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Public Mental Health Implementation Centre

Summary of evidence on public mental health interventions

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Contents

The public health impact of mental disorder

Mental disorder accounts for at least 21% of the UK disease burden (as measured by years lived with disability)[1], although even this underestimates the true burden by at least one third[2]. This is accounted for by the high prevalence of mental disorder, the fact that the majority of lifetime mental disorder arises before adulthood, and the broad public health-relevant impacts across different sectors. The life expectancy of people with mental disorder is reduced by 7–25 years compared to those without, mainly due to increased rates of smoking, alcohol and drug misuse, self-harm, and physical illness[3,4]. The majority of self-inflicted deaths are in people who have a mental disorder[5,6]. Wider impacts of mental disorder include educational and employment outcomes[7–10], victimisation from and perpetration of violence[11–13], stigma and discrimination[14–16].

Interventions that promote public mental health

Effective interventions exist to prevent mental disorder from arising, promote mental wellbeing and resilience, and to treat mental disorder and its associated impacts[3,17]. Impacts extend across sectors with many interventions having economic evaluation highlighting associated economic benefits[3,17]. However in England, there is little provision of interventions to prevent mental disorder and its associated impacts, or promote mental wellbeing and resilience[3,18]. Particular groups are at several-fold increased risk of mental disorder and poor mental wellbeing[3,17] which can be compounded by limited access to public mental health interventions[19]. Although there is evidence to support effectiveness of some public mental health interventions among higher risk[3] and marginalised groups, such groups are underrepresented in research[20]. Proportionate provision of public mental health interventions to those who are most in need is required to prevent widening of inequalities.

What is public mental health?

Public mental health is a population-based approach to mental health, to improve coverage, outcomes and coordination of interventions provided by different sectors. It aims to prevent mental disorder from arising, prevent the associated impacts and inequalities, promote mental wellbeing and resilience, and support the delivery of effective interventions to treat mental disorder[3]. Public mental health supports coordinated, efficient, equitable and sustainable reduction of the burden of mental disorders and the promotion of mental wellbeing of populations[17].

How we evaluated the evidence on public mental health interventions We have summarised the evidence for public mental health interventions according to the following criteria:

- Interventions with a moderate-to-strong evidence base.

- Evidence for impact across a wide range of areas including health, education settings, workplace, and communities.
- Largest potential population impact on mental health.
- Targeting groups at higher risk of mental disorder and marginalisation from public mental health interventions.

We have not included suicide prevention interventions in this document because this area is already the focus of the National Confidential Inquiry into Suicide and Safety in Mental Health (NCISH) at the University of Manchester[21].

Intervention areas with the strongest evidence This evidence review has identified seven **intervention areas with the strongest evidence base**:

1. Interventions during pregnancy and immediately after birth to prevent child mental disorder
2. Interventions to prevent and treat parental mental disorder and parental drug/alcohol misuse
3. Parenting programmes which prevent child mental disorder, substance use, antisocial behaviours and unintentional injury and improve child behavioural outcomes, parenting and parental mental health
4. Home visiting and parenting programmes to improve child-parent attachment and prevent child adversity
5. School-based interventions to prevent mental disorder and alcohol/tobacco/drug use, reduce child adversity, promote mental wellbeing and resilience, and improve social-emotional skills
6. Workplace-based interventions to reduce employee mental disorder, increase wellbeing and promote recovery from mental disorder
7. Interventions to reduce smoking, alcohol, drug use, physical inactivity, COVID-19 infection and promote appropriate care of physical health conditions, including among people with mental disorder.

Priority intervention areas, with high public health relevance but a more limited evidence base, are those that:

- address socioeconomic inequalities to improve outcomes among marginalised groups
- target marginalised and higher risk groups to improve access to public mental health interventions.

Presenting the evidence

The tables below present the existing evidence on public mental health interventions according to five overlapping topic areas:

1. Interventions during pregnancy, childhood, and adolescence
2. Marginalised groups

3. Prevention of loss of healthy years and premature mortality including in people with mental disorder
4. Prevention of mental disorders
5. Other priority areas.

The tables include interventions areas rated to have strong or moderate supporting evidence, based on the following criteria:

- **Strong**: consistent evidence from large meta-analyses and/or randomised trials in support of interventions within this category, with some interventions having evidence showing long-term effectiveness.
- **Moderate**: some interventions within the category have strong data to support but others may have less consistent evidence either from systematic reviews or from intervention trials, with little data on long-term effectiveness.

Tables with summaries of the evidence for interventions

Pregnancy, childhood, and adolescence

The majority of lifetime mental disorders arise before adulthood[22]. Furthermore, childhood mental disorder increases the risk of adult mental disorder[23,24]. Mental disorder arising in childhood also sets in motion the development of a range of socioeconomically patterned physical illnesses[25]. Therefore, childhood and adolescence offer the greatest opportunity during the life course for both prevention and early treatment of mental disorder.

See Table 1 for a review of the evidence for interventions during pregnancy, childhood, and adolescence.

Table 1. Interventions during pregnancy, childhood, and adolescence

Intervention area or setting	Intervention target	Public mental health relevance	Evidence rating	Supporting data
Perinatal interventions	Perinatal interventions targeting parent tobacco, alcohol and substance use during pregnancy	Maternal smoking, and alcohol and substance use during pregnancy increase risk of adverse perinatal outcomes, and increase risk of child mental disorder[3,26–28].	Strong	• Tobacco control polices: Meta-analysis found association with reductions in preterm birth and lower rates of childhood respiratory infections[29]. • Smoking cessation during pregnancy: Systematic reviews indicate effectiveness of pharmacotherapy[30], psychosocial interventions[31], behavioural interventions[32], financial incentives and digital interventions[33]. • Meta-analysis showed that psychosocial interventions during pregnancy may reduce alcohol consumption[34].
	Perinatal interventions targeting birth outcomes	Low birth weight[35], preterm birth[36], prenatal infection[37], and poor maternal nutrition[38] contribute to adverse childhood psychological outcomes, and adult mental disorder[36,39].	Moderate	• Interventions to prevent adverse pregnancy outcomes including low birth weight, prematurity, and maternal nutrition[38]. • Maternal vitamin D supplementation may reduce risk of low birth weight[40,41].
	Breastfeeding (BF) support	BF is associated with improved neurodevelopmental progression and reduced child behavioural problems and reductions in cardiometabolic disease in adulthood[42–46].	Moderate	Meta-analyses show that postnatal BF support increases rates of BF. Targeting fathers in promotion of BF and early skin to skin contact after birth promote BF[47,48].
Interventions directed to parents	Parental mental disorder prevention, treatment, and mitigation	Parental mental disorder is associated with increased risk of child mental disorder[3,49–52] and socioeconomic adversity[53].	Moderate	Parental mental disorder prevention: • Systematic review shows psychosocial or psychological intervention significantly reduced risk of postpartum depression[54]. • Systematic review found that counselling interventions could prevent perinatal depression[55]. Parental mental disorder treatment: • Meta-analysis found maternal treatment of depression improved child mental health[56]. Interventions for offspring of parents with mental disorder:

				• Meta-analyses found reduced risk of offspring mental disorder[57–59].
	Parenting programmes	Parental factors associated with child mental disorder include poor quality relationship with parent, poor parenting, poor quality attachment and parental mental disorder[3].	Strong	Meta-analyses and systematic reviews outline the impact of parenting programmes: • Prevention of child mental disorder[60], substance use[61], antisocial behaviour and delinquency[62] and bullying[63]. • Prevention of child unintentional injury[64,65]. • Improved child behaviour including in children with ADHD[66], ASD[67,68], developmental disability[69] and foster children[60,66–72]. • Improved parenting including for ethnic minority parents[73], foster parents[71,72], young offender parents and parents of children with disability[69,74,75]. • Improved parental mental health.
	Promotion of child/parent attachment	Poor attachment to parents is associated with child internalising[76] and externalising[77] problems, delinquency[78] and criminality[3].	Strong	Systematic reviews and a meta-analysis report that parenting and home visiting programmes improved attachment-related outcomes in preschool children[70] including among children with existing severe attachment problems[79].
			Moderate	• A meta-analysis of relationship-based interventions showed improved supportive parent-child interactions for low-income families[80]. • Parent reading to their young children: Meta-analysis found improved psychosocial functioning of children and parents including parenting competence[81]. • More targeted interventions to promote attachment are required for higher risk groups, such as children who are adopted from care, in care or at high risk of going into care[82].
Child adversity: Prevention and protection	Child adversity prevention through parent training, home visiting, school-based programmes, and adult trusted support	Child adversity contributes to nearly one-third of adult mental disorder[83]. Child adversity also accounts for a large proportion of health harming behaviour[84].	Strong	Child adversity can be reduced through: • Parent training programmes[64,65] • Home visiting programmes[85–87] • School-based interventions (see row below) • Adult trusted support[88,89]
	Early intervention to address child adversity		Moderate	National Institute for Health and Care Excellence (NICE) guidance[90] highlights recognition of child abuse and neglect, assessment of risk, early help for affected families, the need

				for multi-agency response, and therapeutic interventions after child abuse and neglect.
Early years and primary school-based interventions	Children's social-emotional functioning and developmental trajectories	Mental disorder arising during childhood and adolescence results in a broad range of impacts which extend into adulthood and include increased risk of adult mental disorder[3,23].	Strong	Meta-analyses indicate: • Early childhood education programmes focused on social-emotional development improve externalising problems and reduce aggressive behaviour[91–93]. Preschool social and emotional learning interventions were associated with development of social and emotional skills and reduction of problem behaviours[92].
Interventions among older adolescents including school-based interventions	Interventions to promote adolescent social-emotional functioning and developmental trajectories		Strong	Large meta-analyses show that social and emotional learning programmes result in long-term reductions in conduct problems, emotional distress and drug use, as well as positive effects on social-emotional skills, positive social behaviour and academic performance[92,94,95].
	School-based bullying and violence prevention		Strong	School-based interventions can reduce violence[96], bullying[97,98], cyberbullying[99], sexual abuse[100] and adolescent dating violence[101].
	Academic interventions		Moderate	Providing instruction in reading, maths, or writing, and contingent reinforcement for academic performance[102]: Small to moderate effect on behavioural outcomes improving on-task behaviour and disruptive behaviour.
	Universal resilience-focused interventions		Moderate	Reduced depressive symptoms, internalising problems, externalising problems and general psychological distress[103].
	School-based promotion of self-regulation		Moderate	• Meta-analysis showed school-based programmes to promote self-regulation resulted in improved self-esteem in the short and long term, as well as reduced internalising behaviour in the short term[104]. • School-based interventions improved self-regulation in children and adolescents, as well as distal academic, health and behavioural outcomes[105].
	School-based mindfulness programmes		Moderate	Meta-analysis of RCTs found positive effects on depression, anxiety and stress[106].
	Youth mentoring programmes		Moderate	Meta-analysis shows youth mentoring programmes are moderately effective among youth at risk for a range of

				psychosocial and academic problems across diverse outcome domains[107].
	Psychosocial interventions delivered by teachers		Moderate	Meta-analysis showed reduced student internalising outcomes[108].

	Prevention of smoking, alcohol, and drug use	Most people start smoking before the age of 18[109]. Substance misuse can also begin in early adolescence[110]. Smoking, alcohol, and drug use is several times more common in adolescents with mental disorder[3,111,112] which highlights the importance of early treatment for mental disorder. Smoking may also increase risk of developing mental disorder[113–116].
		
		Cannabis use in adolescence is associated with increased risk of depression, suicidal ideation and attempt in young adulthood[117] and earlier onset of psychosis[118,119].
			Moderate/ strong	<u>Parenting programmes (systematic reviews):</u>
				• Tobacco: Family based interventions can prevent smoking uptake[120].
				• Drugs: Low intensity group parenting interventions can reduce and prevent adolescent substance use[61,121,122].
				<u>School-based programmes:</u>
				• Smoking prevention[123] through school and coordinated approaches, adult-led and peer-led interventions and helping retailers avoid illegal tobacco sales.
				• Systematic reviews indicate effectiveness for:
				  ○ Prevention of smoking, alcohol and drug use[124–126]
				  ○ School-based drug and alcohol prevention programmes delivered online[127]
				  ○ Prevention of illicit substance use through universal resilience-focused interventions[128]
				Meta-analysis shows that primary care-based behavioural interventions for school-aged children and adolescents can prevent smoking and assist with cessation[129].

Addressing socio-economic inequalities	Interventions targeting poverty to reduce inequalities	If all children had the same risk as the most socially advantaged, this would result in potential reduction of 59% for conduct disorder, 34% for emotional disorder and 54% for hyperkinetic disorder[130]. In 2019/20, 31% of children in the UK were living in poverty[131]. Socioeconomic inequality underpins many other risk factors for mental disorder[132–134]. For instance, four or more adverse childhood experiences were reported by 4.3% of individuals in the most affluent quintile	Limited/ moderate	Mitigation of deprivation and poverty which is also likely to mitigate child adversity through: • Taxation and benefits policy. • Strategies to reduce health inequalities[137]. • A review of universal, permanent or subsistence-level interventions providing unconditional payments to individuals or families showed positive effects on mental health[138]. • Basic income interventions[139]. • Mitigation of food insecurity: Review suggests that the current evidence base which evaluates food insecurity interventions for children is both mixed and limited in scope and quality[140] (see <u>Table 2</u>).

		compared to 12.7% in the most deprived quintile[135]. Furthermore, household food insecurity is associated with children's behavioural, academic and emotional problems from infancy to adolescence[136].		
Physical activity	Interventions to increase physical activity in children and adolescents	Physical activity can improve mental health in children and adolescents[141,142] although studies show considerable heterogeneity.	Moderate	• Meta-analysis shows physical activity interventions during adolescence have small to moderate effects on self-concept, academic achievement, externalising problems and internalising problems[143]. • Active travel promotion schemes may increase physical activity[144–148].

Interventions to reduce inequalities for people in marginalised groups

Most marginalised groups (including minoritised racial and ethnic groups, people in poverty or on low incomes, and LGBTQ+ people) are at increased risk of mental disorder and poor mental wellbeing[3], and also may find it harder to access public mental health interventions, leading to worse outcomes[19]. Stigma and discrimination may increase risk of mental disorder[16] and reduce help-seeking behaviour[149]. Higher risk groups require targeted approaches to prevent widening of inequalities[132,150].

Addressing upstream causes of marginalisation including poverty can help to reduce mental health burdens among groups who also face barriers to accessing health services[151]. There is only limited evidence to support effectiveness of public mental health interventions among marginalised groups because such groups are underrepresented in research[20]. We have summarised the existing evidence here to highlight the research gap in this priority area.

Table 2. Marginalised groups

Intervention area	Intervention target	Public mental health relevance	Evidence rating	Supporting data
Interventions to mitigate socioeconomic deprivation and poverty (see Table 1)	Interventions to address food insecurity	Household food insecurity is associated with children's behavioural, academic and emotional problems from infancy to adolescence[136].	Limited evidence	• Review highlighted the difficulty of addressing household food insecurity with community-based food interventions when solutions likely lie upstream in social protection policies[152]. • Review suggests that evidence base for food insecurity interventions for children is both mixed and limited in scope and quality[153].
	Interventions to address fuel poverty	Living in cold and damp housing contributes to a variety of mental health stressors[154].	Limited evidence	• Systematic review shows that interventions to improve warmth and energy efficiency improve general health and mental health particularly for those without warmth and with existing chronic respiratory disease[155]. • Interventions which addressed fuel poverty and ensured adequate heating were associated with improved mental health[156]. • Improvements to energy efficiency are associated with significant improvements in mental wellbeing[154]. • Programmes to reduce fuel insecurity increase referrals to social sector and lead to estimated gains in quality life years[157].
	Interventions to address	Loss of work and financial difficulties are associated with	Limited evidence	A systematic review found limited evidence for effective and cost-effective community interventions delivered to individuals experiencing financial insecurity[159].

	financial insecurity	higher risk of mental disorder and suicide[158].		
	Interventions to reduce unemployment and financial insecurity		Moderate	Meta-analysis shows that 'job club' interventions decrease depression up to 2 years post-intervention, particularly among people at high risk of depression[158]. Systematic review supports that multi-component interventions reduce unemployment rates among young people not in education, employment or training[160].
Housing interventions	Housing interventions to reduce homelessness	Homeless people are at increased risk of mental disorder[161].	Limited evidence	Housing interventions targeting homeless populations[162,163] can improve physical and mental health and reduce substance use.
Higher risk groups	Special education needs (SEN): Behavioural and educational outcomes	Children with SEN have an increased risk of mental disorder, emotional disorder, behavioural disorder, and autism[112,164].	Moderate	• Reviews found that behavioural and educational interventions can improve children's inclusion and participation in school[165] and improve cognitive development[166]. • Systematic review found that interventions to support reading for children with intellectual disability in schools improve reading rates[167]. • Meta-analyses indicate that parenting programmes improved both child behavioural and parental outcomes[69,74,75]. • Systematic reviews/meta-analyses found that physical activity may improve behavioural and emotional problems and increase wellbeing[168–170].
	Looked-after children	Looked-after children are at higher risk of mental disorder and poor wellbeing[171].	Moderate	• Meta-analysis found that foster parent training improved parenting practices and reduced child disruptive behaviour[72]. • A review found that high-quality care-giving with added interventions targeted at the child or at carers promotes child wellbeing[172]. • Meta-analysis showed that children in residential care versus family foster care had higher levels of internalising behaviours and externalising behaviours[173].
	Carers	Carers are at increased risk of psychiatric symptoms[174–176].	Moderate	Meta-analysis shows that: • mental disorder can be prevented through support and psychoeducation[177] • Internet-based interventions resulted in reduced stress and anxiety[178] • Internet-based information and education plus professional support reduced depression and anxiety[178].
	People with long-term physical health conditions	People with long-term health conditions are at increased risk of comorbid mental disorder[3,179,180].	Moderate	Meta-analysis shows that: • psychosocial interventions for people with diabetes could improve glycaemic control and mental health outcomes[181] • mindfulness-based interventions for adults with cardiovascular disease resulted in reduced anxiety, depression and stress compared to controls[182].

Preventing mental disorder and the loss of healthy years, and other priority areas

Each year, almost a quarter of adults experience at least one mental disorder[9]. People with mental disorder have a 7–25-year reduced life expectancy, depending on the type of mental disorder[3]. Two thirds of global deaths attributable to mental disorder are due to associated physical illness and 18% of deaths are due to unnatural causes such as suicide, with the remainder due to other or unknown causes[4].

Table 3 summarises the evidence for interventions that target premature death and preventing the loss of healthy years. Table 4 summarises the evidence for interventions to prevent mental disorder. Table 5 shows the evidence for other priority areas (as outlined above, under Intervention areas with the strongest evidence).

Table 3. Prevention of loss of healthy years and premature death including in people with mental disorder

Intervention area	Intervention target	Public mental health relevance	Evidence rating	Supporting data
Interventions to prevent smoking uptake and support cessation	Interventions to prevent smoking (see also Table 1)	Smoking is the single largest cause of preventable death and one of the largest contributors to loss of healthy years. Some evidence suggests that smoking increases risk of developing mental disorder[113,183,184].	Strong	Systematic reviews show that tobacco control programmes which include legislative smoking bans[185], plain packaging[186] and mass media campaigns[123,187,188] can reduce adult smoking rates.
	Interventions to support smoking cessation and reduction	People who stop smoking may experience improved mental health	Moderate/ strong	Systematic reviews find that various pharmacological and non-pharmacological interventions support smoking cessation[190] and reduction[191] including delivered online[192] and through mobile phones[193].

		and reductions in anxiety and depression symptoms[189].		
	Interventions to support smoking cessation and reduction among people with mental disorder	Smoking is more common among people with mental disorder[194], who account for 42% of adult tobacco use in England[195].	Moderate	• Pharmacotherapy and non-pharmacotherapy interventions support reduction and cessation in those with mental disorder[196–201]. • "No smoking" policies in mental health secondary care settings reduce smoking rates[123].
Interventions to reduce alcohol misuse and harmful drinking	Alcohol minimum prices, taxation, and availability reduction	Mental disorder is associated with increased levels of health risk behaviour including alcohol consumption, which contributes to loss of healthy years and to premature mortality[3].	Strong	• A large literature supports that beverage alcohol prices and taxes are related inversely to drinking[202]. • Public policies that restrict alcohol availability or raise prices of alcohol reduce drinking[203–206] and may lead to major reductions in premature deaths[207]. • Reduced sales hours are also associated with reduced violence[208].
	Brief and digital interventions to reduce harmful alcohol consumption		Moderate	• Meta-analysis shows that primary care-based brief interventions can reduce alcohol consumption in hazardous and harmful drinkers although effectiveness of interventions varied[209]. • Moderate evidence supports that Internet-based interventions can reduce adult problem drinking[209,210].
	Targeted alcohol interventions for people with mental disorder	Alcohol misuse is more common in those with mental disorder and associated with major depression and anxiety disorder[111].	Moderate/ weak	Brief interventions (including digital interventions) may be effective at reducing depressive symptoms and alcohol use among people with comorbid common mental disorder and problem alcohol use, although evidence is mixed[211,212].

Interventions targeting drug misuse	Prevention of cannabis use	Cannabis use is associated with increased risk of depression[213] suicidal ideation[117] and psychosis[118,119,214,215].	Moderate/ strong	Systematic review and meta-analysis found digitally delivered interventions prevented cannabis use with effects maintained at 1-year follow-up[216].
	Drug misuse among people with mental disorder	Drug misuse is more common in those with mental disorder[111,217]. Comorbid substance misuse worsens the prognosis of other mental disorder and increases the risk of premature mortality[218].	Moderate	Reviews highlight the effectiveness of interventions for drug-using offenders with comorbid mental illness [103], and for people with SMI and comorbid substance misuse[105,106].
Promoting physical activity in the general population	Prevention of common mental disorder and its symptoms	Involvement in physical activity or sport improves psychological and social outcomes[219–224] and contributes to healthy aging and wellbeing.	Moderate/ strong	• Systematic review of meta-analyses found that exercise interventions improve depressive symptoms in the general population[222,225]. • Exercise can prevent depression in adulthood[114,226]. • Infrastructure (to support walking, cycling, leisure activity, sport and active travel)[227–229] and place-based approaches (home, work)[3] promote physical activity. • Meta-analysis showed that neighbourhood walkability was associated with increased walking among all age groups[230]. • Well-designed neighbourhoods improved physical activity and perceived safety[231,232].

Promoting physical activity to improve symptoms and outcomes of mental disorder	Symptoms of mental disorder	Mental disorder increases risk of both non-communicable and communicable physical illness[233] and 46% of people with a mental disorder have a long-term physical health condition[234].	Moderate	• Common mental disorder: A meta-analysis among non-clinical populations showed that physical activity may reduce depression and anxiety[235]. • Psychosis: Meta-analyses show that physical activity reduced symptoms among people with psychosis and improved quality of life[236–238].
Obesity prevention among people with mental disorder	Weight management interventions		Moderate	Early targeted approaches for those with mental disorder may help to prevent obesity[239,240]. Weight-loss interventions targeting behaviour change may be effective among people with severe mental illness[241–243]. A meta-analysis showed that metformin reduces antipsychotic-associated weight gain[244].
Monitoring of and intervention for physical health conditions among people with mental disorder	Physical illness and health risk behaviour		Moderate	Provision of regular health checks and appropriate interventions for physical illness and health risk behaviour for people with mental disorder[245–248].
Prevention of COVID-19 infection and associated mortality	Targeted COVID-19 vaccination programmes for people with mental disorder	People with mental disorder are at higher risk of COVID-19 infection[249] and death[250,251]. However only a minority with severe mental illness were prioritised for vaccination[252].	Strong	Since people with mental disorder have higher risk of COVID-19 infection and associated mortality, they should be prioritised for COVID-19 vaccination[252–254].

Table 4. Prevention of mental disorders

Mental disorder prevention target	Intervention target	Public mental health relevance	Evidence rating	Supporting data
Depression	Prevention of depression	Depression affects 3% of adults in England[9] and increases risk of premature mortality[255]. Income inequality is consistently associated with increased risk of depression[134].	Strong	• During childhood and adolescence, nine of ten reviews found interventions significantly reduced depressive symptoms with small effect sizes[256]. • Meta-analyses found that psychological interventions reduced risk of developing depression[257,258]. • Systematic review of prevention programmes for college, graduate and professional students found moderate reductions in symptoms[259]. • Systematic review found employment reduced risk of depression[260] although poor quality employment was associated with similar rates of depression to unemployment[261,262]. • Physical activity prevents depression[224,225,237] (see Table 3). • Primary care-based psychological and educational interventions resulted in small reductions in depressive symptoms[263]. • Meta-analysis showed that antidepressant prophylaxis following acute stroke is likely to reduce risk of depression[264]. • Loneliness is associated with development of depressive symptoms especially later in life[265]. Simple signposting services are effective to reduce social isolation and loneliness in older people[266].
Eating disorder	Eating disorder (ED) prevention	Prevalence of ED has risen since the pandemic[267–269].	Moderate	A meta-analysis highlighted that lifestyle modification and dissonance-based prevention programs significantly reduced future onset of eating disorders in multiple trials[270].
Dementia	Older adults	1/3 of dementia is attributable to low education attainment, cardiometabolic disease, hearing loss, late-life depression, physical inactivity, smoking, and social isolation[219].	Moderate	A Lancet Commission review identified 12 modifiable risk factors which could prevent or delay 40% of dementia[271]. Effective interventions to prevent dementia include treatment of hypertension, reduction of obesity and associated diabetes, physical activity. limiting alcohol use, avoiding smoking, prevention of air pollution and head injury, addressing insomnia and use of hearing aids for hearing loss.

Table 5. Other priority areas

Intervention area	Intervention target	Public mental health relevance	Evidence rating	Supporting data
Workplace-based interventions	Workplace interventions to reduce employee stress and/or mental disorder, and increase wellbeing	Almost one in four adults in England experience at least one mental disorder each year[272] and workplace interventions can have population-level impacts to promote mental wellbeing, prevent mental disorder and support recovery.	Strong	NICE (2022) guidance on mental wellbeing at work recommended[273] the following: • Strategic approaches to improve mental wellbeing in the workplace taking account workplace culture, workload, job quality, autonomy and employee concerns about mental health including stigma. • Supportive work environment. • External sources of support. • Organisation-wide approaches. • Training and support for managers. • Individual-level approaches. • Approaches for employees who have or are at risk of poor mental health. • Organisational-level approaches for high-risk populations. • Engaging with employees and their representatives. Reviews indicate that workplace-based interventions to promote mental wellbeing and prevent mental disorder include: • Workplace resources which can improve employee wellbeing and organisational performance[274,275]. • Increasing employee control[276] via flexible working[276,277]. • Resilience promotion programmes which were more effective for those at higher risk of stress[278]. • Workplace-based physical activity promotion[279]. • Mindfulness and yoga[273]. • Protective labour and social policies which modified association between work stress and mental disorder[280]. • Procedural justice and relational justice in the workplace which were associated with reduced depression[281]. • Interventions to prevent employment-related stress and mental disorder[282]. • Interventions to address work-related stress and promote wellbeing may reduce work-related sickness absence[283,284].
	Online interventions to reduce workplace stress or		Moderate	Meta-analyses show: • Online mindfulness interventions reduced employee stress symptoms[273,285]. • Targeted online stress management interventions led to small reductions in stress, though the strength of associations varied among the interventions[286].

	improve mindfulness			
	Supported employment to promote recovery from mental disorder		Moderate/ strong	Systematic reviews and/or meta-analyses found: • Interventions to enhance return to work for employees off sick with different mental disorder are effective[287]. • Interventions with a specific focus on work, such as exposure therapy and CBT-based and problem-focused return-to-work programmes, had strong evidence for improving symptoms and moderate evidence for improving occupational outcomes[288]. • Work-directed intervention to clinical support, telephone or online cognitive behavioural therapy, and structured telephone outreach and care management programmes[289] reduce sickness leave due to depression. • Supported employment was effective for people with psychosis/ severe mental illness[290–292]. • Skills-based training was effective to reduce psychosis symptoms[293]. • Manager training improved behaviour supporting employees with mental disorder, manager knowledge and non-stigmatising attitudes[294].
Promotion of social interaction		Social capital is associated with improved wellbeing and reduced mental disorder. Interventions to promote social capital also promote mental health and inclusion, thereby having greater benefits for marginalised groups[295,296]. Joining a social group may	Moderate/ limited evidence	<u>Interventions to promote social interaction:</u> • Volunteering: Meta-analyses found improved life satisfaction, wellbeing and depression among adults[298] although a recent systematic review found insufficient evidence for in older people[299]. Volunteering is also associated with reduced premature mortality[298–300]. • Enhancing community engagement[301,302]: Meta-analysis showed community engagement interventions improved health behaviours, health consequences, self-efficacy and perceived social support outcomes, across various conditions[303]. Promotion of social interaction among people with mental disorder: • A meta-analysis reported that social skills training for people with psychosis was effective for reducing negative symptoms[304]. • Meta-analysis shows that befriending may have small effects on patient-reported outcomes[305].

		lower risk of depression relapse[297].		
Insomnia	Interventions to address insomnia	Insomnia is a risk factor for mental disorder[3,114,306–308].	Moderate/ strong	• An overview of reviews concluded that CBT is an effective first-line therapy for adults with insomnia followed by other behavioural interventions[309]. • A meta-analysis found that CBT had long-term effects on insomnia[310]. • Meta-analysis of primary care-based CBT interventions showed reduced insomnia symptoms for up to 3–12 months[311]. • Meta-analysis shows digital CBT improved insomnia symptoms for up to 1 year[312].
Mindfulness	Symptoms of common mental disorder	One in six adults in England experience depression or anxiety disorders at any one time[9].	Moderate	• Meta-analyses showed that mindfulness-based interventions may reduce symptoms of anxiety, depression and stress[313–315]. including among people with chronic physical illness[182,316]. • Meta-analyses showed that mindfulness-based cognitive therapy may prevent relapse of depression[317]. • Meta-analyses showed that online mindfulness interventions were effective in reducing depression, anxiety and stress[286,318].

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