Integrating mental health in primary health care

PART 1.

The context for integration of mental health services in primary health care

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

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Target audience

The main target audiences for this package are country/provincial level policy-makers and health managers, district level mental health coordinators, and representatives of primary health care and specialist mental health services. It may also be useful to share parts of the guidance with other key stakeholders. It is a programmatic guide, rather than a guide for setting up clinical care, though parts of it may be useful and of interest to clinical staff, mainly in primary health care and specialist mental health care.

Background and rationale

Countries of the Eastern Mediterranean Region have been pioneers in developing and implementing innovative approaches to mental health care. Notable examples are: the initiative in the 1970s by Egypt and Sudan as part of the World Health Organization (WHO) international collaborative project, Strategies for Extending Mental Health Care (1975–1981); the pioneering work of Pakistan to integrate mental health care with general health care; the extensive programme in the Islamic Republic of Iran over decades to make mental health care an essential part of general health care (1990s) and in natural disasters; training for primary health care (PHC) personnel in Afghanistan in the 2000s; training primary care providers in Egypt and integrating mental health in PHC in Yemen as part of Nations for Mental Health; and more recently the pilot implementation of the WHO Mental Health Gap Action Programme (mhGAP). The most recent is the innovative approach to address emotional needs of the populations living in conflict situations like Pakistan (*1*). There are other countries in the Region which have implemented the approach to varying degrees. The current effort is an extension of this approach, using the more recent tools for the integration of mental health in PHC.

Mental, neurological and substance use (MNS) disorders are common and the public health burden they incur is large and growing. One in every 10 people is currently suffering from a mental disorder, affecting one in four families. These disorders account for one in every 10 years of lost health globally (10.4% of disability-adjusted life years [DALYs]), and alarmingly this burden has risen by 41% in the last 20 years. The rates for mental disorder are even higher in some countries of the Region, particularly where there are complex emergencies such as Afghanistan, Iraq, Somalia and the Syrian Arab Republic. Faced with such pervasive and disabling problems, mental health care cannot be treated as an add-on. Mental health care is a normal part of health care, and especially needs to be integrated in the delivery of basic health care.

Globally and in this Region, there is a concentration of effort to improve the prevention and treatment of mental disorder, and to promote mental health and well-being. Ensuring healthy lives and the promotion of well-being for all at all ages is one of the 17 Sustainable Development Goals (SDGs) of the UN 2030 Agenda for Sustainable Development, adopted by world leaders in September 2015. The Lancet Commission on global mental health and sustainable development (2018) sees the SDGs as an historic opportunity to reframe the global mental health agenda, and recommends key actions in which the integration of mental health is central. Suicide reduction is one of the specific targets for goal 3.4: by 2030, reduce premature mortality from noncommunicable diseases by one third through prevention and treatment and promote mental health and well-being, monitored by global SDG indicator 3.4.2, suicide mortality rate. Alcohol and substance use are addressed by a target (goal 3.5) to: strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol, accompanied by indicators 3.5.1 and 3.5.2 on coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders and harmful use of alcohol [defined according to the national context as alcohol per capita consumption (for those aged 15+ years) within a calendar year in litres of pure alcohol].

The target for SDG 3.8 is to achieve universal health coverage (UHC); this involves the three dimensions of: financial risk protection, access to quality essential health care services and access to safe, effective, quality, affordable essential medicines and vaccines for all of the population (see Fig. 1). More than half

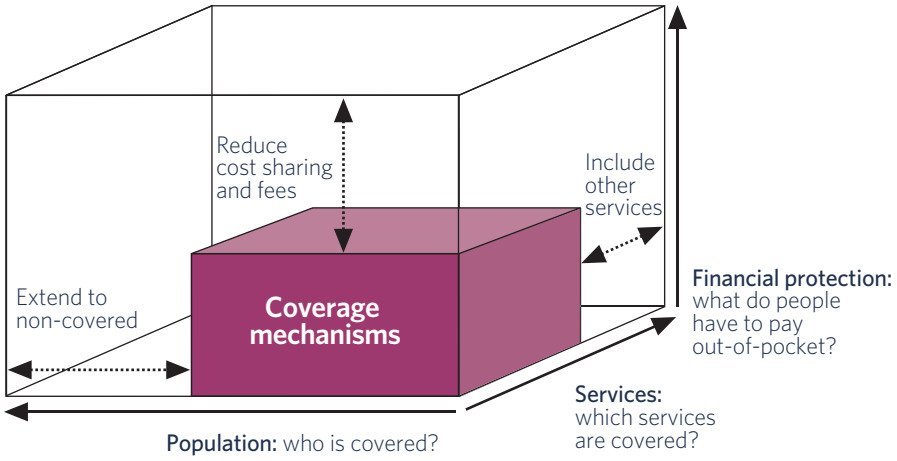

FIG. 1. The UHC cube showing the three dimensions of universal health coverage

Source: The world health report: health systems financing: the path to universal coverage. Geneva: World Health Organization; 2010.

the countries have already reoriented their health policies towards UHC; others are planning reform. The WHO Special Initiative for Mental Health (2019–2023) aims to ensure UHC with access to quality and affordable care for mental health conditions. One of the two strategic actions to achieve this is the scaling up of interventions and services across community-based, general health and specialist settings. This guidance will assist countries to integrate mental health care into their general UHC health care reforms by developing and implementing financially viable health services packages to cover priority mental disorders and deliver these packages to the whole population through PHC, supported by specialist mental health services.

The evidence for the effectiveness and efficiency of accessible and acceptable treatments for MNS disorders is summarized in Disease control priorities, vol. 4, 2016 (see pages 75–76, chapter 4 on Adult Mental Disorders, reproduced in Annex 1). However, there is a vast treatment gap between those people who require care and those who actually receive it. In low- and middle-income countries the gap is estimated to be 75–86%. Recently published data from the World Mental Health Survey showed that a small minority of people with depressive disorder receive minimally adequate treatment, i.e. 1 in 5 people in high-income and 1 in 27 in low- and lower-middle-income countries (*2*).

Countries that want to address this shortfall need to consider the resources that they make available to mental health care and how those resources are deployed to maximize their benefits. Within the Eastern Mediterranean Region, countries devote an average of 2% of their health budget to mental health compared with 5–10% in countries providing comprehensive health care systems. This translates to a median annual spend of US$ 0.15 per person on mental health, which falls short of the US$ 3–4 needed for a selective package of cost–effective mental health interventions in low-income countries, and at least double that for more affluent settings (*3*). Moreover, most countries invest a disproportionate amount of their mental health expenditure on centralized and institutionalized care, whereas the most cost–effective interventions can be achieved through community-based mental health care, and there is sufficient evidence to show that community care is both feasible and cost–effective (*3*). However, few countries have data on their mental health spend in PHC.

The combined effects of high prevalence, disability and growing costs of mental disorders, along with the huge treatment gap despite cost–effective treatments, confronts the countries of the Region with a compelling case to reassess their provision for mental health care.

Primary health care is a health care platform that is ideally suited to extend coverage. It brings the potential benefits of being accessible, affordable, acceptable, destigmatising, holistic and culturally sensitive. It also provides increased opportunities for prevention and to address social factors

in causation. Throughout the past 40 years WHO has supported the development of the PHC approach since the Alma-Ata Declaration (1978) stressed the importance of PHC in the protection and promotion of the health of all people. The WHO comprehensive mental health action plan 2013–2020 was adopted at the 66th World Health Assembly. It sets out a new vision (see Box 1.1) and goal for mental health to be articulated through four objectives and six measurable global targets to be achieved by 2020.

BOX 1.1. Vision of the Mental health action plan 2013–2020

A world in which mental health is valued, promoted and protected, mental disorders are prevented and people affected by these disorders are able to exercise the full range of human rights and to access high quality, culturally-appropriate health and social care in a timely way to promote recovery, all in order to attain the highest possible level of health and participate fully in society and at work free from stigmatization and discrimination.

The four objectives of the *Mental health action plan 2013–2020* are:

- to strengthen effective leadership and governance for mental health;
- to provide comprehensive, integrated and responsive mental health and social care services in community-based settings;
- to implement strategies for promotion and prevention in mental health;
- to strengthen information systems, evidence and research for mental health.

The regional framework to scale up action on mental health in the Eastern Mediterranean Region (see Annex 2) operationalizes these four objectives into concrete measurable activities with a set of intermediate indicators that can be used to monitor progress towards the targets for 2020. The overarching aims of the framework are: scale up action on mental health; strengthen the health system; and advance towards the SDG goal of UHC. The strategic aims of the framework for action in advancing UHC in the Region are to develop a vision and strategy for UHC, to improve the performance of the health financing system and enhance financial risk protection, to expand coverage of needed health services and to ensure the expansion and monitoring of population coverage (see Annex 3). The strategic intervention to integrate priority mental conditions[1] in the basic health delivery package of the government and social/private insurance reimbursement schemes aims to give access to quality essential health care services and access to safe, effective, quality affordable essential medicines with financial risk protection (supporting SDG 3.8). The regional framework indicators for the annual reporting of national data on numbers of deaths by suicide and the proportion of persons with mental health conditions utilizing health services link with SDG indicators 3.4.2 (suicide mortality rate) and 3.5.1 (coverage of treatment interventions for substance use disorders).

One of the strategic interventions identified in the regional framework is the integration of cost–effective, feasible and affordable evidence-based interventions for mental conditions in PHC and other priority health programmes. This envisions a mental health component in PHC, not only to enhance access to mental health care but also to improve identification and treatment rates for priority mental disorders, to provide holistic care for particularly disabling comorbid physical and mental health problems, and to engage in mental health promotion. The process of developing the framework, including all the evidence briefs, has been published in the Eastern Mediterranean Health Journal (2015) in a themed issue on mental health.

The regional framework complements the WHO mhGAP programme to scale up care for MNS disorders by delivering pharmacological and psychosocial interventions in non-specialized health care settings, facilitated by appropriately trained PHC workers and supported by secondary mental health services. A number of WHO mhGAP training packages on the priority mental disorders have

1 The WHO mhGAP intervention guide 2.0 identifies priority conditions "based on the criteria that they represented a high burden (in terms of mortality, morbidity and disability), which resulted in large economic costs or were associated with violations of human rights. These priority conditions include depression, psychoses, self-harm/suicide, epilepsy, dementia, disorders due to substance use and child and adolescent mental and behavioural disorders, and other significant mental health complaints."

been developed for PHC workers, along with resources to support the provision of front-line services for mental health care to be delivered through PHC and other non-specialist settings.

The benefits of integrating mental health into PHC (*4*) over non-integrated specialist mental health care are that it:

- improves access to mental health care for the whole population;
- improves access to mental health care for vulnerable populations;
- improves coverage of treatment for selected priority mental disorders;
- delivers the most cost–effective treatments for depression, psychosis (some referral needed), harmful alcohol use and epilepsy;
- provides financial protection against catastrophic health expenditure if linked with universal public finance;
- reduces stigma and discrimination for those people seeking mental health care compared with attending mental institutions;
- provides a more acceptable source of care than attending specialized mental health services;
- provides more geographically and financially accessible mental health care at local PHC clinics (lower transport and time costs);
- produces better health outcomes for common mental disorders;
- produces better health outcomes for comorbid physical and mental health problems;
- gives more opportunities for actions aimed at preventing mental health disorders and promoting mental health;
- causes less disruption to family life and social integration;
- improves mental health workforce capacity to meet the shortage of staff able to deliver mental health interventions;
- prevents admissions to mental hospitals, which can be associated with human rights violations.

In order to support countries of the Region in their efforts to integrate the management of MNS disorders into PHC, the WHO Regional Office for the Eastern Mediterranean has developed this regional guidance. This guidance provides advice to help countries introduce and/or strengthen the integration of mental health care in PHC focusing on the priority disorders identified in the mhGAP programme. It aims to provide a "one-stop-shop" for information, guidance and resources on the "what" and the "how" of implementing integration of mental health into PHC in the Region. The target audiences for the various elements of the guidance are country-level policy-makers, health managers and clinical staff at PHC and specialist mental health service levels.

Integration of mental health services in primary health care

Integrated mental health services in PHC deliver detection and assessment of mental disorders, talking treatments, including counselling and advice, and pharmacological treatments by PHC staff. These interventions are delivered by PHC nurses, health workers, social workers and primary care physicians. It is crucial that PHC staff have specialist back-up for liaison, training, consultation and referral for the assessment and treatment of cases that cannot be managed in PHC. Integrated mental health services typically do not involve the direct delivery of mental health care by mental health specialists (e.g. psychiatrists, psychiatric nurses or clinical psychologists) working in PHC settings.

Primary health care is a key component of the health care platform and interacts closely with the other main channels for mental health care, starting with self-care, informal health care[1] and specialist mental health care. The key advantages of delivering mental health care through PHC are that it is more often accessible, affordable and acceptable to people with mental health problems and their families. Most people with mental health problems access PHC and, if mental health care is integrated into PHC, their disorders are more likely to be identified and appropriately treated and with less risk of stigma. Furthermore, integration promotes coordinated and holistic care for the many people with comorbid physical and mental health problems (4,5). The best PHC tends to exist in high resource settings, but it needs to be best in low-resource settings, because that is where PHC carries the greatest responsibility for care.

Currently, WHO is working on accelerating the adoption of the family practice approach in PHC in the countries of the Region. The characteristics of this approach in PHC are the delivery of comprehensive, continuous, integrated and community-oriented services by a physician and multidisciplinary team to a defined population (see Scaling up family practice: progressing towards universal health coverage). This includes having sufficient trained health workforce and a multidisciplinary team available to provide a good-quality essential services package and a functional referral system.

The WHO has proposed a service organization pyramid for the optimal mix of services for mental health (Fig. 2). An important aspect of the pyramid is the recovery paradigm, recognising the importance of people with mental disorders in their own recovery, supported by family, friends and community institutions. People with more severe mental health problems require care at higher levels on the pyramid. Relatively small numbers of people require care at the highest levels, which involves the most intensive professional assistance and consequently incurs the greatest costs of care. A critical organizational challenge is balancing the system to achieve the most effective use of the limited resources available to meet mental health needs. Primary care has a pivotal position in the centre of the pyramid. It is the level at which the vast majority of people have their mental disorder recognized and treated, and it is the gateway to specialist mental health care for those with greater needs.

If primary care mental health services are not optimized, the adverse consequences will not be confined to primary level but will also negatively impact on informal community care/self-care (e.g. high numbers of undetected/untreated persons with mental disorders in the community, resulting in a considerable

1 Informal health care is provided outside the framework of organized, paid, professional work. It is typically provided by a family member, friend or neighbour who is giving regular, ongoing assistance without payment for the care given; it may also be provided by others, such as traders in shops or markets, who advise purchasers on the use and effects of health products that are for sale.

Components of a mental health system

- Limited long-stay facilities
- Specialist mental health services in general hospitals
- Community mental health services providing outreach and support to PHC
- Mental health services integrated into PHC, with PHC staff able to identify and treat priority disorders
- Informal community mental health services through schools and community leaders
- People with mental disorders and their families having the knowledge of how best to take care of themselves

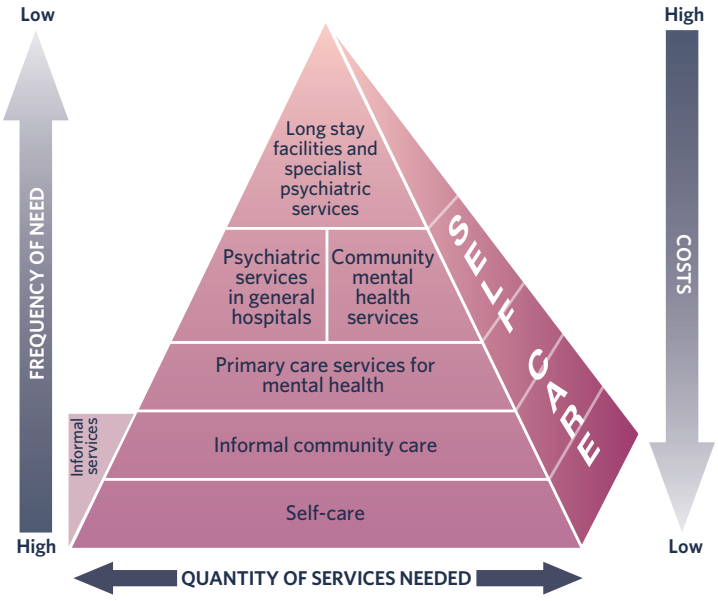

FIG. 2. WHO service organization pyramid for the optimal mix of services for mental health

Source: adapted from: Integrating mental health into primary care: a global perspective. Geneva: World Health Organization and World Organization of Family Doctors, 2008.

treatment gap) and on specialist psychiatric services, which will be required to provide less cost–effective care for people who could have received appropriate treatment at a lower cost in primary care.

Extensive systematic reviews of the evidence on the composition of a modern mental health service have proposed that a balanced service with both community and hospital services is required (6,7,8). This recognises that there are hugely different levels of resources available to different countries. Three sequential balanced models are described that are relevant for countries with low, medium and high levels of resources. The fundamental component relevant to all countries in all three models, irrespective of resources, is the integration of mental health into PHC with specialist back-up. In countries with more resources available, the additional components are the provision of increasingly comprehensive and differentiated specialist mental health services (see Fig. 3).

In countries with low resources, PHC plays a key role in case finding and assessment, talking and psychosocial treatments and pharmacological treatments. It is supported by limited specialist mental health services providing training and supervision of primary care staff, consultation-liaison for complex cases and treatment for cases which cannot be managed in primary care. In countries with more resources, the PHC component continues to deliver case finding and assessment, talking and psychosocial treatments and pharmacological treatments, and there can be investment in more comprehensive specialist services such as outpatient/ambulatory clinics, community mental health teams, acute inpatient care, long-term community-based residential care and work and occupation. In countries with high levels of resources, the psychiatric services can be more specialized with, for example, specialized community mental health teams delivering early intervention for psychosis (early intervention services), or specialist outpatient services for treatment-resistant depression, or specialist inpatient provision for mothers with puerperal psychosis and their babies.

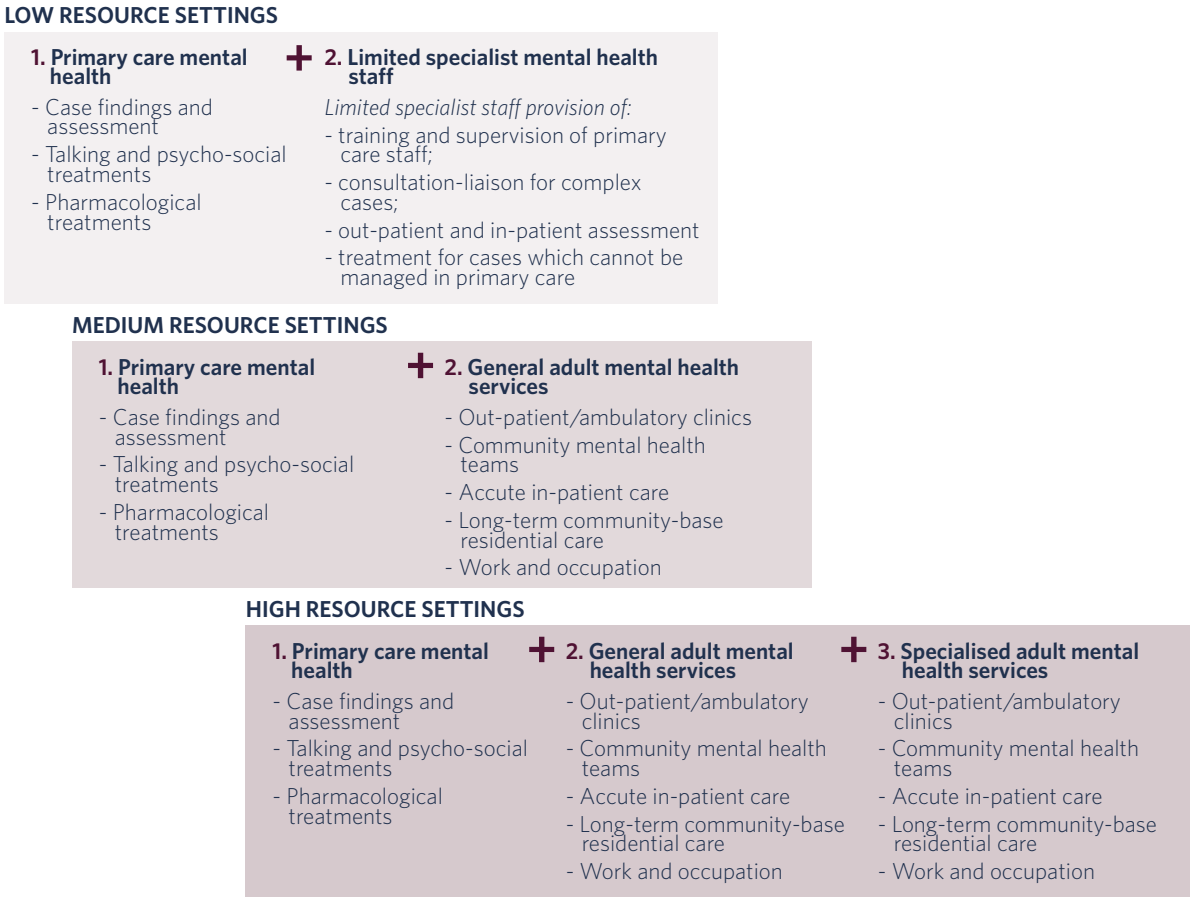

FIG. 3. Mental health service components relevant for countries and regions with low, medium and high levels of resources*

**Country income groups based on gross national income per capita in 2013 calculated using the World Bank Atlas method: low income ≤ US$ 1 045, middle income (lower-middle and upper-middle combined) US$ 1 045–12 746, and high income ≥ US$ 12 746.*

Source: (8). © 2016 World Psychiatric Association

Which mental health interventions can be best delivered through primary health care?

During the last decade the broad description of the components of mental health care that can be delivered through primary care has been refined and operationalized to a set of care packages that can be scaled up and delivered even in settings where specialists are scarce. The evidence for these has been brought together in several publications (*4,9,10*). These reviews support the following conclusions.

- Self-care is important at all levels of health care and promotes recovery and better mental health; most people should be encouraged to manage their mental health problems themselves, or with support from family or friends (e.g. physical activity, relaxation, sharing of feelings, writing down thoughts and feelings, spirituality, etc.) alongside other evidence-based interventions. Many practical aspects as well as emotional support are delivered by families, but if families are not well supported, they get exhausted and may reject the individual, who then becomes homeless.
- Detection and diagnosis of common MNS disorders, such as depression or alcohol use disorder, can be reliably carried out using brief screening in PHC. Increasingly, dementia is considered a common mental disorder for which PHC staff can reasonably be expected to make a generic diagnosis on the basis of brief screening.
- Community case-finding of less common MNS disorders, such as psychosis and dementia, is followed by diagnostic assessment by an appropriately trained health worker.
- There are effective pharmacological and psychosocial treatments for MNS disorders. These are best provided as stepped-care models, where treatments are tailored to the needs of each individual. The stepped care approach means patients usually start treatment with low cost, low intensity interventions; outcomes are reviewed and, if necessary, patients move to the next step, which is typically a more intensive and more costly intervention.
- The best outcomes are achieved with continuing care and support to maintain the regular use of medication for extended periods. Relapse prevention is also important in reducing stress on families.
- Non-specialist health workers in PHC can deliver effective treatments for some MNS disorders. The effectiveness and sustainability of non-specialist mental health care requires close collaboration with specialist mental health providers to deliver support through training, consultation, supervision, quality assurance and referral.

A holistic approach to strengthening the whole mental health system, with attention to the appropriate use of different health care platforms and delivery channels, is now being advocated (Disease control priorities, vol. 4, 2016). A health care platform can be defined as "where the intervention will be delivered (the setting) and who will deliver the intervention (service provider)" (*11*). Population platform interventions apply to the entire population; community platform refers to groups of people sharing certain characteristics or who are part of a particular community (e.g. pregnant women, schoolchildren, people in a workplace); the health care platform includes delivery channels through self-care, primary care and hospital care, which may be first-level or specialized. Patel et al., 2016 (*3*), summarized the evidence-based interventions that can be delivered at each of the main delivery channels for mental health care (reproduced in adapted form below, as Table 1). The intervention priorities for the PHC delivery channel correspond closely with the cost–effective, feasible and affordable evidence-based interventions (best buys) for prevention of and management of mental disorders identified for the Eastern Mediterranean Region in the development of the regional framework (see Annex 2, second page).

TABLE 1. Table of intervention priorities for mental, neurological and substance use (MNS) disorders according to delivery platform

Type of disorder	Population platform	Community platform	Health care platform			
			Self-care	Primary health care	Secondary care (e.g. first-level hospital care)*	Tertiary care (specialized psychiatric care)*
All MNS disorders	Awareness campaigns to increase mental health literacy and address stigma and discrimination Legislation on protection of human rights of persons affected by MNS disorders	Training of gatekeepers (e.g. community workers, police, teachers) in early identification of priority disorders, provision of low-intensity psychosocial support, and referral pathways Self-help and support groups (e.g. for alcohol use disorders, epilepsy or parent support groups for children with developmental disorders, and survivors of suicide)				
Adult mental disorders	Child protection laws	Workplace stress-reduction programmes and awareness of alcohol and drug abuse	Physical activity Relaxation training Education about early symptoms and their management Web-based and smartphone-based psychological therapy for depression and anxiety disorders	Screening and proactive case finding of psychosis, depression, and anxiety disorders **Diagnosis and management of depression (including maternal) and anxiety disorders**** **Continuing care of schizophrenia and bipolar disorder** Management of depression and anxiety disorders in people with HIV, with other NCDs**	Diagnosis and management of acute psychoses Management of severe maternal depression** Management of depression and anxiety disorders in people with HIV, with other NCDs**	Electroconvulsive therapy for severe or refractory depression Management of refractory psychosis with clozapine

Type of disorder	Population platform	Community platform	Health care platform			
			Self-care	Primary health care	Secondary care (e.g. first-level hospital care)*	Tertiary care (specialized psychiatric care)*
Child mental and development disorders	Child protection laws	Parenting programmes in infancy to promote early child development **Life-skills training in schools to build social and emotional competencies** Parenting programmes in early and middle childhood (2–14 years) Early child enrichment and preschool Educational programmes Identification of children with MNS disorders in schools	Web-based and smartphone-based psychological therapy for depression and anxiety disorders in adolescents	Screening for developmental disorders in children Maternal mental health interventions Parent skills training for developmental disorders **Psychological treatment for mood, anxiety, ADHD, and disruptive behaviour disorders**** Improve the quality of antenatal and perinatal care to reduce risk factors associated with intellectual disability	Diagnosis of childhood mental disorders such as autism and ADHD Stimulant medication for severe cases of ADHD Screening of newborn babies for modifiable risk factors for intellectual disability	
Neurological disorders	Policy interventions to address the risk factors for cardiovascular diseases (e.g. tobacco control) Improved control of neurocysticercosis		**Self-managed treatment of migraine** Self-identification or management of seizure triggers Self-manage-ment of risk factors for vascular disease (healthy diet, physical activity, tobacco use)	**Diagnosis and management of epilepsy and headaches** Screening for detection of dementia **Interventions to support caregivers of patients with dementia** Management of prolonged seizures or status epilepticus	Diagnosis of dementia and secondary causes of headache	Surgery for refractory epilepsy
Alcohol and illicit drug use disorders	**Regulate the availability and demand for alcohol (e.g. increases in excise taxes on alcohol products, advertising bans)**			**Screening and brief interventions for alcohol use disorders**	Management of severe dependence and withdrawal	Evidence- based psychological treatments (e.g. cognitive behavioural therapy) for refractory cases**

Type of disorder	Population platform	Community platform	Health care platform			
			Self-care	Primary health care	Secondary care (e.g. first-level hospital care)*	Tertiary care (specialized psychiatric care)*
Suicide and self-harm	**Control the sale and distribution of means of suicide (e.g. pesticides)** Decriminalize suicide	Safer storage of pesticides in the community and farming house-holds	Web-based and smartphone-based treatment for depression and self-harm	Primary health care packages for underlying MNS disorders** Planned follow-up and monitoring of suicide attempters** Emergency management of poisoning	Specialist health care packages for underlying MNS disorders	Specialist health care packages for underlying MNS disorders

Red font denotes urgent care, blue font denotes continuing care, and black font denotes routine care. Recommendations in bold font denote best practice and recommendations in normal font denote good practice.

ADHD = attention-deficit hyperactivity disorder; NCD = noncommunicable disease.

** These column headings have been expanded from those used in the source to clarify their meaning.*

*** The management of these complex disorders has no fixed time point; for example, in the management of depression, some individuals need relatively short periods of engagement (e.g. 6–12 months for a single episode) whereas others might need maintenance care for several years (e.g. when there is a relapsing course).*

Chronic physical and mental conditions often occur together. Rates of anxiety and depression are doubled in patients with diabetes, hypertension, tuberculosis and HIV/AIDS (*12*). The presence of comorbid conditions is associated with reduced adherence to treatment, greater burden and poorer outcome. In most countries PHC staff already identify and treat chronic physical health conditions and the high levels of comorbidity and interaction with mental conditions indicate that a new integrated approach to their management is needed (*8*). The chronic care model has been applied successfully for some chronic physical conditions and is beginning to be used for mental disorders, such as depression and anxiety (*13,14,15,16,17*).

The services provided at different platforms and delivery channels supports a collaborative stepped care approach in which patients usually start treatment with low-cost, low intensity interventions – outcomes, are reviewed and if necessary, move to the next step, which is typically a more intensive and more costly intervention. The majority of people with common mental disorders such as depressive and anxiety disorders can be successfully managed within PHC (see Fig. 4). However, if during the course of treatment in primary care they do not respond to the intervention in the expected time course, or their condition deteriorates, or they develop significant suicidal ideas, then they can be "stepped-up" to receive more intensive treatments provided through the hospital delivery channel. In more complex cases, particularly where more than one delivery channel is involved or several different staff members are delivering interventions, a case management approach is used with a member of staff being responsible to ensure that the collaborative care provided is properly coordinated and reviewed. The steps are two-way, and as they recover, those being managed by specialists should be "stepped-down" to lower levels of intervention where their needs can be adequately me, and referred back to PHC when they are stable.

Alongside the assessment and treatment for people with MNS disorders, there is compelling evidence that mental health promotion and prevention interventions can reduce the risk of mental disorders, enhance protective factors and improve outcomes. Barry et al, 2015 (*18*) reviewed the evidence to identify the priority areas for promotion and prevention in the Eastern Mediterranean Region. They identified 11 recommended priority actions (listed below); PHC staff play a central role in several of these activities and a collaborative role working with schools and other local community organizations in others.

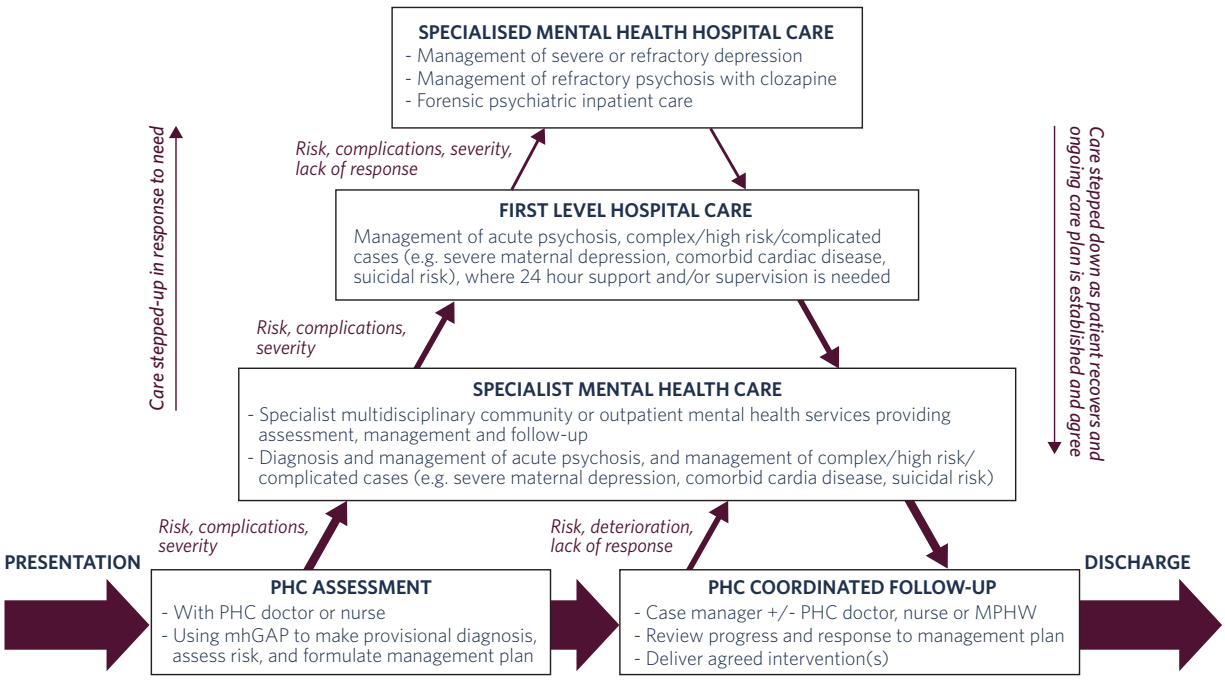

FIG. 4. Diagram showing patient pathways through stepped care

- Promote infant (0–3 years) and maternal mental health through integrating mental health promotion and prevention into routine pre- and postnatal care services and home visiting programmes.
- Promote early child mental health development (3–6 years) through pre-school education/ enrichment programmes.
- Implement parenting and family strengthening programmes for school-going children (3–16 years).
- Promote young people's (6–18 years) life skills and resilience through whole-school-based interventions in primary and post-primary schools.
- Implement selective classroom-based interventions for vulnerable children (orphaned by HIV/ living in areas of conflict/war).
- Promote the mental health and social well-being of adolescents and young people (12–18+ years) through out-of-school multi-component interventions.
- Facilitate community empowerment interventions to promote mental health and reduce the risk of mental disorders for women and families living in poverty and debt.
- Train PHC providers in opportunistic mental health promotion and prevention interventions for adults and older people.
- Advocate for workplace policies and programmes that will improve the mental health of working adults.
- Implement suicide prevention programmes, including regulations on restricting access to commonly used lethal means of suicide, decriminalize suicide and establish improved reporting systems.
- Promote mental health literacy and reduction of stigma through multicomponent public awareness campaigns and community-based educational training interventions.

WHO Mental Health Gap Action Programme (mhGAP)

The WHO Mental Health Gap Action Programme (mhGAP) (*10*) is aimed at scaling up services for MNS disorders, especially in the low- and middle-income countries. The mhGAP guidelines have been developed following the WHO guideline development methodology and Cochrane's GRADE approach for evaluating evidence. This evidence shows that with proper care, psychosocial assistance and medication, effective treatment can be provided for people with priority MNS conditions even where resources are scarce (see: mhGAP Evidence Resource Centre). The MNS conditions covered in the mhGAP interventions include depression, psychoses, epilepsy, child and adolescent mental and behavioural disorders, dementia, disorders due to substance use, self-harm/suicide, other significant mental health complaints and conditions related to stress. The mhGAP programme provides the resources to support the front line services for these priority conditions, which can be delivered through PHC and other non-specialist settings (e.g. mhGAP intervention guide v2). Structured training methods and materials have been developed and used for the mhGAP interventions to train PHC staff and to train the trainers. The mhGAP Operations Manual brings together the "step-by-step guidance to scale up mhGAP programmes and includes solutions to key barriers facing district health managers with practical tips, lessons learned from projects using mhgap globally, and implementation tools that can be adapted to local settings." An mhGAP intervention guide 2.0 mobile app has been developed for iOS and Android.

The mhGAP programme provides general health care staff with the knowledge and skills to deliver most of the intervention priorities for MNS disorders identified for the primary care delivery channel (see Table 2). Of particular relevance to some countries of the Eastern Mediterranean Region is the mhGAP humanitarian intervention guide, which "contains first-line management recommendations for MNS conditions for non-specialist health care providers in humanitarian emergencies, where access to specialists and treatment options is limited".

TABLE 2. Coverage of training needs for intervention priorities for mental, neurological and substance use (MNS) disorders at the primary health care delivery platform provided by mhGAP and other WHO training packages or recommendations

Action	Relevant section of mhGAP Intervention Guide	Additional training packages/ recommendations
ADULT MENTAL DISORDERS		
Screening and proactive case finding of psychosis, depression, and anxiety disorders	Essential care and practice Master chart	
Diagnosis and management of depression (including maternal) and anxiety disorders	Depression	Problem Management Plus (PM+): Individual psychological help for adults impaired by distress in communities exposed to adversity[a] Group Interpersonal Therapy (IPT) for depression
Continuing care of schizophrenia and bipolar disorder	Psychoses Depression	
Management of depression and anxiety disorders in people with HIV, with other NCDs	Depression	
CHILD MENTAL AND DEVELOPMENT DISORDERS		
Screening for developmental disorders in children	Child and adolescent mental health and behavioural disorders	Integrated Management of Childhood Illness (IMCI)
Maternal mental health interventions	Depression Psychoses Epilepsy	Thinking healthy: a manual for psychosocial management of perinatal depression Problem Management Plus (PM+): individual psychological help for adults impaired by distress in communities exposed to adversity[b]
Parent skills training for developmental disorders	Child and adolescent mental health and behavioural disorders	WHO parent skills training package for caregivers of children with developmental disorders
Psychological treatment for mood, anxiety, ADHD, and disruptive behaviour disorders	Child and adolescent mental health and behavioural disorders	
Improve the quality of antenatal and perinatal care to reduce risk factors associated with intellectual disability		WHO recommendations on antenatal care for a positive pregnancy experience
NEUROLOGICAL DISORDERS		
Diagnosis and management of epilepsy and headaches*	Epilepsy	
Screening for detection of dementia	Dementia	
Interventions to support caregivers of patients with dementia	Dementia	
Management of prolonged seizures or status epilepticus	Epilepsy	

Action	Relevant section of mhGAP Intervention Guide	Additional training packages/ recommendations
ALCOHOL AND ILLICIT DRUG USE DISORDERS		
Screening and brief interventions for alcohol use disorders	Disorders due to substance use	The ASSIST package: the alcohol, smoking and substance involvement screening test ASSIST brief intervention ASSIST self-help strategies
Opioid substitution therapy (e.g. methadone and buprenorphine) for opioid dependence	Disorders due to substance use	
SUICIDE AND SELF-HARM		
Primary health care packages for underlying MNS disorders	Depression Psychoses Epilepsy Child and adolescent mental health and behavioural disorders Dementia Disorders due to substance use	
Planned follow-up and monitoring of suicide attempters	Self-harm and suicide	
Emergency management of poisoning	Suicide Master chart	Clinical management of acute pesticide intoxication: prevention of suicidal behaviours

[a] *Dawson KS, Bryant RA1, Harper M, et al. Problem Management Plus (PM+): a WHO transdiagnostic psychological intervention for common mental health problems. World Psychiatry. 2015 Oct;14(3):354–7. doi:10.1002/wps.20255.*

[b] *Patel V, Chisholm D, Parikh R, et al. Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities, 3rd edition. Lancet. 2016 Apr 16;387(10028):1672–85. doi:10.1016/S0140-6736(15)00390-6.*

**Headaches are not specifically addressed in mhGAP intervention guide.*

NCD = noncommunicable disease; ADHD = attention-deficit hyperactivity disorder.

Health systems context of integration of mental health care in primary health care

As already shown, there is good evidence for cost–effective interventions for MNS disorders, but these have not yet been implemented in many countries. Even where pilot projects have been carried out, they have not been scaled up. This is often not due to a failure of the interventions themselves, but due to the particular situation in the system of health care and the unpredicted interaction between the intervention and the health system (*11*).

The challenges facing the integration of mental health in PHC come from four sides:

- insufficient political commitment (e.g. providing insufficient leadership and resources, fragmented district health management);
- the private health sector (which, across the Eastern Mediterranean Region, provides more than 50% of outpatient services but lacks the capacity to engage with the public health system and can be weak at enforcing regulations);
- at the locality level (where there may be a limited number of PHC facilities, physical inaccessibility, lack of medicines and poorly functioning referral systems);
- the health workforce (lack of exposure to mental health in undergraduate education and continuing professional development, absence of specialty input into management of PHC facilities, shortage of family physicians, lack of continuing professional training and supervision.

A well-governed comprehensive approach is needed to integrate evidence-based mental interventions into PHC, and to meet the requirements to facilitate persistence of implementation, as identified by implementation science (*19*). The conclusions of the Emerald programme, based on their experience over five years strengthening mental health services in six low- and middle-income countries, endorse the health system approach with recommendations that address governance, financing, human resource development, service provision and information systems, complemented by a cross-cutting theme of knowledge transfer (*20,21,22*).

This guidance uses a health systems approach with an emphasis on service delivery and the system supporting it (see Fig. 5). Health management systems have been described as comprising six interrelated components or building blocks.

The overarching building block is governance, which provides the vision, plans, resources, management structure, accountability and review under which the other five blocks produce the resources for the provision of health services to the community. Effective, transparent governance must underpin health reform through a single national health strategy, legislation, a reliable monitoring and evaluation framework and a strong emphasis on mutual partner accountability. Extensive system reform across different platforms has significant implications for governance. It implies participation of more levels and components, better coordination within mental health, and collaboration with other sectors (health and non-health) along with a significant and welcome shift towards the inclusion of a wider variety of stakeholders.

This guidance on integrating mental health care into PHC takes a whole-system approach. Within a delivery system, the service provided is only as strong as the weakest component of the system. For example, a highly skilled workforce may diagnose and prescribe effective treatment but if the medicine

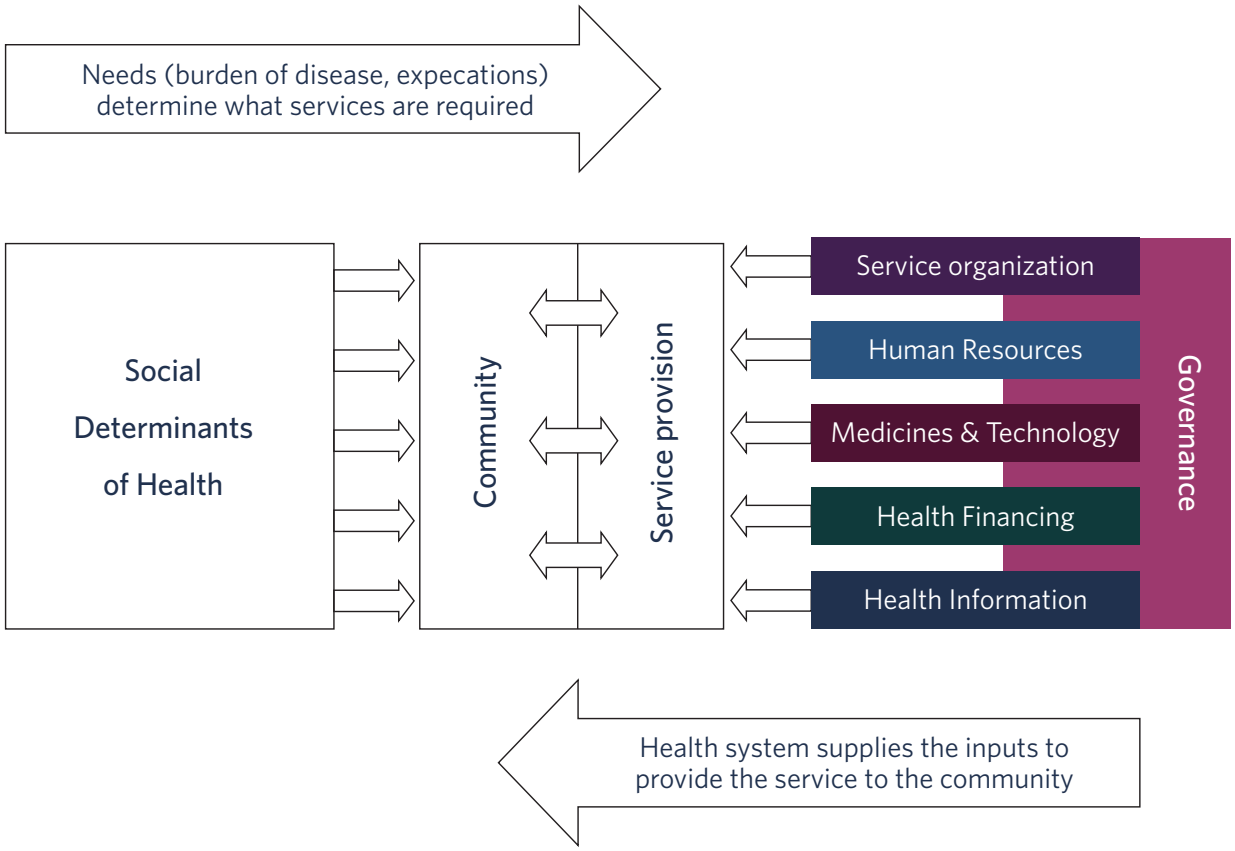

FIG. 5. The health systems framework

supply is inadequate, patients cannot be treated effectively. Likewise, in an otherwise excellently resourced system, if staff are not adequately trained in mental health care, they may be unable to detect and treat the patients with mental health problems. Hence, it is important to consider the adequacy of all six building blocks of the health system and how they work together.

The guidance is in four parts (see Fig. 6). Part 1 (this review) informs Parts 2–4, which describe the "what" and "how" of assessing preparedness, implementation, monitoring and review.

Part 3 of this guidance, the toolkit for delivery of mental health services in PHC, provides more-detailed information on how to reform services to provide integrated mental health care in PHC. The key actions to strengthening each of the health system building blocks are summarized in Table 3.

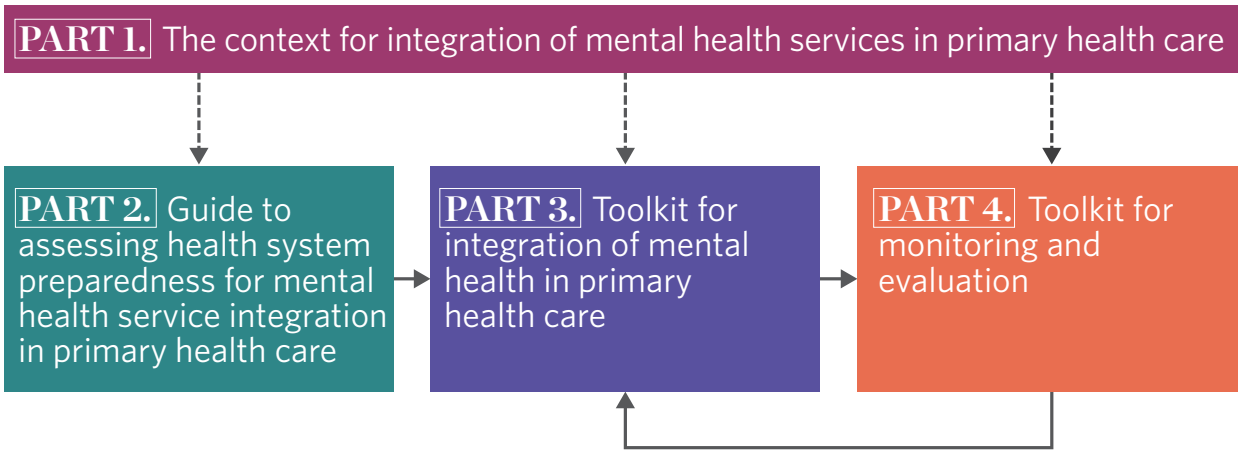

FIG. 6. The four parts of the guidance on integration of mental health in primary health care

TABLE 3. Overview of system-strengthening actions

Building block	System-strengthening actions
Governance	▪ Good, transparent governance with political commitment, political discourse and engagement with both the public and private sector ▪ Leadership to manage the integration of mental health care in PHC ▪ Strategic vision for integration of mental health in PHC articulated in the mental health care policy and plan and in the disaster/emergency preparedness plan ▪ Mental health plans include specific goals, budgets and timelines ▪ Accountable allocation of resources consistent with plans (e.g. specific mental health provision allocated by territory, level or programme, etc.) ▪ A whole-government approach ▪ Effective system for coordination and participation of associations of persons with mental disorders and their families and other stakeholders in mental health policy, legislation and advocacy ▪ Updated mental health legislation, consistent with internationally agreed standards of human rights, supported by standardized documentation and procedures, good practice guidelines, and standards and training requirements for the health professionals who implement the legislation ▪ National external quality and rights review body ▪ Monitoring of effectiveness and efficiency ▪ Development of a collaborative plan of action ▪ Effective advocacy activities
Service organization	▪ Balanced model of mental health services mapped to meet needs ▪ Agreed mental health interventions to be provided at PHC level, complementing those to be delivered through other channels ▪ A public health approach, providing person-centred coordinated care across diseases and settings ▪ Designated specialist services (hospital and community mental health teams) to take referrals, with an efficient referral and back-referral system with good coordination, documentation and communication, and to provide support and supervision ▪ Secure individual health records system ▪ Community engagement and empowerment
Human resources for mental health	▪ Long-term, costed, human resources plan for integrating mental health into PHC ▪ Provision of mental health services by non-specialist health workers through task sharing ▪ Professional licensing and job descriptions ▪ Endorsed competency-based training (pre-service and in-service) ▪ Provision of training and supervision for PHC staff, e.g. by transition of mental health specialists' role from purely service delivery to include training and supervision ▪ Recognition of new knowledge, skills and responsibilities through appraisal, performance review and staff promotion ▪ Adequately staffed PHC services with good conditions of service to attract and retain staff (reduce the external brain drain to other countries and the internal brain drain from the public health sector to international NGOs) ▪ Team organization within PHC facilities ▪ Systems for PHC workload demand management ▪ Equitable distribution of PHC staff across different parts of the country, matched to population need ▪ Updated national human resources for mental health database

PHC = primary health care; NGO = nongovernmental organization.

Building block	System-strengthening actions
Medicines and technology	▪ Mental health medicines included in effective national systems for pharmaceuticals regulation and quality assurance ▪ Essential drugs list for mental health services in PHC ▪ Reliable supply system to ensure essential medicines are available in all parts of the country – with a pharmaceutical information system to monitor availability ▪ Approved guidelines on prescribing practices for psychotropic medications ▪ Information provided for patients and families on proper use of medication ▪ Essential equipment and investigations (urgent and routine) available to all PHC facilities
Mental health financing	▪ Specified national budget for mental health care with mental health service delivery targets costed, financed and monitored at a national level and at each level of the health and other relevant sectors ▪ Government and prepayment resources adequately covering selected priority mental disorders, thus limiting out-of-pocket expenses ▪ Financing for pharmaceuticals
Mental health information	▪ National focal point for mental health information ▪ Regulated procedures for collection, storage, processing, compilation and dissemination of information ▪ Updated mental health information system, integrated into all levels of the health information system, aiming towards parity with data collected for physical health conditions ▪ Minimum mental health data set and mandatory recording and reporting of suicides ▪ Annual national report with commentary, supported by data sets available at all levels, with analytical reporting down to district level – to be used in planning, monitoring and resource allocation

PHC = primary health care; NGO = nongovernmental organization.

Situational analysis of the Eastern Mediterranean Region

The countries of the Region vary widely in terms of their health outcomes, resources and stability. In 2012, the WHO Regional Office for the Eastern Mediterranean developed a classification of countries into three groups having broadly similar health system characteristics (*23*). Per capita health expenditure is greatest in high-income countries and least in those having the lowest income; in contrast the proportion of out-of-pocket expenditure on health is greatest (60–80% of all health expenditure) in countries with least resources. Higher rates of out-of-pocket expenditure correlate with financially catastrophic health care expenditure, rising dramatically when the share exceeds 20%. It is estimated that up to 16.5 million people in the Region face financial catastrophe and annually 7.5 million become poor due to out-of-pocket payments. By bringing down the share to less than 20%, countries can significantly reduce catastrophic health care expenditure.

A considerable number of countries in the Region face humanitarian crises that generate a surge in psychosocial need and the disruption of existing health systems. More than 62 million people in the Region are affected by emergencies, including 5 million refugees who remain in the Region and more than 21 million internally displaced persons. After an acute emergency, 15–20% of people suffer a mild to moderate mental disorder, and 3–4% experience mental disorder of a severity that impairs their ability to function and survive in the emergency environment. People with pre-existing health conditions are particularly vulnerable if their care and treatment is interrupted. Health systems themselves are disrupted by staff shortages, interruption to the supply of medications and loss of infrastructure (transport, power and water).

The WHO health technology assessment (HTA) approach to inform decision-makers in support of universal health coverage has an additional category, fragile states facing emergency or disaster. In this guidance we have combined WHO's standard grouping of countries of the Eastern Mediterranean Region with the HTA approach to give four groups (see Table 4). These groupings are used in Part 3 of this guidance (Toolkit for implementation of mental health service delivery in PHC) to guide countries towards plans and goals appropriate to their current income, resources and coverage.

A systematic analysis of the Region for the Global Burden of Disease Study 2013 reported a rapid increase in the burden of mental and drug-use disorders in the Region (*24*). Mental disorders and substance abuse accounted for just under 25% of all years lost to disability: between 1990 and 2013 the contribution by these two conditions increased more than most other causes. The proportion of DALYs caused by depressive disorders in women rose from 2.8% in 2005 to 3.4% in 2013.

Epidemiological studies of populations have been carried out in more than half of the countries in the Region (see Annex 4). Interpretation of studies from different countries using a variety of methods and instruments is difficult (see commentary in Annex 4, below Table A4.1), but a number of themes can be discerned. In summary, the reported rate of psychological distress in the community is 15–20%, but this is considerably higher in children and in countries with complex emergencies (35–59%). Likewise, surveys using diagnostic assessments report overall prevalence rates for mental disorders of 10–15%, made up mainly of depression and anxiety, with rates among women being 1.5–2.0 times higher than among men. Higher rates are reported among PHC attendees and from countries with complex emergencies (e.g.

TABLE 4. Country groupings based on WHO health technology assessment approach and Eastern Mediterranean Region country groups

Eastern Mediterranean Region country group	Fragile states[a]	Health technology assessment approach		
		Low-income, low-resource countries with low coverage and low staff/ population ratios[b]	Middle-income, medium-resource countries[c]	High-income, high-resource countries
REGIONAL COUNTRY GROUP 1				
Countries where socioeconomic development has progressed considerably over recent decades, supported by high income, generally with the highest densities of health staff per population				Bahrain Kuwait Oman Qatar Saudi Arabia United Arab Emirates
REGIONAL COUNTRY GROUP 2				
Largely middle-income countries which have developed extensive public health service delivery infrastructure but face resource constraints, with mid-range densities of health staff per population	Iraq[e] Libya[e] Syrian Arab Republic[e]		Egypt Islamic Republic of Iran Jordan Lebanon Morocco Occupied Palestinian territory Tunisia	
REGIONAL COUNTRY GROUP 3				
Countries which face major constraints in improving population health outcomes as a result of lack of resources for health, political instability and other complex development challenges, with the lowest densities of health staff per population	Somalia[e] Sudan[e] Yemen[e]	Afghanistan Djibouti Pakistan		

[a] *Targeting essential services, emergency kits, disaster planning.*

[b] *Targeting primary health care packages.*

[c] *Targeting guaranteed packages of care.*

[d] *Targeting marginal analysis for additions to packages.*

[e] *Countries with WHO Grade 3 and Grade 2 emergencies.*

53% in Afghanistan) with common diagnoses of depression and anxiety, including post-traumatic stress disorder (PTSD). The robustness of studies carried out using methods and instruments that have not been rigorously tested in the country concerned and that do not distinguish disorder from distress are questionable. Bearing these caveats in mind, it may not be a priority to do large-scale epidemiological surveys. In humanitarian emergency settings it is recommended that rapid situation analysis tools (MHPSS emergency toolkit) should be applied, rather than standard epidemiological surveys.

The Region faces an unprecedented scale of complex emergencies resulting from political conflicts. Conflict leads to increased numbers of people with mental disorders, including depression, anxiety, PTSD and substance use. Almost 30 million displaced people come from the Region, many of them children. Health systems are also weakened by shortages of staff and medical supplies and loss of infrastructure (transport, power and water). Parts 2–4 of this guidance include sections specifically addressing integration in emergencies.

In addition, health system planning needs to take account of the ongoing demographic changes that are occurring in many countries of the Region. Rural to urban migration is shifting the geographical need for services and creating new needs among the recently urbanized populations, who often live in underserved environments separated from traditional family and community support systems. The child and adolescent population is increasing rapidly, and planners need to take account of their growing needs. Additionally, there are substantial numbers of low skilled migrant workers (especially in the more-affluent countries) often working in adverse conditions and mostly having very limited access to health care.

Twenty-one out of the 22 countries and territories in the Region (95%) have at least partially completed the *Mental health atlas 2020* (*25*). The key findings of the atlas can be mapped onto the health service building blocks to provide an overview of mental health services in the Region in 2020 (see Table 5).

TABLE 5. Key findings from *Mental health atlas 2020* mapped onto health system building blocks

Building block	Key findings from *Mental health atlas 2020*
Governance	▪ 81% of countries in the Region reported stand-alone policies/plans for mental health, and 71% reported stand-alone mental health laws. A further 5% of countries have mental health integrated into their gen-eral health policies and/or plans, and 10% have mental health integrated into disability laws. ▪ Since 2013, 81% of countries reported updating their policies/plans; 43% reported updating of their mental health laws. ▪ Eleven countries, equivalent to 52% of responding countries, or 50% of all countries of the Region, reported full alignment of their policies/plans for mental health with international and regional human rights instruments. ▪ Thirteen countries, equivalent to 62% of responding countries, or 59% of all countries of the Region, reported full alignment of their laws for mental health with international and regional human rights instruments. ▪ Regionally there is a gap between having a policy, plan or law and its implementation. 29% of countries reported that they have mental health policies/plans and legislation implemented and fully compliant with human rights instruments. ▪ Financial resources allocated for implementation of mental health policies and plans are limited (43% of countries); only 33% of coun-tries reported that indicators were available and used to monitor implementation of most of the components of their policies/plans. ▪ Three countries reported they have neither stand-alone mental health policies/plans nor integrated ones into their general health policy/plans, and four countries reported they have neither stand-alone mental health laws nor integrated ones into their disability laws. ▪ 76% of countries have "formal" collaboration with at least one part-ner to implement mental health actions. Collaboration with nongov-ernmental organizations is reported by 71% of responding countries. Within the government, the ministry of education was the most frequently reported stakeholder (62%), followed by the ministry of social affairs (57%) and the ministry of justice (43%). ▪ 81% of ministries of health have not reported formal collaboration with mental health service user groups.
Service organization	▪ Five countries, equivalent to 24% of responding countries, or 23 % of all countries of the Region, reported functional integration of mental health into primary health care. ▪ While guidelines for mental health integration into primary health care exist and are adopted in most countries, with ongoing activities for training and supervision, the rates of integration of interventions for service delivery such as pharmacological and psychosocial intervention for mental health conditions remains limited.

Building block	Key findings from *Mental health atlas 2020*
	▪ Nineteen countries, 90% of responding countries, or 86% of all countries of the Region, reported that guidelines for mental health integration into primary health care were available and adopted at the national level. ▪ The median number of mental health beds per 100 000 population ranged below 2.5 in Group 3 countries in the Region to 9.6 in Group 1 countries. Significant disparities also exist for outpatient services and child and adolescent services. ▪ Mental health facilities for children and adolescents are sparse. Among the 12 countries with child and adolescent inpatient facilities, the median number of facilities was 0.08 per 100 000. In the 16 countries with child and adolescent outpatient facilities, the median number of outpatient facilities was 0.12 per 100 000 population. ▪ The service utilization rate for persons with psychosis (sum of admis-sions and visits per 100 000 population) was 157, with considerable variation from 70 in EMRO Group 3 countries to 532 in Group 1 countries. Mental systems served 20% of people with psychosis. ▪ Sixteen countries, equivalent to 76% of those countries that responded, or 73% of all countries of the Region, have at least two functioning national, multisectoral mental health promotion and pre-vention programmes. ▪ Out of 65 reported functioning programmes in the Region, 13 aimed to improve mental health awareness/anti-stigma, 11 were aimed at school-based mental health promotion, and 10 were MHPSS compo-nents of disaster preparedness/disaster risk reduction programmes.
Human resources for mental health	▪ Regionally, the median number of mental health workers was 8.0 per 100 000 population, but there was large variation (from 1.3 in Group 3 countries to over 22 in Group 1 countries). ▪ Eighteen countries, 86% of responding countries, or 82% of all coun-tries of the Region, reported that training on management of mental health conditions was delivered to health workers at the primary care level. ▪ Fifteen countries, 71% of responding countries, or 68% of all coun-tries of the Region, reported that mental health specialists were in-volved in training and supervising primary care professionals.
Medicines and technology	▪ Five countries, 24% of responding countries, or 23% of all countries of the Region, reported that pharmacological interventions were available and provided in more than 75% of their primary care centres; and two countries, 10% of responding countries, or 9% of all countries of the Region, reported that psychosocial interventions were available and provided in more than 75% of their primary care centres.
Financing	▪ Levels of public expenditure on mental health are low (1.8% of health expenditure in nine reporting countries). Regionally, 82% of public mental health expenditure goes to mental health hospitals. ▪ Nine countries, 43% of responding countries, or 41% of all countries of the Region, reported that care and treatment of persons with severe mental disorders (e.g., psychosis, bipolar disorder and depression) was included in national health insurance or reimbursement schemes and insurance coverage of inpatient/outpatient mental health services. 78% of these countries, or 32% of all countries of the Region, stated that disorders were explicitly listed as included conditions. ▪ The existence of any form of government social support for persons with severe mental disorders were high (19 countries, or 90% of responding countries). However, 43% of responding countries report that it was available only to few persons and not to most of the population. 40% of Group 3 countries reported that no social support is provided, and none of the Group 3 countries reported that most persons receive such support. None of the Group 2 or 3 countries reported that no social support was provided. ▪ Only two countries, 10% of responding countries, cover at least to a proportion of the population for all the categories of social support included in atlas (education, social care, income, employment, legal and housing).

All countries in the Region have recognised the advantages of integrating mental health care into primary health care, and have made some progress towards implementing this. However, the extent of functional integration varies between countries (see Fig. 7), and is often patchy within countries.

Seven countries in the Region have started to implement mhGAP using a phased cascading approach: Afghanistan, Iraq, Jordan, Pakistan, Somalia (also for undergraduate education), Syrian Arab Republic

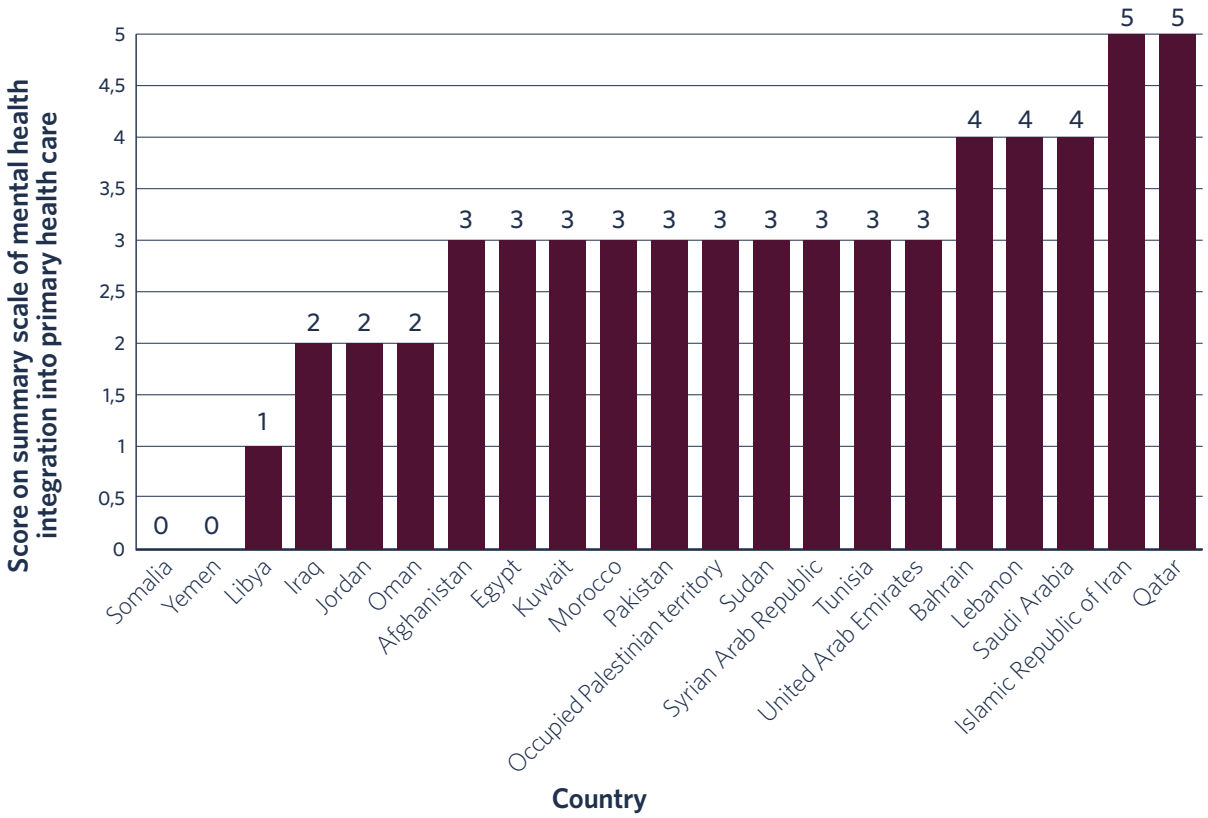

FIG. 7. Functional integration of mental health into primary health care in countries of the Eastern Mediterranean Region: composite of the five components of mental health integration into primary health care reported in the *Mental health atlas 2020*, including guidelines, coverage of pharmacological and psychosocial interventions, training and supervision

All countries in the Region have recognised the advantages of integrating mental health care into primary health care, and have made some progress towards implementing this. However, the extent of functional integration varies between countries (see Fig. 7), and is often patchy within countries.

Seven countries in the Region have started to implement mhGAP using a phased cascading approach: Afghanistan, Iraq, Jordan, Pakistan, Somalia (also for undergraduate education), Syrian Arab Republic and Tunisia. Six countries have used a different approach to integrate mhGAP, depending on the country's current context and historical development: Lebanon, Libya, Oman, occupied Palestinian territory, Qatar and Sudan. Feedback from the countries which have started implementation of mhGAP has indicated that:

- The mhGAP programme needs to be explicitly linked with existing global, regional and national health and mental health strategies/plans as a programme to address the GAP(s).
- The mhGAP Intervention Guide needs to be sited within the broader context of the overall strategy for health workforce and health service development in the country.
- mhGAP initiation can serve as an entry point for development/review/update of policies/plans and legislation.
- mhGAP initiation can help with the reorganization of mental health service delivery.
- mhGAP initiation helps with advocacy and empowerment of/development of user/family groups.
- The mhGAP Intervention Guide can be used for strengthening the mental health component of medical and allied curricula at undergraduate levels in countries

As in other countries, stigma and discrimination are major challenges for people with mental health conditions and for the implementation of community mental health care (*8*). This includes negative attitudes of health staff and in some cases disregard for the human rights of people with mental illness. There has been relatively little research from low- and middle-income countries, but research from elsewhere suggests that social contact interventions can effectively reduce stigma, at least in the short term (*26,27,28,29*).

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Annex 1.

Summary table of evidence for pharmacologic and psychological treatment of mood, anxiety, and psychotic disorders

Table A1.1 summarizes the general evidence for pharmacologic and psychological treatment of mood, anxiety, and psychotic disorders. In the clinical delivery of these treatments other factors must be taken into account, such as patient preference, human resource capability, feasibility and long-term benefits. Some priority interventions can be most efficiently delivered through the PHC channel (see Table 1), while others are recommended to be delivered by specialist mental health services.

Shidhaye et al, 2016[1], listed the following forms of treatment, care and rehabilitation for delivery through specialist mental health care:

- electroconvulsive therapy for severe refractory depression;
- surgical interventions for refractory epilepsy;
- pharmacological management of dementia (cholinesterase inhibitors and memantine);
- methadone maintenance therapy for opioid dependence, buprenorphine as opioid substitution therapy;
- management of refractory psychosis using clozapine;
- management of severe alcohol withdrawal;
- management of severe maternal depression using antidepressants;
- stimulant medication for severe cases of attention-deficit hyperactivity disorder;
- cognitive behavioural therapy-based interventions and anger control training for adolescents with disruptive behavioural disorders.

TABLE A1.1. Review of evidence for pharmacologic and psychological treatment of mood, anxiety and psychotic disorders

Disorder	First-line treatment	Second-line treatments or adjunct treatment
MOOD DISORDERS		
Depressive disorder	Antidepressants: ▪ Tricyclic antidepressants and selective serotonin reuptake inhibitors (Silva de Lima & Hotopf, 2003; von Wolff et al., 2013)[a] Psychotherapy: ▪ Brief psychological interventions (Cuijpers et al., 2009)b ▪ Problem-solving therapy (Cuijpers, van Straten & Warmerdam, 2007; Huibers et al., 2007)[b] ▪ Cognitive behavioural therapy (Orgeta et al., 2014; Wilson et al 2008)[a]	For postpartum depression: Psychological and social interventions (Dennis & Hodnett, 2007)[a] SSRIs, but safety for breastfeeding neonates is uncertain (Molyneaux et al., 2014)[a] For psychotic depression: Combination of an antipsychotic and an antidepressant (Wijkstra et al., 2013)[a] For refractory depression: Combined CBT and antidepressant (Wiles et al., 2013)[c]

1 Shidhaye R, Lund C, Chisholm D. Health care platform interventions. In: Patel V, Chisholm D, Dua T, et al., eds. Disease control priorities, 3rd ed, vol 4: Mental, neurological and substance use disorders. Washington DC: International Bank for Reconstruction and Development and World Bank; 2016.

Disorder	First-line treatment	Second-line treatments or adjunct treatment
Depressive disorder	▪ Behavioural therapies (Shinohara et al., 2013)[a] ▪ Psychodynamic therapies (Abbass et al., 2014)[a] ▪ Interpersonal psychotherapy (de Mello et al., 2005)[a]	Electroconvulsive therapy: ▪ (Martinez-Amoros et al., 2012; UK ECT Review Group, 2003)[a] ▪ Transcranial magnetic stimulation (Gaynes et al., 2014)[a]
Notes	▪ Antidepressants are also effective for depression in people with physical illnesses (Rayner et al., 2010)[a] ▪ Antidepressants can be effectively prescribed in primary care settings (Arroll et al., 2009)[a] ▪ Problem-solving therapy can be delivered by general practitioners (Huibers et al., 2007)[a] ▪ Group interpersonal therapy is effective in community-based, low-resource settings (Bass et al., 2006)[c] ▪ Older tricyclic antidepressants are similar in efficacy to newer drugs, but have greater side effects (Mottram et al., 2006)[a] ▪ Continuation of treatment with drugs for 9–12 months following response to medication reduces the risk of relapse (Kaymaz et al., 2008;[b] Wilkinson et al., 2012[a]) ▪ Evidence to suggest the superiority of one type of psychological intervention over another is limited (Cuijpers et al., 2008;[b] Moradveisi et al., 2013[c])	
Bipolar disorder	▪ Combination of second-generation antipsychotics and mood stabilizers for acute mania (Scherk et al., 2007)[a] ▪ Lithium, valproate, lamotrigine, and olanzapine for maintenance therapy to prevent relapse (Soares-Weiser et al. 2007)[a]	▪ Psychotherapies like CBT, group psychoeducational therapy, and family therapy (Soares-Weiser et al. 2007)[a]
ANXIETY DISORDERS		
Anxiety disorders	▪ Antidepressants (Kapczinski et al. 2003)[a]	
Generalized anxiety disorder	▪ CBT-based psychotherapies (Hunot et al., 2007)[a]	
Panic disorder	▪ Combined therapy (CBT and antidepressants) or CBT alone (Furukawa et al., 2007)[a]	
Post-traumatic stress disorder	▪ No psychological intervention can be recommended routinely following traumatic events, and this may also have adverse effects on some individuals (Roberts et al., 2009). ▪ SSRI antidepressants (Stein et al., 2006)[a] ▪ CBT (particularly trauma-focused CBT) (Roberts et al., 2010).	▪ Non-trauma focused CBT and eye movement desensitization and reprocessing (Bisson et al., 2013)[a]
Notes	▪ There is no conclusive evidence of greater effectiveness of combined pharmacotherapy and psychotherapy over either of them alone for PTSD (Hetrick et al., 2010)[a]	

Disorder	First-line treatment	Second-line treatments or adjunct treatment
SCHIZOPHRENIA		
Schizophrenia	▪ First-generation antipsychotics, such as haloperidol and fluphenazine, for positive symptoms (Tardy et al., 2014; Tardy et al., 2014)[a] ▪ Combination of antipsychotics and antidepressants is effective for negative symptoms (Rummel et al., 2006)[a] ▪ Second-generation antipsychotics (amisulpride, clozapine, olanzapine, and risperidone). These are superior to first generation antipsychotics in efficacy and have different side effect profiles (Leucht et al., 2009)[a]	▪ CBT as adjunctive treatment for positive symptoms (Zimmermann et al., 2005)[b] ▪ Cognitive remediation therapies, in early stages of the disorder (Fisher et al., 2013)[d] ▪ Psychoeducation reduces relapse, readmission, and length of hospital stay while encouraging medication compliance (Xia, et al., 2011)[a] ▪ Psychosocial interventions for reducing the need for antipsychotic medications (Richter et al., 2012)[a] ▪ Clozapine for refractory schizophrenia but needs monitoring for side effects (Essali et al., 2009)[a]
Notes	▪ Continued antipsychotic medication following a clinical response helps prevent relapse (Leucht, et al., 2012; Sampson, et al., 2013)[a] ▪ Acetylcholinesterase inhibitors are effective to overcome anticholinergic side effects of antipsychotic drugs (Leucht, et al., 2012)[a] ▪ Evidence for clear and convincing advantage for CBT over other therapies is limited (Jones et al., 2012)[a]	

CBT = cognitive behavioural therapy; PTSD = post-traumatic stress disorder; SSRI = selective serotonin reuptake inhibitor.

[a] *Systematic review.*

[b] *Meta-analysis.*

[c] *Randomized controlled trials in low- and middle-income countries.*

[d] *Review.*

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Annex 2.

Regional framework to scale up action on mental health in the Eastern Mediterranean Region

Domain	Strategic interventions	Proposed indicators
Governance	▪ Establish/update a multisectoral national policy/strategic action plan for mental health ▪ Embed mental health and psychosocial support in national emergency preparedness and recovery plans	▪ Country has an operational multisectoral national mental health policy/plan in line with international/regional human rights instruments ▪ Mental health and psychosocial support provision is integrated in the national emergency preparedness plans
	▪ Review legislation related to mental health in line with international human rights covenants/instruments	▪ Country has updated mental health legislation in line with international/regional human rights instruments
	▪ Integrate priority mental conditions in the basic health delivery package of the government and social/ private insurance reimbursement schemes	▪ Inclusion of specified priority mental health conditions in basic packages of health care of public and private insurance/reimbursement schemes ▪ Enhanced budgetary allocations are in place for addressing the agreed upon national mental health service delivery targets
Health care	▪ Establish mental health services in general hospitals for outpatient and short-stay inpatient care ▪ Integrate delivery of cost-effective, feasible and affordable evidence-based interventions for mental conditions in primary health care and other priority health programmes ▪ Provide people with mental health conditions and their families with access to self-help and community-based interventions. ▪ Downsize the existing long-stay mental hospitals	▪ Proportion of general hospitals which have mental health units, including inpatient and outpatient units ▪ Proportion of persons with mental health conditions utilizing health services (disaggregated by age, sex, diagnosis and setting) ▪ Proportion of primary health care facilities with regular availability of essential psychotropic medicines ▪ Proportion of primary health care facilities with at least one staff trained to deliver non-pharmacological interventions ▪ Proportion of mental health facilities monitored annually to ensure protection of human rights of persons with mental conditions using quality and rights standards
	▪ Implement best practices for mental health and psychosocial support in emergencies	▪ Proportion of health care workers trained in recognition and management of priority mental conditions during emergencies
Promotion and prevention	▪ Provide cost-effective, feasible and affordable preventive interventions through community and population-based platforms ▪ Train emergency responders to provide psychological first aid	▪ Proportion of schools implementing the whole-school approach to promote life skills ▪ Proportion of mother and child health care personnel trained in providing early childhood care and development and parenting skills to mothers and families ▪ Proportion of mother and child health care personnel trained in early recognition and management of maternal depression

Domain	Strategic interventions	Proposed indicators
		▪ Proportion of mother and child health care personnel trained in early recognition and management of maternal depression ▪ Availability of operational national suicide prevention action plan ▪ Regular national campaigns to improve mental health literacy and reduce stigma using multiple delivery channels ▪ Psychological first aid (PFA) training is incorporated in all emergency responder trainings at national level
Surveillance, monitoring and research	▪ Integrate the core indicators within the national health information systems ▪ Enhance the national capacity to undertake prioritized research	▪ Routine data and reports at national level available on the core set of mental health indicators ▪ Annual reporting of national data on numbers of deaths by suicide

Cost-effective, feasible and affordable evidence-based interventions (Best Buys) for prevention of and management of mental disorders	▪ Diagnosis and management of depression (including maternal depression) and anxiety disorders ▪ Continuing care of schizophrenia and bipolar disorder ▪ Psychological treatment for mood, anxiety, attention deficit hyperactivity disorder (adhd) and disruptive behaviour disorders among children ▪ Diagnosis and management of dpilepsy and headaches ▪ Screening and brief interventions for alcohol use disorders ▪ Self-managed treatment of migraine ▪ Support for caregivers of patients with dementia ▪ Opioid substitution therapy (e.G. Methadone and buprenorphine) for opioid dependence ▪ Treatment of epilepsy (with older first-line antiepileptic drugs), ▪ Support for early childhood development and parenting skills ▪ Life-skills training in schools to build social and emotional competencies
Good practices for mental health and psychosocial support in emergencies	▪ Community self-help and social support ▪ Early childhood development activities ▪ Management of mental health problems relevant to emergencies by trained nonspecialist staff ▪ Provision of evidence-based psychological interventions through lay workers
Good practices for prevention of mental disorders and promotion of mental health	▪ Mass information and awareness campaigns for promoting mental health literacy and reducing stigma ▪ Integrating mental health promotion strategies, such as stress reduction, into occupational health and safety policies ▪ Regulations to improve obstetric and perinatal care ▪ Strengthening of immunization; salt iodization programmes; folic acid food fortification; and selective protein supplementation programmes to promote healthy cognitive development

 WHO-EM/MNH/199/E

Annex 3.

Framework for action on advancing universal health coverage (UHC) in the Eastern Mediterranean Region

Strategic component	Actions for countries	Support from WHO and other development partners
Developing a vision and strategy for universal health coverage	▪ Formulate a vision to transform the national health system towards UHC ▪ Establish a multisectoral mechanism for UHC at the highest level ▪ Institutionalize a mechanism for public involvement in the development and promotion of a UHC vision and strategy, e.g. through public representative assemblies and civil society. ▪ Undertake an evidence-informed health system review for UHC to assess the status of and gaps in financial protection, service and population coverage ▪ Develop a roadmap for health system strengthening to achieve UHC with short, medium and long-term goals ▪ Strengthen reliable monitoring and evaluation system to track, evaluate and report UHC progress ▪ Enhance public investment and public–private partnership for UHC ▪ Promote implementation research for UHC	▪ Facilitate convening of stakeholders for dialogues on UHC vision and strategies ▪ Share global experience, evidence and good practices in strengthening health systems towards UHC ▪ Develop national capacities in health system strengthening and leadership for UHC ▪ Provide technical support to strengthen national health information systems to effectively monitor and evaluate equitable progress towards UHC ▪ Provide support for improving public investment, public–private partnership, resource mobilization and aid-effectiveness
Improving health financing system performance and enhancing financial risk protection	▪ Develop and implement an evidence-informed health financing strategy for UHC ▪ Analyse health expenditure patterns and health financing arrangements using household surveys, health accounts and other diagnostic tools to identify gaps and underlying causes ▪ Track the incidence of catastrophic health expenditures and impoverishment, differentiated along socioeconomic and demographic dimensions ▪ Engage with national finance authorities to promote predictable public financing for health and ensure alignment with health sector requirements for UHC ▪ Explore creative revenue raising mechanisms for health	▪ Assist in development of health financing reform options for advancing UHC ▪ Support the development of national health care financing strategies towards UHC ▪ Support the "health budget dialogue" for UHC, covering issues of fiscal sustainability and public financial management ▪ Build capacities on health expenditure surveys, health accounting, economic evaluation and other health financing system diagnostic tools ▪ Develop guidance on prepayment arrangements including social health insurance ▪ Facilitate exchange of knowledge and experience between policy-makers and financial managers on health financing reform

Strategic component	Actions for countries	Support from WHO and other development partners
	▪ Establish/expand prepayment arrangements, e.g. social health insurance and general government revenue arrangements, to limit out-of-pocket payments ▪ Reduce fragmentation in pooling arrangements across different schemes to avoid negative consequences for equity and efficiency ▪ Move from passive to strategic purchasing arrangements (by linking decisions on resource allocation to information on providers' performance and health needs) ▪ Unify national information systems for provider payment ▪ Identify sources of health sector inefficiencies and ensure value for money	▪ Build regional and national consensus on health financing reforms for UHC
Expanding the coverage of needed health services	▪ Improve quality, safety and continuity of care by expanding person-centred integrated health service delivery ▪ Design and implement a service package of highest priority evidence-informed person- and population-based interventions ▪ Improve health workforce availability, accessibility, quality and performance to meet current and future health service requirements ▪ Ensure reliable access to, and regulation, quality, safety and affordability of essential medicines and health technologies, as part of the services package, appropriately employing health technology assessment (HTA) ▪ Integrate emergency health care in service delivery to enhance health system resilience ▪ Strengthen engagement with and regulation of for-profit and not-for-profit private sector for service provision in support of UHC	▪ Facilitate national planning for accelerating implementation of integrated quality health services, including progressive adoption of the family practice model ▪ Develop guidance on designing, costing and implementing a service package of highest priority interventions ▪ Support development and implementation of national strategic plans in the context of the regional strategic framework for health workforce development ▪ Assist in the development of national policies and strategies for quality of care and patient safety ▪ Support national efforts in improving access to essential medicines and health technologies, including promoting the use and institutionalization of HTA ▪ Build capacity in assessing, regulating and partnering with the private sector
Ensuring expansion and monitoring of population coverage	▪ Prioritize expansion of service coverage and financial protection for vulnerable and informal groups as part of the Sustainable Development Goals ▪ Collect data, disaggregated by socioeconomic and demographic factors, to monitor equity in progress towards UHC	▪ Share experience from countries on mechanisms to cover informal and vulnerable groups ▪ Develop a framework for monitoring population coverage and UHC

Annex 4.

Community/primary health care-based surveys of the prevalence of mental disorders in countries of the Eastern Mediterranean Region

TABLE A4.1. Community/primary health care-based surveys of the prevalence of mental disorders in countries of the Eastern Mediterranean Region

Country (year data collected)	Sample	Instrument	Male	Female	All
ASSESSMENT BY SCREENING QUESTIONNAIRE					
CHILD AND ADOLESCENT					
Iraq: Mosul (Before 2006)[1]	Multi-stage randomized sample of 3079 children aged 1–15 years in Mosul city	Questionnaire includ-ing diagnostic criteria from DSM-IV-TR2000	*Total* 40.9%	*Total* 33.2%	*Total* 37.4%
Occupied Palestinian territory: Gaza Strip (1996–97)[2]	959 school students aged 6–12 years from a clustered sampling of schools	Rutter Scale B2 for teachers	54.5%	46.5%	48.2%
Oman (2005)[3]	Nationally representative sample of 5409 school students aged 14–20 years, selected by a multi-stage stratified sampling	General Health Questionnaire (GHQ-12) and Child Depression Inventory (CDI)	Depression 14.7%	Depression 19.4%	Depression 17%
ADULTS IN THE COMMUNITY					
Afghanistan (2002)[4]	Randomized multi-stage clustered sample of 669 residents aged 15+ years	Medical Outcomes Study 36-item Short Form Health Survey (SF-36), Hopkins Checklist-25 (HSCL-25), Harvard Trauma Questionnaire (HTQ)	Depression 59% Anxiety 59% PTSD 32%	Depression 73% Anxiety 84% PTSD 48%	– – –
Afghanistan: Nangarhar (2003)[5]	Randomized multi-stage clustered sample of 1011 residents aged 15 years and above from the Nangarhar province	Hopkins Symptom Checklist and Harvard Trauma Questionnaire	Depression 16.1% Anxiety 21.9% PTSD 7.5%	Depression 58.4% Anxiety 78.2% PTSD 31.9%	Depression 38.5% Anxiety 51.8% PTSD 20.1%

Country (year data collected)	Sample	Instrument	Male	Female	All
Islamic Republic of Iran (before 2004)[6]	Nationally representative sample of 31 014 persons aged 15 years and above, selected by random cluster sampling	28-item version of the General Health Questionnaire	15.8%	29%	21%
Iraq (2006–07)[7]	Nationally representative sample aged 18 years and over: 9256 households completed SRQ	Symptom Reporting Questionnaire (SRQ)	30.4%	40.4%	35.5%
Southern Sudan: Juba (2005)[8]	1242 adults (aged over 18 years) from a cross-sectional, random, cluster survey of residents	Harvard Trauma Questionnaire Hopkins Symptom Checklist-25	PTSD 29.7% Depression 40.9%	PTSD 42.5% Depression 58.7%	PTSD 36.2% Depression 49.9%
United Arab Emirates (1996–97)[9]	1394 participants aged 18+ years from a sample of 1696 households in Al Ain	Symptom Reporting Questionnaire (SRQ)	–	–	15.6% (95% CI: 11.8–19.5)
ADULTS ATTENDING PHC					
Oman (2000)[10]	100 consecutive patients attending at a primary care polyclinic	Symptom Reporting Questionnaire (SRQ)	–	–	32%
ASSESSMENT BY DIAGNOSTIC INTERVIEW					
CHILDREN AND ADOLESCENTS					
Islamic Republic of Iran: Mashhad (before 2006)[11]	1083 preschool children aged 5–6 years sampled through a multi-stage random sample of children attending at kindergartens in Mashhad	Conner's Index questionnaire followed by Schedule for affective disorders and schizophrenia for schoolage children, present and lifetime version (K-SADS-PL)	ADHD 18.1%	ADHD 6.7%	ADHD 12.3%
Oman (2005)[12]	Nationally representative sample of 1682 school-going Omani adolescents and youths aged 14–23 years	Composite International Diagnostic Interview (CIDI)	–	–	Lifetime prevalence of any psychiatric disorder 13.9% Major depressive disorder 3.0% Bipolar mood disorder 1% Specific phobia 5.8% Social phobia 1.6%

Country (year data collected)	Sample	Instrument	Male	Female	All
Sudan: Khartoum (Before 2002)[13]	Multi-stage randomized sample of 272 schoolgirls aged 12–19 years from Khartoum	Beck Depression Inventory (BDI) followed by Present State Examination (PSE)	–	Major depression 4.2%	–
United Arab Emirates: Al Ain (before 2003)[14]	329 children aged 6–18 years randomly sampled from households in Al Ain	Kiddie Schedule for Affective Disorders and Schizophrenia for school age children (K-SADS)	–	–	22.2%
United Arab Emirates: Al Ain (1995–1996)[15]	199 students aged 6–16 years randomly sampled from a stratified cohort of 3278 students screened in Al Ain attending at government schools	Reporting Questionnaire for Children (RQC), Rutter Children's Behaviour Questionnaire-A2 scale for parents and Physician Reporting Questionnaire (PRQ) followed by Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present Episode version (K-SADS-P)	–	–	10.4%
Yemen: Mukalla/Tuban (2002–03)[16]	262 schoolchildren aged 7–10 years randomly sampled from Mukalla and Tuban	Strength and Difficulties Questionnaire (SDQ) and Development and Wellbeing Assessment (DAWBA)	Any 19.8%	Any 12.1%	Any 15.7%
ADULTS IN THE COMMUNITY					
Egypt (2003)[17]	Representative sample of 14 640 adults aged 18–64 years in 5 regions	Mini International Neuropsychiatric Interview (MINI-Plus)	10.6%	21.1%	16.9% (95% CI: 16.3–17.6)
Egypt: Cairo (2010)[18]	2189 individuals aged 18–64 years from a randomized sample of households in Cairo	Present State Examination 10th Revision (PSE-10)	Any psychiatric disorder 13.1%	Any psychiatric disorder 22.5%	Any psychiatric disorder 18.4% GAD 7.1% MDD 5.9% Specific phobia 3.7% Dysthymia 3.5% Subclinical symptoms 18.6% 12-month prevalence

Country (year data collected)	Sample	Instrument	Male	Female	All
Egypt: Dakhalia (2010)[19]	810 individuals aged 15–65 from a randomized sample of households in Dakhalia, Egypt	Present State Examination 10th Revision (PSE-10)	Any psychiatric disorder 8.5%	Any psychiatric disorder 14.4%	Any psychiatric disorder 10.6% Mood disorder 4.8% Anxiety disorder 4.3% Somatoform disorder 1.4% Dissociative disorder 1.4% Psychotic disorder 0.6% 12-month prevalence
Islamic Republic of Iran (2011)[20]	3-stage cluster sample of 7886 in-dividuals aged 15–64 years from Ira-nian households	Composite International Diagnostic Interview (CIDI, version 2.1) followed by Persian translation of the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I) for those with a psychotic disorder	Any psychiatric disorder 20.8%	Any psychiatric disorder 26.5%	Any psychiatric disorder 23.6%; Major depressive disorder 12.7% Generalized anxiety disorder 5.2% Obsessive Compulsive Disorder 5.1%
Iraq (2006–7)[7]	Representative sample aged 18+ years: 9256 households completed SRQ, 4332 individuals completed CIDI	Symptom Reporting Questionnaire (SRQ) followed by Composite International Diagnostic Interview (CIDI)	Any psychiatric disorder 30-day: 4.03% 12-month: 8.8% Lifetime: 13.7%	Any psychiatric disorder: 30-day: 10.3% 12-month: 13.4% Lifetime: 19.5%	Any psychiatric disorder: 30-day 7.1% 12-month: 11.1% Lifetime: 16.6%
Lebanon (2002–3)[21]	Nationally repre-sentative sample of 2856 persons aged 18+ years	Composite International Diagnostic Interview (CIDI)	–	–	12-month: 16.9%
Morocco: Casablanca (before 2006)[22]	Randomly selected sample of 800 aged 15–80 years systematically sampled from Casablanca	Mini International Neuro-Psychiatric Interview (MINI)	–	–	Anxiety 25.5%

Country (year data collected)	Sample	Instrument	Male	Female	All
Morocco (2004–05)[23]	Systematic nationally representative randomized sample of 5498 persons aged 15+ years	Mini International Neuropsychiatric Interview (MINI)	34.3%	48.5%	40.1% Depression 26.5% Anxiety 37%
Pakistan (1995 & 1998)[24,25]	Rural village population aged 18+ years All of an urban population of 774, aged 18+ years	Bradford somatic inventory followed by psychiatric assessment using ICD-10 research diagnostic criteria	25% 10%	66% 25%	–
Pakistan: Manora (before 2004)[26]	Rural population of 1800 females aged 18+ years from all 400 households on Manora Island	Mini international Neuropsychiatric Interview (MINI)	–	Depression 7.5%	–
United Arab Emirates: Al Ain (1996–7)[27,28]	1394 participants aged 18+ years from a sample of 1696 households in Al Ain	Composite Internatio-nal Diagnostic Interview (CIDI)	5.1%	11.4%	8.2% (95% CI: 6.7–9.7) Lifetime prevalence
United Arab Emirates (1989–90)[29]	300 participants from a random sample of 247 households in 7 districts of Dubai	Present State Examination	–	–	22.6%
ADULTS ATTENDING PHC					
Afghanistan: Nangarhar (2004)[30]	Multi-cluster sample of 116 persons older than 15 years attending at health centres	Psychiatric Assessment Schedule	Any disorder: 43.4% Depressive disorder: 28.3% Anxiety disorder (including PTSD):28.3% PTSD: 1.9% Somatization: 3.8%	Any disorder: 60.3% Depressive disorder: 52.4% Anxiety disorder (including PTSD): 20.6% PTSD: 4.8% Somatization: 0.0%	Any disorder: 52.6% Depressive disorder: 41.4% Anxiety disorder (including PTSD): 24.1% PTSD 3.4% Somatization: 1.7%
Qatar (2009)[31]	Nationally representative sample of 1660 primary health care attenders aged 18–65 years	Self-administered questionnaire validated as part of the study with diagnosis subse-quently clinically determined by a psychiatrist using DSM-IV criteria	–	–	Any psychiatric disorder 36.6% Depression 13.5% Anxiety disorders 10.3%

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PTSD = post-traumatic stress disorder; ADHD = attention deficit hyperactivity disorder; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders, 4th Edition.

Commentary on Table A4.1

Screening questionnaires capture the whole spectrum of psychological distress and therefore usually give higher prevalence rates than more tightly defined diagnostic instruments. Screening among children and adolescents suggest total prevalence rates between 37% (Iraq) and 48% (occupied Palestinian territory), with rates of depression of 17% in Oman. Most surveys of children and adolescents carried out in the Region using diagnostic instruments indicate overall prevalence rates of 10–22% (Oman, United Arab Emirates and Yemen); with specific diagnosis prevalence of 12% for ADHD (Islamic Republic of Iran), 3–4% for major depression (Oman and Sudan), and 6% for specific phobias (Oman).

Among adults, screening questionnaire surveys in the community suggest rates of psychological distress of 15–21% in the United Arab Emirates and the Islamic Republic of Iran. People attending PHC are a self-selected group and are more likely to have psychological distress than a general population sample – which is consistent with the rate being higher, 32%, among PHC attenders in Oman. In countries with complex emergencies there were higher rates, e.g. 36% in Iraq, and particularly in Afghanistan (depression 39–84%, anxiety 51–84%, and PTSD 20–48%), where the highest prevalence rates were found among women.

Most community studies of adults using diagnostic instruments reported total rates of 10–25% (Egypt, Iran [Islamic Republic of], Iraq, Lebanon, United Arab Emirates and men in Pakistan) – these included specific diagnoses, mainly depression and anxiety disorders. Higher overall rates (40%), particularly for anxiety (37%) and depression (27%) were found in Morocco. Community prevalence rates for women are consistently higher than for men, notably in rural Pakistan (66% vs 25%). Two studies of PHC attenders using diagnostic instruments indicated higher rates of 37% (Qatar) and 53% (Pakistan), mainly for depression and anxiety disorders, including PTSD (in Afghanistan).