The economic case for investing in the prevention of mental health conditions in the UK (Summary)

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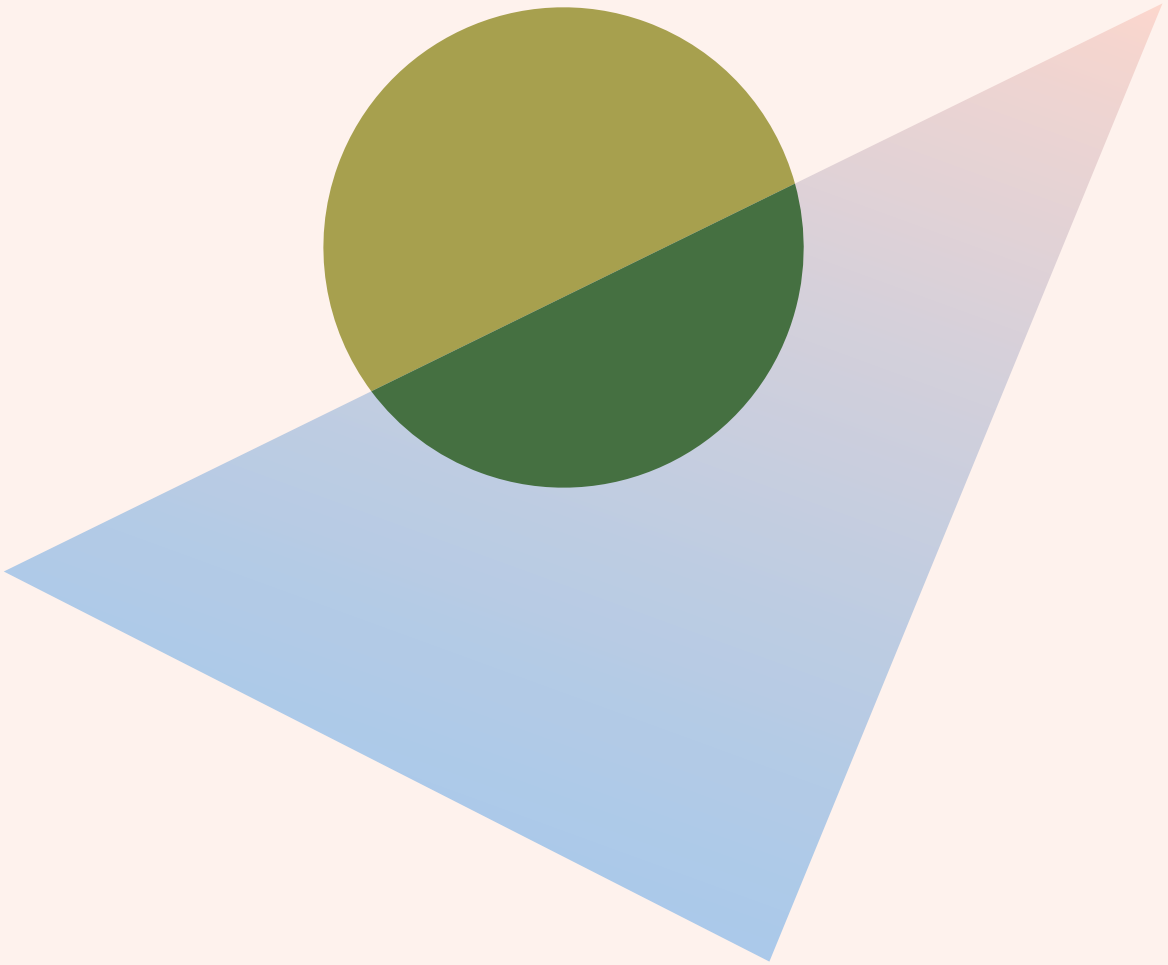

1. Introduction and context

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Our mental health is a powerful asset. It is a key that allows us to unlock a wide range of health and social advantages.

As we emerge from the coronavirus pandemic, it is critical that all UK governments invest in strategies to prevent mental health problems in all stages of life. This report outlines some key well evidenced interventions which have the potential to achieve this, and through doing so, reduce distress in the population.

This report provides an economic case for the prevention of poor mental health.

In 2019, there were 10.3 million instances of poor mental health in the UK [1]. Among health conditions, depression alone was the third highest ranking cause of disability. This means mental health problems affect the lives of millions of people across the UK. However, in addition to the personal impact on people, families and communities, poor mental health costs a significant amount to the UK economy, through costs related to healthcare, time out of work and the impacts associated with support from informal care.

Our mental health is determined by a range of factors, including our social and economic circumstances. This means that much poor mental health could be avoided by investment in prevention and early intervention measures [2]. This includes actions that address the social and economic circumstances that influence mental health, such as reducing poverty and providing safe green spaces. It can also include measures aimed at the family and individual levels, such as interventions to support parenting and families' coping strategies.

In this report, we first provide an estimate of the annual costs of mental health problems in the UK. Next, we look at a broad range of evidenced interventions for the prevention of mental health problems.

There are many ways of preventing mental health problems; including preventing them before they have started and preventing them from becoming more severe once they have already emerged. In this report we have focused on 'primary prevention', which describes measures that aim to intervene before mental health problems have occurred [3]. The report takes a life-course perspective, as there are risks to mental health from the beginning of life, and then at different transition points, such as starting school, moving from school to further or higher education, then to work, and from work to retirement. We highlight areas where there is strong evidence of both effectiveness in reducing poor mental health and of cost-effectiveness, as well as those we consider to be promising for economic evaluation. We discuss some of the challenges with this evidence base and look at how it can be strengthened. The methodology we have used is set out in Appendix 1.

2. Key findings

2. Key findings

Mental health problems currently cost the UK at least £117.9 billion a year (£100.8 billion in England; £8.8 billion in Scotland; £4.8 billion in Wales and £3.4 billion in Northern Ireland).

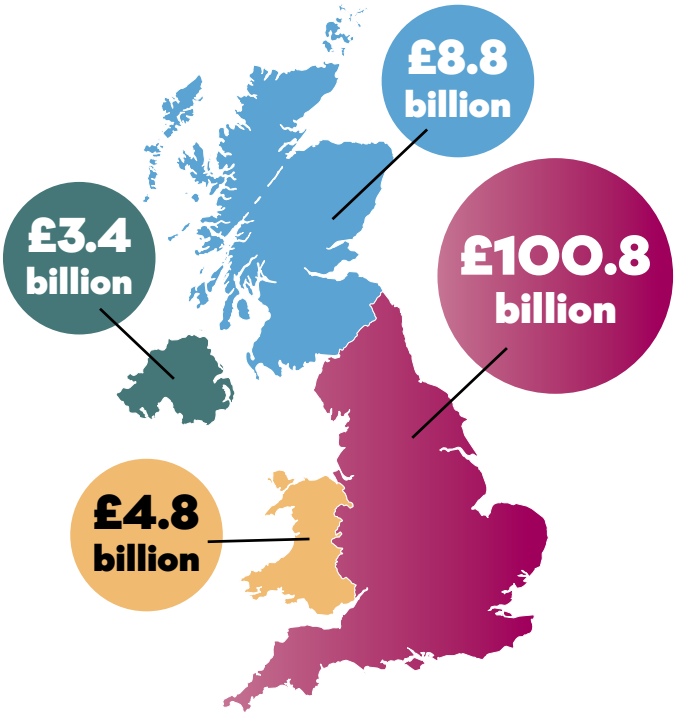
The estimated costs to the UK and each of the four nations are highly conservative and do not include the costs associated with dementia; intellectual disabilities; alcohol or substance misuse; and deliberate self-harm or suicide.

There is evidence that implementing a range of interventions could prevent mental health problems for a significant number of people.

Examples of interventions that are proven to help prevent distress and reduce costs associated with mental health difficulties include:

- Training all health visitors to identify women at risk of perinatal depression and providing psychological therapies for those at risk
- Evidence-based parenting programmes for the whole population and for those where a specific need for parenting support has been identified

Mental health problems cost UK economy at least £117.9 billion per year



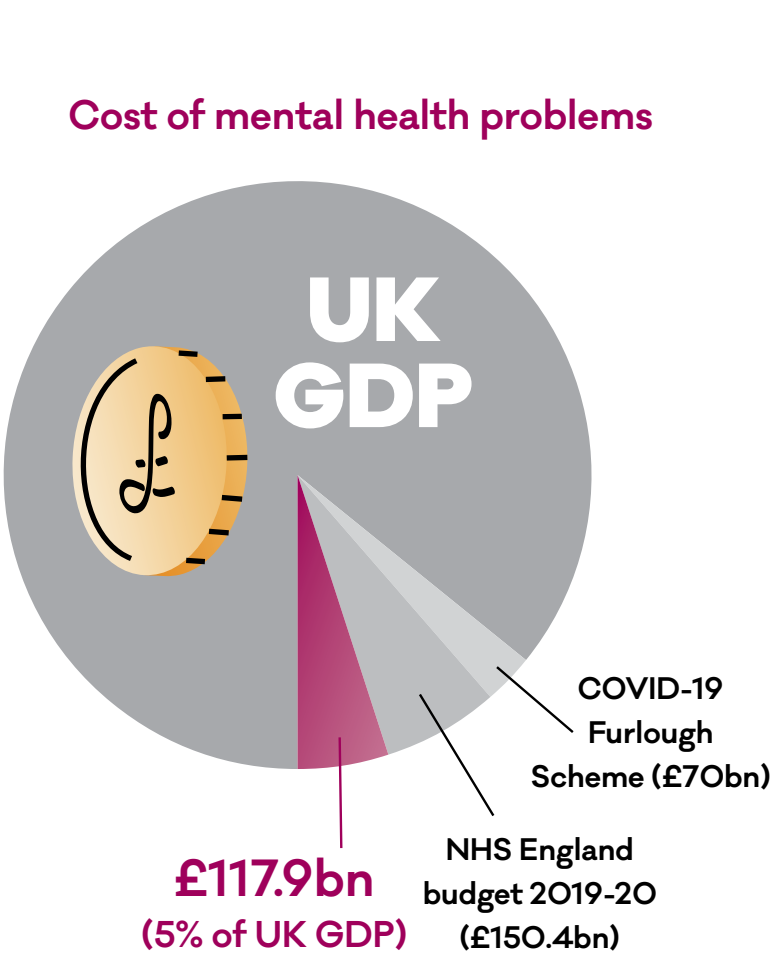
- Anti-bullying programmes in schools
- Opportunities to engage in exercise for all children, young people, and adults
- Identifying adults at risk of poor mental health early and providing them with psychosocial or psychological support (remote or face-to-face)
- Identifying mental health difficulties in the workplace and providing brief psychological support for those who

need it; alongside actions to change workplace cultures so that they promote and protect mental health

- Brief psychological interventions for people living with long-term physical health conditions
- Providing opportunities for older people to continue to engage in activities that reduce their risk of social isolation.
- Suicide prevention measures: in addition to restricting access to means, early identification of risks of future self-harm, for instance in hospitals and in primary care, followed by appropriate ongoing mental health support

More research is needed on the effectiveness and cost-effectiveness of interventions which address the social, economic and environmental risk factors for poor mental health, such as actions to address poverty, homelessness or poor housing, job insecurity and access to green space.

Cost of mental health problems



3. The economic cost of poor mental health

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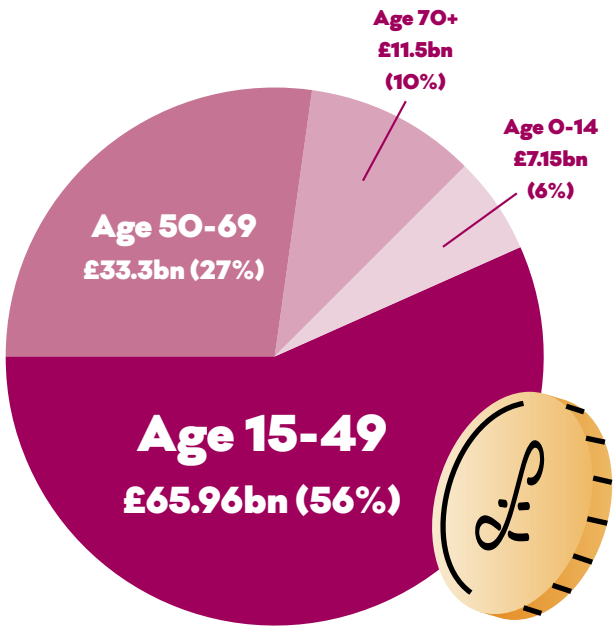
Overall, poor mental health currently costs the UK approximately £118 billion a year. This accounts for around 5% of UK GDP (as of 2019). To put this into further context, the total cost of the NHS in England in 2019/20 was £150.4 billion, whilst the cost of the furlough scheme to protect the income of workers during the COVID pandemic was approximately £70 billion.

Cost per age group



Most of these costs are due to people living with mental health conditions being unable to work or working less because of the additional challenges they face, as well as the costs associated with support from informal carers. However, specialist mental health care costs were estimated to be £13 billion, which was 11% of the total cost. A further £2.3 billion was spent in primary care. Education costs examined were restricted to special educational needs provision, yet still accounted for more than £2.5 billion.

Overall, these are highly conservative estimates, as there is a lack of data for some costs, and we are unable to include others. For example, for health service costs, our estimates are based on the number of people receiving treatment. However, mental health services are under-utilised, and not everyone who would benefit from treatment receives it.

Table 1

Cost of mental health conditions by expenditure category, UK, 2019. (£ millions)

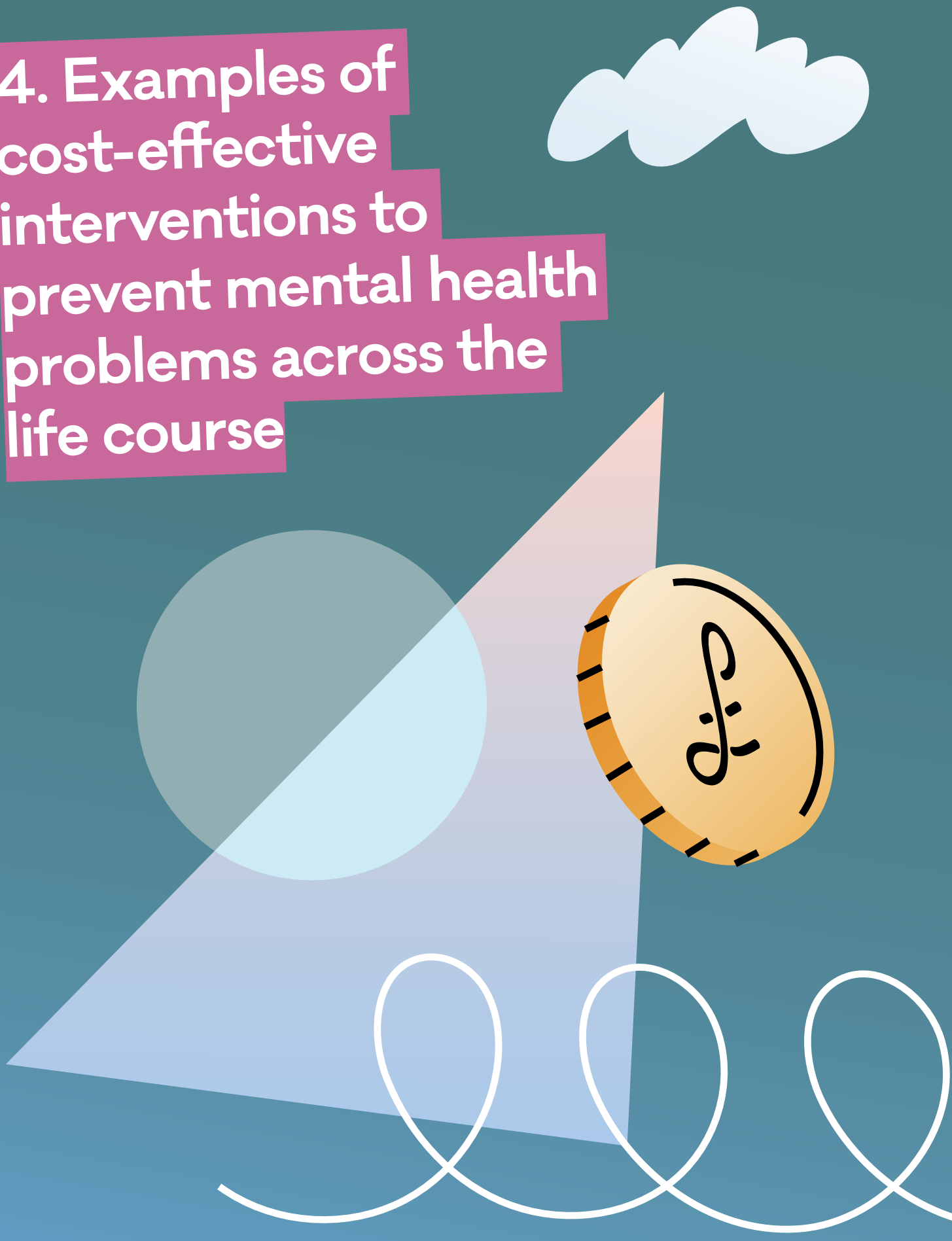
	Health	Primary Care	Social Care	Education	Informal Care	Productivity Loss	Intangible Costs	Total
England	10,965	1,907	1,017	2,304	30,854	30,890	22,863	100,801
N. Ireland	420	65	39	83	1,152	1,073	576	3,409
Scotland	1,006	183	93	199	2,795	2,785	1,826	8,888
Wales	601	106	55	121	1,629	1,441	840	4,794
Total UK	12,992	2,261	1,205	2,708	36,431	36,189	26,105	117,891
%	11.02%	1.92%	1.02%	2.30%	30.90%	30.70%	22.14%	100.00%

The total figure also does not include:

- The costs associated with reduced performance at work because of a mental health problem
- The costs associated with physical health difficulties which are either caused or exacerbated by a mental health problem
- The costs to the criminal justice or housing sector that are associated with mental health difficulties
- The costs associated with self-harm and suicide, much of which is linked to poor mental health
- The costs associated with alcohol and substance misuse, which is often linked to poor mental health
- The costs associated with private treatment
- A range of other costs we chose not to incorporate, including the costs associated with stress, which can have a significant impact on individuals and families, but is not severe enough to be recognised as a mental health problem.

Finally, this is an estimate of annual costs and so does not show the long-term costs of mental health problems over time. For difficulties emerging in childhood in particular, the long-term costs are considerable. This is because poor mental health in children and young people is associated with an increased risk of a range of adverse outcomes in adulthood, including unemployment, addiction difficulties, mental health related hospital admissions and criminal justice contact [4-8]. The costs associated with childhood mental health difficulties therefore increase over time. For example, one study found that adult family incomes were reduced by up to 28% by age 50 among people who had experienced psychological problems in childhood, with the income gap widening at older ages [9].

4. Examples of cost-effective interventions to prevent mental health problems across the life course



4. Examples of cost-effective interventions to prevent mental health problems across the life course

Perinatal and maternal mental health

Mental Health Training for Health Visitors

Opportunities for protecting mental health begin during pregnancy. Between 10% and 20% of women experience perinatal depressive symptoms [10, 11]. Other mental health conditions, such as anxiety, are also more common in the perinatal period. Poor perinatal mental health can have long-lasting adverse impacts on a child's emotional health and their physical and cognitive development [12]. The lifetime costs from a societal perspective of perinatal depression and perinatal anxiety alone, to both mother and child, have been estimated to be £75,728 and £34,811 respectively [13].

Several economic evaluations now indicate that measures to prevent and/or intervene early in perinatal depression are cost-effective and can reduce the number of women who experience this. These include health visitor-provided counselling and/or psychological therapies, primary care screening and treatment for depression and telephone peer support (where people affected provide support to each other) [14-16]. Other evaluations have also found peer support interventions cost effective [17,18], although more evidence is needed on their use in a range of settings.

Children and young people

Parenting programmes

'Parenting programmes' is a term used to describe a range of interventions for parents, which are often delivered to a group. They aim to support parents to strengthen their relationships with their children and foster their child's emotional and social skills development. There is good evidence parenting programmes can help promote positive mental health and reduce the risk of poor emotional development for children. Universal programmes for all the relevant population, as well as targeted programmes

for parents and their children at risk of mental health problems have been shown to be effective [19-21]. There is also a growing number of studies that show parenting programmes are cost-effective, reporting up to £15.80 can be saved on spending in the long-term for every £1 spent on delivering the programme [22].

One large study explored the cost effectiveness of the Incredible Years parenting programme over a long period of time, until children who had benefitted from the programme were 30 years of age. It estimated this saved £4.57 for every £1 spent over that time-frame [23]. Other studies of similar interventions, in Sweden and the United States, have also shown these are cost-effective over long periods of time, ranging up to 50 years [22, 24].

Anti-bullying programmes

Persistent bullying can adversely affect mental health at all ages; but most initiatives that have looked at ways to counter this issue have focused on impacts on young people. Young people who are frequently bullied are more than 2.5 times more likely than other young people to use mental health services, both in childhood and adolescence. Even in midlife, up to age 50, people who have been bullied have a 30% higher likelihood of using services compared to their non-bullied peers [25].

There is strong evidence that measures targeted at all pupils within a school can reduce bullying and have positive benefits for mental health [26]. These interventions can also lead to better outcomes for the perpetrators of bullying.

One anti-bullying programme known as KiVa aims to enhance the empathy, self-efficacy, and anti-bullying attitudes of pupils. A large study in Finland compared pupils who had received the programme with pupils who had not. It found those who didn't receive KIVA were 22% more likely to be bullying victims [27]. More recently a trial in Italy across 13 schools also reported significantly lower levels of bullying in schools which had implemented KiVA [28]. Researchers have now estimated what the effects of KIVA might be in the UK, using these studies. It found that between the ages of 7 and 11, an additional four in every 100 children could avoid sustained bullying, saving £1.58 for every £1 spent over those four years [29]. When the costs associated with bullying up to the age of 50 were considered, long-term saving increases to £7.52 per £1 spent.

Exercise

Finally, although research on their cost-effectiveness is limited, exercise interventions can also be protective of mental health. For example, a Swedish study which delivered twice weekly dance classes to teenage girls with high levels of stress was found to be cost-effective through reducing their use of school health services [30].

Working-Age Adults

Brief psychological interventions

There is now evidence that different types of psychological support can help prevent episodes of depression among adults [31]. In particular, there is significant evidence for brief cognitive behavioural therapies (CBT), including cognitive-based self-help manuals. One study in the Netherlands found that self-help manuals on mood management, supplemented by six telephone consultations with a 'prevention worker', were associated with a reduced risk of depression and reduced costs associated with depression for society [32]. Other studies have produced similar results [33]. There is also emerging evidence on the effectiveness of mindfulness-based therapies, including meditation and mindfulness-based CBT. For example, an analysis of a trial of a mindfulness based mental health promotion programme in Germany found it had a 95% chance of being cost effective [34]. There is also some evidence that brief psychological interventions are effective in preventing other forms of mental health difficulty, such as anxiety [35]. However, more research on their cost-effectiveness for preventing other mental health conditions is required.

Workplace interventions

There is a strong case for investing in mental health prevention in the workplace. Poor mental health contributes to reduced productivity at work, greater

likelihood of sickness absence, and a higher probability of being unemployed [36, 37]. Therefore, if preventing mental health problems can help employees to stay in work, and work to their full potential, the economic and societal benefits are potentially very significant. A recent review found that, on average, for every £1 invested in mental health interventions in the workplace, £5 is saved [38].

In the UK a set of 'mental health core standards' to protect mental health at work puts an emphasis on better mental health awareness at work and good working conditions including:

- *Autonomy*
- *Fair pay*
- *Work life balance*
- *Opportunities for progression*
- *The absence of bullying and harassment [39].*

It also includes other organisational measures including changing workplace culture, appropriate risk assessment and management of stress and poor mental health. Employers can also help protect mental health through flexible working arrangements, including home working, where feasible. This can help workers who have to juggle caring responsibilities with employment.

Recent reviews have also highlighted the potential benefits of interventions targeted at stress and the symptoms of conditions such as depression and anxiety. The greatest savings were seen in programmes that improved the knowledge of line managers and workers of risks for mental health, as well as the provision of personalised exercise programmes [40].

People living with long term physical health conditions

People living with long term physical health conditions are at an increased risk of experiencing mental health difficulties. There is now evidence that psychological interventions can reduce their risk of experiencing these and are also cost-effective. For example, studies have found that brief psychological support, in the form of CBT or mindfulness-based therapy, either delivered online or face-to-face can prevent depression and/or anxiety among people with cancer and are also cost-effective [41-44]. However, not all studies have found such positive results. For example, the use of stepped care, including a guided self-help course and problem-solving therapy, was not found to be cost-effective in preventing depression in adults with diabetes and/or coronary heart disease [45, 46] and more research is therefore required.

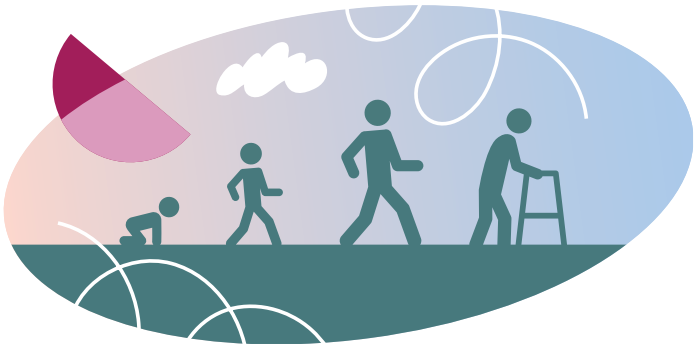
Older Adults

At least 12% of older people in high-income countries are affected by clinically significant levels of depression at any one time [47-50] and in the UK, around a third of those aged over 50 report feeling

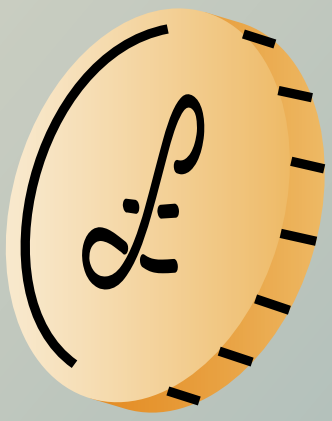
lonely [51]. There is growing evidence to suggest that interventions which tackle loneliness and isolation in older people can be protective of both their physical and mental health. For example, group-based social participation interventions are recommended by the National Institute of Health and Care Excellence in their guidance on promoting the mental wellbeing and independence of older people [52]. This guidance is supported by a review which includes several interventions that have been delivered in a UK context [53]. One of these studies found that a 14-week professionally led community choir group for women over 60 was associated with a significant improvement in quality of life after six months among those who had attended the group, compared with those who had not [54]. Depression and anxiety were also significantly lower among this group after three months, and remained lower at six months, although this difference was no longer statistically significant. The intervention was found to have a 60% probability of being cost-effective. However, it must be noted that many of the studies exploring interventions to reduce loneliness in older adults are small in size and scope, and more empirical studies are needed to determine their cost-effectiveness in different settings.

Suicide and self-harm prevention

The human and economic costs associated with suicide and self-harm, much of which is linked to poor mental health, are vast [55]. The most effective suicide prevention measure remains restricting access to lethal means of harm, for example reducing easy access to excessive amounts of paracetamol, safety measures on bridges, and the introduction of enhanced injury prevention measures in vehicles [56]. While there are few economic evaluations of these measures, there is evidence that they are cost-effective [57]. There is also evidence that other suicide-prevention strategies, which include public mental health campaigns, training for primary care and other service gatekeepers, and appropriate support to deal with depression, are highly likely to be cost-effective [58]. Finally, recent analyses in England have indicated that better use of psychosocial assessment when people present to hospital following self-harm is likely to be cost-effective in the prevention of subsequent self-harm and suicide [59, 60]. This is in part because of reduced costs to health services, the police and local government services. However, these analyses are conservative, as they did not include the substantial long-term consequences and costs of self-harm to individuals and their families [61].



5. Knowledge gaps

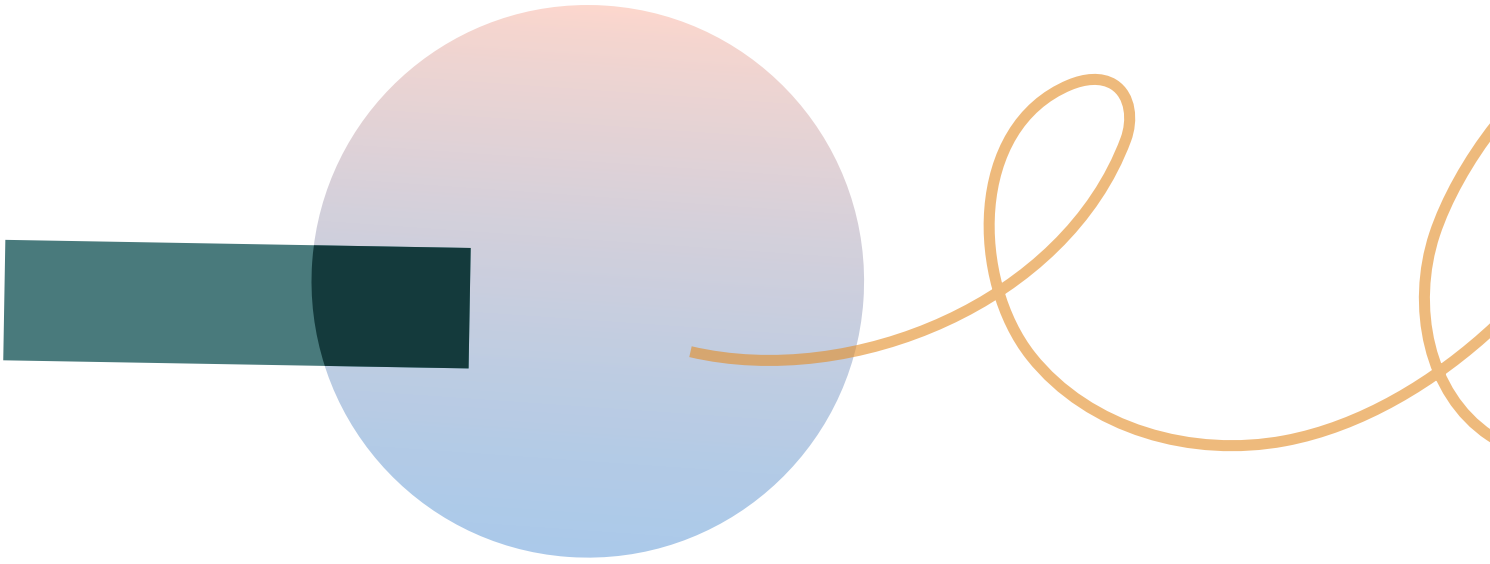


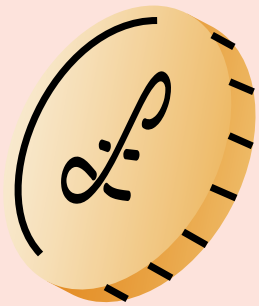
5. Knowledge gaps

Our review has highlighted the evidence which exists to show that a broad range of interventions can both prevent mental health problems and reduce costs to our economy. However, most of these are interventions delivered by the healthcare system targeting individuals. This leaves some rather substantial gaps on actions to address the economic and social factors which influence health, such as poverty, lack of decent housing, and job insecurity. While we know these factors contribute to poor mental health, very few studies have looked at the cost-effectiveness of interventions to address them [62].

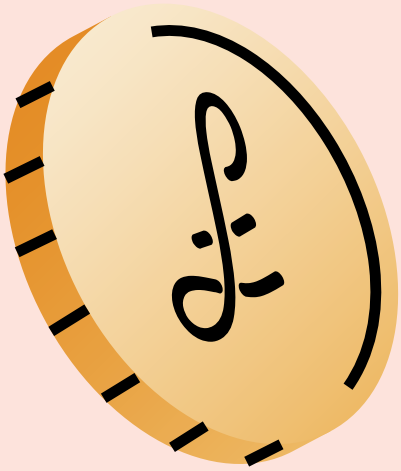
For example, while some studies have shown that interventions helping homeless individuals and other vulnerable groups to obtain housing are effective in supporting their mental health [63], there is a gap in our knowledge of the mental health-related economic benefits. Similarly, while there is some evidence, including an analysis of nearly 30 years of longitudinal data from the UK, that active labour market participation can promote better mental health [64], evidence on the relative cost-effectiveness of programmes to support this is limited. Other areas where evidence on cost-effectiveness remains limited, are interventions to support those experiencing poverty and debt, as well as measures to increase access to green and blue spaces.

Further research on the costs and benefits of interventions to address the economic and wider social factors which influence mental health is therefore needed. These evaluations should look at combinations of interventions rather than interventions in isolation and should consider their impacts over sufficient periods of time. They should also look at the impacts of these interventions on different population groups (i.e. people experiencing various types of socio-economic or cultural inequality).





6. Conclusion



6. Conclusion

Mental health conditions cause significant disability and distress for millions of people across the UK. Our report indicates they are also associated with substantial economic costs, most of which do not fall on health care systems. While not all the costs of mental health conditions are avoidable, action to prevent a proportion of these costs potentially could be highly cost-effective, as well as reducing the levels of mental distress in our society.

Our review has found strong evidence that action to prevent mental health problems, in every stage of life, could be cost-effective. Much of this evidence has been drawn from studies conducted in the UK. Specifically, we have identified that cost-effective options exist to prevent mental health difficulties among mothers and infants, children and families, working-age adults, people with long-term health conditions and older adults. Many of the studies which have been conducted to date have focused on actions which can be taken at an individual and family level and more must be done to evaluate the impact of addressing some of the economic and wider social factors which influence mental health, including tackling poverty, improving housing standards and reducing job insecurity.

The arguments for investing in measures to protect and support mental health have never been stronger and take on even more significance at a time when there are likely to be long-term mental health effects of the pandemic [65]. We conclude by proposing a number of recommendations for initial actions to prevent the onset of mental health conditions across the UK.

Recommendations

Recommendations

1. As part of their public health and mental health strategies, UK and devolved governments should increase investment in evidenced interventions for public health and prevention of health problems, including the prevention of mental health problems. We recommend that governments and the health service use a public health lens to identify this increased funding for prevention, recognising that it can alleviate pressures on secondary-care services. Improved and sustained investment in public health should match the rate of budget increase of the NHS, with a proportion earmarked for public mental health. There should be national reporting not only on levels of funding allocated to public health and prevention within and beyond the NHS and local government, but also on how funding is spent, so that the level of funding allocated locally to public mental health is more transparent and can be better estimated.

2. Funding and action in many areas of government not formally termed either 'public health' or 'mental health', such as economic and benefits policies, can have some of the greatest impacts on mental health. Development of national and local mental health strategies should take a cross-departmental approach that incorporates action beyond health and public health systems that can prevent mental health problems and promote good mental health, recognising the benefits of improved preventive work in mental health for other life outcomes.

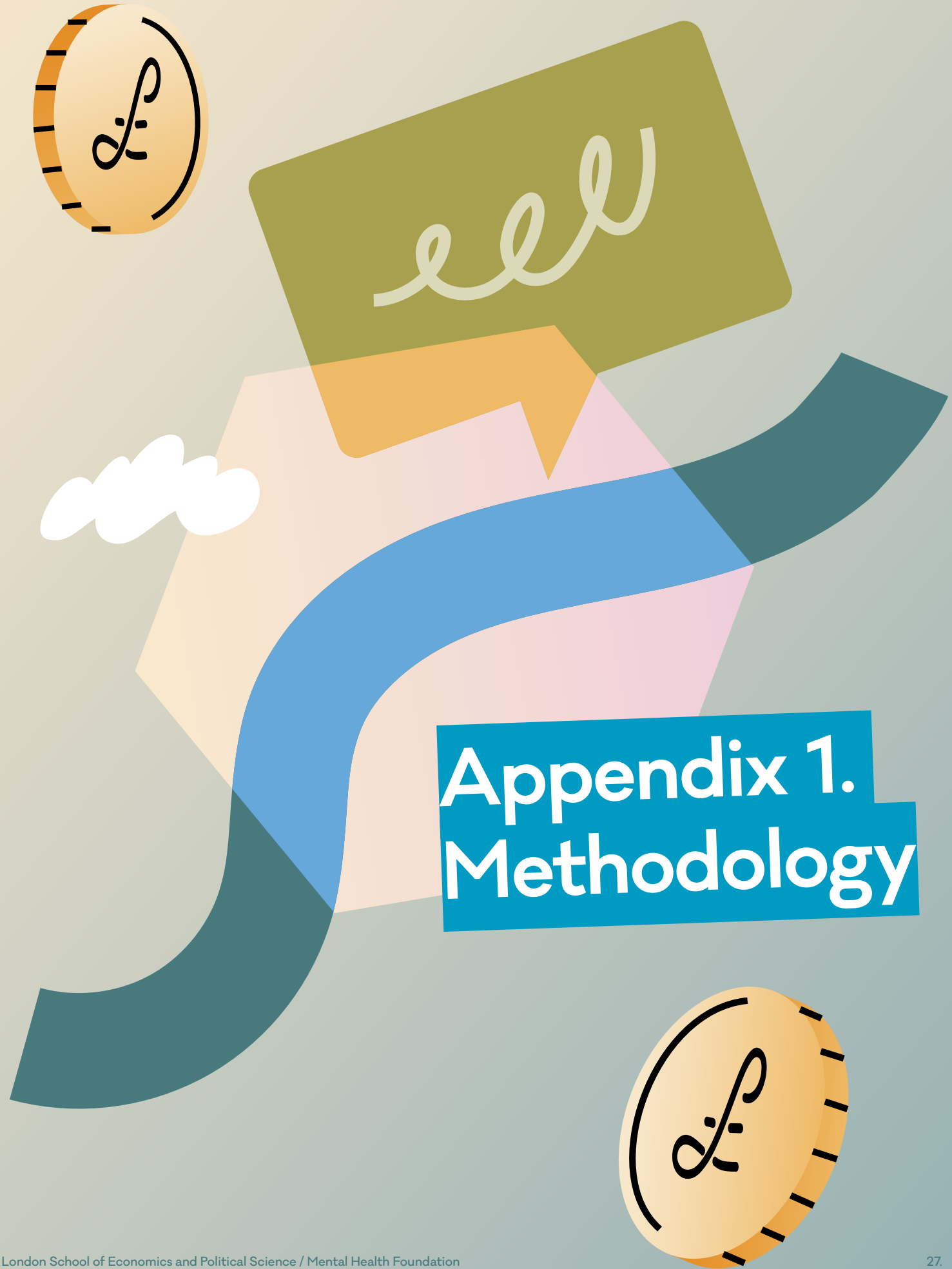
3. It is important to better understand the extent to which prevention actions are being delivered across the UK. As part of their mental health strategies, UK and devolved governments should carry out a mapping exercise to identify the extent, levels of funding, and geographical availability of effective mental health prevention interventions, delivered across the UK. In England, for example, there may be ways to capture more information on resources invested in prevention in the mental health dashboard and through progress made by signatories to the Prevention Concordat for Better Mental Health [66].

4. Each devolved government should build on existing prevention initiatives to plan how they can help to scale up access to cost-effective interventions to prevent mental ill-health through local government (including social care), the NHS, the Voluntary, Community and Social Enterprise Sectors and other potential funders. This could build on cross- sectoral plans that have been developed for mental health recovery during and after the pandemic, such as Scotland's Transition & Recovery Plan and the Community Mental Health and Wellbeing Fund, the new mental health strategy that succeeds Together for Mental Health in Wales, and experience from existing initiatives in England to develop prevention work at local level, such as through the Prevention Concordat for Better Mental Health and the Better Mental Health Prevention and Promotion Fund.

5. National mental health COVID recovery plans should include sustained implementation of cost-effective interventions to prevent mental health problems, recognising that the mental health impacts of the pandemic are extensive, and will persist for many years to come.

6. UK and devolved governments should support research to increase knowledge about cost-effective interventions. Specific knowledge gaps that can be explored include the impacts of structural interventions such as action on child poverty, as well as measures to reduce inequalities in access to and uptake of cost-effective prevention initiatives. This research should also look at the cost-effectiveness of multiple versus individual interventions, as well as a 'stepped care' approach to prevention. There is scope for further work to address some gaps in existing knowledge, for example addressing the risk of problematic gambling, protecting the mental health of carers, and gaps in knowledge of interventions at different times in the life course, such as the transition from adolescence to adulthood.

7. To address the challenge presented by the relatively short electoral cycle for demonstrating long-term effectiveness of preventive action, UK and devolved governments should invest in research that also considers the long-term costs and benefits of prevention and not just their short-term impacts. This could be achieved through initiatives to embed future generations considerations in public policy. An example is the Wellbeing of Future Generations Act in Wales, which requires all public bodies to think about the long-term impact of their decisions, and to work better with communities to prevent persistent problems such as poverty and health inequalities.



Appendix 1. Methodology

Appendix 1. Methodology

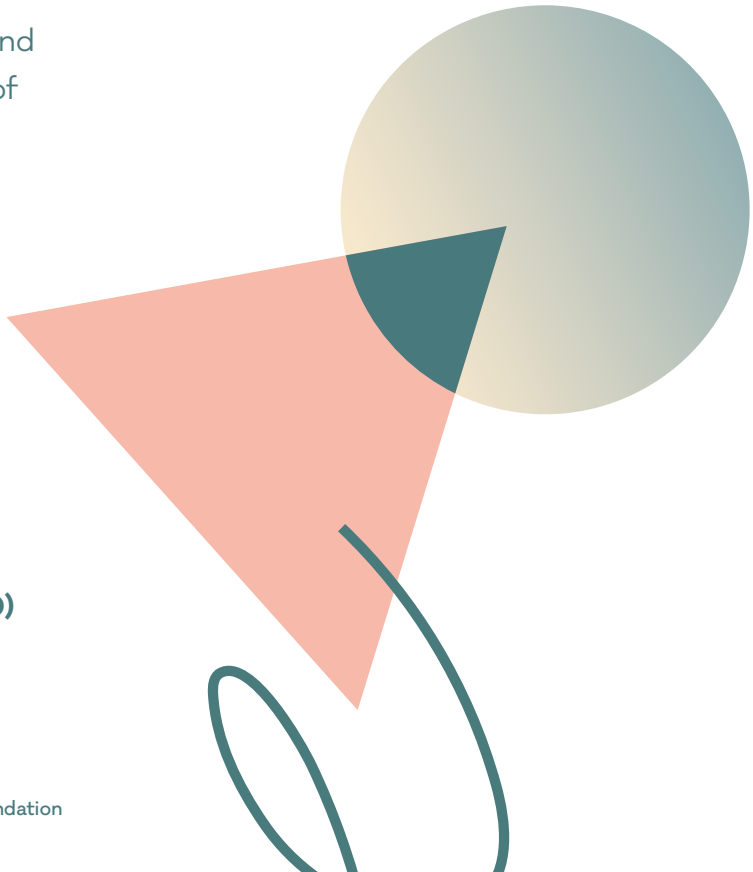
We have used a prevalence-based costing approach. This measures the number of people living with poor mental health over a specific short time period (usually one year) and estimates the average costs associated with these conditions over this time.

There are many different estimates of the number of people experiencing a mental health condition in the UK at any one time, and these estimates can vary markedly. Our prevalence-based costing model makes use of data on the prevalence of mental health conditions using the 2019 Global Burden of Disease (GBD) database (29). The GBD estimates are regularly updated and are routinely used by the World Health Organisation. We have included 11 of the 12 categories of mental health conditions used in the GBD. We have not included intellectual disabilities, neurological conditions such as dementia, or alcohol and substance use disorders. The categories of mental health condition included are:

1. **Depressive Disorders**
2. **Dysthymia**
3. **Anxiety Disorders**
4. **Bipolar Affective Disorder**
5. **Schizophrenia**
6. **Autism spectrum disorders (ASD)**
7. **Conduct disorder**
8. **Attention-deficit hyperactivity disorder (ADHD)**
9. **Anorexia Nervosa**
10. **Bulimia Nervosa**
11. **Other mental health conditions.**

A full description on the sources of data we used to estimate the cost of mental health difficulties to the UK can be found in our full report. However, this includes:

- *Health and Social Care Costs*
- *Additional Educational Support Costs*
- *Productivity Costs (costs related to unemployment, under-employment, time off work or reduced performance at work as a result of a mental health condition)*
- *Informal Care Costs*
- *Quality of Life related Costs*



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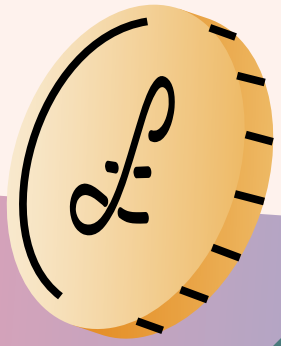

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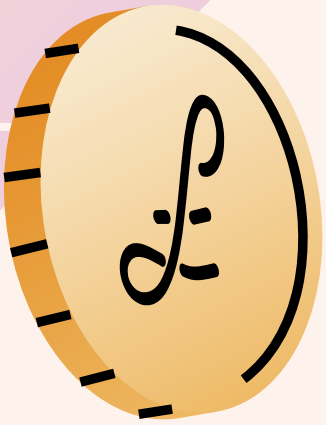

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