Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Mental disorders account for at least 18% of global disease burden, and the associated annual global costs are projected to be US$6 trillion by 2030. Evidence-based, cost-effective public mental health (PMH) interventions exist to prevent mental disorders from arising, prevent associated impacts of mental disorders (including through treatment), and promote mental wellbeing and resilience. However, only a small proportion of people with mental disorders receive minimally adequate treatment. Compared with treatment, there is even less coverage of interventions to prevent the associated impacts of mental disorders, prevent mental disorders from arising, or promote mental wellbeing and resilience. This implementation failure breaches the right to health, has increased during the COVID-19 pandemic, and results in preventable suffering, broad impacts, and associated economic costs. In this Health Policy paper, we outline specific actions to improve the coverage of PMH interventions, including PMH needs assessments, collaborative advocacy and leadership, PMH practice to inform policy and implementation, training and improvement of population literacy, settings-based and integrated approaches, use of digital technology, maximising existing resources, focus on high-return interventions, human rights approaches, legislation, and implementation research.

Increased interest in PMH in populations and governments since the onset of the COVID-19 pandemic supports these actions. Improved implementation of PMH interventions can result in broad health, social, and economic impacts, even in the short-term, which support the achievement of a range of policy objectives, sustainable economic development, and recovery.

Introduction

Public mental health (PMH) interventions exist to prevent mental disorders from arising, prevent the associated impacts of mental disorders (including through treatment), and promote mental wellbeing and resilience. PMH practice takes a population approach to mental health to improve coverage, outcomes, and coordination of PMH interventions. Such practice supports efficient, equitable, and sustainable reduction of mental disorders and promotion of mental wellbeing of populations. PMH practice is more relevant than ever during the COVID-19 pandemic, which has brought unprecedented challenges but also opportunities for a stronger PMH approach.

Literature for this paper was identified through searches of databases, including PubMed, for highest-level evidence and relevant reports and policy documents published before Dec 30, 2020. More recent relevant papers were also included.

Impact of mental disorders

At least 18% of the proportion of the global burden of disease is due to mental disorders and self-harm, as measured by years lived with disability, although even this proportion is an underestimate by more than a third. The large impact of mental disorders occurs for four reasons: the prevalence of mental disorders is high; most lifetime mental disorders arise before adulthood, with 50% of lifetime mental disorders occurring by age 14 years; and 45% of global disease burden for people aged 10–24 years being due to mental disorders; mental disorders result in a broad range of health, social, and economic consequences relevant to different sectors (including health, education, employment, and criminal justice) and policy objectives; and there is very low population coverage of effective PMH interventions.

The impacts of mental disorders can occur across different stages of the life course. During pregnancy, maternal mental disorders, including substance use (eg, alcohol, tobacco, and cannabis), are associated with an increased risk of child mental disorders. Perinatal depression is associated with low birthweight and preterm birth, which also increase risk of child mental disorders.

During childhood and adolescence, health impacts of mental disorders include increased health risk behaviour (eg, self-harm and use of tobacco, alcohol, and drugs), mortality, and suicide, whereas broader impacts include reduced educational outcomes, increased school exclusion and dropout, reduced social functioning, increased antisocial behaviour, and increased crime and violence. Mental disorders arising during childhood and adolescence subsequently result in impacts across adulthood, including higher risk of adult mental disorders, obesity, premature mortality, unemployment, reduced earnings, criminal conviction, violence, and poorer social relationships.

During adulthood, health impacts of mental disorders include increased health risk behaviour, including use of tobacco, alcohol, and drugs, self-harm, physical inactivity, and poor diet. In particular, smoking is the largest single cause of preventable death and is responsible for 11.5% of deaths globally, which disproportionately occurs in people with mental disorders (eg, 42% of adult tobacco consumption in England was by people with mental disorders). Mental disorders are associated with increased risk of physical illness (communicable and non-communicable). Globally, 14–3% of all deaths...
Mental wellbeing and resilience

Mental wellbeing has health and wider benefits relevant to different sector policy objectives. As such, mental wellbeing is a global public good that should be accessible to all. Different conceptualisations of wellbeing include affective wellbeing, which refers to present state satisfaction, pleasure, and mood, and evaluative wellbeing, which refers to global, longer-term aspects, including meaning and development. However, definitions of mental wellbeing vary by culture. Resilience involves the capacity to manage and adapt to different types of adversity, including stress, trauma, abuse, and poverty, and is important in maintenance of mental wellbeing and prevention of and recovery from mental disorders.

Mental health can be viewed on a continuum between mental disorders and wellbeing, and individuals can be at different points on this continuum at different times. The dual continuum model describes mental disorders and mental wellbeing on two related yet distinct continua, as having a mental disorder does not preclude mental wellbeing and vice versa. Similarly, good mental wellbeing is associated with reduced risk of mental disorders, whereas mental disorders are associated with increased risk of poor mental wellbeing.

Risk and protective factors

Various genetic, biological, and social factors are associated with mental disorders and wellbeing. The prevalences of mental disorders and wellbeing are determined by the prevalence and impact of each factor and the interaction between different factors. Such factors are important to identify and address to prevent mental disorders and promote mental wellbeing. Addressing social determinants is also aligned with other development targets, including the Sustainable Development Goals (SDGs).

Particular factors increase risk of mental disorders and are also important in perpetuation of mental disorders. Risk factors during pregnancy, childhood, and adolescence are particularly important to address given that the majority of lifetime mental disorders arise before adulthood. Child adversity, including maltreatment, abuse, and bullying, accounts for 30% of adult mental disorders. Furthermore, child adversity is common and more than half of all children aged 2–17 years (1 billion children globally) experienced emotional, physical, or sexual violence in the previous year. Mental disorders during childhood and adolescence are also associated with increased risk of mental disorders during adulthood.

Other factors have overarching impacts on several risk factors for mental disorders and poor mental wellbeing. For instance, socioeconomic inequalities underlie many other risk factors, and include low household income, income inequality, poverty, food insecurity, debt, financial difficulties, job insecurity, unemployment, economic inactivity, and economic recession. Resulting mental disorders amplify socioeconomic inequalities, which implicates mental disorders in the intergenerational transmission of poverty. Similarly, stigma and exclusion in all walks of life experienced by people with mental disorders amplify the impact of several risk factors that prevent recovery. Other overarching factors include conflict and humanitarian emergencies, whereas particular environmental factors affecting several risk factors include pandemics (eg, COVID-19), disasters, and climate change.

Particular groups are at higher risk of mental disorders and poor mental wellbeing than the general population due to clustering of risk factors. Examples of children and adolescents in higher-risk groups include those with special educational needs, those who are homeless, those who are looked after by the state, and those who are young offenders. Examples of adults in higher-risk groups include people in some minority ethnic groups, carers, people who are homeless, those who have learning disabilities, those who identify as lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ), new mothers, those who are offenders, older people in care homes, people caught in humanitarian emergencies, refugees, those with sensory impairment, those who are unemployed, and young women. Higher-risk groups in low-income and middle-income countries (LMICs) need to be considered in the context of increased levels of inequality and poverty, scarcity of social protection mechanisms, and exploitative labour practices.

PMH interventions

PMH interventions can be classified at primary, secondary, and tertiary levels (panel I), with interventions at each level requiring targeted approaches to...
higher-risk groups to prevent widening of inequalities.\textsuperscript{4} Other ways of classifying prevention include universal prevention to the whole population, selective prevention targeted to higher-risk groups, and indicated prevention targeted to individuals identified with early symptoms of mental disorders.

Mental wellbeing promotion focuses on wellbeing rather than disorder and acknowledges that mental health is more than just the absence of mental disorder. However, promotion and prevention are inter-related and mental disorders can be prevented through mental wellbeing promotion (see the section on mental wellbeing promotion).\textsuperscript{4}

PMH interventions are delivered by different organisations from various sectors, including primary care, secondary mental health care, public health, social care, education, employers, housing, criminal justice, the voluntary sector, non-government organisations, humanitarian agencies, and the private sector.

**Mental disorder prevention**

Prevention can be considered at primary, secondary, and tertiary levels (panel 1). Childhood is a key prevention opportunity for primary and secondary prevention, since the majority of lifetime mental disorders arise before adulthood\textsuperscript{3,6} and childhood mental disorders are also risk factors for adult mental disorders.\textsuperscript{3,5,30} However, the evidence base is less robust for interventions in LMICs.\textsuperscript{30}

Primary prevention includes interventions that address various risk factors and causes to prevent mental disorders from arising (panel 2).\textsuperscript{4} The importance of primary prevention is highlighted by research that shows that provision of best available treatment only averts 28% of disease burden, even if delivered to all who would benefit.\textsuperscript{7} A population approach takes account of the size of impact that different factors have on the population, the proportion of the population affected by such factors, and the coverage and outcomes of effective interventions to address factors that can be assessed in a structured way.\textsuperscript{7,31,33}

Secondary prevention involves early identification and treatment of mental disorders and their associated impacts to minimise their effects. Effective treatment
exists for mental disorders, including in LMICs. Knowledge about the age of onset of mental disorders enables the planning of appropriate interventions at the earliest opportunity in the life course.

Since the majority of lifetime mental disorders arise before adulthood, the greatest opportunity for early treatment occurs during childhood and adolescence through evidence-based non-pharmacological interventions. In particular, parenting interventions are effective for a large proportion of child mental disorders and can be delivered online. Substantial evidence highlights improved outcomes from early intervention for psychosis. Early intervention is also important in particular groups, such as those affected by disasters and humanitarian emergencies. Most mental disorders begin as subthreshold disorders, so early intervention at this stage can prevent the development of mental disorders.

Tertiary prevention of mental disorder involves intervention for people with established mental disorder to prevent relapse and associated impacts of mental disorder, which should start as early as possible to minimise disability (panel 3).

Panel 3: Tertiary prevention of mental disorder*

- Evidence-based treatments for mental disorders
- Addressing associated health risk behaviours, including tobacco, alcohol, and drug use, poor nutrition and diet, physical inactivity, poor dental health, and sexual risk behaviours
- Physical health conditions: prevention (including through vaccination for flu and COVID-19), monitoring, and optimising treatment
- Interventions to address the socioeconomic impacts of mental disorders, such as poverty, debt, unemployment, and homelessness
- Prevention of stigma and discrimination
- Suicide prevention: people with mental disorders have substantially increased risk of suicide and therefore require targeted approaches, including through optimising treatment and coverage, reducing access to lethal means, and responsible media reporting
- Prevention of violence and abuse (both victimisation and perpetration)

*Information from Campion unless indicated.

Mental wellbeing promotion

Interventions to promote mental wellbeing address the determinants of mental wellbeing rather than the risk factors for mental disorders. Mental wellbeing promotion can be considered at primary, secondary, and tertiary levels (panel 1), but can also be considered across different stages of the life course (as outlined in panel 4). Promotion also involves increasing the value that individuals and societies attribute to mental health and wellbeing. Interventions to promote mental wellbeing overlap with interventions to treat mental disorders since treatment also addresses a major determinant of poor wellbeing.

Panel 4: Mental wellbeing promotion interventions across the lifecourse*

Starting well
- Parenting programmes
- Promotion of infant attachment
- Addressing parental tobacco, alcohol, and drug use

Developing well
- Preschool interventions, including social and emotional learning interventions; enhancement programmes, and parents reading to their children
- School-based interventions, including social and emotional learning programmes, self-regulation promotion, play therapy, academic interventions, physical activity promotion, mindfulness, mentoring, and family linked programmes
- Interventions to promote interpersonal skills, emotional regulation, and alcohol and drug education

Living well
- Social interaction promotion, including volunteering, community engagement, leisure, sport, kindness to others, gratitude, and peer support for parents
- Physical activity promotion
- Diet
- Financial capability
- Neighbourhood interventions, including design, functionality, walkability, safety, and facilities
- Housing interventions
- Access to green space
- Arts, creativity, and music
- Positive psychology interventions
- Mindfulness, meditation, yoga, qigong, compassion, forgiveness, and religious and spiritual interventions

Working well
- Increased employee control, including flexible working
- Training
- Shared activities between employees
- Online interventions
- Mindfulness interventions
- Workplace resources

Ageing well (see also living well interventions)
- Psychosocial interventions
- Volunteering
- Physical activity
- Life review, reminiscence, and reablement
- Cognitive activities
- Addressing hearing loss

*Information from Campion unless indicated.
Secondary promotion of mental wellbeing involves early intervention for those with a recent reduction in wellbeing through interventions outlined in panel 4. Tertiary promotion of mental wellbeing involves targeted approaches to those with poor mental wellbeing that is longstanding. Since people with mental disorders are several times more likely to experience poor mental wellbeing than those without mental disorders, mental wellbeing promotion is an important intervention to promote recovery from mental disorders and can occur through psychosocial interventions, social skills training, physical activity promotion, supported employment and skills-based training, supported housing, positive psychology interventions, and mindfulness.8

Panel 5: Causes of public mental health intervention implementation failure*

**Insufficient public mental health knowledge**

- Insufficient knowledge among professionals and trainees in health, public health, and policy, including how genetic risk is mediated by social and environmental influences; this is reflected by insufficient use of evidence in population health policies and programmes91 or by decision makers85
- Insufficient knowledge about mental health programme coverage91,92 with mental health-specific data regularly (eg, every 2 years) compiled in at least the public sector by only 31% of WHO member states81
- Insufficient knowledge about size, impacts, and cost of public mental health (PMH) intervention unmet need at either local or national levels;91,92 only 39% of countries reported that human resources had been allocated for implementation according to an assessment of need81
- Insufficient knowledge about the national impacts of improved PMH intervention coverage (including on existing policy objectives) and the associated economic benefits88

**Insufficient mental health policy or policy implementation**

- 75% of WHO member states globally had a stand-alone mental health policy or plan for mental health in 2020,83 however, only 31% WHO member states in 2020 had a national mental health policy that was being implemented, 21% had a policy that was being implemented and was in line with international human rights instruments, and 23% had indicators or targets to monitor most or all of policy implementation
- Insufficient transparency about policy decisions regarding levels of acceptable coverage of different PMH interventions and required resources

**Insufficient resources**

- Only 2% of global government health expenditure was allocated to mental health in 2020, with far less allocated in lower-income countries, which spend 70% of mental health funding on psychiatric hospitals81
- More than 80% of countries allocated less than 20% of mental health expenditure to primary care, mental disorder prevention, or promotion in 202085
- Global proportion of mental health staff in 2020 was 31 per 100 000 population, and was less than 2 per 100 000 population in low-income countries81
- Proportion of developmental assistance allocation was 0.3% for mental health81 and 0.1% for child and adolescent mental health between 2008 and 201590

**Insufficient political will**

- Insufficient political will from people who allocate resources86 due to limited knowledge about the importance of mental health, other competing policy interests, and stigma and discrimination towards mental health

**Political nature of some PMH activities**

- PMH involves highlighting implementation failure, which governments might find challenging
- The opportunity to address risk factors, such as socioeconomic inequalities and poverty or the needs of particular higher-risk groups, might be limited by the political views of governments
- It is important that PMH practitioners take a clear stance in favour of social justice and more equitable social and economic systems to protect and promote the mental health of populations

**Insufficient appreciation of cultural differences**

- Cultural differences influence understanding of mental health, associated causes, the value of different types of PMH interventions, including more upstream approaches, help-seeking, and intervention uptake
- Understanding of local cultural practices and explanatory models are vital for effective PMH approaches in diverse cultural contexts

**Causes of mental disorder treatment gap**

- Shortage of staff and required clinical skills
- Only 15% of countries met all criteria for integrating mental health into primary care in 202091
- Insufficient perceived need91,92 and population mental health literacy82
- Stigma and discrimination, which reduce help-seeking86
- Poor quality treatment83,85
- Poor adherence with and negative attitude towards treatment83,85
- Insufficient evidence about effective scale implementation of treatment86,88
- Insufficient involvement of service users and families in treatment83,85,108 and setting policy at local and government level85

*Information from Campion8 unless indicated.
Resilience promotion
Resilience promotion can also promote mental wellbeing, recovery from mental disorders, and prevent mental disorders from arising. Effective interventions include school and work-based programmes.

Economics of PMH interventions
The broad impacts of mental disorders and poor mental wellbeing have associated annual global economic costs that are projected to increase from US$2493 billion in 2010 to US$6046 billion by 2030. Many effective PMH interventions have a cost–benefit evaluation estimating the associated economic benefits, which often occur within short time frames across health and other sectors and can be estimated at local and national levels. Other effective PMH interventions have no cost–benefit evaluation, although they are also likely to result in economic benefits.

PMH relevant policy
PMH has become increasingly prominent in international health policy. For instance, WHO’s Mental Health Action Plan emphasises prevention of mental disorders, promotion of mental wellbeing, and treatment of mental disorders. The UN SDGs also include treatment and prevention of mental disorders and wellbeing promotion in the universal health coverage target by 2030. The World Psychiatric Association made PMH a central part of its 2020–23 action plan to support the implementation of PMH interventions, including through PMH needs assessments.

PMH implementation gap
Despite the existence of evidence-based PMH interventions, only a minority of people with mental disorders receive treatment. This treatment is usually of poor quality with coverage that is far lower in LMICs than in high-income countries (HICs). Globally, 10% of people with anxiety disorders received possibly adequate treatment, varying from 2% in LMICs to 14% in HICs; 17% with major depressive disorder received minimally adequate treatment, varying from 4% in LMICs to 22% in HICs; 29% with psychosis received treatment from mental health services, varying from 12% in low-income countries to 70% in HICs; and 7% with substance use disorders received minimally adequate treatment, varying from 1% in low-income countries to 10% in HICs. Coverage of interventions to prevent mental disorders and associated impacts, or to promote mental wellbeing and resilience, is far less than coverage of treatment, even in HICs. The COVID-19 pandemic has widened this implementation failure, due to the associated impacts on population mental health, the reduced capacity of PMH services, and the little extra funding allocated for mental health (with only 17% of countries committing additional mental health funding during COVID-19). The impact of the COVID-19 pandemic was compounded by only 28% of WHO member states having a system in place for mental health and psychological preparedness during emergencies or disasters.

This failure of PMH implementation results in population-scale preventable suffering of individuals and their families, a broad range of impacts (outlined previously), and large economic costs. The failure also represents a breach of values and the right to health. Several reasons contribute to the PMH intervention implementation failure, which are important to identify to improve coverage (panel 5).

Required actions to address the PMH implementation gap
The population impact of any intervention depends on both its outcome and population coverage. Effective PMH interventions at the population level require implementation according to population need. Furthermore, an appropriate balance of different levels of mental disorder prevention and mental wellbeing promotion is required since treatment alone is insufficient to sustainably reduce the disease burden due to mental disorders. The six actions described in this section can help address the implementation gap: (1) making the PMH case (assessment of PMH unmet need, estimation of impact and associated economic benefits from improved coverage, and collaborative PMH advocacy and leadership); (2) PMH practice; (3) PMH training and knowledge; (4) particular opportunities to improve coverage of PMH interventions (settings-based approaches, integrated approaches, digital technology, maximising existing resources, and focus on high-return interventions); (5) a rights approach, legislation, and regulation; and (6) PMH research.

Plans and priorities for action need to take account of the country and local context, including socioeconomic, environmental, and cultural factors and the views of different stakeholders.

Six actions to address the implementation gap
Making the PMH case
Ways of making the PMH case include assessment of PMH unmet need, estimation of impact and associated economic benefits from improved coverage, and collaborative advocacy and leadership.

The size of PMH unmet need varies by country and locality. Therefore, it is important to first assess the size, impact, and cost of the current and future gaps in the implementation of PMH interventions, considering issues such as COVID-19 and other humanitarian emergencies. Since PMH intervention implementation gaps at the local level are related to the gaps at the national level, assessment of the gaps in PMH intervention implementation should first occur at the national level to inform policy and resourcing decisions, which then influence coverage at the local level.
Such assessments include appropriate information about prevalence of mental disorders and wellbeing; impacts of mental disorders and poor mental wellbeing; proportion affected by different risk and protective factors and proportion affected from higher-risk groups; coverage and outcomes of evidence-based PMH interventions (panels 1–4) provided by various sectors including for higher-risk groups; the size, impact, and cost of gaps in the provision of PMH interventions across various sectors; and expenditure on different types of PMH interventions by various sectors outlined at the end of the section titled PMH interventions.8,19

To support clarity for providers of different types of PMH interventions, it can be helpful to divide PMH needs assessments into sections covering secondary and tertiary mental disorder prevention, primary mental disorder prevention, and promotion of mental wellbeing and resilience.

Assessments of PMH unmet need require best available data. However, mental health-specific data are regularly (ie, every 2 years) compiled by only 31% of WHO member states,41 whereas information about mental health programme coverage is usually absent.7,46 Therefore, PMH-relevant, high quality data need to be routinely collected and integrated into existing health, public health, social, and other sector information systems.47 More robust and standardised measures and data are also required for coverage and outcomes of PMH interventions, including for higher-risk groups, particularly in LMICs. In countries where such PMH data are absent, regional surveys or estimates can be used.

A second way of making the PMH case is by estimation of impact and associated economic benefits from improved coverage. The overall impact of different PMH interventions and the associated economic benefit depend on their effectiveness, economic evaluation, and level of population coverage. The impact of PMH interventions can also be estimated across a range of existing and potential future policy objectives in different sectors. Impact and associated economic benefits of PMH interventions across various sectors can be estimated for different levels of coverage.8,132 An example highlighting the size of economic impact from improved implementation nationally is the comprehensive coverage of nine PMH interventions across England, outlined as part of a previous mental health strategy, which was estimated to result in net economic savings of £43·8 billion over different time frames.85 Another example is the scaling up of effective treatments for anxiety and depression across 36 countries between 2016 and 2030, which was estimated to result in net savings of US$310 billion from health benefits and net savings of $399 billion from improved productivity.86

In Australia, the introduction of reforms in prevention and early help, improved experiences of mental health services, improved services beyond health (eg, housing and justice), promotion of mentally healthy workplaces, and accountability and service provider incentives to reform were estimated to result in net benefits of AUS$16·8 billion.31

Collaborative PMH advocacy and leadership is a third way of making the PMH case. This advocacy is supported by clear mechanisms and resources to facilitate collaborative and coordinated approaches between stakeholders from different sectors (outlined in the PMH interventions section) as well as policy makers, civil society, non-government organisations, and organisations of people living with mental disorders and their carers.47 These collaborative and coordinated approaches are supported by promoting the value of mental health as a public health benefit that should be accessible to all.7 PMH needs assessments that outline the work of different sectors, estimation of the impacts and associated economic benefits from improved coverage, and a rights approach. Coordinated approaches need to be directed to people who allocate resources (eg, politicians and policy makers) to ensure the required financial commitment from governments. For this reason, it is also important that PMH practitioners take a clear stance in favour of social justice and more equitable social and economic systems to protect and promote the mental health of populations.

Such a collaborative approach is supported by leadership from different sectors. For instance, the World Psychiatric Association has made PMH a central part of its 2020–2023 Action Plan,48 supporting a PMH approach with its membership of 250000 psychiatrists across 121 countries, and the Royal College of Psychiatrists in the UK is about to launch a Public Mental Health Implementation Centre. Collaboration is supported by funded national and local PMH lead roles for primary care, secondary mental health care, public health, social care, education, child and youth services, employment, housing, criminal justice, voluntary sector, development agencies, policy, and finance ministries.

**PMH practice**

PMH practice occurs in the following steps:57,116 PMH needs assessment; identification of ways to improve implementation of different types of PMH intervention (panels 1–4) by various sectors, including for higher-risk groups; estimation of impact (including on policy objectives) and associated economic benefits resulting from improved coverage of different PMH interventions; use of this information to inform four key related areas (outlined in the next paragraph); operationalisation of national and local PMH intervention implementation through coordinated planning by different sectors to achieve agreed coverage; and monitoring of implementation through regular evaluation of coverage, outcomes, and budget expenditure on PMH interventions by different sectors (including for higher-risk groups), which can be achieved through regular PMH needs assessments.
Information from the PMH needs assessment, identification of ways to improve implementation, and estimation of impacts and associated economic benefits from improved PMH intervention coverage can inform four key areas. The first is national and local PMH strategy and policy development by different sectors to mainstream mental health and support integrated approaches. The second key related area is transparent agreement about national minimum acceptable levels of coverage for PMH interventions between stakeholders (outlined in the PMH interventions section), including providers from different sectors, policy makers, community members, people with experience of mental disorders, and carers. This agreement should take account of parity between mental and physical health, the universal right to mental health and the associated SDG of universal coverage of PMH interventions by 2030,77 the widening of the PMH implementation gap during the COVID-19 pandemic,42,43,83,84 and the impacts of PMH interventions and associated economic benefits. Such agreement also needs to be considered against how continued implementation failure breaches the right to health, causes population suffering, and results in broad impacts across different sectors and associated economic costs. The third key related area is the required resources for the implementation of agreed PMH intervention coverage; global mental health targets for 2030 can only be reached through a collective global commitment during the next 10 years to make a massive investment at the country level.83 Governments have the lead responsibility for their population’s mental health, although they can also engage with organisations such as the World Bank, regional banks, UN, academic institutions, the private sector (including technology companies), and other agencies regarding the required level of resources.27 This funding can be supported by the integration of mental health into reimbursement and health insurance schemes, including financial protection for people in low socioeconomic and vulnerable groups.27,83 Considering the amount of economic return outlined previously, appropriate investment in PMH interventions is an important part of sustainable economic development. PMH planners and policy makers are required in key intersectoral roles in government to mobilise the required resource for different sectors. The fourth key related area is the coordination between providers of different PMH interventions outlined earlier and supported by PMH needs assessments.

**PMH training and literacy**

Given that mental disorders and the implementation failure of effective PMH interventions contribute to a large proportion of global disease burden, appropriate PMH training is required for leaders, professionals, and trainees in mental health secondary care, primary care, public health, social care, commissioning, and policy. Such training should be included in undergraduate and postgraduate curricula and can be delivered online and in different settings. This training would include education on the impacts of mental disorders and wellbeing, including on social and economic development and on other priority areas (eg, non-communicable disease, women and child health, and HIV); the prevalence of mental disorders and wellbeing; risk factors, protective factors, and higher-risk groups; effective PMH interventions, including cost-effectiveness and returns on investment to different sectors; PMH needs assessment; PMH practice; and communication and leadership skills.

As a large proportion of the population have mental disorders,83 appropriate PMH knowledge and literacy is important among the general population and in higher-risk groups to support timely treatment, prevent mental disorders, and promote wellbeing and resilience. Insufficient mental health literacy amplifies impacts and social exclusion among people who have mental disorders, their families, and their carers, who require appropriate information about mental disorders, treatment, prevention of associated impacts, and promotion of mental wellbeing and resilience. Such information should also be part of training for health,60 social care, and other professionals, such as school staff and employers.

Information to improve early help-seeking is also important. Interventions to increase help-seeking include mental health literacy promotion, destigmatisation, and motivational enhancement; however, evidence suggests that these are only effective for people with or at risk of mental disorders, but not for children or adolescents with mental disorders or the general public.106 Although digitally delivered interventions improved mental health literacy about mental disorders and reduced stigma, they did not improve help-seeking.106 Stigma and discrimination reduce help-seeking106 and are important to address.107 Addressing stigma associated with COVID-19 can also reduce associated distress.109

**Particular opportunities to improve coverage of PMH interventions**

Five opportunities to improve coverage of PMH interventions are settings-based approaches, integrated approaches, use of digital technology, maximising existing resources, and a focus on high-return interventions.

Settings-based approaches offer ways to deliver one or more PMH interventions to some sections of the population in particular places. Examples of settings include antenatal and postnatal clinics, preschools and schools, workplaces, neighbourhoods, primary care, refugee camps, prisons, and care homes. A coordinated approach between different sectors can support the implementation of more than one intervention in a particular setting.

Integrated approaches are a second way to support improved coverage. The broad impacts of mental disorders and poor mental wellbeing extend across all sectors,
government departmental areas, and priority health programmes, including for other non-communicable diseases, women and child health, and HIV. Furthermore, PMH interventions that result in broad impacts are delivered by multiple sectors, including health, public health, social care, education, child and youth services, employers, housing, criminal justice, voluntary sector, private sector, and humanitarian assistance. Therefore, more integrated and collaborative approaches, between and within sectors, represent practical ways to improve coverage and coordination of PMH interventions. For example, targeted interventions within one sector, such as early childhood development in preschools, could result in multiple potential benefits, whereas coordination of multiple interventions between different sectors is likely to be required to address gender-based violence or improve youth employment within a community. Integration is supported by PMH needs assessments, careful consideration of the evidence for different PMH interventions, and efforts to highlight the value of improved coordination of different levels of mental disorder prevention and mental wellbeing promotion.

Treatment of mental disorders and physical health comorbidities is supported by collaborative, stepped care that is coordinated by primary care and supported by secondary care, which is more effective than usual care.10,11 Such integration is facilitated by assessment of goals and resources, identifying shared and achievable objectives, assigning responsibilities (including to non-specialist health workers [task-sharing]), monitoring, and appropriate training and skills.12–14 Recovery from mental disorders is facilitated by routine integrated approaches with other sectors, such as education and employment. Within the health sector, integration, or at least clearly defined connections, and transition procedures are required between mental health services for children, adolescents, adults, and older adults. Similarly, prevention of mental disorders and the subsequent impacts of mental disorders, including health risk behaviour and physical illness, is facilitated by integration with sectors addressing different risk factors and impacts but requires appropriate training of the workforce. Integration with school-based services represents a particularly important opportunity to prevent mental disorders, facilitate early intervention, and promote mental wellbeing and resilience.

Digital technology is a third way to support improved coverage given many PMH interventions can be effectively delivered by internet and phone,15 including in LMICs.16,17 Digitally delivered PMH interventions can improve mental health literacy, facilitate detection, improve diagnosis and monitoring of mental disorders, improve adherence,18 treat mental disorders, reduce stigma and suicidal ideation, prevent mental disorders, and promote mental wellbeing.19 Digital interventions are effective for particular settings, such as schools10 and the workplace,18,10 and for particular groups, such as carers and parents through parenting interventions.8,12 Parenting interventions treat and prevent child mental disorders and improve child behaviour, parenting practice, and parental mental health.8 Parenting interventions,12 which are also effective in LMICs,13 can be delivered online14,15 and as brief16 and self-directed interventions.17 Treatment of parental mental disorders can prevent 40% of offspring mental disorders.10 Increased physical activity improves mental health during childhood, adulthood, and older age.4

Large population impacts also occur through action to address overarching factors, such as socioeconomic inequalities and poverty (panel 2), which underlie many other risk factors for mental disorders, particularly during economic recessions,16–18 and which are also preventable consequences of mental disorders. Similarly, action to address pandemics such as COVID-19 is important to prevent a range of impacts on different risk factors for mental disorders.

A rights approach, legislation, and regulation
The right to health includes the universal right to mental health,19 and adopting a human rights approach to mental health is an important way to advocate for improved access to PMH interventions, which is supported by the UN.19,10 Furthermore, the SDG of universal health coverage by 2030 includes PMH interventions.7 Mental health strategies, actions, legislation, and population coverage of PMH intervention provision should be compliant with international and regional human rights standards, including the UN Convention on the Rights of Children and the Convention on the Rights of Persons with Disabilities,20 although specific actions are required to ensure their implementation.19

Legislation is an important oversight mechanism to ensure access to PMH interventions. Regulation and legislation can support improved coverage of PMH
interventions, such as through reducing access to alcohol and means of suicide, reducing child adversity, and promoting safe environments at work. Legislation also promotes the rights of people with mental disorders, establishes oversight mechanisms for monitoring alignment with international human rights standards, and limits coercive practices and treatments.83

**PMH research**

More PMH research is required, particularly in LMICs since the majority of PMH research is done in HICs.48 A focus on research to improve the use of evidence in mental health policy132 and coverage of PMH interventions is particularly important.

Panel 6: Maximising existing resources*

| Public mental health needs assessment                        |
|-------------------------------------------------------------|
| • Public mental health (PMH) needs assessment outlines existing assets and resources across sectors, which can then be maximised |

**Stepped care approach**

- Self-delivered interventions, including self-help (for common mental disorders, psychosis, smoking, and insomnia), use of digital interventions, and support from family, carers, and friends
- Liaison between less experienced and more experienced health professionals

**Integrated approaches**

- Integration of mental health into: primary care, which is supported by task-sharing;27 work of health-care and other relevant sectors to address issues such as poverty, education, employment, and housing, which are impacts of and risk factors for mental disorders; and existing delivery structures

**Treatment quality**

- Supporting improved quality of and concordance with treatment

**Task-sharing**

- Task-sharing involves transfer of some mental health-care responsibilities from more to less specialised staff, which requires appropriate training, supervision, and engagement with more specialised staff27
- Stepped care, integrated approaches, and improved treatment quality are supported by task-sharing

**Recovery approach**

- Adopting a recovery approach to support people with mental disorders to achieve their own aspirations and goals,122 which promotes drawing on community and personal resources

**Service user involvement**

- Involvement of mental health service users in mental health advocacy, policy, planning, legislation, service provision, and evaluation,123 which is supported by the creation and strengthening of organisations of people with mental disorders
- Codesign of health services that engage patients and health-care staff in partnership to develop and improve health services or care pathways124

**Resource shift to community services**

- Moving expenditure from large hospitals to local hospitals and community services, including those run by non-governmental organisations, faith-based organisations, and other community groups123

**Complementary and alternative approaches**

- Some approaches with review-level evidence, such as mindfulness, yoga, compassion, and forgiveness, are rarely included in health services of industrialised countries; however, these and other approaches, including naturopathy, homeopathy, Ayurvedic and traditional Chinese medicine, and religious or faith healing and support, are accessed in many countries
- Traditional healers form a major part of the global mental health workforce, are commonly consulted by people with mental disorders, and can provide an effective psychosocial intervention for people with mild symptoms of mental disorders; however, they do not appear to change the course of more severe mental illness125 and can risk the delay of effective treatment
- Traditional healers and allopathic practitioners recognise that patients can benefit from a combination of both practices and demonstrate a willingness to work together,126 an integrated approach would facilitate training of traditional healers to support referral to mainstream care if required

*Information from Campion8 unless indicated.

**Conclusion**

Evidence-based, cost-effective PMH interventions exist to prevent mental disorders from arising, prevent the impacts of mental disorders (including through treatment), and promote mental wellbeing and resilience. These interventions have broad health, social, and economic impacts that also support the achievement of a range of policy objectives. Implementation failure of PMH interventions represents a breach of the right to health and results in population-scale human suffering with a range of associated impacts and economic costs. The COVID-19 pandemic has widened the implementation gap but has also increased mental health awareness and highlighted the need for a PMH approach. In this Health Policy paper,
we recommend a set of actions to improve coverage of PMH interventions that result in broad health, social, and economic benefits. Such actions are even more important during the COVID-19 crisis, which represents a key opportunity to build on the increased interest of people and governments in the mental health of the population. The economic benefits of PMH interventions also make PMH practice a key part of sustainable economic development.

Contributors
JC drafted and edited the article; AJ, NS, MM, and PU contributed to the drafting and editing of the article; CL contributed to critical review, drafting, and editing of the manuscript; SS contributed to the conceptualisation of the paper and edited two drafts; and JA reviewed the manuscript and made additional contributions.

Declaration of interests
AJ, MM, PU, CL, SS, JC, and JA are members of the Public Mental Health Working Group for the World Psychiatric Association’s 2020–2023 Action Plan. JC has contributed to national policy in England, has done mental health needs assessments for local authorities in England (for which his employer received payment); is strategic and clinical director of the Royal College of Psychiatrist’s Public Mental Health Implementation Centre; and is a public mental health advisor to WHO Europe. CL has received research funding from the UK Department for International Development, UK National Institute for Health Research, US National Institute of Mental Health, UK Economic and Social Research Council, European Commission, the Wellcome Trust, and Prudential Africa. NS has received honoraria for lectures from the Lundbeck company and from several universities. JA has contributed to national and state policy and service development in his role as a senior public servant.

References
1 Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) results. http://ghdx.healthdata.org/ gbd-results-tool (accessed Nov 29, 2021).
2 Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. Lancet Psychiatry 2016; 3: 171–8.
3 Kessler RC, Aguilar-Gaxiola S, Alonso J, et al. The global burden of mental disorders: an update from the WHO World Mental Health (WMH) surveys. Epidemiol Psichiatri Soc 2009; 18: 23–33.
4 Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA. Annual research review: a meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. J Child Psychol Psychiatry 2015; 56: 345–65.
5 Steel Z, Marnane C, Irampur C, et al. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. Int J Epidemiol 2014; 43: 476–93.
6 Jones PB. Adult mental health disorders and their age at onset. Br J Psychiatry Suppl 2013: 54: S5–10.
7 Gore FM, Bloem PJ, Patton GC, et al. Global burden of disease in young people aged 10–24 years: a systematic analysis. Lancet 2011; 377: 1093–102.
8 Campion J. Public mental health: evidence, practice and commissioning. Royal Society for Public Health. May, 2019. https://www.rspf.org.uk/our-work/polcy/wellbeing/public-mental-health-evidence-practice-and-commissioning.html (accessed Oct 23, 2021).
9 Fekadu D, Miller AE, Mwanri L. Antenatal depression and its association with adverse birth outcomes in low and middle-income countries: a systematic review and meta-analysis. PLoS One 2020; 15: e0227122.
10 Nosarti C, Reichenberg A, Murray RM, et al. Preterm birth and psychotic disorders in young adult life. Arch Gen Psychiatry 2012; 69: E1–8.
11 Sellers R, Warne N, Pickles A, Maughan B, Thapar A, Collishaw S. Cross-cohort change in adolescent outcomes for children with mental health problems. J Child Psychol Psychiatry 2019; 60: 813–21.
12 Erskine HE, Norman RE, Ferrari AJ, et al. Long-term outcomes of attention-deficit/hyperactivity disorder and conduct disorder: a systematic review and meta-analysis. J Am Acad Child Adolesc Psychiatry 2016; 55: 841–50.
13 Nivard MG, Gage SH, Hottenga JJ, et al. Genetic overlap between schizophrenia and developmental psychopathology: longitudinal and multivariate polygenic risk prediction of common psychiatric traits during development. Schizophr Bull 2017; 43: 1197–207.
14 Bevilacqua L, Hale D, Barker ED, Viner R. Conduct problems trajectories and psychosocial outcomes: a systematic review and meta-analysis. Eur Child Adolesc Psychiatry 2018; 27: 1219–60.
15 GBD 2015 Tobacco Collaborators. Smoking prevalence and attributable disease burden in 195 countries and territories, 1990–2015: a systematic analysis from the Global Burden of Disease Study 2015. Lancet 2017; 389: 1885–906.
16 McManus S, Meltzer H, Campion J. Cigarette smoking and mental health in England. Data from the Adult Psychiatric Morbidity Survey. London: National Centre for Social Research, 2010.
17 Hughes E, Bassi S, Gilbody S, Bland M, Martin F. Prevalence of HIV, hepatitis B, and hepatitis C in people with severe mental illness: a systematic review and meta-analysis. Lancet Psychiatry 2016; 3: 40–48.
18 Kivimaki M, Batty GD, Pensini J, et al. Association between socioeconomic status and the development of mental and physical health conditions in adulthood: a multi-cohort study. Lancet Public Health 2020; 5: e40–49.
19 Walker ER, McGee RE, Druss BG. Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. JAMA Psychiatry 2015; 72: 334–41.
20 Wang Q, Xu R, Volkow ND. Increased risk of COVID-19 infection and mortality in people with mental disorders: analysis from electronic health records in the United States. World Psychiatry 2021; 20: 124–30.
21 Yang H, Chen W, Hu Y, et al. Pre-pandemic psychiatric disorders and risk of COVID-19: a UK Biobank cohort analysis. Lancet Psychiatry Longe 2020; 1: e69–79.
22 Holmstrand C, Bogren M, Mattisson C, Brådvik L. Long-term suicide risk in no, one or more mental disorders: the Lundby Study 1947–1997. Acta Psychiatr Scand 2015; 132: 459–69.
23 Too LS, Spittal MJ, Bugeja J, Relefis L, Butterworth P, Pirjis J. The association between mental disorders and suicide: a systematic review and meta-analysis of record linkage studies. J Affect Disord 2019; 259: 302–13.
24 Nordenstam M, Wahlbeck K, Hallgren J, et al. Excess mortality, causes of death and life expectancy in 270,770 patients with recent onset of mental disorders in Denmark, Finland, and Sweden. PLoS One 2013; 8: e551.
25 Ferrari AJ, Norman RE, Freedman G, et al. The burden attributable to mental and substance use disorders as risk factors for suicide: findings from the Global Burden of Disease Study 2010. PLoS One 2016; 9: e9136.
26 Bloom D, Cafero E, Jane-Llopis E, et al. The global economic burden of non-communicable diseases. Geneva: World Economic Forum, 2011.
27 Patel V, Saxena S, Lund C, et al. The Lancet Commission on global mental health and sustainable development. Lancet 2018; 392: 1553–98.
28 Galderisi S, Heinz A, Kastrup M, Beechold J, Sartorius N. Toward a new definition of mental health. World Psychiatry 2015; 14: 231–33.
29 McManus S, Bebbington P, Jenkins R, Brugha T, eds. Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014. Leeds: NHS Digital, 2016.
30 WHO. Risks to mental health: an overview of vulnerabilities and risk factors. World Health Organization. Aug 27, 2012. https://www. who.int/mental_health/mhgap/risks_to_mental_health_.EN_27_08_12.pdf (accessed Nov 21, 2021).
31 WHO. Calouste Gulbenkian Foundation. Social determinants of mental health. World Health Organization. 2014. https://apps.who. int/iris/bitstream/handle/10665/112828/9789241506809_en.pdf (accessed Nov 21, 2021).
32 Lund C, Brooke-Summer C, Baingana F, et al. Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. Lancet Psychiatry 2018; 5: 357–69.
33 Hughes K, Bellis MA, Hardcastle KA, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. Lancet Public Health 2017; 2: e156–66.
Health Policy

34 Kessler RC, McLaughlin KA, Green JG, et al. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. Br J Psychiatry 2010; 197: 378–85.

35 Hillis S, Mercy J, Arinoli A, Kress H. Global prevalence of past-year violence against children: a systematic review and minimum estimates. Pediatrics 2016; 137: e20150479.

36 Campion J, Bhugra D, Bailey S, Marmot M. Inequality and mental disorders: opportunities for action. Lancet 2013; 382: 183–84.

37 Reiss F. Socioeconomic inequalities and mental health problems in children and adolescents: a systematic review. Soc Sci Med 2013; 90: 24–31.

38 Patel V, Burns JK, Dhirguna M, et al. Income inequality and depression: a systematic review of the association and mechanisms. World Psychiatry 2018; 17: 76–89.

39 Lund C, De Silva M, Plagerston S, et al. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. Lancet 2011; 378: 1502–14.

40 Shankar P, Chung R, Frank DA. Association of food insecurity with children’s behavioural, emotional and academic outcomes: a systematic review. J Dev Behav Pediatr 2017; 38: 135–50.

41 Charlton S, van Ommeren M, Flaxman A, Cornet J, Whiteford H, Saxena S. New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. Lancet 2019; 394: 240–48.

42 Campion J. Public mental health briefing on COVID-19. Geneva: World Psychiatric Association, 2020.

43 Campion J, Javed A, Sartorius N, Marmot M. Addressing the public mental health challenge of COVID-19. Lancet Psychiatry 2020; 7: 657–59.

44 Campion J, Javed A, Marmot M, Valzra K. The need for a public mental health approach to COVID-19. World Soc Psychiatry 2020; 2: 77–81.

45 Beaglehole B, Mulder RT, Frampton CM, Boden JM, Newton-Howes G, Bell CJ. Psychological distress and psychiatric disorder after natural disasters: systematic review and meta-analysis. Br J Psychiatry 2018; 213: 716–22.

46 Rocque RJ, Beaudoin C, Nadjae R, et al. Health effects of climate change: an overview of systematic reviews. BMJ Open 2021; 11: e046331.

47 WHO. Mental Health Action Plan 2013–2020. World Health Organization. 2013. https://www.who.int/publications/i/item/9789241506021 (accessed Dec 8, 2021).

48 Shangraja R, Nystrand C, Feldman I, Sarkadi A, Langenskiöld S, Jonsson U. Indicated preventive interventions for depression in children and adolescents: a meta-analysis and meta-regression. Prev Med 2019; 118: 7–15.

49 Blewett C, Fuller-Tyszkiewicz M, Nolan A, et al. Social and emotional learning associated with universal curriculum-based interventions in early childhood education and care centers: a systematic review and meta-analysis. JAMA Netw Open 2018; 1: e185277.

50 Xie QW, Chan CHY, Ji Q, Chan CIW. Psychosocial effects of parent-child book reading interventions: a meta-analysis. Pediatrics 2018; 141: e20172675.

51 Carsley D, Khoury B, Health NL. Effectiveness of mindfulness interventions for mental health in schools: a comprehensive meta-analysis. Mindfulness 2018; 9: 693–707.

52 McKeering P, Hwang Y. A systematic review of mindfulness-based school interventions with early adolescents. Mindfulness 2019; 10: 593–610.

53 Raposa EB, Rhodes J, Stams GJM, et al. The effects of youth mentoring programs: a meta-analysis of outcome studies. J Youth Adolesc 2019; 48: 623–43.

54 Sheridan SM, Smith TE, Kim EM, Beretvas SN, Park S. A meta-analysis of family-school interventions and children’s social-emotional functioning: moderators and components of efficacy. Rev Educ Res 2019; 89: 296–332.

55 Chiou H-L, Chi H, Tsai J-C, et al. The effect of cognitive-based training for the healthy older people: a meta-analysis of randomized controlled trials. PLoS One 2017; 12: e0176742.

56 Udomrat N, Nakawiro D. Positive psychiatry and cognitive interventions in the elderly. Taiwanese J Psychiatry 2016; 26: 23–34.

57 Chisholm D, Sweeney K, Sheehan P, et al. Scaling-up treatment of depression and anxiety: a global return on investment analysis. Lancet Psychiatry 2016; 3: 415–24.

58 Campion J, Knapp M. The economic case for improved coverage of public mental health interventions. Lancet Psychiatry 2018; 5: 103–05.

59 UN. Sustainable development agenda. 2016. https://sdgs.un.org/2030Agenda (accessed Dec 8, 2021).
Kemp CG. Implementation outcomes and strategies for depression interventions in low- and middle-income countries: a systematic review. BMC Health Serv Res 2016; 16: 79.

Camponi J, Taylor MJ, McDaid D, Park AL, Shiers D. Applying economic models to estimate local economic benefits of improved coverage of early intervention for psychosis. Early Interv Psychiatry 2019; 13: 1424–30.

Australian Government Productivity Commission. Australian Government Productivity Commission inquiry report: mental health. 2020. https://www.pc.gov.au/inquiries/completed/mental-health#report (accessed Oct 23, 2021).

Campion J. Public mental health: key challenges and opportunities. BJPsych Int 2018: 15: 51–54.

Campion J. Public mental health. MindEd e-Learning Programme (469–0001). May 5, 2020. https://www.minded.org.uk/Component/Details/632895 (accessed Dec 8, 2021).

Xu Z, Huang F, Kosters M, et al. Effectiveness of interventions to promote help-seeking for mental health problems: systematic review and meta-analysis. Psychol Med 2018: 48: 2658–67.

Tay JL, Tay YF, Klainin-Yobas P. Effectiveness of information and communication technologies interventions to increase mental health literacy: a systematic review. Early Interv Psychiatry 2018; 12: 1024–37.

Thorncroft G, Mehta N, Clement S, et al. Evidence for effective interventions to reduce mental-health-related stigma and discrimination. Lancet 2016; 387: 3123–32.

Gronholm PC, Noseé M, van Brakel WH, et al. Reducing stigma and discrimination associated with COVID-19: early stage pandemic rapid review and practical recommendations. Epidemiol Psychiatr Sci 2021; 30: e15.

Archer J, Bowker P, Gilbody S, et al. Collaborative care for depression and anxiety problems. Cochrane Database Syst Rev 2012; 10: CD006525.

Huang Y, Wei X, Wu T, Chen R, Guo A. Collaborative care for patients with depression and diabetes mellitus: a systematic review and meta-analysis. BMC Psychiatry 2013; 13: 260.

Lund C, Tomlinson M, De Silva M, et al. PRIME: a programme to reduce the treatment gap for mental disorders in five low- and middle-income countries. PLoS Med 2012; 9: e1001359.

Patel V, Belkin GS, Chockalingam A, Cooper J, Saxena S, Unützer J. Grand challenges: integrating mental health services into priority health care platforms. PLoS Med 2011; 10: e1001448.

Semrau M, Evans-Lacko S, Alem A, et al. Strengthening mental health systems in low- and middle-income countries: the Emerald programme. BMC Med 2015; 13: 79.

Naslund JA, Aschbrenner KA, Araya R, et al. Digital technology for treating and preventing mental disorders in low-income and middle-income countries: a narrative review of the literature. Lancet Psychiatry 2017; 4: 486–501.

Fu Z, Burger H, Arjadi R, Bockting CLH. Effectiveness of digital psychological interventions for mental health problems in low-income and middle-income countries: a systematic review and meta-analysis. Lancet Psychiatry 2020; 7: 851–64.

Champion KE, Newton NC, Barrett EI, Teesson M. A systematic review of school-based alcohol and other drug prevention programs facilitated by computers or the internet. Drug Alcohol Rev 2013; 32: 115–23.

Stratton E, Lampit A, Choi I, Calvo RA, Harvey SB, Glozier N. Effectiveness of eHealth interventions for reducing mental health conditions in employees: a systematic review and meta-analysis. PLoS One 2017; 12: e0189904.

Phillips EA, Gordeev VS, Schreyögg J. Effectiveness of occupational e-health mental health interventions: a systematic review and meta-analysis of randomized controlled trials. Scand J Work Environ Health 2019; 45: 560–76.

Sherifali D, Ali MU, Ploeg J, et al. Impact of internet-based interventions on caregiver mental health: systematic review and meta-analysis. J Med Internet Res 2018; 20: e1668.

Hudson JL, Bower P, Kontopantelis E, et al. Impact of telephone delivered case-management on the effectiveness of collaborative care for depression and anti-depressant use: a systematic review and meta-regression. PLoS One 2019; 14: e0217948.
122 Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry* 2011; 199: 445–52.

123 Moreno C, Wykes T, Galdersis S, et al. How mental health care should change as a consequence of the COVID-19 pandemic. *Lancet Psychiatry* 2020; 7: 813–24.

124 Green T, Bonner A, Teleni L, et al. Use and reporting of experience-based co-design studies in the healthcare setting: a systematic review. *BMJ Qual Saf* 2020; 29: 64–76.

125 Nortje G, Oladeji B, Gureje O, Seedat S. Effectiveness of traditional healers in treating mental disorders: a systematic review. *Lancet Psychiatry* 2016; 3: 154–70.

126 Green B, Colucci E. Traditional healers’ and biomedical practitioners’ perceptions of collaborative mental healthcare in low- and middle-income countries: a systematic review. *Tran cult Psychiatry* 2020; 57: 94–107.

127 Tully LA, Hunt C. Brief parenting interventions for children at risk of externalizing behavior problems: a systematic review. *J Child Fam Stud* 2016; 25: 705–19.

128 Tarver J, Daley D, Lockwood J, Sayal K. Are self-directed parenting interventions sufficient for externalising behaviour problems in childhood? A systematic review and meta-analysis. *Eur Child Adolesc Psychiatry* 2014; 23: 1123–37.

129 UN. Right of everyone to the enjoyment of the highest attainable standard of physical and mental health—Resolution 6/29. Human Right Council. https://ap.ohchr.org/documents/E/HRC/resolutions/A_HRC_RES_6_29.pdf (accessed Dec 8, 2021).

130 UN. Convention of the Rights of Persons with Disabilities. https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html (accessed Nov 21, 2021).

131 UN. Resolution on mental health and human rights (A/HRC/RES/32/18). UN Human Rights Council. July 18, 2016. https://digitallibrary.un.org/record/845623/in=en#Record-files-coll apse-header (accessed Dec 8, 2021).

132 Williamson A, Makkar SR, McGrath C, Redman S. How can the use of evidence in mental health policy be increased? A systematic review. *Psychiatr Serv* 2015; 66: 783–97.

Copyright © 2022 Elsevier Ltd. All rights reserved.