Box 2 Life expectancy and physical illness in individuals with mental illness

- Depression is associated with 50%-increased mortality after controlling for confounders,³⁹ with 67% increased mortality from cardiovascular disease, 50% increased mortality from cancer, two-fold increased mortality from respiratory disease and three-fold increased mortality from metabolic disease⁴⁰
- Depression almost doubles the risk of later development of coronary heart disease after adjustment for traditional factors ⁴¹
- Increased psychological distress is associated with 11%-increased risk of stroke after adjusting for confounders⁴²
- Prospective population-based cohort studies also highlight that depression predicts colorectal cancer,⁴³ back pain⁴⁴ and irritable bowel syndrome⁴⁵ later in life
- People with schizophrenia and bipolar disorder die an average 25 years earlier than the general population, largely because of physical health problems.⁴⁶ A recent UK study found that of those living with schizophrenia in the community, men experience 20.5 years' reduced life expectancy and women 16.4 years' reduced life expectancy, although the study did not include those with comorbid substance misuse or the more severely unwell in long-stay hospital settings⁴⁷
- Schizophrenia is associated increased death rates from cardiovascular disease (two-fold), respiratory disease (three-fold) and infectious disease (four-fold).⁴⁸

In adolescence, conduct disorder is associated with a four-fold greater risk of drinking alcohol at least twice a week, whereas emotional disorder is associated with almost two-fold higher risk of drinking at least twice a week.⁶ Childhood sexual and physical abuse are significant factors for the development of alcohol problems in women.⁵⁵ A third of suicides in young people are associated with alcohol intoxication, whereas 65% of adult suicides are associated with excessive drinking.⁵⁴ Heavy drinking may be a factor in one in four cases of dementia.⁵⁶ Excessive consumption of alcohol is also associated with higher levels of depressive and affective problems, schizophrenia and personality disorders.⁵⁷

SMOKING

Smoking is the largest cause of preventable illness in the UK. Smokers in the general population die, on average, 10 years earlier than non-smokers: a half of smokers die 15 years earlier and a quarter die 23 years earlier than non-smokers. In 2008, almost one in five deaths (83900) in England were attributable to smoking. Rates of smoking are much higher for individuals with mental disorder compared with the general population (21%): 70% for those in in-patient mental health units, 89 80% for those attending methadone maintenance treatment clinics and 80% for prison inmates. Almost half of total tobacco consumption is by those who have a mental disorder. Smoking is an even more significant cause of morbidity and the largest cause of health inequality in these groups than for the general population, with almost half of the total number of deaths from tobacco by those with mental disorder.

As most smoking starts before adulthood, adolescents, especially those with emotional and behavioural disorder, are at much greater risk; six times higher smoking rates are found in those with conduct disorder and four times higher rates are found in those with emotional disorder.⁶ Prevention and early intervention in adolescents with such disorders will also reduce the uptake of smoking.

OBESITY

Mental illness, intellectual disability and physical disability increase the risk of obesity. ^{65,66} Obesity is more common in people with major depression, bipolar disorder, panic disorder and agoraphobia. ⁶⁷

CRIME

Overall, children who had conduct disorder or sub-threshold conduct problems in childhood and adolescence and whose problems are not treated contribute disproportionately to all criminal activity. Nearly half of children with early-onset conduct problems experience persistent, serious, life-course problems including also crime, violence, drug misuse and unemployment. Moreover, these risks continue throughout adult life and are passed down through the generations so that a child of a mother with depression has a five-fold increased risk for conduct disorder and an increased risk of mental illness as an adult. However, those with mental illness are much more likely to be a victim of crime than a perpetrator.

VIOLENCE

People with a mental disorder are more likely to be a victim of violence than a perpetrator and more likely to be a victim than the general population.⁶⁹ The risk of violence is only significantly increased among those who misuse alcohol and drugs.⁷⁰ The population-attributable risk for violence associated with hazardous drinking is 46.8%; for drug use it is 36.8%; 26.4% for any personality disorder; 23.4% for alcohol dependence; 14.9% for antisocial personality disorder; 10.3% for any affective disorder; 1.2% for any psychiatric admission and 0.7% for psychosis.⁷¹ Although the risk of violence is very small for those with psychosis, it is 40 times higher for those not engaged with mental health services than for those fully engaged.⁷² Early intervention in people with psychosis reduces the risk of very serious offences such as homicide⁷³ as well as reducing the risk of suicide.⁷⁴

UNEMPLOYMENT

Unemployment is one of the most important causes of social exclusion among adults of working age. It is usually associated with low income, which has a key influence on social isolation and low self-esteem. Because of financial difficulties experienced, unemployment can have an adverse effect on diet and lead to unhealthy behaviours such as smoking and alcohol consumption. Prolonged unemployment is linked to worsening mental and physical health, including an increased risk of suicide and premature death.

Mental illness is associated with increased risk of unemployment, with only 20% of specialist mental health service users either in paid work or full-time education.⁷⁵ Common mental disorder is associated with a three-fold increased risk of unemployment²⁴ as well as a reduced level of well-being.⁷⁶ People in debt are more likely to experience depression and to die by suicide than those who are solvent.^{25,77}

EMPLOYMENT

Work provides a range of benefits such as increased income, social contact and a sense of purpose. However, work can also have negative effects on mental health, particularly in the form of stress. Working environments which increase the risk of stress are those with high demands and lack of control or support to manage such demands. Working in environments that are insecure, low paid and stressful is associated with increased risks of poor physical and mental health. In the UK, approximately 11 million people of working age experience mental health problems and about 5.5 million have a common mental disorder. In 2008/2009, 11.4 million working days were lost in Britain due to work-related stress, depression or anxiety.

Patterns of employment both reflect and reinforce the social gradient and there is inequality of access to labour market opportunities.⁸¹ Reducing sickness absence and promoting an early return to work following an episode of illness are important strategies as part of a public mental health policy. Dealing with 'presenteeism' (going to work when unfit to work) and managing work environments so that they become healthier is also a significant challenge in a harsh economic climate where unemployment is a threat.

People with mental illness have a lower rate of employment than other groups with disabilities yet they are more likely to want to be in

employment.^{24,82-4} Discrimination in the workplace can drive the low employment rate among people with severe mental illness.^{85,86} Employment for people with mental illness is important in promoting recovery and social inclusion and can have a positive effect on mental health,⁷⁸ although benefits depend on the nature and quality of work. Unpaid voluntary work in the community and carer work are often undervalued. This work, primarily undertaken by older people, needs to be fully recognised and valued for its significant contribution to society.

STIGMA AND DISCRIMINATION

Stigma is cited by mental health service users above poverty, isolation and homelessness as a main source of social exclusion in both people with current and those with previous mental health problems.⁸⁷ The overall attitudes towards such people remain, in most respects, as profoundly negative as they were a decade ago despite the improvements in public awareness and knowledge about mental illness.⁸⁸ For some individuals, the problems are compounded by additional discrimination on the grounds of their ethnicity, cultural background or sexuality.^{89,90} As many as nine out of ten people using mental health services say they experience discrimination in more than one area of life.⁹¹

A label of having a mental illness makes it harder to get life, personal or holiday insurance and can affect access to leisure facilities and other community activities. Personal Negative attitudes to mental ill health can adversely affect policy development, usually through omission of relevant mental health issues. In the media, mental illness is typically represented in distorted stereotypes, which can foster fear and stigma among the general public. It also contributes to false and extremely damaging perceptions of the violence caused by people with mental health problems.

Social exclusion

Individuals with mental health problems are often excluded from key areas of social life, such as consumption (exclusion from material resources), production (exclusion from socially valued productive occupation), social interaction (exclusion from social relations and neighbourhoods), political engagement (exclusion from civic participation), as well as health and health service engagement (service exclusion). Exclusion thereby results in inequality, which is also a determinant of mental illness (see Chapter 2). For older people, impaired mobility and lack of transport can limit inclusion as can poorly designed buildings, poor town planning, ageist social attitudes and low expectations.

2 Mental health and inequalities

The annual cost of social and economic inequality in England is £56–58 billion, with those living in poorest neighbourhoods dying seven years earlier than people living in the richest neighbourhoods. The country is facing significant financial austerity following the recession. Studies show that health tends to get worse during times of recession, with the poorest affected the most. In the UK, inequality between the rich and the poor is continuing to widen.

Social and economic inequality is a major determinant of mental illness and underlies other risk factors. The greater the level of inequality, the worse the health outcomes. Be Higher income inequality is linked to higher rates of mental illness, decreased rates of trust and social interaction, and increased hostility, violence and racism, as well as lower well-being scores. Mental illness is also a factor contributing to inequality as it is consistently associated with deprivation, low income, unemployment, poor education, poorer physical health and increased health-risk behaviour.

Parental unemployment is associated with a two- to three-fold greater risk of emotional or conduct disorder in children.¹⁷ In the UK, one in six children now lives in a workless household, the highest proportion of any country in Europe. Child poverty in the UK has also grown in recent years⁹⁶ and children from households with the lowest 20% of incomes have a three-fold increased risk of mental health problems than children from households with the highest 20% of incomes.⁶ Poor mental health can affect anyone at any time across the lifespan, and critically, it can affect future generations, contributing further to cycles of inequality and ill health that run through some families.

Inequality also has an impact on adult mental health, with men from households with the lowest 20% of incomes being almost three times more likely to have a common mental disorder than those with the top 20%.8 Similarly, self-harm is 3.2 times more common in men and 2.5 times more common in women from households with the lowest 20% of incomes, whereas dependence on any drug is 4.6 times higher for men and 33 times more common in those from the lowest 20% of household income.8

Health inequalities result in part from social inequalities, and the complex relationships between opportunity, individual and community characteristics. Since inequality is itself a major determinant of mental illness, interventions that directly address it will reduce mental illness and promote mental health. Such interventions also reduce inequality. Lifetime benefits for children extend to the child's future parenting abilities, thereby helping to break down intergenerational transmisson of inequalities.

3 Economic costs of mental illness

Mental health problems cost England approximately £105 billion each year and represent the largest single cost to the NHS.

Mental health problems have not only a human and social cost, but also an economic one, with wider costs in England amounting to £105.2 billion a year. Mental illness is the single largest cost to the National Health Service (NHS) at £10.4 billion (10.8% of the NHS budget). In 2007, service costs in England, which include the NHS, social and informal care, amounted to £22.5 billion and these costs are projected to increase by 45%, to £32.6 billion by 2026. Annual cost of depression in England alone is £7.5 billion, of anxiety £8.9 billion, of schizophrenia £6.7 billion, of medically unexplained symptoms £18 billion and of dementia £17 billion. $^{14,98-100}$

A review of economic evaluations of mental illness in childhood and adolescence, such as emotional and behavioural disturbances or antisocial behaviour, found mean costs to UK society to range from £11030 to £59130 annually per child. 101

The costs of criminal activity related to conduct disorder in England and Wales alone amount to £22.5 billion each year, with a further annual cost of £37.5 billion attributable to subthreshold conduct disorder. Lifetime costs of child conduct disorder in the UK for each 1-year cohort amount to £5.2 billion and for child subthreshold conduct disorder they amount to £23.6 billion. The wider annual cost of violence and abuse is estimated at £40.1 billion a year, with annual cost of domestic violence at £15.4 billion and sexual violence £8.5 billion. $^{103-5}$

The cost of work-related mental ill health is around £30.3 billion per year, nearly two-thirds of which can be accounted for by lost productivity.² Mental illness is the leading cause of incapacity benefit payment: 43% of the 2.6 million people currently on long-term health-related benefits have a mental or behavioural disorder as their primary condition.¹⁰⁶

The total cost of alcohol misuse is estimated at £18–25 billion a year. This includes costs of treating alcohol-related disorders and disease, crime and antisocial behaviour, loss of productivity in the workplace, and social support for people who misuse alcohol and their families. 107 Annual NHS cost of treating alcohol-related harm in England is £2.7 billion.

Regarding smoking, 440 900 hospital admissions in 2007/2008 were directly attributable to smoking, 11 and the annual direct cost of smoking to the NHS was estimated at £5.2 billion. 108

Relatively little economic evaluation has been done on the economic impact of good mental health on issues such as productivity at work and physical health.

4 Mental health underlies physical health

Mental health underpins our overall health. Mental illness is associated with increased risk of physical illness, arising in part from a less healthy lifestyle and more frequent health-risk behaviour, and conversely, physical illness increases the risk of mental illness. 109 Mental illness also contributes to health inequality. 109 It increases the risk of such illnesses as heart disease, stroke and cancer (Box 2, p. 14). Compared with the general population, individuals with mental illness die prematurely, particularly people with schizophrenia and bipolar disorder, who experience an average 25-year shorter life expectancy. 46 People with eating disorders also have an increased risk of premature death and a wide range of physical problems. The largest single cause of health inequality for individuals with mental illnesses is their higher rate of smoking.

The Disability Rights Commission's Formal Investigation into Physical Health Inequalities Experienced by People with Learning Disabilities or Mental Health Problems found a lack of support and information for such individuals in general and especially for those in all forms of residential care. They called for 'accessible and appropriate support to encourage healthy living and overcome physical health disadvantages which come from their conditions or treatments'. They also recorded the differences between those with mental illness and those with an intellectual disability in terms of physical illnesses.

Rates of depression are double in those with diabetes, hypertension, coronary artery disease and heart failure, and triple in end-stage renal failure, chronic obstructive pulmonary disease and cerebrovascular disease. ¹¹¹ The prevalence of depression among those with two or more chronic physical conditions is almost 7 times higher compared with healthy controls. ¹¹² Physical illness can have profound social and emotional consequences and can result in mental health problems which impede recovery from the physical illness and increase mortality rates.

5 Effects of positive mental health and well-being

Mental well-being is fundamental to the good quality of life and productivity of individuals, families, communities and nations. The health, social and economic benefits are not simply the result of the absence of mental illness but are also owing to positive mental health. Health approach includes enhancing protective factors for mental health, which is not equivalent to the absence of risk factors for mental illness. Some factors associated with positive mental health include personality traits, various demographic factors, income and socioeconomic status, emotional and social literacy, levels of trust, reciprocity, participation and cohesion within communities, purposeful activity including work, self-esteem, and values such as altruism. His-19

Positive mental health is associated with enhanced psychosocial functioning, improved learning and academic achievement, increased participation in community life, reduced sickness absence, improved productivity, reduced risk-taking behaviour, improved physical health, reduced mortality, 120-3 reduced health inequality as well as recovery from mental illness, and therefore it has relevance to a range of physical health issues discussed in the previous chapter.

SECURING POSITIVE MENTAL HEALTH AND RESILIENCE

A public health approach considers protective factors for mental health as well as risk factors for mental illness. Important interventions include high-quality maternal care, nurturing upbringing and safe early experiences. Examples of specific interventions are parent training, school-based and work-based mental health promotion programmes.

The emphasis on well-being, community cohesion and productive, long working lives requires strategies to encourage and empower individuals to secure positive mental health. A public mental health strategy can enhance resilience and help individuals cope with the normal adversities in life as well as maximise their engagement with their community. It can help them adopt strategies to improve well-being, self-esteem and life choices, and achieve success in their roles as parent, carer and worker.

Good social, emotional and psychological health protects children against emotional and behavioural problems, violence and crime, teenage pregnancy and misuse of drugs and alcohol.^{7,121,124,125} Resilience can be developed at individual, family and community levels, although parenting influence is particularly important. A survey by the Office for National

Statistics showed the significant effects of the child's resilience on both onset and persistence of emotional and conduct disorder. 126

CURRENT POPULATION LEVELS OF WELL-BEING

Levels of mental health, also called well-being, are low across populations; in a survey of over 18 000 adults in north-west England only 20.4% had high levels of well-being; 127 similar figures were reported in Scotland 128 and the USA. 129 This shows there is a scope for increasing levels of population mental health with a wide variety of potential positive results. In this respect, mental well-being and mental health are not necessarily correlated with levels of mental illness. Levels of mental well-being in England are now being measured by the Department of Health (Health Survey for England).

6 Interventions to reduce mental illness and promote mental well-being

Public mental health focuses on wider prevention of mental illness and promotion of mental health across the life course.

ACTIONS ACROSS THE LIFE COURSE

A public mental health approach focuses on wider prevention of mental illness and promotes mental health across the life course. Prevention and promotion interventions are relevant at each life stage. Robust evidence exists for a wide range of interventions which prevent mental disorder, promote well-being and help strengthen resilience against adversity:

- interventions to improve parental health
- pre-school and early education interventions
- school-based mental health promotion and mental illness prevention
- prevention of violence and abuse
- prevention of suicide
- early intervention for mental illness
- alcohol, smoking and substance abuse reduction and prevention
- promoting healthy lifestyle behaviours
- promoting healthy workplaces
- prevention of mental illness and promotion of well-being in older years
- addressing social inequalities
- enhancing social cohesion
- housing interventions
- reduced stigma and discrimination
- positive mental health and recovery from mental illness.

PROMOTING MENTAL HEALTH OF CHILDREN, ADOLESCENTS AND PARENTS

Since the majority of lifetime mental illnesses develop before adulthood,¹⁶ prevention targeted at younger people can generate greater personal, social and economic benefits than intervention at any other time in the life course (Box 3).

INTERVENTIONS TO IMPROVE PARENTAL HEALTH

Effective interventions to reduce maternal depression also improve the mental health of the whole family and include early identification and effective treatment. Parenting programmes are effective (Box 3), as is postpartum support provided by a health professional. Home visiting programmes, peer support and telephone peer support for women at high risk of depression reduce rates of postnatal depression. Health visitor training to improve detection also reduces levels of postnatal depression. Reduced maternal smoking is associated with improved parental health as well as reduced infant behavioural problems and attention-deficit hyperactivity disorder, improved birth weight and physical health. Breastfeeding is both associated with higher intelligence scores and lower incidence of hypertension, obesity and diabetes in later years.

PRE-SCHOOL AND EARLY EDUCATION INTERVENTIONS

Systematic reviews of pre-school and early education programmes show their effectiveness in enhancing cognitive and social skills, school readiness, improved academic achievement and positive effect on family outcomes including for siblings, ^{147,148} as well as prevention of emotional and conduct disorder (Box 4). ¹⁴⁹ Home visiting programmes improve child functioning and reduce behavioural problems. ¹⁴¹

Sure Start centres provide multi-component interventions, including childcare up to the age of 5, health services, parenting support and employment and training support. A 3-year evaluation of the programmes

Box 3 Parenting support interventions: what the evidence shows

- Improved parental efficacy, self-esteem, partner relationships; reduced prenatal depression, anxiety and stress¹³⁰
- Improved maternal sensitivity¹³¹
- Improved mental health of families³⁷
- Improved child emotional and behavioural adjustment in children under the age of 3¹³²
- Improved behavioural adjustment in children aged 3–10¹³³
- Improved behaviour and prevention in high-risk children aged 2–11¹³⁴
- Improved behaviour in children with subthreshold conduct disorder¹³⁵
- Improved symptoms of attention-deficit hyperactivity disorder¹³⁶
- Improved safety and reduced unintentional injury at home¹³⁷
- Reduced antisocial behaviour¹³⁸
- Reduced re-offending.¹³⁹

Box 4 Impact of school-based mental health promotion and mental illness prevention

- Improved child well-being
- Prevention of depression¹⁵¹⁻³
- Prevention of conduct disorder and anxiety¹⁴⁹
- Prevention of depression and anxiety through secondary school curriculum approaches to promote pro-social behaviours and skills¹²¹
- Reduced conduct problems and emotional distress^{154,155}
- Reduced conduct problems and emotional distress, and improved social and emotional skills, attitude about self and social behaviour with US social and emotional programme¹⁵⁶
- Improved long-term pro-social and behavioural skills through peer mediation¹⁵⁷⁻⁹
- Programmes targeting at-risk children in the early years using parent training or child social skills training are the most effective to prevent conduct disorder, anxiety and depression before adulthood¹⁶⁰
- 'Triple P' positive parenting progamme produces sustainable behavioural improvements for high-risk children aged 2–11 who have subthreshold disorder.¹³⁴

showed better social behaviour, greater independence and self-regulation in children, whereas the outcomes for families were less negative parenting, better home learning environments and making more use of child and family support services.¹⁵⁰

VIOLENCE AGAINST SELF AND OTHERS

Prevention of violence and abuse

Interventions which prevent violence and abuse reduce subsequent risk of mental ill health and promote resilience. At a family level, these include parental mental health promotion, parent training and early intervention for child emotional and behavioural disorders. At a school level, they include school-based mental health promotion, violence prevention, they include prevention and social and emotional learning programmes. School-based interventions can also prevent sexual abuse. Among the benefits of school-based violence prevention programmes are reductions in aggressive behaviour, conduct problems and attention span problems, as well as improvements in social skills and social relationships, school performance, school attendance, and attitudes towards violence and bullying. At a community level, effective interventions are, for example, improved street lighting, increased social cohesion and safer community spaces. Other interventions include those targeted at alcohol misuse, multi-agency information sharing and identification of at-risk individuals.

Prevention of Suicide

In 2002, the national suicide prevention strategy for England set a target to reduce the death rate from suicide and undetermined injury by at least 20% by 2010. Between 2006 and 2008, the suicide rate fell by 15.2%

from baseline and the target will be met if the trend of the past 10 years is maintained. The goals of the strategy are to reduce risk in key highrisk groups, promote mental well-being in the wider population, reduce availability and lethality of suicide methods, improve reporting of suicidal behaviour in the media, promote further research and improve monitoring. Effective interventions are:

- restricting access at suicide 'hot spots'¹⁶⁵
- restricting the sale of amount of certain drugs such as paracetamol¹⁶⁶
- collapsible fittings in psychiatric in-patient units
- education programmes for general public and health professionals^{167,168}
- improved media reporting.

Suicide prevention strategies in Scotland and Wales expressly include actions relating to self-harm, including the training of front-line staff. Although specific interventions exist to prevent suicide, other interventions which address self-harm, promote resilience and reduce mental illness will also contribute to prevention.

EARLY INTERVENTION FOR MENTAL ILLNESS

Good evidence of effectiveness exists for a range of mental illness, such as conduct disorder, ¹³⁵ child subthreshold emotional disorder, ¹⁶⁹ pre-psychosis ¹⁷⁰ and psychosis. ¹⁷¹ Improved availability of early intervention services for children and young people could prevent 25–50% of adult mental illness. ¹⁷² Early diagnosis and intervention particularly benefit those affected by mental illnesses such as depression and dementia as well as their carers. Early treatment of dementia is effective and improves quality of life.

Early diagnosis and treatment of physical conditions are also important.

ALCOHOL, SMOKING AND SUBSTANCE ABUSE REDUCTION AND PREVENTION

There is a clear relationship between mental health and health-risk behaviour, including alcohol and substance misuse. Therefore, interventions to promote mental health and reduce the incidence of mental illness will reduce such risk behaviour. School-based mental health promotion programmes are likely the best investment for prevention.¹⁵⁴

For alcohol misuse, National Institute for Health and Clinical Excellence (NICE) guidance postulates that making alcohol less affordable is the most effective way of reducing alcohol-related harm. Reducing the number of places selling alcohol and effective licensing are also effective. Prevention and reduction of alcohol use is possible in children and young people. Both brief and motivational interventions are effective.

For smoking, NICE advocates interventions to prevent the uptake of smoking in children and young people, which is important since smoking mostly begins in adolescence. Such interventions require targeted approaches for children and adolescents with emotional and behavioural disorder, who are at a much higher risk of taking up smoking.

Effective smoking cessation interventions do exist, although individuals with mental illness are less likely to be offered these despite experiencing much greater levels of smoke-related harm.

Finally, NICE guidelines on substance misuse stress prevention and reduction in young people. Good evidence exists for contingency management, psychosocial interventions and medication.

PROMOTING POSITIVE HEALTH

A HEALTHY LIFESTYLE

It is possible to reduce the higher morbidity experienced by people with mental illness through intervening early to promote healthy lifestyle and behaviour change and to reduce health-risk behaviours. In particular, smoking cessation improves mental health, reduces the risk of physical illness, reduces depressive symptoms, allows for a reduction in doses of some psychiatric medications by up to 50% and reduces financial stress. Because smoking is the largest cause of health inequality in people with mental illness, strategies aimed at smoking cessation are the single most effective way of reducing health inequality.

The side-effects of psychiatric medication which cause weight gain can be alleviated by a healthy diet. Physical activity results in improved subthreshold, mild and moderate depression and improves well-being; in school-aged children it leads to better cognitive performance and in older people to better mental health outcomes. 189

Positive mental health and recovery from mental illness

Well-being and resilience can be enhanced through a balance between mental and physical activity and a number of other activities, such as education and lifelong learning, psychological therapies, positive psychology interventions, mindfulness interventions, spirituality, leisure activities, participation in arts and developing creativity, and participation in worthwhile activities such as volunteering.

Leisure activities enhance well-being by increasing competency, relaxation, social inclusion and support as well as distracting from difficulties. However, whereas active leisure is associated with well-being, passive leisure activities such as watching television and playing video games have been associated with reduced well-being. Large prospective studies highlight an association between television watching and subsequent poor health, greater risk of attention problems and intellectual disabilities.

Interventions which promote well-being also play an important part in recovery from mental illness. For instance, there is evidence that art can assist recovery from mental illness. Further, mindfulness interventions are recommended for prevention of relapse in recurrent depression, whereas spirituality is associated with recovery and reduced symptoms of illness. A meta-analysis of 147 studies involving almost 100000 individuals found that religious involvement was also associated with reduced depression, particularly for stressed populations. Social inclusion and participation are important for recovery and improving the outcomes for people with mental illness.

PROMOTING HEALTHY WORKPLACES

Promoting the well-being of those who become unemployed and facilitating their return to work can result in reduced depression and distress as well as increased employment.²⁰³ Workplace screening and early intervention can reduce levels of depression and sickness absence.^{204,205} It is estimated that British businesses could save up to £8 billion a year if mental health at work was managed more effectively.²⁰⁶ Supported employment for those recovering from mental illness reduces re-hospitalisation by 52%.²⁰⁷

Prevention of mental illness and promotion of well-being in older years

Effective interventions which help maintain mental health in later years include psychosocial interventions, high social support in times of adversity, prevention of social isolation, walking and physical activity programmes, multi-agency violence prevention, addressing sensory deficit such as deafness, promoting learning, adequate heating, psychoeducational interventions for carers and poverty reduction.²⁰⁸⁻¹⁶ Interventions which prevent dementia include physical activity, social engagement, cognitive exercises and treatment of hypertension.²¹⁷⁻²¹ As older people contribute £234 billion to the economy each year, there is also a direct economic benefit of promoting mental health and preventing mental illness in this population.²²²

Mental health promotion interventions for higher-risk groups

Groups at higher risk of developing mental health problems include Black and minority ethnic individuals, prisoners and asylum seekers, and those already experiencing mental illness and addiction problems. It is important not only to target those with the most severe illness but also to address the needs of larger populations with common mental disorders and those with a subthreshold disorder. This has particular relevance to the public health agenda because of higher levels of health-risk behaviour and physical illness among those individuals. Targeted interventions for higher-risk groups are required to prevent the widening of their inequality and the worsening of their health.

Addressing social inequality issues

INEQUALITIES

Taxation policies and welfare benefits are key ways of addressing inequality and its impact on health. Interventions for parents and young children are effective in breaking down intergenerational transmission of inequality. Other interventions include debt advice, which can improve mental health, ²²³ as better financial capability, which reduces depression and anxiety and improves well-being and satisfaction. ²²⁴

Housing interventions

Housing improvement benefits mental health and housing support for people recovering from mental illness can lower readmission rates.^{225,226} Adequate

heating and insulation also reduces the risk of depression and anxiety.²¹⁵ For older people, appropriate housing can promote social contact, personal independence and freedom of movement.

ENHANCING SOCIAL COHESION

Social networks are important in promoting well-being and resilience, and preventing mental illness.^{24,227} Communities with higher levels of social capital have lower rates of crime, better health, higher educational attainment and better economic growth.²⁰³ Social networks and social support promote a sense of belonging. Social health is associated with reduced mental health problems in children,¹²⁶ reduced mortality,²²⁸ including mortality from cancer,²²⁹ reduced coronary artery disease²³⁰ and reduced cognitive decline.²³¹ There are numerous interventions to promote social mental health, for example volunteering, group programmes,²³² individual and community empowerment,²³³ peer support,¹⁴² prescribing of social interventions,²³⁴ adult learning,²³⁵ community arts, neighbourhood improvement and access to safe, green community spaces.²³⁶

REDUCING STIGMA AND DISCRIMINATION

In better connected and tolerant communities stigma and discrimination are less prevalent. Strategies to reduce discrimination have been categorised into education, contact and protest, although anti-discrimination legislation has also been important. Education is most used for the general public and includes mass media campaigns, although evidence suggests it needs to be combined with other strategies to be effective. Anti-stigma campaigns can produce significant improvements in the attitudes of the public.²³⁷ Interventions for groups at risk of stigma include social network facilitation, mentoring and community organisation.²³⁸ Interventions which use social contact or a combination of contact and education are effective with respect to knowledge, attitudes and intended behaviour across a range of specific target groups which may hold stigmatising attitudes, such as police officers, school students, journalists and the clergy.²³⁹⁻⁴⁰ Educational programmes aimed at increasing awareness of mental illness in selected groups have reported positive changes of attitudes with the police force and school students at 6-month follow-up.²⁴² A systematic review found that stigma and discrimination related to mental illness had financial repercussions owing to effects on employment, income, public views about resource allocation and healthcare costs.243

7 Cost-effectiveness of prevention and promotion

The UK is facing severe financial challenges which will not only affect individuals and communities, but also place many public sector services under increasing pressure to deliver more with less. Public sector services, including the NHS, are facing severe contractions in their finances, with an estimated £15–20 billion of real-term cuts likely in the 3 years from 2011.²⁴⁴ At the same time, costs of mental illness will double in real terms over the next 20 years⁹⁸ and it is also expected that demand for health and mental health services will increase as a result of unemployment, personal debt, home repossession, offending and other forms of 'economic fallout'.²⁴⁵ A strategy which invests in promotion, prevention and early intervention not only can reduce the burden of mental ill health and inequality but also makes sound economic sense.²⁴⁶

Mental health promotion and mental disorder prevention can be effective strategies to reduce the burden of mental disorders, and can bring about health, as well as social and economic development. ^{21,247} Economic savings can result across a wide range of areas in both the short and longer term. There is a growing evidence base that demonstrates the cost-effectiveness of investing in mental health promotion, prevention and early intervention strategies. In particular, a number of studies have demonstrated significant cost benefits from early-years interventions, especially for long-term outcomes, ²⁴⁸ with savings achieved mainly through reduced welfare and criminal justice costs, and higher earnings. Because half of lifetime mental illness arises by the age of 14, prevention and promotion interventions during childhood and adolescence are particularly cost-effective, with economic returns of early childhood intervention programmes exceeding cost by an average ratio of 1:6.³³

Cost-benefit analyses highlight the economic returns of investment in parenting programmes for individuals whose children have conduct disorder,³⁷ health visitor interventions to reduce postnatal depression, school-based programmes,¹²² including those for the prevention of violence and bullying, prevention of offending and re-offending,²⁴⁹ screening and brief intervention for alcohol problems,²⁵⁰ well-being promotion at work,²⁵¹ early detection of depression at work,²⁵² supported employment for those recovering from severe mental illness,²⁰⁷ supported housing for those recovering from mental illness, cognitive–behavioural therapy for those with medically unexplained symptoms, early intervention in psychosis,²⁵³ early detection of prepsychosis,²⁵⁴ suicide prevention,²⁵⁵ debt advice, physical activity programmes in older people,²⁵⁶ and anti-stigma campaigns.²⁵⁷ A significant proportion of savings accrues in areas outside health.

There is an economic cost to *not* providing services for people with mental illness and the consequent loss of mental capital.^{258,259} The cost of preventative interventions must be considered within the context of the costs of not conducting such programmes.²⁶⁰ Prevention of even a small percentage of mental and substance abuse problems will result in substantial cost savings and improved quality of life for individuals, families and communities.

Prevention and promotion also have a key role in reducing the burden of mental illness, particularly because optimal treatment at optimal coverage only averts 28% of that burden. Prevention and promotion complements the treatment of mental illness with a strategic, sustainable population approach, which reduces both the burden and cost of mental illness, promotes well-being and reduces inequalities.

8 Conclusions

NFED FOR EFFECTIVE CROSS-DEPARTMENTAL STRATEGIES

Given the multifaceted nature of public mental health, we need a cross-departmental strategy at government level and broader collective action nationally and locally. Government departments should review how far their policies improve or damage the mental well-being of the people affected by them. The view of the Royal College of Psychiatrists is expressed in the *Future Vision*²⁴⁶ report:

Without addressing the promotion and protection of a diverse population's mental health across government, not only are individuals poorly served, but many government goals and commitments on physical health, social cohesion and productivity are simply not achievable. Investment across the board will more than pay for itself, not just in terms of suffering avoided and quality of life gained, but also through a reduced need for public services and an increased opportunity for people with mental health conditions to contribute socially and economically.

But this should not be achieved by diverting funds from the care and support of people who have mental health problems. The prevention and treatment of mental ill health are complementary endeavours, and should not compete for funding. In fact, we believe that those departments which stand to benefit from an improvement in well-being and a reduction in the burden of mental ill health should contribute to the roll-out of prevention and promotion initiatives.

This position statement sets out the case for public mental health, the evidence base for interventions, the benefits to society, and touches on the implications for psychiatrists and other mental health professionals. Prevention and promotion should complement the treatment of mental illness with a strategic, sustainable population approach. Inequality is a key underlying determinant of mental illness and as such it must be addressed in a public mental health strategy. Mental health promotion and mental illness prevention offer an important opportunity to reduce the burden of mental illness with the potential for large-scale prevention of human suffering and associated significant economic benefits.

References

- Friedli L, Parsonage M (2007) *Mental Health Promotion: Builiding the Economic Case.* Northern Ireland Association for Mental Health
- 2 Centre for Mental Health (2010) *The Economic and Social Costs of Mental Health Problems in 2009/10*. Centre for Mental Health (http://www.centreformentalhealth.org.uk/pdfs/Economic_and_social_costs_2010.pdf).
- Royal College of Physicians (2010) How Doctors can Close the Gap: Tackling the Social Determinants of Health through Culture Change, Advocacy and Education.
- 4 World Health Organization (2008) *Global Burden of Disease Report*. WHO (http://www.who.int/healthinfo/global_burden_disease/estimates_country/en/index. html).
- World Health Organization (2004) *Projections of Mortality and Global Burden of Disease 2004–2030*. WHO.
- Green H, McGinnity A, Meltzer H, et al (2005) Mental Health of Children and Young People in Great Britain, 2004. Office for National Statistics.
- 7 Colman I, Murray J, Abbott RA, *et al* (2009) Outcomes of conduct problems in adolescence: 40 year follow-up of national cohort. *BMJ*, **338**, a2981.
- 8 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.
- 9 Van Os J, Linscott RJ, Myin-Germeys P, *et al* (2009) A systematic review and metaanalysis of the psychosis continuum: evidence for a psychosis-proneness-persistenceimpairment model of psychotic disorder. *Psychological Medicine*, **39**, 179–195.
- 10 Singleton N, Bumpstead R, O'Brien M, et al (2001) Psychiatric Morbidity among Adults Living in Private Households, 2000. TSO (The Stationery Office), Social Survey Division, Office for National Statistics.
- NHS Information Centre (2009) Statistics on NHS Stop Smoking Services: England, April 2008 to March 2009. NHS Information Centre (www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/nhs-stop-smoking-services).
- 12 Godfrey M, Townsend J, Surr C, et al (2005) Prevention and Service Provision: Mental Health Problems in Later Life. Institute of Health Sciences and Public Health Research, Leeds University & Division of Dementia Studies, Bradford University.
- Amore M, Taqariello P, Laterza C, et al (2007) Subtypes of depression in dementia. Archives of Gerontology and Geriatrics, **44**, 23–33.
- 14 Knapp M & Prince M (2007) Dementia UK: A Report into the Prevalence and Cost of Dementia. Alzheimer's Society.
- Milne A, Hatzidimitriadou E, Chryssatholoplou C, et al (2001) Caring in Later Life: Reviewing the Role of Older Carers. Help the Aged.
- 16 Kessler RC, Amminger GP, Aguilar-Gaxiola S, et al (2007) Age of onset of mental disorders: a review of recent literature. Current Opinion in Psychiatry, 20, 359– 364
- 17 Meltzer H, Gatward R, Corbin T, et al (2003) Persistence, Onset, Risk Factors and Outcomes of Childhood Mental Disorders. Office for National Statistics & TSO (The Stationery Office).

- 18 UNICEF (2007) Child Poverty in Perspective: An Overview of Child Well-Being in Rich Countries. UNICEF Innocenti Research Centre.
- 19 Bradshaw J, Richardson D (2009) An index of child well-being in Europe. *Child Indicators Research*, **2**, 319–351.
- 20 WHO (2008) Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. WHO (http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf).
- 21 WHO (2004) Prevention of Mental Disorders: Effective Interventions and Policy Options. WHO.
- O'Connor TG, Heron J, Golding J, et al (2003) Maternal antenatal anxiety and behavioural/emotional problems in children: a test of a programming hypothesis. Journal of Child Psychology and Psychiatry, 44, 1025–1036.
- 23 Centres for Disease Control and Prevention (2005) *Adverse Childhood Experiences Study*. Centres for Disease Control and Prevention.
- 24 Melzer D, Fryers T, Jenkins R (2004) *Social Inequalities and the Distribution of Common Mental Disorders*. Maudsley Monographs Hove, Psychology Press.
- Jenkins R, Bhugra D, Bebbington P, *et al* (2008) Debt, income and mental disorder in the general population. *Psychological Medicine*, **38**, 1485–1494.
- Bebbington PE, Bhugra D, Brugha T, *et al* (2004) Psychosis, victimisation and childhood disadvantage: evidence from the second British National Survey of Psychiatric Morbidity. *British Journal of Psychiatry*, **185**, 220–226.
- Harris J, Hall J, Melzer H, *et al* (2010) *Health, Mental Health and Housing Conditions in England*. Eaga Charitable Trust, National Centre for Social Research.
- 28 Brown S, Barraclough B, Inskip H (2000) Causes of the excess mortality of schizophrenia. *British Journal of Psychiatry*, **177**, 212–217.
- Kirkbride JB, Barker D, Cowden F, et al (2008) Psychoses, ethnicity and socioeconomic status. British Journal of Psychiatry, 193, 18–24.
- Fearon P, Kirkbride J, Morgan C, *et al* (2006) Incidence of schizophrenia and other psychoses in ethnic minority groups: results from the MRC AESOP Study. *Psychological Medicine*, **36**, 1541–1550.
- 31 Bhui K, Mckenzie K (2008) Rates and risk factors by ethnic group for suicides within a year of contact with mental health services in England and Wales. *Psychiatric Services*, **59**, 414–420.
- 32 Stewart D (2008) The Problems and Needs of Newly Sentenced Prisoners: Results from a National Survey. Ministry of Justice Research Series. Ministry of Justice.
- National Institute for Health and Clinical Excellence (2009) *Antisocial Personality Disorder, Treatment, Management and Prevention*. NICE (http://guidance.nice.org. uk/CG77).
- Gordon D, Levitas R, Pantazis C, et al (2000) Poverty and Social Exclusion in Britain. Joseph Rowntree Foundation (http://www.bris.ac.uk/poverty/pse/Poverty%20 and%20Social%20Exclusion%20in%20Britain%20JRF%20Report.pdf).
- Fergusson DM, Horwood LJ, Ridder EM (2005) Show me the child at seven: the consequences of conduct problems in childhood for psychosocial functioning in adulthood. *Journal of Child Psychology*, **46**, 837–849.
- Richards M, Abbott R (2009) *Childhood Mental Health and Life Chances in Post-War Britain. Insights from Three National Birth Cohort Studies.* Sainsbury Centre for Mental Health (http://www.scmh.org.uk/pdfs/life_chances_report.pdf).
- National Institute for Health and Clinical Excellence, Social Care Institute for Excellence (2006) Parent-Training/Education Programmes in the Management of Children With Conduct Disorders. Technology Appraisal TA102. NICE (http://www.nice.org.uk/nicemedia/live/11584/33426/33426.pdf).
- Odgers CL, Caspi A, Broadbent JM, et al (2007) Prediction of differential adult health burden by conduct problem subtypes in males. Archives of General Psychiatry, 64, 476–484.
- 39 Mykletun A, Bjerkeset O, Øverland S, et al (2009) Levels of anxiety and depression as predictors of mortality: the HUNT study. British Journal of Psychiatry, **195**, 118–125.

- 40 Mykletun A, Bjerkeset O, Dewey M, et al (2007) Anxiety, depression and causespecific mortality: The HUNT study. *Psychosomatic Medicine*, **69**, 323–331.
- Hemingway H, Marmot M (1999) Evidence based cardiology. *Psychosocial factors in the aetiology and prognosis of coronary heart disease: systematic review of prospective cohort studies. BMJ*, **318**, 1460–1467.
- Surtees PG, Wainwright NWJ, Luben RN, *et al* (2008) Psychological distress, major depressive disorder, and risk of stroke. *Neurology*, **70**, 788–794.
- 43 Kroenke CH, Bennett GG, Fuchs C, et al (2005) Depressive symptoms and prospective incidence of colorectal cancer in women. *American Journal of Epidemiology*, **162**, 839–848.
- Larson SL, Clark MR, Eaton WW (2004) Depressive disorder as a long-term antecedent risk factor for incident back pain: a 13-year follow-up study from the Baltimore Epidemiological Catchment Area Sample. *Psychological Medicine*, **34**, 211–219.
- 45 Ruigómez A, García Rodríguez LA, Panés J (2007) Risk of irritable bowel syndrome after an episode of bacterial gastroenteritis in general practice: influence of comorbidities. *Clinical Gastroenterology & Hepatology*, **5**, 465-469.
- Parks J, Svendsen D, Singer P, et al (2006) *Morbidity and Mortality in People with Serious Mental Illness*. National Association of State Mental Health Programme Directors, 13th technical report.
- Brown S, Kim M, Mitchell C, et al (2010) Twenty-five year mortality of a community cohort with schizophrenia. British Journal of Psychiatry, **196**, 116–121.
- 48 Saha S, Chant D, McGrath JA (2007) Systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? Archives of General Psychiatry, 64, 1123–1131.
- 49 Royal College of Psychiatrists (2010) *Self-Harm, Suicide and Risk: Helping People who Self-harm.* College Report CR158. Royal College of Psychiatrists.
- 50 Cooper J, Kapur N, Webb R, et al (2005) Suicide after deliberate self-harm: a 4-year cohort study. *American Journal of Psychiatry*, **162**, 297–303.
- Fazel S, Benning R, Danesh J (2005) Suicides in male prisoners in England and Wales, 1978–2003. *Lancet*, **366**, 1301–1302.
- The NHS Information Centre (2010) *Statistics on Alcohol: England, 2010.* NHS Information Centre (http://www.ic.nhs.uk/webfiles/publications/alcohol10/Statistics_on_Alcohol_England_2010.pdf).
- 53 Singleton N, Glyn L (2003) Better or Worse: A Longitudinal Study of the Mental Health of Adults Living in Private Households in Great Britain. TSO (The Stationery Office).
- 54 Cornah D (2006) Cheers? Understanding the Relationship between Alcohol and Mental Health. Mental Health Foundation
- Makhija N (2007) Childhood abuse and adolescent suicidality: a direct link and an indirect link through alcohol and substance misuse. *International Journal of Adolescent Medicine and Health*, **19**, 45–51.
- Marshall J, Guerrini I, Thomson A, (2009) Introduction to this issue: the seven ages of man (or woman). *Alcohol & Alcoholism*, **44**, 106–107.
- 57 Crawford V (2001) Co-Existing Problems of Mental Disorder and Substance Misuse ('Dual Diagnosis'): A Review of Relevant Literature. Final Report to the Department of Health. Royal College of Psychiatrists' Research and Training Unit.
- Doll R, Peto R, Boreham J (2004) Mortality in relation to smoking: 50 years' observation on male British doctors. *BMJ*, **328**, 745.
- Jochelson J, Majrowski B (2006) *Clearing the Air: Debating Smoke-Free Policies in Psychiatric Units*. King's Fund.
- Nahvi S, Richter K, Li X, *et al* (2006) Cigarette smoking and interest in quitting in methadone maintenance patients. *Addictive Behaviors*, **31**, 2127–2134.
- 61 Singleton N, Farrell M, Meltzer H (1999) Substance Misuse among Prisoners in England and Wales. Office for National Statistics.
- 62 Lasser K, Boyd JW, Woolhander S, *et al* (2000) Smoking and mental illness: a population-based prevalence study. *JAMA*, **284**, 2606–2610.

- 63 SANE (2007) *Smoking and Mental Illness: Costs.* Access Economics for Sane Australia (http://www.sane.org/images/stories/information/research/0903_info_smokesummary.pdf).
- 64 Williams JM, Ziedonis S (2004) Addressing tobacco among individuals with a mental illness or an addiction. *Addictive Behaviours*, **29**, 1067–1083.
- White M, Adamson A, Chadwick T, et al (2007) *The Changing Social Patterning of Obesity: An Analysis to Inform Practice and Policy Development*. Public Health Research Consortium (http://www.york.ac.uk/phrc/B1-06%20PHRC%20Obesity%20 final%20report%200208.pdf).
- Dinan T (2004) Introduction. *British Journal of Psychiatry*, **184** (suppl. 47), s53–54.
- Simon GE, Von Korff M, Saunders K, et al (2006) Association between obesity and psychiatric disorders in the US adult population. *Archives of General Psychiatry*, **63**, 824–830.
- Sainsbury Centre for Mental Health (2009) *The Chance of a Lifetime: Preventing Early Conduct Problems and Reducing Crime*. SCMH (http://www.scmh.org.uk/pdfs/chance_of_a_lifetime.pdf).
- 69 Appleby L, Mortensen PB, Dunn G, et al (2001) Death by homicide, suicide, and other unnatural causes in people with mental illness: a population-based study. *Lancet*, **358**, 2110–2112.
- Wallace C, Mullen PE, Burgess P (2004) Criminal offending in schizophrenia over a 25-year period marked by deinstitutionalization and increasing prevalence of comorbid substance use disorder. *American Journal of Psychiatry*, **161**, 716–727.
- 71 Coid J, Yang M, Roberts A (2006) Violence and psychiatric morbidity in the national household population of Britain: public health implications. *British Journal of Psychiatry*, **189**, 12–19.
- Nielssen O, Large M (2010) Rates of homicide during the first episode of psychosis and after treatment: a systematic review and meta-analysis. *Schizophrenia Bulletin*, **36**, 702–712.
- 73 Meehan J, Flynn S, Hunt IM, et al (2006) Perpetrators of homicide with schizophrenia: A national clinical survey in England and Wales. *Psychiatric Services*, **57**, 1648–1651
- Harris MC, Burgess PM, Chant DC, et al (2008) Impact of a specialized early psychosis treatment programme on suicide: retrospective cohort study. *Early Intervention in Psychiatry*, **2**, 11–21.
- Healthcare Commission, Care Services Improvement Partnership, National Institute for Mental Health in England, et al (2008) *Count Me In 2008: Results of the 2008 National Census of Inpatients in Mental Health and Learning Disability Services in England and Wales.* Commission for Healthcare Audit and Inspection.
- Huppert FA, Whittington JE (2003) Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *British Journal of Psychology*, **8**, 107–122.
- 77 Turvey C, Stromquist A, Kelly K, et al (2002) Financial loss and suicidal ideation in a rural community sample. Acta Psychiatrica Scandinavica, **106**, 373–380.
- 78 Waddell G, Burton AK (2007) *Is Work Good for Your Health and Well-Being? Independent Review for Department for Work and Pensions.* Department of Health.
- 79 National Institute for Health and Clinical Excellence (2009) *Promoting Mental Wellbeing at Work: Full Guidance*. NICE (http://guidance.nice.org.uk/PH22/Guidance/pdf/English).
- Health and Safety Executive (2009) Stress-Related and Psychological Disorders. HSE (http://www.hse.gov.uk/statistics/causdis/stress/).
- 81 Marmot Review (2010) Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England Post 2010. The Marmot Review.
- Sainsbury Centre for Mental Health (2007) *Mental Health at Work: Developing the Business Case (Policy Paper 8).* SCMH.
- 83 Stanley K, Maxwell D (2004) Fit for Purpose? Institute for Public Policy.

- 84 Owen K, Butler G, Hollins G (2004) A New Kind of Trainer: How to Develop the Training Role for People with Learning Disabilities. Gaskell.
- 85 Latimer E (2008) Individual placement and support programme increases rates of obtaining employment in people with severe mental illness. *Evidence-Based Mental Health*, **11**, 52.
- 86 Stuart H (2006) Mental illness and employment discrimination. *Current Opinion in Psychiatry*, **19**, 522–526.
- 87 Social Exclusion Unit (2004) *Mental Health and Social Exclusion*. Social Exclusion Unit.
- 88 Shift, Care Services Improvement Partnership (2008) Attitudes to Mental Illness. Department of Health.
- 89 Sainsbury Centre for Mental Health (2002) *Breaking the Circle of Fear*. Sainsbury Centre for Mental Health.
- 90 King M, McKeown E (2003) *Mental Health and Social Wellbeing of Gay Men, Lesbians and Bisexuals in England and Wales: A Summary of Findings.* Mind.
- 91 Rethink, Institute of Psychiatry (2008) *Viewpoint Survey 2008*. Rethink, Institute of Psychiatry, King's College London.
- 92 Thornicroft G (2006) Shunned: Discrimination against People with Mental Illness. Oxford University Press.
- 93 Royal College of Psychiatrists Social Inclusion Scoping Group (2009) *Mental Health and Social Inclusion: Making Psychiatry and Mental Health Services Fit for the 21st Century. Position Statement PS01/2009*. Royal College of Psychiatrists.
- 94 Wilkinson RG, Pickett KE (2007) The problems of relative deprivation: why some societies do better than others. *Social Science and Medicine*, **65**, 1965–1978.
- 95 Alesina A, Di Tella R, MacCulloch R (2004) Inequality and happiness: are Europeans and Americans different? *Journal of Public Economics*, **88**, 2009–2042.
- 96 Conservative Party (2010) *The Conservative Manifesto (Health Policy)*. Conservative Party.
- 97 Department of Health (2010) *Programme Budgeting Tools and Data*. Department of Health (http://www.dh.gov.uk/en/Managingyourorganisation/Financeandplanning/Programmebudgeting/DH_075743).
- 98 McCrone P, Dhanasiri S, Patel A, et al (2008) Paying the Price: The Cost of Mental Health Care in England to 2026. King's Fund.
- 99 Mangalore R, Knapp M (2007) Cost of schizophrenia in England. *Journal of Mental Health Policy and Economics*, **10**, 23–41.
- 100 Bermingham S, Cohen A, Hague J, *et al* (2010) The cost of somatisation among the working-age population in England for the year 2008/09. *Mental Health in Family Medicine*, in press.
- 101 Suhrcke M, Pillas D, Selai C (2008) Economic aspects of mental health in children and adolescents. In Social Cohesion for Mental Well-Being among Adolescents. WHO Regional Office for Europe.
- Sainsbury Centre for Mental Health (2009) *The Chance of a Lifetime: Preventing Early Conduct Problems and Reducing Crime*. SCMH (http://www.scmh.org.uk/pdfs/chance_of_a_lifetime.pdf).
- 103 HM Government (2009) *Together we can End Violence against Women and Girls: A Strategy*. HM Government (http://www.homeoffice.gov.uk/crime-victims/reducing-crime/violence-against-women1/index.html).
- 104 Walby S (2009) *The Cost of Domestic Violence: Update 2009*. Lancaster University.
- 105 Home Office (2005) *The Economic and Social Cost of Violence against Individuals and Households 2003/4*. Home Office.
- 106 Department for Work and Pensions (2010) *Administrative Data in Public Health Framework*. Department for Work and Pensions.
- 107 Department of Health (2009) Signs for Improvement Commissioning Interventions to Reduce Alcohol-Related Harm, Report. Department of Health (http://www.dhcarenetworks.org.uk/_library/Resources/BetterCommissioning/Alcohol-Signs_For Improvement11.pdf).

- 108 Allender S, Balakrishnan R, Scarborough P, et al (2009) The burden of smokingrelated ill health in the United Kingdom. *Tobacco Control*, **18**, 262–267.
- 109 National Institute for Health and Clinical Excellence (2009) *Depression in Adults with a Chronic Physical Health Problem: Treatment and Management*. NICE (http://www.nice.org.uk/nicemedia/pdf/CG91FullGuideline.pdf).
- 110 Disability Rights Commission (2006) Equal Treatment: Closing the Gap. Formal Investigation into Physical Health Inequalities experienced by People with Learning Disabilities or Mental Health Problems. Disability Rights Commission.
- Egede LE (2007) Major depression in individuals with chronic medical disorders: prevalence, and correlates and associates of health recourse utilisation, lost productivity and functional disability. *General Hospital Psychiatry*, **29**, 409–416.
- 112 Moussavi S, Chatterji S, Verdes E, *et al* (2007) Depression, chronic disease and decrements in health: results from the World Health Surveys. *Lancet*, **370**, 851–858.
- 113 World Health Organization (2005) Mental Health Action Plan for Europe Facing the Challenges, Building Solutions. WHO.
- 114 Pressman SD, Cohen S (2006). Does positive affect influence health? *Brain*, *Behavior and Immunity*, 20, 175–181.
- 115 Abbott RA, Ploubidis GB, Croudace TJ, et al (2008) The relationship between early personality and midlife psychological well-being: Evidence from a UK birth cohort study. Social Psychiatry and Psychiatric Epidemiology, Epub 2008 Apr 28. DOI 10.1007/s00127-008-0355-8.
- Dolan P, Peasgood T, White M (2006) Review of Research on the Influence of Personal Well-Being and Application to Policy Making. DEFRA Publications.
- 117 Barry M, Friedli L (2008) The Influence of Social, Demographic and Physical Factors on Positive Mental Health in Children, Adults and Older People: State of Science Review. Foresight SR-B3 v1 stage 1. Foresight. Mental Capital and Wellbeing: Meeting the challenge of the 21st century. The Government Office for Science.
- Zimmerman SL (2000) Self-esteem, personal control, optimism, extraversion and the subjective well-being of Midwestern University faculty. *Dissertation Abstracts International B: Sciences and Engineering*, **60**, 3608.
- 119 Kasser T, Sheldon KM (2009) Time affluence as a path towards personal happiness and ethical business practice: Empirical evidence from four studies. *Journal of Business Ethics*, **84**, 243–255.
- 120 Keyes CLM (2007) Promoting and protecting mental health as flourishing. *American Psychologist*, **62**, 1–14.
- National Institute for Health and Clinical Excellence (2009) *Promoting Young People's Social and Emotional Wellbeing in Secondary Education*. NICE (http://www.nice.org.uk/nicemedia/live/11991/45484/45484.pdf).
- 122 National Institute for Health and Clinical Excellence (2008) *Promoting Children's Social and Emotional Wellbeing in Primary Education*. NICE (http://www.nice.org.uk/nicemedia/pdf/PH012Guidance.pdf).
- 123 Chida Y, Steptoe A (2008) Positive psychological well-being and mortality: A quantitative review of prospective observational studies. *Psychosomatic Medicine*, **70**, 741–756.
- 124 Adi Y, Killoran A, Janmohamed K, et al (2007) Systematic Review of the Effectiveness of Interventions to Promote Mental Wellbeing in Children in Primary Education: Report 1: Universal Approaches, Non-Violence Related Outcomes. NICE (http://guidance.nice.org.uk/page.aspx?o=441001).
- 125 Graham H, Power C (2003) *Childhood Disadvantage and Adult Health: A Lifecourse Framework*. Health Development Agency.
- Parry-Langdon N, Clements A, Fletcher D (2008) *Three Years On: Survey of the Development and Emotional Well-Being of Children and Young People*. Office for National Statistics (http://www.statistics.gov.uk/articles/nojournal/child_development_mental_health.pdf).
- Deacon L, Carlin H, Spalding J, et al (2009) North West Mental Wellbeing Survey.

 North West Public Health Observatory (http://www. nwph.net/nwpho/publications/
 NorthWestMentalWellbeing%20 SurveySummary.pdf).

- 128 Braunholtz S, Davidson S, Myant K, et al (2007) Well? What Do You Think? (2006): The Third National Scottish Survey of Public Attitudes to Mental Health, Mental Wellbeing and Mental Health Problems. The Scottish Government.
- 129 Keyes CLM (2002) The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Behaviour*, **43**, 207–222.
- 130 Barlow J, Coren E, Stewart-Brown S (2003) Parent-training programmes for improving maternal psychosocial health. *Cochrane Database of Systematic Reviews*, Issue 4, Art. No.: CD002020. DOI: 10.1002/14651858. CD002020.pub2.
- 131 Bakermans-Kranenburg MJ, Van IJzendoorn MH, Juffer F (2003) Less is more: Metaanalyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*, **129**, 195–215.
- 132 Barlow J, Parsons J (2003) Group-based parent-training programmes for improving emotional and behavioural adjustment in 0-3 year old children. *Cochrane Database of Systematic Reviews*, Issue 1, Art. No.: CD003680.
- Barlow J, Stewart-Brown S (2000) Behaviour problems and group based parent education programs. *Developmental and Behavioural Pediatrics*, **21**, 356–370.
- De Graaf I, Speetjens P, Smit F, et al (2008) Effectiveness of the Triple P Positive Parenting Program on behavioral problems in children: A meta-analysis. Behavior Modification, **32**, 714–735.
- Dretzke J, Davenport C, Frew E, et al (2009) The clinical effectiveness of different parenting programmes for children with conduct problems: a systematic review of randomised controlled trials. Child and Adolescent Psychiatry and Mental Health, 3, 7.
- 136 National Institute for Health and Clinical Excellence (2009) Attention Deficit Hyperactivity Disorder: The NICE Guideline on Diagnosis and Management of ADHD in Children, Young People and Adults. NICE (http://www.nice.org.uk/nicemedia/pdf/ ADHDFullGuideline.pdf).
- 137 Kendrick D, Barlow J, Hampshire A, et al (2007) Parenting interventions for the prevention of unintentional injuries in childhood. *Cochrane Database of Systematic Reviews*, Issue 4, Art. No.: CD006020. DOI:10.1002/14651858. CD006020.pub2.
- 138 Hutchings J, Bywater T, Daley D *et al* (2007) Parenting intervention in Sure Start services for children at risk of developing conduct disorder: pragmatic randomised controlled trial. *BMJ*, **334**, 678–682.
- Woolfenden S, Williams KJ, Peat J (2001) Family and parenting interventions in children and adolescents with conduct disorder and delinquency aged 10-17. Cochrane Database of Systematic Reviews, Issue 2, Art. No.: CD003015. DOI: 10.1002/14651858. CD003015.
- Dennis C (2005) Psychosocial and psychological interventions for prevention of postnatal depression: systematic review. *BMJ*, **331**, 15–18.
- 141 Elkan R, Kendrick D, Hewitt M *et al* (2000) The effectiveness of domiciliary health visiting: a systematic review of international studies and a selective review of the British literature. *Health Technology Assessment*, **4**, 1–339.
- Shaw E, Levitt C, Wong S (2006) Systematic review of the literature on postpartum care: Effectiveness of postpartum support to improve maternal parenting, mental health, quality of life, and physical health. *Birth Issues in Perinatal Care*, **33**, 210–220.
- Dennis C, Hodnett E, Reisman HM, *et al* (2009) Effect of peer support on prevention of postnatal depression among high risk women: multisite randomised controlled trial. *BMJ*, **338**, a3064.
- Morrell CJ, Slade P, Warner R, et al (2009) Clinical effectiveness of health visitor training in psychologically informed approaches for depression in postnatal women: pragmatic cluster randomised trial in primary care. BMJ, **338**, a3045.
- Einarson A, Riordan S (2009) Smoking in pregnancy and lactation: a review of risks and cessation strategies. European Journal of Clinical Pharmacology, 65, 325–330.
- 146 Horta BL, Bahl R, Martines JC (2007) Evidence on the long-term effects of breastfeeding. WHO (http://whqlibdoc.who.int/ publications/2007/9789241595230_ eng.pdf).

- 147 Anderson LM, Shinn C, Fullilove MT, et al (2003) The effectiveness of early childhood development programs: A systematic review. American Journal of Preventive Medicine, 24, 32–46.
- Sylva K, Melhuish E, Sammons P, et al (2007) Effective Pre-School and Primary Education 2-11 Project (EPPE 3-11): A Longitudinal Study Funded by the DfES (2003-2008) Promoting Equality in the Early Years: Report to the Equalities Review. Institute of Education (http://archive.cabinetoffice.gov.uk/equaltiesreview/upload/assets/www.theequalitiesreview.org.uk/promoting_equality_in_the_early_years/pdf).
- Tennant R, Goens C, Barlow J, et al (2007) A systematic review of reviews of interventions to promote mental health and prevent mental health problems in children and young people. Journal of Public Mental Health, 6, 25–32.
- Melhuish E, Belsky J, Leyland AH, *et al* (2008) Effects of fully-established Sure Start Local Programmes on 3-year-old children and their families living in England: a quasi-experimental observational study. *Lancet*, **372**, 1641–1647.
- 151 Brunwasser SM, Gilham JE, Kim ES (2009) A meta-analytic review of the Penn Resiliency Program's effects on depressive symptoms. *Journal of Consulting and Clinical Psychology*, **77**, 1042–1054.
- Horowitz JL, Garber J (2006) The prevention of depressive symptoms in children and adolescents: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 74, 401–415.
- 153 Merry S, McDowell H, Hetrick S, *et al* (2006) Psychological and/or educational interventions for the prevention of depression in children and adolescents. *Cochrane Database of Systematic Reviews*, Issue 3, 1–107.
- 154 Stewart-Brown S (2006) What is the Evidence on School Health Promotion in Improving Health or Preventing Disease and, Specifically, What is the Effectiveness of the Health Promoting Schools Approach. WHO Regional Office for Europe, Health Evidence Network (http://www.euro.who.int/__data/assets/pdf_file/0007/74653/E88185.pdf).
- Adi Y, Killoran A, Janmohamed K, et al (2007) Systematic Review of Reviews of Interventions to Promote Mental Health in Children in Primary Education: Report 1: Universal Approaches, Non-Violence Related Outcomes. NICE (National Institute for Health and Clinical Excellence. http://guidance.nice.org.uk/page.aspx?o=441001).
- Payton J, Weissberg RP, Durlak, JA, et al (2008) The Positive Impact of Social and Emotional Learning for Kindergarten to Eight-Grade Students: Findings from Three Scientific Reviews. Collaborative for Academic, Social, and Emotional Learning (http://www.casel. org/downloads/PackardES.pdf).
- 157 Blank L, Baxter S, Goyder L, et al (2009) Systematic Review of Universal Interventions which Aim to Promote Emotional and Social Wellbeing in Secondary Schools. School of Health and Related Research, University of Sheffield (http://www.nice.org.uk/nicemedia/live/11991/45543/45543.pdf).
- 158 Lister-Sharp D, Chapman S, Stewart-Brown S, et al (1999) Health promoting schools and health promotion in schools: two systematic reviews. *Health Technology Assessment*, **3**, 1–207.
- Durlak JA, Wells AM (1997) Primary prevention mental health programs for children and adolescents: a meta-analytic review. *American journal of Community Psychology*, 25, 115–152.
- Waddell C, Hua JM, Garland O, *et al* (2007) Preventing mental disorders in children: a systematic review to inform policy-making. *Canadian Journal of Public Health*, **98**, 166–173.
- Mytton JA, DiGuiseppi C, Gough D, *et al* (2006) School-based secondary prevention programmes for preventing violence. *Cochrane Database of Systematic Reviews*, Issue 3, Art No.: CD004606. DOI: 10.1002/14651858. CD004606.pub2.
- 162 Ttofi MM, Farrington DP, Baldry AC (2008) *Effectiveness of Programmes to Reduce School Bullying*. Swedish National Council for Crime Prevention.
- 163 Zwi KW, Woolfenden SR, Wheeler DM, et al (2009) School-based education programmes for the prevention of child sexual abuse. Cochrane Database of Systematic Reviews, Issue 3, Art. No: CD004380.

- Wilson S, Lipsey M (2007) School-based interventions for aggressive and disruptive behavior: Update of a Meta-Analysis. American Journal of Preventive Medicine, 33, S130–S143.
- Bennewith O, Nowers M, Gunnell D (2007) Effect of barriers on the Clifton suspension bridge, England, on local pattern of suicide: Implications of prevention. *British Journal of Psychiatry*, **190**, 266–267.
- 166 Hawton K, Bergen H, Simkin S, et al (2008) Effect of withdrawal of co-proxamol on prescribing and deaths from drug poisoning in England and Wales: time series analysis. BMJ, **338**, Article: b2270.
- Hall D, Mant A, Mitchell PB, *et al* (2003) Association between antidepressant prescribing and suicide in Australia, 1991–2000: trend analysis. *BMJ*, **326**, 1008.
- 168 Gask L, Dixon C, Morriss R, et al (2006) Evaluating STORM Skills Training for Managing People at Risk of Suicide. Nursing and Healthcare Management and Policy.
- 169 Reddy LA, Newman E, De Thomas CA, *et al* (2009) Effectiveness of school-based prevention and intervention programs for children and adolescents with emotional disturbance: a meta-analysis. *Journal of School Psychology*, **47**, 77–99.
- 170 McGlashan TH, Zipursky RB, Perkins D, *et al* (2006) Randomized, double-blind trial of olanzapine versus placebo in patients prodromally symptomatic for psychosis. *American Journal of Psychiatry*, **163**, 790–799.
- 171 Mihalopoulos C, Harris M, Henry M, et al (2009) Is early intervention in psychosis cost-effective over the long term? Schizophrenia Bulletin, **35**, 909–918.
- 172 Kim-Cohen J, Caspi A, Moffitt TE, et al (2003) Prior juvenile diagnoses in adults with mental disorder: developmental follow-back of a prospective longitudinal cohort. Archives of General Psychiatry, **60**, 709–717.
- National Institute for Health and Clinical Excellence (2010) *Alcohol-Use Disorders Preventing the Development of Hazardous and Harmful Drinking*. NICE (http://guidance.nice.org.uk/PH24).
- 174 National Institute for Health and Clinical Excellence (2007) *Interventions in Schools to Prevent and Reduce Alcohol Use Among Children and Young People*. NICE (http://guidance.nice.org.uk/PH7).
- 175 Kaner E, Beyer F, Dickinson H, et al (2007) Brief interventions for excessive drinkers in primary health care settings. *Cochrane Database of Systematic Reviews*, Issue 2, Art No.: CD004148 DOI: 10.1002/14651858.CD004148.pub3.
- 176 Lundahl B, Burke BL (2009) The effectiveness and applicability of motivational interviewing: a practice friendly review of four meta-analyses. *Journal of Clinical Psychology*, **65**, 1232–1245.
- 177 Vasilaki EI, Hosier SG, Cox WM (2006) The efficacy of motivational interviewing as a brief intervention for excessive drinking: A meta-analytic review. *Alcohol & Alcoholism*, **41**, 328–335.
- 178 National Institute for Health and Clinical Excellence (2008) Mass-Media and Point-Of Sales Measures to Prevent the Uptake of Smoking by Children and Young People. NICE (http://www.nice.org.uk/nicemedia/pdf/PH14fullguidance.pdf).
- 179 National Institute for Health and Clinical Excellence (2010) *School-Based Interventions to Prevent the Uptake of Smoking among Children and Young People*. NICE (http://guidance.nice.org.uk/ph24).
- 180 McGrath Y, Sumnall H, McVeigh J, et al (2006) Drug Use Prevention among Young People: A Review of Reviews. NICE (http://www.nice.org.uk/niceMedia/docs/drug_use_prev_update_v9.pdf).
- Jones L, Sumnall H, Witty K, et al (2006) A Review of Community-Based Interventions to Reduce Substance Misuse among Vulnerable and Disadvantaged Young People. NICE (https://www.nice.org.uk/nicemedia/pdf/substancemisuseeffectivenessreviewmainreportPHIAC53ARevised.pdf).
- Lussier JP, Heil SH, Mongeon JA, *et al* (2006) A meta-analysis of voucher-based reinforcement therapy for substance use disorders. *Addiction*, **101**, 192–203.
- National Institute for Health and Clinical Excellence (2008) *Drug Misuse: Psychosocial Interventions*. NICE (http://www.nice.org.uk/nicemedia/live/11812/35975/35975.pdf).

- 184 National Institute for Health and Clinical Excellence (2007) Drug Misuse: Opioid Detoxification. NICE (http://www.nice.org.uk/nicemedia/live/11813/35997/35997. pdf).
- 185 Taylor D, Paton C, Kapur S (2009) The Maudsley Prescribing Guidelines, 10th Edition. Informa.
- Siahpush M, Spittal M, Singh GK (2007) Association of smoking cessation with financial stress and material well-being: Results from a prospective study of a population-based national survey. American Journal of Public Health, 97, 2281– 2287.
- 187 National Institute for Health and Clinical Excellence (2009) *Depression: The Treatment and Management of Depression in Adults*. NICE (http://guidance.nice.org.uk/CG90).
- 188 Sibley BA, Etnier JL (2003) The relationship between physical activity and cognition in children: A meta-analysis. *Pediatric Exercise Science*, **15**, 243–256.
- 189 National Institute for Health and Clinical Excellence (2008) *Public Health Interventions* to Promote Mental Well-Being in People Aged 65 and Over: Systematic Review of Effectiveness and Cost-Effectiveness. NICE (http://www.nice.org.uk/nicemedia/live/11999/42401/42401.pdf).
- 190 Kirkwood T, Bond J, May C, et al (2008) Foresight Mental Capital and Wellbeing Project. Mental Capital through Life: Future Challenges. The Government Office for Science.
- 191 Sin NL, Lyubomirsky S (2009) Enhancing wellbeing and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis. *Journal of Clinical Psychology*, **65**, 467–487.
- 192 Grossman P, Niemann L, Schmidt S, et al (2004) Mindfulness-based stress reduction and health benefits: A meta-analysis. Journal of Psychosomatic Research, 57, 35–43
- 193 Caldwell LL (2005) Leisure and health: Why is leisure therapeutic? *British Journal of Guidance and Counselling*, **33**, 7–26.
- Department of Health (2007) Report of the Review of Arts and Health Working Group. Department of Health (http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_073589.pdf).
- Holder MD, Coleman B, Sehn ZL (2009) The contribution of active and passive learning to children's wellbeing. *Journal of Health Psychology*, **14**, 378.
- 196 Ussher MH, Owen CG, Cook DG, *et al* (2007) The relationship between physical activity, sedentary behaviour and psychological wellbeing among adolescents. *Social Psychiatry and Psychiatric Epidemiology*, **42**, 851–856.
- 197 Hancox RJ, Milne BJ, Poulton R (2004) Association between child and adolescent television viewing and adult health: a longitudinal birth cohort study. Lancet, 364, 257–262.
- 198 Christakis DA, Zimmerman FJ, DiGiuseppe DL (2004) Early television exposure and subsequent attentional problems in children. *Pediatrics*, **113**, 708–713.
- 199 Johnson JG, Cohen P, Kasen S, et al (2007) Extensive television viewing and the development of attention and learning difficulties during adolescence. Archives of Pediatrics and Adolescent Medicine, 161, 480–486.
- 200 Staricoff RL (2004) *Arts in Health: A Review of the Medical Literature. Research Report 36.* Arts Council England (http://www.nasaa-arts.org/nasaanews/B-Health-MedLitReview.pdf).
- 201 Koenig HG, McCullough ME, Larson DB (eds) (2001) *Handbook of Religion and Health*. Oxford University Press, pp. 514–554.
- Smith TB, McCullough ME, Poll J (2003) Religiousness and depression: evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin*, **29**, 614–636.
- 203 WHO (2004) *Promoting Mental Health: Concepts, Emerging Evidence, Practice*. Summary Report. WHO (www.who.int/mental_health/evidence/en/promoting_mhh.pdf).
- Wang PS, Simon GE, Avorn J, *et al* (2007) Telephone screening, outreach, and care management for depressed workers and impact on clinical and work productivity outcomes. *JAMA*, **298**, 1401–1411.

- 205 Hill D, Lucy D, Tyers C, et al (2007) What Works at Work: Review of Evidence Assessing the Effectiveness of Workplace Interventions to Prevent and Manage Common Health Problems. Health Work Wellbeing.
- 206 Sainsbury Centre for Mental Health (2003) *The Economic and Social Costs of Mental Illness in England*. SCMH.
- 207 Burns T, Catty J, White S, et al (2009) The impact of supported employment and working on clinical and social functioning: results of an international study of Individual Placement and Support. *Schizophrenia Bulletin*, **35**, 949–958.
- 208 Pinquart M, Sorensen S (2001) How effective are psychotherapeutic and other psychosocial interventions with older adults? *Journal of Mental Health and Aging*, 7, 207–243.
- 209 Netuveli G, Wiggins RD, Montgomery SM, et al (2008) Mental health and resilience at older ages: bouncing back after adversity in the British Household Panel Survey. *Journal of Epidemiology and Community Health*, **62**, 987–991.
- 210 Cattan M, White M, Bond J, et al (2005) Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Ageing & Society*, **25**, 41–67.
- 211 National Institute for Health and Clinical Excellence (2008) *Mental Wellbeing and Older People: Guidance for Occupational Therapy and Physical Activity Interventions to Promote the Mental Wellbeing of Older People in Primary Care and Residential Care.* NICE (http://www.nice.org.uk/nicemedia/pdf/PH16Guidance.pdf).
- 212 Krug EG, Dahlberg LL, Mercy JA, et al (eds) (2002) World Report on Violence and Health. World Health Organization.
- 213 Chisolm TH, Johnson CE, Danhauer JL, et al (2007) A systematic review of health-related quality of life and hearing aids: final report of the American Academy of Audiology Task Force on the Health-Related Quality of Life Benefits of Amplification in Adults. *Journal of the American Academy of Audiology*, **18**, 151–183.
- Feinstein L, Budge D, Vorhaus J, et al (2008) *The Social and Personal Benefits of Learning: A Summary of Key Research Findings*. Institute of Education, University of London (http://www.learningbenefits.net/Publications/FlagshipPubs/Final%20 WBL%20Synthesis%20Report.pdf).
- 215 Green G, Gilbertson J (2008) Warm Front Better Health: Health Impact Evaluation of the Warm Front Scheme. Centre for Regional Economic and Social Research, Sheffield Hallam University.
- Sorensen S, Pinquart M, Duberstein D (2002) How effective are interventions with caregivers? *An updated meta-analysis. The Gerontologist*, **42**, 356–372.
- 217 Hamer M, Chida Y (2009) Physical activity and risk of neurodegenerative disease: a systematic review of prospective evidence. *Psychological Medicine*, **39**, 3–11.
- Bennett D, Schneider J, Tang Y, et al (2006) The effect of social networks on the relation between Alzheimer's disease pathology and level of cognitive function in old people: a longitudinal cohort study. *Lancet Neurology*, **5**, 406–412.
- Fratiglioni L, Winblad B, von Strauss E (2007) Prevention of Alzheimer's disease and dementia: Major findings from the Kungsholmen Project. *Physiology and Behavior*, **92**, 98–104.
- 220 Valenzuela M, Perminder S (2009) Can cognitive exercise prevent the onset of dementia? Systematic review of randomized clinical trials with longitudinal followup. American Journal of Geriatric Psychiatry, 17, 179–187.
- Fournier A, Oprisiu-Fournier R, Serot JM, et al (2009) Prevention of dementia by antihypertensive drugs: How AT1-receptor-blockers and dihydropyridines better prevent dementia in hypertensive patients than thiazides and ACE-inhibitors. *Expert Review of Neurotherapeutics*, **9**, 1413–1431.
- Meadows P (2004) *Economic Contributions of Older People*. Age Concern England (http://www.ageconcern.org.uk/AgeConcern/Documents/regions_economic_contribution_report_0758.pdf).
- 223 Pleasence P, Buck A, Balmer NJ, et al (2006) A Helping Hand The Impact of Debt Advice on People's Lives. Legal Services Research Centre.
- Taylor M, Jenkins S, Sacker A (2009) *Financial Capability and Wellbeing: Evidence from the BHPS*. Financial Services Authority, Occasional Paper Series 34.

- Thomson H, Petticrew M, Morrison D (2001) Health effects of housing improvement: systematic review of intervention studies. *BMJ*, **323**, 187–190.
- Harkness *et al* (2004) The cost-effectiveness of independent housing for the chronically mentally ill: do housing and neighborhood features matter? *Health Services Research*, **39**, 1341–1360.
- Brugha TS, Weich S, Singleton N, *et al* (2005) Primary group size, social support, gender and future mental health status in a prospective study of people living in private households throughout Great Britain. *Psychological Medicine*, **35**, 705–14.
- Lund R, Holstein BE, Osler M (2004) Marital history from age 15 to 40 years and subsequent 10 year mortality: a longitudinal study of Danish males born in 1953. *International Journal of Epidemiology*, **33**, 389–397.
- Pinquart M, Duberstein PR (2010) Associations of social networks with cancer mortality: A meta-analysis. *Critical Reviews in Oncology/Hematology*, **75**, 122–137.
- 230 Rutledge T (2008) Social networks and incident stroke among women with suspected myocardial ischemia. *Psychosomatic Medicine*, **70**, 282–287.
- 231 Ertel KA, Glymour M, Berkman LF (2008) Effects of social integration on preserving memory function in a nationally representative US elderly population. *American Journal of Public Health*, **98**, 1215–1220.
- 232 Cattan M, White M, Bond J, *et al* (2005) Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Ageing & Society*, **25**, 41–67.
- Wallerstein N (2006) What is the Evidence on Effectiveness of Empowerment to Improve Health? (Health Evidence Network Report). WHO Regional Office for Europe (http://www.euro.who.int/Document/e88086.pdf).
- 234 Friedli L, Watson S (2004) *Social Prescribing for Mental Health*. Northern Centre for Mental Health.
- Schuller T, Preston J, Hammond C, et al (2004) The Benefits of Learning: The Impact of Education on Health, Family Life and Social Capital. Routledge Falmer.
- 236 Bird W (2007) Natural Thinking: A report for the Royal Society for the Protection of Birds, Investigating the Links between the Natural Environment, Biodiversity and Mental Health. RSPB (http://www.rspb.org.uk/ourwork/policy/health/index.asp).
- 237 Scottish Government (2009) Evaluation of 'See Me', the National Scottish Campaign Against the Stigma and Discrimination Associated with Mental Ill-Health. Scottish Government.
- Thornicroft G, Rose D, Kassam A (2007) Stigma: ignorance, prejudice or discrimination? *British Journal of Psychiatry*, **190**, 192–193.
- 239 Corrigan PW, River LP, Lundin RK, et al (2001) Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin*, **27**, 187–195.
- 240 Pinfold V, Thornicroft G, Huxley P, et al (2005) Active ingredients in anti-stigma programmes in mental health. *International Review of Psychiatry*, **17**, 123–131.
- 241 Sartorius N, Schulze H (2005) *Reducing the Stigma of Mental Illness*. A Report from a Global Programme of the World Psychiatric Association. Cambridge University Press
- Pinfold V, Huxley P, Thornicroft G, et al (2003) Reducing psychiatric stigma and discrimination evaluating an educational intervention with the police force in England. Social Psychiatry and Psychiatric Epidemiology, **38**, 337–344.
- Sharac J, McCrone P, Clement S, et al (2010) The economic impact of mental health stigma: a systematic review. *Epidemiologia e Psichiatria Sociale*, **in press.**
- 244 NHS Confederation (2009) *Dealing with the Downturn, Paper 4*. NHS Confederation.
- 245 Royal College of Psychiatrists (2009) *Mental Health and the Economic Downturn National Priorities and NHS Solutions (Occasional Paper OP70)*. Royal College of Psychiatrists.
- 246 Future Vision Coalition (2009) *A Future Vision for Mental Health*. Future Vision Coalition.
- Jané-Llopis E, Barry MM, Hosman C (eds) (2005) *T*he evidence of mental health promotion: strategies for action. *Promotion and Education*, (suppl. 2), 9–25.

- 248 Karoly L, Kilburn R, Cannon JS (2005) *Early Childhood Interventions: Proven Results, Future Promise*. RAND.
- 249 Drake EK, Aos S, Miller MG (2009) Evidence-based public policy options to reduce crime and criminal justice costs: Implications in Washington state. *Victims and Offenders*, **4**, 170–196.
- 250 National Institute for Health and Clinical Excellence (2009) *Alcohol-Use Disorders* (*Prevention*): *Economic Modelling Report*. NICE.
- 251 National Institute for Health and Clinical Excellence (2009) *Promoting Mental Wellbeing at Work: Full Guidance*. NICE (http://guidance.nice.org.uk/PH22/Guidance/pdf/English).
- Wang PS, Simon, GE, Avorn J, et al (2007) Telephone screening, outreach, and care management for depressed workers and impact on clinical and work productivity outcomes. Journal of the American Medical Association, 298, 1401–1411.
- 253 McCrone P, Knapp M, Dhanasiri S (2009) Economic impact of services for first episode psychosis: a decision model approach. *Early Intervention in Psychiatry*, in press.
- Valmaggia LR, McCrone P, Knapp M, *et al* (2009) Economic impact of early intervention in people at high risk of psychosis. *Psychological Medicine*, **39**, 1617–1626.
- 255 Platt S, McLean J, McCollam A, et al (2006) Evaluation of the First Phase of Choose Life: The National Strategy and Action Plan to Prevent Suicide in Scotland. Scottish Executive Social Research.
- 256 Windle G, Hughes D, Linck P, et al (2008) Public Health Interventions to Promote Mental Well-Being in People Aged 65 and Over: Systematic Review of Effectiveness and Cost-Effectiveness. NICE (http://www.nice.org.uk/nicemedia/pdf/PH16EffectivenessAndCostEffectivenessReview.pdf).
- 257 McCrone P, Knapp M, Henri M, *et al* (2010) The economic impact of initiatives to reduce stigma: demonstration of a modelling approach. *Epidemiologia e Psichiatria Sociale*, **19**, 131–139.
- 258 HM Government (2010) New Horizons. Confident Communities, Brighter Futures: A Framework for Developing Well-Being. Department of Health.
- 259 HM Government (2009) New Horizons: A Shared Vision for Mental Health. Department of Health.
- 260 Substance Abuse and Mental Health Services Administration (2007) Promotion and Prevention in Mental Health: Strengthening Parenting and Enhancing Resilience. US Department of Health and Human Services.
- Andrews G, Issakidis, Sanderson K, et al (2004) Utilising survey data to inform public policy: comparison of the cost-effectiveness of treatment of ten mental disorders. British Journal of Psychiatry, **184**, 526–533.
- 262 O'Hara MW, Swain AM (1996) Rates and risk of postpartum depression a metaanalysis. *International Review of Psychiatry*, **8**, 37–54.

© 2010 Royal College of Psychiatrists Cover photograph: ©iStockphoto/urbancow

For full details of reports available and how to obtain them, contact the Book Sales Assistant at the Royal College of Psychiatrists, 17 Belgrave Square, London SW1X 8PG (tel. 020 7235 2351, fax 020 7245 1231).

The Royal College of Psychiatrists is a charity registered in England and Wales (228636) and in Scotland (SC038369).