



HAS 025: IMPROVING MENTAL HEALTHCARE IN RESOURCE-POOR SETTINGS

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EXECUTIVE SUMMARY

Mental health is an essential component of strong health systems, and is vital for the economic and social development of low- and middle-income countries (LMIC).

Good mental health is important for several reasons. It affects the physical health of the population; children's educational achievement and their future prospects as adults; social capital (amount of trust and reciprocity) in communities; and the economy.

Mental, Neurological and Substance-use (MNS) disorders are prevalent in all regions of the world. Globally they account for 10.4% of Disability-Adjusted Life Years (DALYs), 2.3% of years of life lost due to premature mortality (YLLs¹) and 28.5% of years lived with disability (YLDs). Worldwide, as measured in YLDs, depression is the most disabling disorder. It is expected to rise from the fourth to the second leading cause of global disease burden by 2030 (Mathers & Loncar, 2006). MNS disorders cause morbidity, disability and mortality, as well as personal suffering. The impacts on families, caregivers and communities have significant health, social, human rights and economic implications. The World Economic Forum (WEF) has estimated that the lost economic output due to mental health disorders was 16.3 trillion USD between 2011 and 2030 (WEF, 2011). Depression can also lead to an intergenerational burden with cycles of disadvantage from generation to generation.

Childhood mental health disorders are associated with reduced school attendance, poor health and social skills outcomes, smoking, alcohol and drug use, as well as higher rates of subsequent adult mental disorder, unemployment, low earnings, teenage parenthood, marital problems, criminal activity and imprisonment.

Adult mental health disorders are associated with comorbidity with other non-communicable diseases, communicable diseases, sexual violence and injuries as well as low productivity while at work, sickness absence and labour turnover, unemployment, debt, poverty, homelessness, imprisonment, smoking, alcohol and drug abuse, sexual risk taking, poor diet, physical inactivity, antisocial behaviour, marital breakdown, and reduced access to appropriate health promotion, prevention and treatment programmes. They are also strongly linked to human rights violations including unhygienic and inhuman living conditions, physical and sexual abuse, neglect, and harmful and degrading treatment practices in health facilities as well as the denial of civil and political rights.

Health systems are under strain from repeat consultations, misdiagnosis and mistreatment of people who complain of physical symptoms but who actually have MNS disorders (usually depression or anxiety). Health workers often make a wrong diagnosis such as malaria, amoebiasis, or typhoid. Despite negative investigations, patients are treated accordingly and this results in drug resistance, unnecessary costs, and further repeat consultations as the symptoms remain untreated.

Misconceptions about mental health among policy makers, donors, health workers, other professionals and the wider community hinder appropriate action to address mental disorders. Individuals, families and wider society experience negative health, social and economic consequences as a result. The misconceptions are numerous and widespread. They include beliefs that mental health disorders are not real illnesses, but rather a cultural issue or a social problem; mental health disorders cannot be treated; mental illness is caused by addictions; mental illness is contagious; the burden of mental illness is minor compared to that of physical illness; and addressing mental health disorders takes away from efforts and resources to respond to physical illness. It is time to address these misconceptions head on at international and national policy and donor levels, so that equal attention is paid to both mental and physical health disorders.

Adequately addressing mental health is a core asset for Health Systems Strengthening (HSS).

¹ <http://www.healthdata.org/gbd/faq#What is a YLL?>



Health systems will be stronger if they make use of available, effective and affordable interventions to promote mental health, prevent mental illness, tackle MNS disorders and their accompanying disability, and prevent mortality. These interventions benefit mental health and help to strengthen the health system as a whole. They include the following: organisational and training interventions for primary care and district-level staff to support a holistic biopsychosocial approach (physical, psychological and social); the use of psychological interventions and medicines in primary care (see WHO treatment guidelines, Cochrane Library and NICE); dialogue with traditional health practitioners; mainstreaming of mental health in a Community-Based Rehabilitation (CBR) strategy within general community development for the rehabilitation, poverty reduction, equalisation of opportunities and social inclusion of all people with disabilities (see WHO guidance on CBR); and a wider inter-sectoral collaboration on mental health at national, provincial, district and local levels.

Health systems will be stronger if a holistic biopsychosocial approach to all clinical consultations is integrated into primary care and into district-level supervision of primary care staff. This results in improved quality of care as the complexity of clinical needs is better understood and managed, leading ultimately to better health outcomes. Contrary to common expectations, the integration of a biopsychosocial approach to all clinical consultations also results rapidly in a decreased workload for health staff because psychosocial disorders are more effectively treated. The disorders are no longer a major contribution to the repeat consultation load of untreated or poorly treated disorders, or to the cost of unnecessary treatments and their side effects. When health workers receive comprehensive training in core concepts of mental health, biopsychosocial assessment and management, they are competent and confident in their ability to address problems that may otherwise be difficult to understand or even sometimes frightening.

More operational research is needed to further develop interventions tailor-made for specific contexts, in particular for the following: national situation appraisal; policy development and implementation; training and capacity building; integration of mental health with other health priorities and in other sectors of the health system; financing; impact evaluation; and cost effectiveness of interventions.

Mainstreaming mental health throughout the health system and in other relevant sectors is essential. It is important to:

- (i) Integrate mental health into Primary Healthcare (PHC) and basic health services through training and Continuing Professional Development (CPD) for primary care workers; provide post-basic training and CPD for district-level staff and supervisors; integrate of mental illness categories into local Health Management Information Systems (HMIS); integrat of mental health and mental illness into the agenda of local health and social committees' local annual planning and budgeting; include mental health in the basic package of health care; and, include basic psychotropics into local medicine supplies.
- (ii) Mainstream mental health in programmes on Communicable Disease (CD) and Non-Communicable Disease and public health.
- (iii) Mainstream mental health in health system strengthening initiatives on HMIS, medicine supply, supervision, training, or human resource expansion.
- (iv) Mainstream mental health in the national Ministry of Health and ensure there is a knowledgeable and experienced mental health team and section visible within the Ministry of Health. It should have good links with the Ministry's teams and sections responsible for health sector reform, primary care, prevention, HMIS, medicine supply, other NCDs and CDs; with other relevant ministries including social welfare,



education, criminal justice, employment and culture; and with key Non-Governmental organisations (NGOs) and Community-Based Organisations (CBOs).

- (v) Mainstream mental health in other relevant sectors including social welfare, education, criminal justice, employment and culture, and with key non-governmental and community based organisations, (for example, in the same way that 'nutrition' is being institutionalised through health, education, and agriculture). It should also be mainstreamed in the strengthening of fragile states and economies.

It is crucial to respond capably and effectively to the growing momentum to put mental health higher on the agenda. Efforts include those from European Union Delegations (EUD) and current health support programmes; the World Health Organization (WHO) Mental Health Action Plan 2013-2020; the Gulbenkian Foundation's mental health platform on new approaches; the World Bank's mental health blog; and Centrafrique-Fonds Békou, a multi-donor, multi-sector trustfund led by the EU. Case studies provided in Annex 1 highlight practical developments that can be used to scale up mental health strategies across LMICs.

EU institutions should:

- (i) Develop a common strategy to support mental health in LMICs. (This includes principles of integrating mental health into primary care, training, essential medicines, HMIS, supervision, integration of mental health into national health sector reforms, basic health care packages, annual operational plans, and national policies on health, social welfare, education and criminal justice). Build cross-cutting mental health expertise within Directorate-General for International Cooperation and Development (DG DEVCO), Directorate-General for Health and Food Safety (DG SANTE), Directorate-General for the European Commission's Humanitarian Aid and Civil Protection Department (DG ECHO) and EU Delegations (EUDs);
- (ii) Encourage coherence between Sustainable Development Goal (SDG) indicators and the EU Results Framework and indicators on mental health;
- (iii) Use available entry points to mainstream mental health, especially in health system strengthening; CD and NCD programmes, and between health, social, educational, workplace and criminal justice sectors;
- (iv) Address urgent human resource issues through prioritising training on mental health and supervision of the primary care workforce;
- (v) Promote mental health in international and national policy dialogue (for example, via the International Health Partnership Plus (IHP+)); and,
- (vi) Review how mental health can be integrated into the various tools of EU development cooperation.

Key questions to stimulate policy dialogue on mental health between national governments, and development partners (DP) including EU Delegations are:

To what extent is mental health prioritised within your country?

Is it included in the national health sector strategic plan at national, regional, district, primary care and community level?

Are psychotropics (medications for depression, psychosis, epilepsy) included in the essential medicine list for primary care?

Are several mental disorder categories included in HMIS at primary care level (for example, depression, anxiety, acute psychosis, chronic psychosis, Post-Traumatic Stress Disorder)

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(PTSD), Attention Deficit Hyperactivity Disorder (ADHD), autism, childhood emotional disorder, childhood conduct disorder, dementia, dyslexia, alcohol abuse, drug abuse, and learning disabilities)?

Do districts provide support and supervision to primary health care on mental health?

Is there a mental health team in the Ministry of Health?

Is mental health included in the national strategies for education, social welfare, and criminal justice?

Is there a national intersectoral committee on mental health (there probably is one for addictions but not for mental health)?

Are there regional intersectoral committees on mental health?

Are there district intersectoral committees on mental health?

Has there been a national epidemiological survey of mental health to indicate prevalence and local risk factors?

Are small numbers of acute inpatient beds (for example, 10-20) for short admissions for people with severe mental illness available in each local district (for example, per 250,000 population) or do patients and families still have to travel long distances to a national or regional hospital?

Is there dialogue between the Ministry of Health and traditional health practitioners about mental health, so that people with severe illness are referred appropriately for effective treatment?



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ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorder
AIDS	Acquired Immune Deficiency Syndrome
ANDS	Afghanistan National Development Strategy
BPHS	Basic Package of Health Services
CBO	Community-Based Organisation
CBHI	Community-Based Health Insurance scheme
CBR	Community-based rehabilitation
CD	Communicable Disease
CEC	County Executive Committee
CPD	Continuing professional development
DALY	Disability-adjusted life years
DANIDA	Danish International Development Agency
DfID	Department for International Development (UK)
DG DEVCO	Directorate-General for International Cooperation and Development
DG ECHO	Directorate-General for Health and Food Safety
DG SANTE	Directorate-General for Health and Food Safety
DP	Development Partner
DRC	Democratic Republic of Congo
EC	European Commission
EPHS	Essential Package of Hospital Services
EU	European Union
EUD	European Union Delegation
FBO	Faith-Based Organisation
FGM	Female Genital Mutilation
FMG	Fraternité Médicale Guinée
GBD	Global Burden of Disease (study)
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
GHO	Global Health Observatory
GIZ	Gesellschaft für Internationale Zusammenarbeit
HICs	High-income countries
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information Systems
HNSS	Health and Nutrition Sector Strategy
HSS	Health systems strengthening
HSSP	Health Sector Strategic Plan
ICD	International Classification of Disease
IHP+	International Health Partnership Plus
ILO	International Labour Organization
IPSO	International Psychosocial Organisation
JANS	Joint Assessment of National Health Strategies
JAR	Joint Annual Review
KMTC	Kenya Medical Training College
LDCs	Least-developed countries
LGMHG	Lancet Global Mental Health Group
LICs	Low-income countries
LMIC	Low- and middle-income countries
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
mhGAP	WHO Mental Health Gap Action Programme
MICs	Middle-income countries
MNS	Mental, neurological and substance use disorders
MoH	Ministry of Health



NCDs	Non-communicable disease
NGO	Non-governmental organization
NICE	National Institute for Health and Care Excellence
NIMH	US National Institute of Mental Health
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
PHC	Primary health care
PLWH	People living with HIV
PRIME	Program for Improving Mental Healthcare
PTSD	Post-Traumatic Stress Disorder
RCT	Randomised Controlled Trial
SaMOA	Santé Mental en milieu Ouvert Africain
SDGs	Sustainable Development Goals
SEHAT	System Enhancement for Health Action in Transition
SIDA	Swedish International Development Cooperation Agency
SRH	Sexual and reproductive health
SSA	Sub-Saharan Africa
THE	Total Health Expenditure
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNDP	United Nations Development Programme
UNICEF	Children's rights and emergency relief organisation
USAID	United States Aid Agency
USD	United States Dollar
WB	World Bank
WEF	World Economic Forum
WHO	World Health Organization
WHODAS	World Health Organization Disability Assessment Schedule
YLD	Years of Life lived with Disability
YLL	Years of Life Lost due to premature mortality



1. BACKGROUND

The Global Burden of Disease (GBD) study 2010² showed the great global importance of mental health disorders with a wide range of severity, disability and chronicity, often associated with poor quality of life. In resource-poor and fragile settings in least developed countries (LDCs) and low- and middle-income countries (LMICs), access to effective mental health care is especially poor. Investments in operational research to prevent and treat mental health disorders in these settings is disproportionately low relative to their public health importance; misconceptions about the disorder, burden and treatment hinder appropriate action. Nevertheless, there are scattered and interesting experiences on integrating effective mental healthcare in primary healthcare. However, there still lacks a clear overview of 'what works' in which context, and this report responds to the need to consolidate lessons learned and to identify replicable experiences. The report aims to raise awareness among European Union (EU) staff, EU member states and other stakeholders on the etiology, burden, prevention and control of mental health disorders. It also identifies strategies to promote mental health in resource-poor and fragile settings. Its objective is to enable these stakeholders to examine, and where appropriate, strategically strengthen their approaches to public health to prevent and control mental health disorders and to build mental health capital for sustainable social and economic development.

1.1 Mental health and the impact of disorders on human, economic and social capital

The importance of mental health as an integral part of health and a precondition for social participation has long been recognized (WHO, 1946). It was reaffirmed with the Declaration of Alma-Ata (WHO, 1978) and increasingly addressed over the past two decades (for example, Desjarlais et al., 1995; Jenkins, 1997; WHO World Health Report, 2001; National Research Council, 2001; Institute of Medicine, 2001; Cruz et al., 2006; WHO Mental Health Gap Action Programme (mhGAP), 2008). This has been followed by a series of international conferences and initial publications³ calling for strategies to improve global mental health. The Millennium Development Goals (MDGs) did not include mental health as an identifiable objective, although mental health is relevant to most of the MDGs, especially those relating to physical health, education, and economic development (UN, 2000; Gureje & Jenkins, 2007). The post-2015 global framework for poverty eradication and sustainable development refers to mental health more explicitly (UN, 2014).

Scholars from different cultural backgrounds have defined mental health, which has led to the creation of several working definitions. This report defines mental health as 'a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community' (WHO, 2001). Thus, mental health is more than the absence of symptoms or distress and refers to a positive sense of well-being, individual resources, the ability to lead mutually satisfying relationships and to cope with adverse life events (resilience). This positive conceptualisation of mental health is often referred to as positive mental health (Barry, 2009). It has an important societal value, contributing to the functions of society - including overall productivity. Furthermore, it presents an important resource for individuals, families, communities and nations, contributing to human, social and economic capital. In this sense, the recently coined term 'mental capital' refers to intellectual and emotional resources which, in a collective, are crucially important for successful societal development (Beddington et al., 2008).

Mental illness or mental disorder refer to suffering, disability or morbidity due to mental or behavioral problems (for example. disturbances in perception, beliefs, mood, concentration, irritability, abnormal personality traits or excess consumption of alcohol, drugs or tobacco). The most important categories of mental disorders are depression, schizophrenia and other

² <http://www.healthdata.org/gbd>

³ e.g. Lancet Series on Global Mental Health, 2007 & 2011; WHO Project ATLAS, 2001, which is regularly updated (every four years and so far in 2005, 2011 and 2014) and which serves as a comprehensive source of information on global mental health



psychotic disorders, substance abuse (alcohol or illicit drugs) and dementia (WHO, 2008). In children, behavioral and developmental disorders and rates of severe mental retardation are also widespread (Whiteford et al., 2013). Common neurological disorders such as epilepsy and Parkinson's disease are also important to consider because they are neglected frequently in policy, planning, training and supervision. In low-income countries (LICs) there are so few neurology specialists that psychiatric nurses and psychiatrists tend to supply most of the available neurological specialist care. Altogether, mental, neurological and substance use (MNS⁴) disorders refer to a group of non-communicable disease (NCDs) that are multifactorial in their origin. They arise due to dynamic interactions of individual biopsychosocial characteristics, social, cultural, economic and political circumstances and other environmental factors (WHO, 2013). In general, this report applies the term MNS disorders to capture the broad range of neuropsychiatric conditions. Nevertheless, it picks out some conditions which represent a high burden, cause large economic costs or are especially associated with human rights violations.

As MNS disorders are multifactorial in their origin, risk and resilience factors have been intensively researched and are well documented (for an overview see Annex 2). At different stages in life, various factors affect and interact with mental health and ill-health. Factors associated with higher rates of mental disorder among children are child abuse, parental psychopathology, physical health problems, low-income families, and lone parents. In adults, such factors include debt, physical health problems, childhood sexual abuse, learning disabilities or low income (Foresight, 2008; WHO, 2004). Some risk factors are especially prevalent in LMICs. Poverty and its associated psychosocial stressors (for example, violence, unemployment, social exclusion and insecurity) correlate with mental disorders (WHO, 2008b) and are major risk factors for depression (Deyessa et al., 2008; Kinyanda et al., 2011). A more in-depth discussion of social determinants of mental health can be found in 'Social Determinants of Mental Health' (WHO & Calouste Gulbenkian Foundation, 2014).

Some MNS disorders can be short-lived while others may pursue a chronic course. Either way, their impact expands far beyond individual suffering. MNS disorders have detrimental effects on individuals, families, communities, health systems and the economy. Particularly important is the strong evidence for multidirectional links between mental and physical health and illness. MNS disorders are often co-morbid with, or act as risk factors for, NCDs (such as cardiovascular disease and cancer), communicable diseases (such as HIV/AIDS and tuberculosis), sexual and reproductive health (SRH) of mothers (such as increased gynaecological morbidity, sexual violence, maternal depression and childhood development), and injuries (such as violence and road traffic accidents) (WHO, 2008). In addition, depression and substance-use disorders also adversely affect treatment adherence for other disorders. In many cases, there is diagnostic confusion between mental and physical illness, because of shared symptoms (such as headache, fatigue or poor concentration) (Sartorius et al., 1993; Dowrick et al., 2005). Last, the economic impact of MNS disorders is high due to direct and indirect costs. MNS disorders cause loss of economic productivity due to people being unable to work, being ill or absent from work, or from accidents at work. Premature death due to suicide or decreased physical health contributes to productivity loss and losses in family income which again can lead to poverty. Out-of-pocket spending by family members for people with MNS disorders is high, as treatment in specialist hospitals is expensive. Furthermore, people with unrecognised and untreated psychological comorbidities utilise health services significantly more often which increases costs (Kessler & Stafford, 2008). All in all, the lost economic output due to mental disorders is predicted to amount to USD 16.3 trillion between 2011 and 2030 globally (World Economic Forum (WEF), 2011).

⁴ Mental, neurological and substance-use disorders refer to a group of 20 disorders which have been included in the Global Burden of Disease Study 2010 and which orient on diagnostic classifications provided in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) and the International Classification of Disease (ICD-10).



1.2 Prevalence and burden of mental disorders

MNS disorders are prevalent in all regions of the world and significantly contribute to morbidity and premature mortality. Globally, one in three people suffers at least once in a lifetime from a mental disorder (WHO, 2000) and in some high-income countries (HICs) even more people (46%) qualify at some point in life for a mental illness (Kessler et al., 2005). The prevalence rates are around 5-15% for common mental disorders and 0.5% for psychosis (Institute of Medicine, 2001; Kessler & Ustun, 2008). MNS disorders account for 10.4% of global disability-adjusted life years (DALYs), 2.3% of global years of life lost due to premature mortality (YLLs⁵) and 28.5% of years lived with disability (YLDs⁶) (Whiteford et al., 2015). In addition, MNS disorders account for four out of the ten leading causes of disability (WHO, 2013b); with depression being the most disabling disorder worldwide measured in YLDs (Whiteford et al., 2013; WHO, 2008c). Depression is expected to rise from the fourth to the second leading cause of global disease burden by 2030 (Mathers & Loncar, 2006). In HICs it is expected to be the leading cause of disability, in middle-income countries (MICs) the second leading cause of disability after HIV/AIDS and in LICs the third leading cause of disability after HIV/AIDS and perinatal conditions (Mathers & Loncar, 2005).

Mental disorders contribute to premature mortality in two ways, namely suicide and premature death from physical disorders. Firstly, mental disorders are the principal risk factor for suicide, as 90% of people committing suicide have been reported to be diagnosed with a psychiatric disorder in the past (Bertolote & Fleischmann, 2002). In addition, experiencing conflict, disaster, violence, abuse or loss and sense of isolation are strongly associated with suicidal behavior. Worldwide, over 800,000 people die due to suicide every year and many more people attempt to kill themselves. However, since suicide is a sensitive issue, and even illegal in some countries, it is very likely to be under-reported or misclassified (WHO, 2014). Most LMICs do not have thorough methods of national collection of suicide data, especially as a number of countries have cultural imperatives for rapid burial and a lack of infrastructure to perform autopsies and official enquires into the cause of death. LMICs are especially hit by suicide, as 75% of global suicides occur in these countries. In 2012, suicide was the 15th leading cause of death worldwide; among 15-29-year-olds it is the second leading cause of death (WHO, 2014). This reflects the significant contribution of suicide to mortality and shows that in LMICs, where an outstanding number of the population are children or adolescents, suicide is of particular concern.

In addition to suicide, MNS disorders contribute to mortality rates because comorbid physical health problems are a major cause of premature death in people with mental disorders. Mental disorder, as a risk factor for physical health problems, increases the mortality rate of cardiovascular disease almost as much as smoking does (McDaid, 2009). For instance, people with schizophrenia die 16-20 years earlier and have a 3.2 times increased rate of mortality from respiratory disease, 3.4 times increased rate from infectious disease and 2.3 times increased rate from cardiovascular disease (Osby et al., 2000). Harmful alcohol use is a component cause of more than 200 disease and injury conditions such as liver cirrhosis, cancers and injuries (WHO, 2014b) and, according to recent research, also for infectious diseases such as tuberculosis or HIV/AIDS (Lönnroth et al., 2008; Baliunas et al., 2010). Furthermore, studies from HICs have shown that people with depression have a 50% greater risk of cardiovascular disease (Glassman, 2008) and a 60% increased risk of diabetes (Katon, 2008). The World Mental Health Survey, which included data from all regions of the world, found the same relationships between mental disorders and NCDs (Ormel et al., 2007). Studies from LMICs reflect the same. For instance, in Pakistan almost 50% of individuals being treated for tuberculosis had a comorbid depression or anxiety disorder (Husain et al., 2008) and MNS disorders are associated with increased mortality rates from HIV/AIDS (Pence, 2009).

⁵ <http://www.healthdata.org/gbd/faq#What is a YLL?>

⁶ <http://www.healthdata.org/gbd/faq#What is a YLD?>



The toll of MNS disorders is especially high in LMICs; for instance, almost three-quarters of the burden of disease due to neuropsychiatric disorders is located in LMICs (Lund et al., 2012). Dementia has been found to affect around 5% of people aged 65+ in some Asian and Latin American countries, while consistently lower rates (between 1% and 3%) have been reported in India and sub-Saharan Africa (SSA) (Kalaria et al., 2008). As life expectancy is increasing in LMICs, dementia is expected to become increasingly common (Ferri et al., 2005) and with 90% of the burden of HIV/AIDS located in LMICs, HIV-related dementia presents a special problem in such countries (Bell, 2004). In addition, alcohol abuse presents a growing problem in SSA (Baingana et al., 2006).

Though these figures give a good oversight of the global burden of MNS disorders, they do not reflect the caregiver burden, which refers to the physical, emotional and financial toll of providing care. Caregivers play a vital role in supporting family members with MNS disorders by providing practical help, personal care and giving emotional support. This often places them at higher risk themselves for mental and physical health problems. Caregiving can affect family functioning, increase social isolation and damage financial situations, as caregivers are often forced to reduce their hours of gainful employment. The caregiver burden for psychiatric patients exceeds that of chronic medical patients (Ampalam et al., 2012).

In the future, the importance of MNS disorders in public health will remain and is expected to increase due to demographic and epidemiological transitions. Factors associated with a rise of MNS disorders include population growth, ageing, marital breakdown, increased numbers of orphans and child-headed households, rural-to-urban migration and subsequent breakdown of family ties, increased debt and income disparity, and alcohol and substance abuse (Desjarlais et al., 1995). The demographic transition highly impacts SSA and LICs, where the present population of children and adolescents is the largest in the history of the world (WB, 2006).

1.3 LMICs context: human and financial resource constraints

MNS disorders contribute to a great global burden, yet they remain deprioritised on political agendas and on health budgets in many countries. The percentage of states' total health expenditure which is exclusively spent on mental health is low and especially pitiful in LICs (0.05%) and MICs (2.4%) compared to a higher amount in HICs (5.1%) (WHO, 2011). The scarce resources that LMICs make available for mental health are often distributed unequally between countries, regions and communities and are used inefficiently (Saxena, 2007). When care is available, it largely focuses on pharmacological interventions. It may be offered in urban areas within big mental hospitals rather than in community settings (Patel et al., 2011). However, a number of LMICs have some degree of decentralisation of specialist services to regional and district levels and offer small numbers of inpatient beds and some outpatient services. In addition, psychosis is usually readily visible, even to lay people, so it is often diagnosed by primary care teams who may treat it themselves if there is little prospect of sustained access to specialist services (Kiima & Jenkins, 2010). Furthermore, some MNS disorders in LMICs rarely receive diagnosis and treatment, especially childhood disorders and adult depression. Studies from Kenya and Malawi have shown that the common mental disorders of depression and anxiety are rarely diagnosed or treated in primary care, unless primary care workers undergo effective training on mental disorders (Kiima & Jenkins, 2010; Kauye et al., 2014; Jenkins et al., 2013).

Besides financial resource constraints, LMICs face a scarcity in the mental health workforce⁷ with 0.9 (per 100,000 population) in LICs, 3.2 in lower middle-income countries (MICs), and 15.9 in upper MICs compared to 52.3 in HICs (WHO, 2015). Generally, the number of people graduating or being trained in mental health professions in LMICs is low and many skilled professionals emigrate to HICs (Jenkins et al., 2010). The present situation in LMICs,

⁷ Including: psychiatrists, other medical doctors, nurses, psychologists, social workers, occupational therapists and other paid workers working in mental health.



in which 76% to 85% of people with severe mental disorders fail to receive treatment (WHO, 2013) has been described as 'one of the greatest public health scandals of our time' (Patel et al., 2011). The mental health treatment gap particularly concerns people living in LMICs as over 85% of the world's population live in 153 LMICs (Jacob et al., 2007). Barriers to improving mental health services in LMICs have been studied (Saraceno et al., 2007) and recommendations for governmental and non-governmental stakeholders to close the treatment gap have been developed. Nevertheless, a review on the availability of mental health services in 152 LMICs has shown that development remains slow and innovative approaches, promoting the reality of mental disorders and efficiently making use of existing resources, are still scarce (Jacob et al., 2007).

1.4 The importance of primary mental health care

Despite the globally-accepted principle that there is 'no health without mental health', primary health care systems around the world often focus on the provision of physical care and fail to provide adequate mental health care. The vision and WHO recommendation (WHO, 2001; Alma-Ata, 1978) of mental health treatment in primary care has not yet been realised in most countries (WHO, 2008b) and above all in LMICs, which often have weak basic primary care infrastructure and services. The neglect of mental health care in primary care continues due to a lack of political commitment, inadequate management, and overburdened health services; policy makers also have a misunderstanding that outmoded psychiatric hospital-based care can meet population needs (WHO, 2008b). A small number of acute hospital beds in every district (largely for people with acute severe psychosis who cannot be managed safely at home for the first few days of their treatment) are important as part of a local comprehensive service for people with MNS disorders. However, reliance on large hospitals and hospital stays of more than a week or two have been demonstrated to cause institutionalisation, increase disability and aggravate stigma.

In the course of an increased recognition of the pressing need to address MNS disorders on a global scale, primary healthcare has increasingly gained importance as a possibility to address mental health problems. A strong international consensus is that improvement requires integration of mental healthcare into primary care; this is more holistic, accessible, affordable and acceptable. In a decentralised health system, primary care is the first line of contact for an individual with the health system; it is located close to peoples' homes and assures improved access and treatment at an early stage of the disease. In primary care, patients can receive treatment without being removed from their social and emotional support network, their job or everyday roles and responsibilities. In addition, primary health care is a highly affordable option for patients, communities and countries. By addressing MNS disorders at this level, financial benefits arise because indirect health expenditure is reduced (such as transportation costs and the productivity loss of the individual or accompanying family members). The same applies for direct health expenditure because healthcare at the primary level is cheaper than at the secondary or tertiary level (WHO, 2008b). The delivery of mental healthcare at primary care level has proven to be cost-effective; in LMICs the provision of a core package of pharmacological and psychosocial treatment of priority conditions would require an additional annual investment of USD 0.18-0.55 per capita (Chisholm et al., 2007). Finally, primary healthcare of people with a mental disorder is less likely to lead to stigma and discrimination by the local population than care at a psychiatric hospital, as primary care is not associated in the public mind with mental disorder. This makes it more acceptable for patients (WHO, 2008b).

There are several interventions which are feasible and can be conducted at the primary care level in LMICs. Traditionally these involve the promotion of mental health, primary prevention and the treatment of mental disorders in primary health care. Mental health promotion aims to strengthen an individual's mental well-being and increases resilience by promoting self-esteem, coping, communication skills and parenting skills. Strengthening communities and reducing discrimination and inequality by promoting social services, education or housing is also crucial (WHO, 2005; Baingana et al., 2006; Barry et al., 2013). Mental health promotion



and the prevention of mental disorders are distinct but overlapping aims; they both present a sustainable method for reducing the burden caused by mental disorders. Mental disorder prevention focuses on reducing risk factors and enhancing protective factors associated with mental ill-health (WHO, 2004). Due to the comorbidity of mental disorders and physical health problems, primary care plays a crucial role for physical health promotion and care in people with MNS disorders. Mental disorder treatment in primary care requires systematic biopsychosocial assessment, diagnosis and management. It may consist of general psychosocial support, psychological therapies and pharmacological treatments as well as social interventions and community-based rehabilitation (see section 3.2). All interventions at primary care level need to be responsive to local needs and conditions.

1.5 Principles of integrating mental health into primary care

The justification, potential benefit and the principles for successful integration of mental health care into primary care are well documented (WHO, 2008b). Mental health care at the primary care level is more accessible, affordable and acceptable compared to care at other levels (Funk et al., 2008). It facilitates person-centred and holistic services (WHO, 1984; WHO, 2008b). The rationale for integration can be summarised as: (i) the burden of MNS disorders is great; (ii) mental and physical health problems are associated; (iii) the treatment gap is enormous; (iv) primary care enhances access to services; (v) primary care promotes respect for human rights and contributes to fulfilling states' obligations under the Convention on the Rights of the Child (especially articles 17 and 25) and the Convention on the Rights of Persons with Disabilities; (vi) primary care is affordable and cost-effective; and (vii) primary care generates good health outcomes (WHO, 2008b).

In the past, several strategies for integrating mental health in primary care in LMICs have been outlined, but there is no 'single best practice model' that can be followed in each and every country (WHO, 2008b). Integration efforts need to orient to the country context, especially the following: the characteristics and potential of the respective health and primary health care system; a population's health-seeking behavior (Jenkins et al., 2002); local conceptualisations of the causes of mental disorder; and preferred treatment options (Ventevogel et al., 2013). Some preconditions ease successful integration. Integration is more likely to be successful if communities by majority seek help at primary care level and if mental health is incorporated into national health policy and legislative frameworks. This needs to be supported by senior leadership, adequate resources and ongoing governance. WHO (2008b) has formulated ten broad principles for successful integration of mental healthcare into primary care:

- 1. Policy and plans need to incorporate primary care for mental health** (government commitment; formal policy and legislation; mental health policy and mental health integration into general health policy; national directives; local identification of needs to flow into policymaking).
- 2. Advocacy is needed to shift attitudes and behavior** (inform and sensitize national and local policymakers, health authorities, management and primary care workers about mental health integration).
- 3. Adequate training of primary care workers is needed** (pre-service and in-service training; possibility to practice skills; continuous specialist supervision).
- 4. Primary care tasks must be limited and doable** (informed decisions on primary care workers' responsibilities and roles; assessment of human and financial resources; careful consideration of strengths and weaknesses of primary care system and health system; possibility to expand functions).
- 5. Specialist mental health professionals and facilities must be available to support primary care** (skilled practitioners available for referral, support, and



supervision at for example, community mental health centers and secondary-level hospitals).

6. **Patients must have access to essential psychotropic medications in primary care** (psychotropic medication delivered via primary care facilities; update legislation/ and regulations to allow prescription by primary care workers).
7. **Integration is a process, not an event** (time is needed to overcome skepticism or resistance; integration idea must be broadly accepted; train health workers; deploy additional staff; re-allocate budgets.)
8. **A mental health service coordinator is crucial** (steer integration programmes; face challenges; avert risk).
9. **Collaboration with other government non-health sectors, non-governmental organisations (NGOs), village and community health workers, and volunteers is essential** (education, social, employment initiatives are needed for recovery; volunteers to identify and refer).
10. **Financial and human resources are required** (financial resources are needed to establish and maintain services; training costs; hiring costs of primary care workers and specialists).

These broad principles need some amplification and specification. Mental health needs to be embedded into national policies, but likewise mental healthcare needs to be included into essential healthcare packages, such as National Health Sector Strategic Plans (HSSP). It needs to be included in national-, regional- and district-level targets so that support and supervision from district to primary care levels is assured (Jenkins et al., 2013). There are frequent supply chain issues with medicine supplies that need to be addressed. As specified under principle nine, collaboration among different stakeholders is crucial; this also applies to traditional health practitioners and complementary systems of medicine. Benefits can arise when traditional health practitioners, to whom people commonly attend with health problems, are appreciated as an integral part of the health system. They should be included into referral practices, health policy dialogue, and spaces where harmful practices are addressed through dialogue, training and regulation (Gureje et al., 2015).

2. METHODS

This report is based on literature searches in international databases, experiences of national policy and service development work by the authors, expert consultations and reports provided by EU staff. The annex includes four case studies from LMICs, namely Afghanistan, Kenya, Rwanda and Guinea, which report in more detail different approaches to integrate mental health into primary care. The underlying criterion of the selection of case studies is to sample broadly enough to provide insights into various contexts, geographical areas (Anglophone versus Francophone), cultures, health system preconditions and levels of fragility.

Geographically, the report focuses on the list of countries where health is a focal sector in EU development cooperation (2014-2020). With the EU adopting the 'Agenda for Change'⁸ in 2011, the number of countries with health as a focal sector was drastically reduced, giving priority to countries most in need and fragile. In the past (2007-2013), one third of the countries supported in health were fragile, conflict-affected or post-conflict countries. Currently (2014-2020), almost twice as many countries (65%) with health as a focal sector are fragile, conflict-affected or post-conflict countries.

⁸ https://ec.europa.eu/europeaid/policies/european-development-policy/agenda-change_en
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The definition of a 'fragile state' followed by the EU is based on the annual list of fragile states and economies published by the Organisation for Economic Co-operation and Development (OECD). The *States of Fragility Report* (OECD, 2015) identifies 50 'fragile states and economies' whereas the World Bank (WB) (2015) has identified similar 33 'fragile situations'. Fragile states are, in many cases, lagging behind in their development and the majority of 'fragile states and economies' have also been classified as 'least developed countries (LDCs)' by the United Nations (UN) (UN, 2015). Fragile states are diverse but a common feature is the presence of weak institutions. Some of them are in crisis, struggle with conflict or face urgent and critical threats to well-being (OECD, 2015). Health systems have often been eroded, health infrastructure destroyed, services fragmented and financial resources are scarce (Brinkerhoff, 2008).

In general, strategies to improve mental health in fragile contexts are no different to other countries. Thus in fragile and post-disaster settings, the key tasks for mental health include: the construction of a plan to be read by all health workers and other relevant cadres; adequate support to front-line health workers (rest, support and supervision); development of a triage system with only the most complex cases being referred to specialists; use of good practice guidelines for assessment, management and referral; intersectoral liaison at local, regional and national levels (for example, between health, education, social welfare, criminal justice and NGOs); mobilisation of the community to combat stigma, build resilience and provide community-based rehabilitation; training of staff; medicine supply chain; and collection of relevant data (for example, on consultations, treatments, referrals and outcomes) at all levels of the healthcare system. These are the steps that all countries need to take, whether or not they are fragile. Of course preconditions will differ in all countries. This is especially so in conflict or post-conflict settings, where a transition between complex emergency and humanitarian work to development programming and mental health integration needs to take place.

Crisis and emergency situations have even been described to give momentum to mental health reform if a long-term perspective for mental health is adopted from an early stage onwards (Epping-Jordan et al., 2015). The transition to the long term needs to be planned right at the start, otherwise much emergency aid will not result in long-term results. In relation to mental health, many of the countries identified by WHO to require intensified support for improving mental health care are fragile (WHO, 2008b). For a better overview, Annex 3 displays the most recent listings of LDCs and fragile states as well as states with health as a focal sector in EU development cooperation.

3. RESULTS

This chapter presents an inventory of experiences on integrating mental healthcare in primary healthcare, an overview of effective interventions on mental disorders, an overview of relevant national, regional and international stakeholders and networks working towards improving mental health in low-resource settings, and an overview of current ongoing operational research.

3.1 Inventory of relevant, replicable experiences on integrating mental healthcare in primary healthcare

Several, scattered approaches on integrating mental health in primary healthcare in LMICs have been identified. Such approaches vary according to the disorders addressed, the interventions and activities prioritised, the scope of integration (national or regional level) and the stakeholders involved. In addition, integration is a process, not an event, which is highly dependent on the local context and health systems preconditions. However, every health system offers some key entry points to successfully advance the integration of mental health into primary care (for example, leadership, policy, human resources, data management and advocacy). The following inventory picks out relevant experiences and highlights starting points for strengthening mental healthcare in primary care.



3.1.1 Context analysis

The national context and structure of the (primary) healthcare system determines which steps need to be undertaken to integrate mental health into primary care. Accordingly, detailed situation analyses and epidemiological needs assessments serve to decide upon required steps for integration. Situation analyses have been conducted in many LMICs (Gulbinat et al., 2004; Jenkins, 2004; Flisher et al., 2007⁹; Hanlon et al., 2014¹⁰; WHO, 2015) and have improved planning and implementation of integration activities. For instance, context analysis from Uganda revealed that people with depression often by-pass primary care; this required advocacy with the public to broadly alter health-seeking behavior (WHO, 2008b).

3.1.2 Leadership and governance

The incorporation of mental health into policy, plans and legislation is a precondition for successful integration; their development and implementation is an important catalyst for reform. Mental health laws play an important role in promoting access to good quality care by encouraging the development of community-based mental health services and the integration of mental health into primary care and general hospitals (WHO, 2009b). LMICs considerably differ in their mental health policy profiles according to which extent they integrate or mainstream mental health. The following aspects of incorporating mental health into policy have been discussed and recommended:

- **Mental Health Act.** Mental health legislation can define treatment, care and protection of people with mental disorders. South Africa's Mental Health Care Act (2002) has driven service reform at provincial and district levels (WHO, 2009b).
- **Mental health policy.** A mental health policy increases government commitment and sets the vision for subsequent implementation (Jenkins et al., 2002). WHO has published guidelines on mental health policy development and implementation (WHO, 2003; WHO, 2009). Mental health policy needs to be accompanied by strategic action plans and mental health needs to enter annual operation plans (Jenkins et al., 2011c).
- **Essential packages for health.** Mental health needs to be a component of a country's essential package for health. The integration of mental health into basic health care packages has been well documented for Egypt where it was part of an Egyptian-Finnish bilateral aid project called Egymen¹¹ (Jenkins et al., 2010c).
- **General health policy and the HSSP.** National health policy and the HSSP must include mental health (Kiima & Jenkins, 2010¹²; Mbatia & Jenkins, 2010¹³; Malawi and Ghana) as past experience has shown that even when mental health is mentioned as a priority, it is often not allocated a specific or sufficient budget. Establishing stand-alone mental health policies and laws is critical and it is also essential to include mental health issues into existing laws and policies (such as for health, social welfare, employment, education and criminal justice) (WHO, 2005b).
- **Mental health coordination and unit.** A national coordinator or coordination unit is crucial for steering the integration process, to identify and avert risk and to serve as national focal point. Mental health coordinators might be placed within the Ministry of Health (for example see Kenya, Tanzania and Uganda) or coordinating functions can be carried out by a chief psychiatrist who participates in planning activities (see Ghana). In Egypt, a Mental Health Department was established within the Ministry of Health. It is in charge of gathering and analysing data, including mental health data, into health

⁹ South Africa, Ghana, Uganda and Zambia

¹⁰ Ethiopia, India, Nepal, South Africa, Uganda

¹¹ Egymen is a six-year mental health programme (2002-7) initiated by an Egyptian-Finnish bilateral aid project which aimed to improve mental health and its provision in Egypt by addressing five main areas: human resource, functional development, structural development, community development and mental health promotion and prevention.

¹² Uganda, Kenya

¹³ Tanzania



information systems, developing and disseminating guidelines and establishing a system for human resource development (Jenkins et al., 2010c). Some core functions of a mental health division within a Ministry of Health are discussed in Jenkins et al. (2011f).

- **Policy dialogue and multi-stakeholder collaboration.** Policy dialogue on mental health needs to include all relevant stakeholders including representatives from non-health sectors, civil society and communities; their participation has been weak in many LMICs. In Egypt, policy dialogue with the Health Sector Reform Programme ensured successful integration of mental health into the National Health Sector Reform Plan, general health policy and the national package of essential health interventions (Jenkins et al., 2010c). Policy dialogue at national and regional levels also facilitated integration in Kenya (Kiima & Jenkins, 2010). In Tanzania, policy dialogue led to the creation of the mental health sector within the Ministry of Health plus mental health was integrated into the health sector reform plan, the medium-term expenditure framework and the national strategy for NCDs (Mbatia & Jenkins, 2010).
- **Collaboration with other health programmes.** Establishing and strengthening partnerships within health programmes through intersectoral planning and collaboration benefits the provision of mental health care. Service delivery in collaboration with SRH (Rahman et al., 2013) or HIV/AIDS services (Kaaya et al., 2013) has been reported. Health system strengthening activities present entry points for mental health, especially through investments in staff, training and equipment (Jenkins et al., 2011a). The same applies for public health measures on tobacco, alcohol and illicit drugs. Also, the integration of child development and maternal psychological well-being in a parenting intervention delivered by a local organisation has proven effective and cost-effective (Singla et al., 2015).
- **Collaboration with non-health sectors.** Identifying and establishing linkages between mental health and non-health sectors is crucial; especially education, employment, social welfare, police and prisons (Jenkins et al., 2002; Jenkins, 2003). Despite the fact that child and adolescent mental health problems are associated with negative social and economic long-term consequences, most LICs lack any child and adolescent mental health service (Patel et al., 2008). Funk et al. (2012) recommend promoting education and mental health; investment in early child development in LMICs is highly cost-effective and this means that early childhood and parenting interventions are a major investment opportunity for development.

3.1.3 Human and financial resources

The workforce presents one key component of the mental health system and a lack of adequately trained staff hinders the successful delivery of mental healthcare at primary care level. Furthermore, attracting and retaining staff at all levels is a challenge, especially in Africa (WHO, 2015). In a study of 58 LMICs about mental health staff shortages,¹⁴ all LICs and 59% of MICs experienced mental health staff shortages. The study estimates that besides the currently 123,000 full-time mental health professionals working in these countries, an additional 239,000 professionals would be required to treat the eight WHO Mental Health Gap Action Programme (mhGAP) priority disorders (Bruckner et al., 2011). Strategies to build capacity in mental health among primary care staff and to build system-wide human resource capacity have been promoted in the past and are summarised here:

- **Pre-service training.** It is rarely the case that assessment and management of MNS disorders form a systematic part of education in LMICs for primary care staff, especially nurses. Neither is a generic biopsychosocial approach taught for assessment and management of all disorders. In addition, Jenkins et al. (2011f) recommend including public mental health (for example, mental health policy, planning and financing) in the curricula of all health professionals. This is certainly true for psychiatrists, psychiatric

¹⁴ Psychiatrists, nurses and psychosocial care providers



nurses and public health practitioners in order to equip them for the planning and policy process in their future career paths, whether at district, provincial or national levels. Fracarita International, a Belgian NGO, has founded schools for psychiatric nurses and social workers in Tanzania, India, Rwanda and the Democratic Republic of the Congo (Brothers of Charity, 2015).

- **In-service training.** Continuing professional development (CPD) is crucial for staff that has been in post for decades. A 40-hour CPD training course¹⁵ for primary care staff was developed in Kenya and has led to improved patient health and social outcomes in routine clinical practice (Jenkins, Othieno et al., 2013). An adapted version of the training was conducted in Nigeria (Makanjuola et al., 2012a; 2012b), Zanzibar (Jenkins et al., 2011d), Russia (Jenkins, Bobyleva et al., 2009), Oman and Pakistan. Randomized controlled trials demonstrated improved knowledge and consultation skills in Iraq (Sadik et al., 2011), diagnostic and management practices in Malawi (Kauye et al., 2014), and patient outcomes in Kenya (Jenkins et al., 2013). Primary care training has also been reported to be carried out in Jordan, Syria, Lebanon, Bahrain and Egypt, Saudi Arabia and Iran (Sadik et al., 2011). Evidence on the cost-effectiveness of CPD is rare, though in Kenya the development of a training tool and the training of 2000 primary care professionals and their supervisors were all covered by a (Pound Sterling) £500,000 grant over five years (Jenkins, n.d.).
- **Workforce exchange.** As part of human resource development, exchange programmers between professionals from LMICs and HICs have been reported. The Guinean NGO Fraternité Médicale Guinée, which provides primary mental health care, established south-south and north-south visits and exchanges for their mental health staff with European professionals (Sow, 2010). In Russia and Egypt, study tours to several European countries were realised with tailored placements in the UK (Jenkins, Lancashire et al., 2007; Jenkins et al., 2010c).
- **Specialist supervision.** Task-sharing in mental health requires continued supervision (Mendenhall, 2014). In Ghana, South Africa and Uganda an expert mental health consultancy team was established to provide supervision and support to primary care staff (Petersen, 2010). A local initiative in Uganda established a hotline telephone service with a senior psychiatrist responding to specific management problems of primary care staff (Ovuga et al., 2007). Supervisors need access to local transport and allocated time in which to conduct supervision, and so supervision needs to be built into the health sector strategic plan. Supervisors should also undergo training to have a good understanding of their own supervisory role and skills as well as shared understanding of the primary care context and skill set (Jenkins, Kiima et al., 2010).
- **Other human resource development strategies.** In Kenya, donors funded salaries of 2,000 additional health workers at primary care level before the government took over financing (Druce & Nolan, 2007). In other cases, short-term experts have been recruited for capacity building measures (Jenkins et al., 2010c). Although 'brain drain' threatens the availability of health workforce, staff retention policies and programmes are absent in many LMICs (Jenkins et al., 2011e). LMIC retention programmes should thoroughly analyse patterns of migration both inside the country and to other countries, and examine the causes (for example, professionals shifting to higher monetary rewards at NGOs or private practice). Programmes should consequently address known attraction and retention factors for existing staff (for example, training for specific contexts, incentives and compulsory service or improving working or living conditions) (Lehmann et al., 2008). Dialogue with HIC, to discourage active recruitment of scarce health staff from LMIC without adequate recompense for the countries from which they come, has

¹⁵ The course included modules on: (1) core mental health concepts, (2) important basic skills, (3) symptoms, assessment, diagnosis and management of common neurological problems, (4) symptoms, multiaxial biopsychosocial assessment, diagnosis and management of common mental disorders, and (5) wider contextual issues.



had limited success to date but remains an important area for European Commission consideration.

- **Skill mix.** Some countries - especially in the Middle East, Asia and West Africa - focus on medical training for general practitioners to staff primary care, and psychiatrists to deliver specialist mental health services. Other countries however, such as Kenya and Tanzania in East Africa, develop a wider skill mix with general nurses and clinical officers staffing primary care. Psychiatric nurses and even psychiatric clinical officers deliver specialist mental health services at district level, enabling people to access mental healthcare despite the scarcity of psychiatrists.

Financing, resource mobilisation and budgeting for mental healthcare is key and MNS disorder interventions need to be included in national health budgets. The funds allocated towards mental health in LMICs should take into account the contribution of MNS disorders to the national global burden of disease, often 10-15% in LMIC. Earmarked funds from donors normally leave out mental health and mainly benefit other health conditions. Funding and budgetary provisions need to give parity to mental health within the priorities at national, regional, district and primary care level. It is also important to train district mental health coordinators to advocate for the integration of mental health in local planning and budgets. This will enhance access to funding from the national budget and from decentralised local budgets (for example, local government taxation, local donor funds, and cost-sharing funds). At the national level, mental health needs to be on the agenda and included in key national resource allocation meetings (such as medium-term expenditure frameworks) and decentralised district health budgets. In Tanzania, integration activities have been funded by the Ministry of Health, various donors and NGOs (Mbatia & Jenkins, 2010).

Access to psychotropic medications can be improved by including them in national essential drug lists and by ensuring distribution not only to regional and district hospitals but also to primary care facilities. This means that the pharmacists and administrators involved in the supply chain need to understand the requirement for psychotropic medication at each level of the service including primary care. They also need to know that the supply system - whether or not it operates on a 'push' or 'pull' system - operates smoothly and efficiently without interruption. Lack of medication results in chronic illness and relapse with suffering, social impacts and cost.. The use of drugs in the management of mental disorders varies among countries and depends for example, on the availability or purchasing power. New psychotropic drugs are often too expensive or out of reach of LMICs. However systematic reviews generally attest to the efficacy of older drugs which remain just as effective as the newer medicines but generally have worse side effects which can reduce compliance. However, if health workers are trained to explain side effects and their management, compliance is greatly increased.

It is generally better for LMICs to achieve availability of cheaper but older essential medicines for all who need them rather than purchase the newer expensive drugs. These can only be afforded by people who are able to make high out-of-pocket contributions and cannot be afforded on a population-wide basis. Some drug companies, in an effort to encourage doctors in LMICs to start prescribing expensive medicines, have donated some supplies. However these are often close to expiry, or have even expired. Furthermore, if a person, placed on an expensive drug while in hospital where such supplies are available, is then discharged home, he or she may not be able to get the medication from the local pharmacy. It might be unavailable or unaffordable, resulting in relapse. Making psychotropic medication broadly available and prescribing them in primary care might require updating legislation and regulations on prescription practices. In many countries nurses, who often deliver the bulk of mental health services in primary care and in specialist care in LMICs, are not formally trained to prescribe nor indeed allowed to prescribe psychotropic medication.



3.1.4 Data and information systems

Mental health data management is poor in many LMICs, which negatively affects processes of policy development, planning and programme implementation. Therefore, mental health indicators need to be included in health information systems at all levels. Data needs to be collected on the consultations, treatments, outcomes, referrals at primary care, district level, regional level and national level for the main mental disorders including the following: depression, anxiety, somatization, post-traumatic stress disorder, acute psychosis, chronic psychosis, alcohol misuse, drug misuse, dementia, toxic confusional state, childhood emotional disorder, childhood conduct disorder, attention deficit hyperactivity disorders, Autism, dyslexia, learning disability and any accompanying physical comorbidity. Similarly, suicide and suicide attempts need to be collected and collated for each level. In Uganda, several categories of mental disorders have been added to the Health Information and Management form; although still there were not enough disorder categories to generate reliable data for good planning (Ndeti & Jenkins, 2009; Baingana, 2010).

A set of simple indicators has been recommended to monitor how countries are progressing towards attaining specific mental health targets (Lancet Global Mental Health Group (LGMHG), 2007). The recently published list of 100 health indicators includes indicators on mental health risk factors, suicide and service coverage for severe MNS disorders, which are recommended to be used for monitoring in accordance with national health priorities and capacity (WHO, 2015b). International development partners (for example via IHP+) need to assure that mental health is mainstreamed in tools and monitoring approaches such as the Joint Assessment of National Health Strategies (JANS) or the Joint Annual Health Sector Reviews (JAR).

3.1.5 Service delivery

- **Developing a referral system.** Referral structures need to embrace public, private, NGO-based and religious services. In some contexts traditional medicine needs special integration efforts as it is an important entry-point for patients with MNS disorders (Ovuga et al., 2007). Critical end-points for referral to other levels need to be developed.
- **Scaling-up of services,** Health systems constraints often limit the scaling-up of mental health interventions. Past research indicates that the resources required for scaling-up services are relatively modest in comparison to the benefits that could be achieved (LGMHG, 2007; Jenkins et al., 2007). The Program for Improving Mental Health Care (PRIME¹⁶) provides evidence about scaling up treatment programmes for priority mental disorders in primary and maternal healthcare in Ethiopia, India, Nepal, South Africa and Uganda (Lund et al., 2012). In China, a demonstration project on epilepsy management at primary care level was carried out from 2000 to 2004 in six rural provinces. The sustainable and effective programme, consisting of a treatment intervention and an educational component, serves as a model for epilepsy care and was scaled-up in an additional 79 counties by 2008 (WHO, 2009c).

3.1.5 Advocacy

- **Advocacy to shift attitudes and behavior on mental health and to address misconceptions.** Prevailing stigma and low mental health literacy among the general population, health professionals and policy makers hinder action towards improving mental health. A study from Iran showed that labelling, negative stereotyping, and a tendency towards social distance existed in most participants (66%) (Omidvari et al., 2008). It may be assumed that healthcare practitioners, due to their education and contact with people with MNS disorders, will stigmatise less; however some studies suggest the opposite (Nordt et al., 2006). In Nigeria, doctors attributed MNS disorders to the misuse of drugs and alcohol or supernatural powers and believed people with these disorders were dangerous, unpredictable, lacking self-control and violent (Adewuya et al., 2007). Such erroneous beliefs among health professionals are a barrier to providing

¹⁶ <http://www.prime.uct.ac.za/>



effective care and need to be addressed by educational programmes or creating opportunities to have direct contact with patients (Ebrahimi, 2012). World Mental Health Day (October 10), which is celebrated in more than 100 countries every year, is a means for global mental health education, awareness and advocacy. Information through mass media can further improve mental health literacy, as it has had positive impact in other public health programmes.

- **Involvement of users, family members and the community.** Involvement will facilitate the sustainability of integration activities. This can be done by encouraging the creation of local advocacy and support groups and their participation in the process. Consumers played an important role in mental health reforms in Zambia (Saraceno et al., 2007).
- **Advocacy at all levels.** In order to achieve consensus and support from community to policy level, advocacy efforts need to target all stakeholders involved in the integration process. In the past, the focus was on national-level capacity building, but local and central level politicians and healthcare staff need special attention to advance integration horizontally. In addition, capacity needs to be built among senior officials from the Ministries of Health and Finance to formulate clear recommendations on mental health and financing. A history of international advocacy for mental health can be found in Jenkins et al. (2011b). The creation of community collaborative multi-sectoral forums can help to sensitise and improve political will (Petersen, 2010). In Rwanda, strong political commitment from the national level and the recognition of mental health as a priority sector spurred reform (www.btcctb.org, 14.08.2015).

In sum, integration needs to include a comprehensive set of activities at different levels. The WHO (2008b) report on the integration of mental health care into primary health care lists 10-page examples of integration efforts among others in: Argentina, Belize, Brazil, Chile, India, Iran, Saudi Arabia, South Africa and Uganda. In Egypt, Kenya and Tanzania multi-faceted and comprehensive programmes to sustainably integrate mental health were conducted and are well-documented (Jenkins et al., 2010c; Mbatia & Jenkins, 2010; Kiima & Jenkins, 2010). Outputs of the Mental Health and Poverty Project (MHaPP¹⁷) on the development and implementation of mental health policies in Ghana, South Africa, Uganda and Zambia are also well-documented (WHO, n.d.; Flisher et al., 2007).

3.2 Effectiveness of specific interventions in mental healthcare

Evidence on the effectiveness and affordability of interventions for the prevention and treatment of mental disorders is robust for HICs and reliable for LMICs (Chisholm et al., 2007). Most research originates from HICs, but differences in sociocultural and economic factors as well as health systems in LMICs may restrict its generalisability. Nevertheless, research from LMICs has confirmed the effectiveness of pharmacological and psychological interventions for depressive and anxiety disorders and schizophrenia (Patel et al., 2007).

MNS disorders can be prevented by targeting risk populations and groups, by reducing risk factors and by promoting protective factors. Individuals can be strengthened by promoting self-efficacy, emotional and social skills, resilience, physical activities, nutrition and by developing and maintaining strong social networks. This can happen at schools, at the workplace, at home or in communities (Foresight, 2008). Mainstreaming mental health in the educational setting is essential as it presents the most important arena outside the family for the development of child mental health.

Especially in LMICs, where societies are comparatively young and children are among the most vulnerable groups, the provision of early years interventions for children is an important area for action. Furthermore, as many MNS disorders initially manifest during adolescence, special attention and early intervention is needed to avert the chance of chronicity and

¹⁷ http://www.who.int/mental_health/policy/development/mhapp/en/
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negative long-term impacts. A specific review of the effectiveness of mental health promotion interventions for young people in LMICs can be found in Barry et al. (2013). A recent review of school-based mental health interventions in LMICs, which emphasizes schools as places for the promotion of positive mental health, has been published by Fazel et al. (2014).

Like the education sector, the employment sector offers several entry-points for mainstreaming mental health, for example by promoting safe working conditions, healthy management styles, possibilities for work-family reconciliation or access to stress management programmes, which leads to health, social and productivity benefits (Heitor & Nolte, n.d.). According to the International Labour Organization (ILO) it has become common in some HICs, often under the stimulus of legislative measures, to adopt programmes targeting specific health problems in the workplace. These are as a complement to traditional safety and health measures, in particular those related to drug and alcohol abuse.

More recently, there has been a growing trend for the development of global health promotion policies by employers and their partners covering not only drug and alcohol abuse, but also a whole range of lifestyle issues including smoking, diet, exercise and mental well-being (ILO, 14.08.2015). Lessons learnt from HICs on mainstreaming mental health in education and employment are provided by the Joint Action for Mental Health and Well-being Programme¹⁸ or in WHO (2000c and 2010b). Research and case studies of this kind are scarce for low-income contexts.

Other key sectors affording important entry points are social welfare, child protection, police, courts and prisons. These sectors are all settings where mental disorders are common and can be addressed. Studies show that around half of clients attending social welfare have a MNS disorder, child abuse victims are at high risk of subsequent mental disorder, and the prevalence of mental disorder in prisons is high. People with acute psychosis who become disturbed in public places are often handled by the police who need training in appropriate assessment and transfer to a place of safety for assessment and treatment. Courts need training in diverting people who commit crimes and have mental illness into the health system. Prison staff need training in assessment, management and referral.

Addressing risk factors is cost-effective and sustainable as most of them can be modified to different contexts. Some major macro-preventive strategies that have shown to improve mental health and reduce the risks for mental disorders are: improving nutrition, housing, access to education, reducing economic insecurity, strengthening community networks and reducing the harm from addictive substances. At a community level, stressors can be reduced by promoting a healthy start in life, reducing child abuse and neglect, coping with parental mental illness, enhancing resilience, reducing risk behavior in schools, dealing with family disruption, intervening in the workplace, supporting refugees and ageing mentally healthy. Evidence-based programmes to reduce the risk of mental disorders involve universal, selective and indicated prevention activities and are discussed in more detail elsewhere (WHO, 2004b). For a disorder-specific discussion of prevention measures see, Prevention of Mental Disorders: Effective Interventions and Policy Options (Hosman et al., 2005).

While mental health promotion and prevention interventions are crucial for countries to implement, it is also essential for countries to have services for assessment, treatment, rehabilitation and prevention of mortality. On an individual level, the life course of an individual can be greatly improved if mental health promotion has built resilience and coping skills and if prevention has reduced some risk factors. Similarly, individual or family suffering due to MNS disorders can be greatly reduced or removed by thorough biopsychosocial assessment, biopsychosocial treatment and community-based rehabilitation. This is if a person's individual level of suffering is excessive and they have taken decision to seek relief and healing.

¹⁸ <http://www.mentalhealthandwellbeing.eu/>



Most people with common mental disorders can be treated effectively with full recovery. In people with psychosis, one third has had one episode of illness and makes a full recovery, one third benefits from medication (either older or new drugs), and one third remains problematic and follows a chronic course. All benefit from psychological treatments if available. There are many systematic reviews on effective treatment for mental disorders available via the Cochrane Library¹⁹. In addition, treatment guidelines have been published by the National Institute for Health and Care Excellence (NICE)²⁰ or WHO²¹. Nevertheless, the conditions and interventions which are given priority in national mental health care depend on the prevalence and burden, evidence of efficacy, feasibility, cost and acceptability of the intervention, health systems resources as well as cultural choices and beliefs (WHO, 2008).

WHO first produced a diagnostic and management guide for mental disorders in primary care in 1996 which was used extensively in a number of countries (WHO, 1996). This was followed by guides on mental and neurological health (WHO 2000; WHO 2004a) and subsequently mhGAP has identified some priority conditions²² for which a list of evidence-based interventions is presented in Annex 4. Sample interventions are the treatment with antidepressant or antipsychotic medication, psychosocial interventions, cognitive behavioral therapy, community-based rehabilitation and public health measures. WHO developed an Intervention Guide (WHO, 2010) to help the integrated management and clinical decision-making for these priority conditions. It was developed especially for healthcare providers in non-specialist settings. For the case of suicide, effective intervention strategies, including better management of individuals at risk of suicide in primary care and restriction of access to the means of suicide, have been outlined by the UN (1996), the more recent WHO Suicide Prevention Strategy (WHO, 2014) and Jenkins et al. (2002).

Community-based rehabilitation (CBR) was introduced by WHO following the Alma Ata Declaration and is highly relevant to MNS disorder management. In the beginning, CBR was primarily an approach to bring primary healthcare and rehabilitation services closer to people with disabilities, especially in LMICs. Gradually, it adopted a more multi-sectoral approach. In 2003, the Helsinki International Conference highlighted the need for CBR programmes to focus on reducing poverty, promoting community involvement and ownership, scaling up programmes, and using evidence-based practice in LMICs, in order to implement the convention.

Consequently, CBR has been redefined as, ‘a strategy within general community development for the rehabilitation, poverty reduction, equalisation of opportunities and social inclusion of all people with disabilities’. It has broadly been recognised that MNS disorders should be mainstreamed within CBR to promote and protect the rights of people with mental health problems, support their recovery and facilitate their participation and inclusion in their families and communities. In addition, CBR contributes to the prevention of mental health problems and promotes mental health for all community members.

3.3 Existing stakeholders in global mental health

This section discusses key international, regional and national stakeholders and their role in facilitating the improvement of primary mental health care in LMICs.

The key stakeholder at global level is WHO which, as the technical agency for health, sets international standards. It has regional and in LMIC, country offices. It has an active mental health division at global level which has encouraged research, developed advisory material

¹⁹ <http://ccdan.cochrane.org/our-reviews>

²⁰ NICE guidelines on mental health and behavioral conditions: <https://www.nice.org.uk/guidancemenu/conditions-and-diseases/mental-health-and-behavioural-conditions>

²¹ WHO guidelines on mental health and substance abuse: http://www.who.int/publications/guidelines/mental_health/en/

²² depression, schizophrenia and other psychotic disorders, suicide, epilepsy, dementia, disorders due to use of alcohol, disorders due to use of illicit drugs, and mental disorders in children



and set out the broad framework for integrating mental health into primary care. However, WHO has limited capacity to invest in mental health service development; it is formally an intergovernmental agency and is limited to working with governments, particularly Ministries of Health. It has little or no impact on non-health interventions, although it is in dialogue with NGOs. In addition, some key historic WHO-funded national projects remain relevant in scope and provide lessons learnt (Schulsinger & Jablensky, 1991; Joop de Jong, 1996).

The World Bank's (WB) mission is to eradicate poverty through, among other things, investments in health; with one priority being injuries and NCDs. Though mental health is not specified within these priorities it has since 1994 been incorporated in other fields²³ (WB, 2004). From 1999-2006 there was a seconded mental health specialist to the WB (Harvey Whiteford and later Florence Baingana) carrying out analytic work and disseminating it within the WB. This facilitated the integration of mental health components into Country Assistance and Poverty Reduction Strategies and built partnerships with WHO and other global institutions. In May 2014 the topic of mental health gained momentum as WB and WHO announced a meeting on depression for spring 2016 alongside the launch of a blog post declaring 'The zero hour for mental health'²⁴. The announced meeting aims to raise awareness on the economic burden of depression and the availability of effective interventions to ultimately increase investment in mental health services, especially in LMICs.

The EU, through actions by the European Commission and European Council, is a major contributor to health and aid development projects. For instance, resources have been allocated to the Emerald project²⁵ (EUR 5.8 million) or mental health programmes in Afghanistan (EUR 7 million)²⁶. In 2011, the EU confirmed allocation of at least 20% of its 2014-2020 aid budget to human development and social inclusion, including health (EU, 2014). This provides a good margin for increasingly mainstreaming mental health within health and social development programmes.

National and regional governments play a key role in developing and sustaining actions to improve mental health in LMICs. To date, little information is available at global level on the contribution of different overseas aid departments to mental health and especially its integration into primary care. Several international donors have a track record on funding mental health activities, though resources remain limited (Jenkins et al., 2011c). The UK Department for International Development (DfID) has invested in several mental health projects; for example, supporting the mental health reform in Sverdlovsk, mental health policy projects and epidemiological studies in Tanzania and Kenya, multinational research consortia with a focus on developing mental health services within primary care in Africa and Asia as well as civil society projects in Nepal and Laos (Jenkins et al., 2011e).

The Swedish International Development Cooperation Agency (SIDA) has undertaken small-scale activities on mental health; for example, funding research on barriers to mental health services in South Africa (SIDA, 2011). Norad (Norway) has funded one regional programme on mental health knowledge-sharing in Arabic (El Hajj, 2014), and Gesellschaft für Internationale Zusammenarbeit (GIZ)²⁷ (Germany) focused on psychosocial support programmes in Syria and Palestine. The Danish International Development Agency (DANIDA) has funded mental health-specific projects in East Africa such as primary care training and an inpatient care unit in Kenya (Jenkins et al., 2011e). The Finnish Government has contributed to a mental health programme in Egypt (2002-2007) with EUR 4 million (Jenkins et al., 2010c). USAID has encouraged public-private alliances on integrating mental health services for women into primary care in Europe and Eurasia (USAID, 2011) and

²³ E.g. legal and judiciary reform, health and health sector reform, early child development, conflict and emergencies, social protection, and health systems development

²⁴ <http://blogs.worldbank.org/health/zero-hour-mental-health>

²⁵ Emerging mental health systems in low- and middle-income countries: <http://www.emerald-project.eu/>

²⁶ (www.ec.europa.eu, 03.08.2015).

²⁷ www.giz.de



supported projects in Kosovo, West Bank, Gaza and Liberia. The Government of Canada, via Grand Challenges Canada, funds bold ideas in global mental health to improve treatment and expand access to mental health care in LMICs. Total investment to date is over \$32 million for the development of the Mental Health Innovation Network²⁸ and 64 projects, including nine Transition-to-Scale investments²⁹.

Big philanthropic organisations (such as the Bill and Melinda Gates Foundation) have not yet prioritised mental health, whereas some smaller charitable foundations have increasingly done so (for example, the Nuffield International Foundation).

NGOs can both fund and deliver services, though they cannot substitute a well-functioning public health system. In the past, several NGOs and networks at national, regional and international levels have evolved, and this contributes to civil society work on improving mental health. Cordaid has co-funded programmes in Haiti and South Sudan, mainly focusing on emergency mental health.³⁰ HealthNetTPO³¹ is another Dutch aid agency that works on health in areas of war or disasters and has supported psychosocial programmes, for example in Burundi, DRC and Afghanistan.

In LICs though, there are few international, national and local NGOs working to address mental health. Existing NGOs tend to be present in urban areas (Jenkins et al., 2011f). Many countries have national associations of psychiatrists which meet regularly to exchange research findings; most, if not all, are members of the World Psychiatric Association and are listed on its website³². Some countries have networks of mental health NGOs operating in the country and other national mental health NGOs are themselves a network of interested professionals, clients or lay people (for example, SWAZA, Zambia; Mental Health Association of Tanzania; National Schizophrenia Fellowship, Kenya). Some other NGOs work particularly towards improving mental health in LMICs (for example, BasicNeeds³³). An initial, though not comprehensive, overview of mental health NGOs, regional and global networks and a list of global mental health funders can be found in Annex 5.

3.4 Current operational research

Research plays a critical role in response to public health challenges of mental disorders in LMICs. In the past, only 10% of the world's medical research addressed the health needs of 90% of the global population living in LMICs. Furthermore, mental health research originating from LMICs has been very low; researchers from these countries published only 6% of articles in leading psychiatric journals (Saxena et al., 2004). There is a considerable mental health 'research gap' in LMICs. This means the difference between the evidence needed to develop best possible services and the research information currently available (Thorncroft et al., 2012). WHO has tried to reduce this gap with the Research for Change programme (Saxena et al., 2004). The Global Forum for Health Research has funded research into health research priorities for LMICs (Khandelwal et al., 2010).

In 2007, the financial resources made available for global mental health research were low and major international sources of funding originated from DfID, the US National Institute of Mental Health (NIMH) and the WellcomeTrust (LGMHG), 2007). In order to ensure that mental health research is relevant to the needs of LMICs and is useful in assisting local processes to improve mental health, it has been recommended to create consortia. These consortia are run democratically by researchers, planners, administrators, decision-makers, donors and community representatives to jointly establish the research policies of a country for a defined period of time. As an approach to research, Action Research³⁴ has shown to

²⁸ www.mhinnovation.net

²⁹ www.grandchallenges.ca

³⁰ (www.coraid.com, 06.08.2015)

³¹ www.healthnettpo.org

³² Member societies of the World Psychiatric Association: http://www.wpanet.org/detail.php?section_id=5&content_id=674

³³ <http://www.basicneeds.org/>

³⁴ <http://aorakiehsas.wikispaces.com/file/view/020.pdf>



require low investments and, when for example, it is supported through HSS, it can produce locally-relevant results. In the past, action research approaches have been used to generate evidence on the impact of innovative mental health interventions in real-world settings as an evidence for broader implementation (Patel et al., 2012).

The LGMHG (2007) defined priorities for mental health research in LMICs, highlighting the importance of research on effectiveness and scale-up of interventions instead of developing new interventions (such as interventions which do not need to be delivered by mental health professionals or the scale-up of interventions across routine-care settings) (Annex 6). This is because cost-effectiveness evidence travels especially badly between countries; it is affected by differences in national health systems, financing modalities and price levels (Knapp et al., 2006). Since then, mental health research has focused on the following themes:

- Mental health policy development and implementation;
- Mental health advocacy;
- Training (for example, primary care training, task-shifting, professional curricula);
- Situation analysis and epidemiological needs assessment;
- Health-system preconditions for successful scale-up of services (for example EMERALD);
- Service delivery within other health programmes (maternal health, HIV/AIDS, NCDs);
- Integration and scaling-up of integrated packages of mental health care (for example, PRIME); and
- Cost-effectiveness of specific interventions.

4. RECOMMENDATIONS

This section provides relevant future steps for the EU to take in order to improve mental health in low-resource settings. First, it gives recommendations on a global mental health research agenda which could be co-financed. Second, it identifies entry points for stronger involvement of the EU in promoting mental health in primary health care. Finally, it gives recommendations and guidance for EU Delegations and recipient countries about the inclusion of mental health interventions in existing and future health support programmes.

4.1 Global operational research agenda

The global operational research agenda should include:

- Research on the economic evidence base: what is the cost-effectiveness of basic mental health care packages (including their impact on physical health problems) for different contexts?
- Research on the link between increased public mental health funding and budgeting and the outcomes for its beneficiaries. Do changes in funding benefit those most in need? Conduct impact evaluations of large-scale programmes for mental disorder prevention and treatment;
- Research on the interrelationship between mental health, other health, educational, employment and social well-being outcomes. Such evidence provides the base for mainstreaming mental health into other sectors;
- Research on innovative ways to integrate mental health into general health, social, educational and financial systems;
- Research on scaling up and the sustainability of mental health promotion interventions in LMICs;
- Research on the delivery of cost-effective interventions in routine primary care and integrated service delivery models (for example, with NCDs); and
- In post-conflict settings, research on the transition from complex emergency and humanitarian work on mental health (mostly focused on PTSD and anxiety) to horizontal and integrated approaches for more comprehensive, sustainable mental



health promotion, prevention, treatment, rehabilitation of all disorders and prevention of associated mortality.

There should also be strong support for mental health research capacity-building in LMICs. This is to promote collaborative research; provide training or technical support to institutions on operational or action research; and develop strategies to reduce publication barriers in mental health research for LMICs.

4.2 Entry-points for EU to promote mental health in primary health care

Some key entry-points have been identified for the EU to strategically position its action on mental health. Increasing, EU action in the area of mental health will strengthen its main policy goal of poverty reduction due to the multiple links between mental health and sustainable social and economic development.

Integrate mental health in health systems

The EU should empower and enable actors to mainstream mental health. Capacity building programmes targeted at national or local governments, regional organisations or CSOs should orient on several topics. A core strategy should be to integrate mental health into general health policy (health sector strategic plans) as well as basic packages of essential health services. In order to routinise data collection, mental health indicators need to be specified at every level of the health care system (from primary care to national level) and refer to at least 12 diagnostic categories and suicide. The EU should promote partnership not competition between CD and NCD programmes, with mental health as a core integral component. It should also support the scaling-up of cost-effective interventions in primary care, taking into account all levels of the health system.

Address human resource issues

The EU also needs to address urgent human resource issues by training the primary care workforce and its supervisors. It should support CPD and basic training on mental health and use every opportunity for training, such as integrating mental health in regular trainings of primary care workers alongside, for example, HIV/AIDS. Collaboration will not only increase opportunities for mental health training but will also improve physical health outcomes. It is important to support the creation of well-functioning referral systems among all levels of care as well as specialist supervisory services for primary care staff.

Promote effective prevention and treatment

Prevention and promotion activities need to follow a multi-sectoral approach (with education, employment, social welfare and prisons) and prevention should be an important funding priority. Treatment should prioritise (but not exclusively) maternal depression, early childhood development disorders and early intervention in psychosis. It should follow a population-based approach instead of offering high-cost, specialist services to only those who can cope with additional out-of-pocket contributions. Especially take into account alternative medicine approaches. This will promote a systemic view of mental health care and to do justice to existing and frequented approaches outside the public health care system (for example, involve departments on traditional care). Nevertheless, where traditional medicine threatens to harm or endanger individuals, there is a need to set clear limits to unhealthy practice.

Support advocacy and research

The EU should support advocacy at all levels along with the involvement of users, family members and the community, to reduce stigma, to build mental health literacy and promote a human-rights based approach. The EU should also contribute to building mental health research capacity in LMICs, as well as increase funding for mental health research in LMICs. The EU can play a major role by training researchers and by helping them to return and remain in their countries of origin (for example, by promoting collaborative research and providing training or technical and scientific support to institutions in LMICs).



Promote mental health in national policy dialogue

Mental health has received limited attention in EU dialogue processes and consultation with partner countries. Though the local political context co-determines the possibility for a mental health-focused policy dialogue (for example, restrictive legislation), EUDs should raise the topic of MNS disorders, the burden, impact and treatment perspectives and actively engage in information sharing. Furthermore, EUDs should identify allies at national, regional and district level who possess mental health capacity and who can play an important role in the process to integrate mental health into primary health care. Identify entry points for mental health in the work with sub-contractors (such as UNICEF and the Red Cross) by taking a multi-sectoral approach. In addition, EUDs should urge governments to take effective public health measures, such as tobacco or alcohol control, and reduce mental health risk factors. Last, EUDs should encourage bi- and multi-lateral organisations to invest in mental health, fund programmes and assist Ministries of Health to develop effective resource mobilisation strategies.

The EU should initiate dialogue on mental health and indicators among development partners. It should raise awareness among IHP+ partners on the global burden of MNS disorders (for example, presentation at the IHP+ Steering Committee) and strengthen efforts to include mental health indicators into IHP+ tools and processes (such as JANS and JAR). IHP+, by uniting international organisations, bilateral agencies and country governments, presents a suitable platform for sharing approaches, strategies and data on mental health. To date, mental health was mainly absent from the international initiative (only the OneHealthTool makes reference to MNS disorders). As a first step, IHP+ tools should be reviewed and their formulation be amended to make them more responsive to mental health.

The EU might further develop its strategic approach to mental health in LMICs by:

- considering the development of a mental health policy for the EU;
- the EU Development Cooperation Results Framework has oriented on the MDGs as the main basis for formulating targets. With the explicit incorporation of mental health in the SDGs (Goal 3.4), the EU might need to establish coherence between SDG indicators and the EU Results Framework and indicators; and,
- as a long-term perspective, the EU should invest in building internal mental health expertise within Directorate-General of International Cooperation and Development and EUDs and request technical assistance where needed. A cross-cutting team from different sectors (DG SANTE, DG ECHO and DG DEVCO) would be of additional help.

4.3 Inclusion of mental health in ongoing and future health support programmes

The EU should develop guidance material and recommendations for EUDs to support mental health mainstreaming in other health and non-health programmes and projects (for example, following the precedent of the gender or nutrition guidelines currently under development) and create a clear understanding of benefits arising from mental health mainstreaming. IT should clearly integrate mental health into EU-country strategy objectives, or country-level review and evaluation processes, or programmes and project monitoring systems.

Ongoing health programmes

The EU's health sector development cooperation should encourage links between mental health and other health issues. It should mainstream mental health in programmes on maternal and child health, disability, HIV/AIDS, NCDs and sexual and reproductive health where feasible. EU-funded health projects and programmes should put special emphasis on HSS. This is because general HSS will strengthen preconditions for integrating mental health into primary care by increasing the pool of the health workforce, strengthening training, improving effectiveness and the availability of essential medicines. The training of mental health professionals in primary care can improve overall service delivery and patient



satisfaction. When patients are referred, specialists then understand the perspectives and need for follow-up information at primary care level; they can also understand how best to support and supervise primary care. However, if health system efficiency is to be maximised, mental health needs to be integrated appropriately in health policies, training practice and information systems.

Core mental health indicators on mental health risk factors, suicide and MNS disorder service coverage, as suggested by the 'Global Reference List' (WHO, 2015), deserve special attention in programmes where the EU supports the strengthening of national M&E systems or health data collection.

EUDs should review current strategies and relevant ongoing health or non-health programmes and amend to make them more responsive to mental health or, where possible, integrate mental health into existing budget lines. These reviews should be conducted jointly with national governments and other development partners; entry-points for mental health should be pooled and lessons shared among EUDs.

Ongoing programmes in other sectors

The EU's broader social sector development cooperation should encourage inter-sectoral linkages between mental health and education, social welfare, employment or criminal justice, and have a major focus on safeguarding the human rights of people with mental disorders. EUDs should review linkages to mental health within ongoing programmes and identify entry-points for mainstreaming mental health further.

Future health programmes (if additional funding is available)

The EU should explore how an increased focus on mental health can strengthen DG DEVCO's policy goal of 'reducing poverty in the world, ensuring sustainable development and promoting democracy, peace and security'. This includes to:

- Review how mental health could be integrated into the various tools of EU development cooperation;
- Identify best practice approaches among past EU-funded programmes and projects on mental health and learn from past experiences;
- Mainstream mental health in tender processes for EU grants and contracts and encourage applicants to appropriately address mental health in their technical proposals and evaluation reports; and
- Budget support, especially sector reform contracts, should address health sector reforms and improve service delivery, and could include mental health targets in performance assessments.



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ANNEXES

Annex 1 - CASE STUDIES

Afghanistan has suffered three decades of war and instability. Health services were patchy and led by NGOs for many years, but are now undergoing the transition to a systematic public health service. Several mental health pilots, run by various NGOs, have now been merged with a national systematic approach, supported by the EC in collaboration with the Ministry of Health and other donors. There is now coordination of mental health at national level (within the Ministry of Health, with other relevant ministries and with donors and international NGOs).

At provincial level, decentralised provincial and district inpatient units, outpatient clinics and intersectoral coordination have been established. Significant numbers of primary care staff have been trained in mental health but the medicine supply is still patchy, and primary care nurses are still not allowed to prescribe. The mental health content of HMIS is improving. Ministerial commitment, national and provincial coordination and training of both primary care staff and mental health specialists to provide training, supervision and support have been crucial. The challenge is still to scale up services nationwide, especially in the rural areas.

Rwanda has had several periods of violence culminating in a major genocide of a million people in 1994, with a refugee exodus of at least a million people. The health infrastructure is now organised around principles of primary health care with health centres, district hospitals, provincial hospitals and national referral hospitals. There is a national mental health policy and plan.

The following have contributed to the success of decentralisation and integration of mental health into primary care: high political commitment; relative fiscal strength in the general health system as a whole; the establishment of a mental health division within the Ministry of health to drive integration of mental health into ongoing MoH programmes; a national mental health policy and implementation plan; and, the inclusion of mental health as part of the basic health package. Key aspects include: training general nurses and general medical practitioners in assessment and management of mental disorders; recruiting psychiatric nurses into district hospitals to provide supervision and take referrals; ensuring availability of psychotropic medicines in primary care; and, including mental health indicators into all monitoring and evaluation.

Guinea is a very poor West African nation which recently suffered the Ebola crisis. Due to the generally weak health system and scarce health staff, this epidemic has been difficult to combat. Within this challenging context, the example of Santé Mentale en milieu Ouvert Africain (SaMOA) illustrates how to establish a pilot project to integrate mental health into primary health care services. It took place under the lead of a local NGO, and provided initial funding to train staff and supply supportive teaching materials and a starting stock of essential generic drugs. The pilot project, which now needs to be scaled up, identified the importance of stakeholder consultation and networking across sectors and disciplines. It showed that building relationships between primary healthcare centers and specialised services, motivating community volunteers, ensuring steady access to drugs, and balancing staff workload are all crucial to success.

Pilot projects across the world, however effective, are unfortunately often not subsequently scaled up by governments due to lack of resources, too many competing local priorities, and lack of integration with local systems. Now, at the end of the Ebola crisis, there is more interest for mental health among key actors in the health system. However, it remains a challenge as to whether this increased interest leads to sustained action to further expand high-quality mental health care, throughout the system.



Kenya is an East African country which has recently moved from a low-income to a lower-middle income position. It has suffered localised election violence and terrorist attacks in the last decade. Major administrative reforms have impacted on the overall health system design, staffing and delivery. Over the last decade, mental health has been integrated and decentralised in Kenya's multi-level health system and is mainstreamed in its national policies, legislations and plans. Integration has been greatly helped by donors funding the following: a national situation appraisal; stakeholder consultations and policy development; comprehensive and systematic national CPD; and training of 2000 primary care workers. This programme of mental health CPD now needs to be sustained by the Ministry of Health.

Continued health system strengthening (especially improving supplies, information systems, supervision, and planning) is likely to enable enhanced health worker effectiveness in all clinical areas, including mental health. A major lever for horizontal integration of mental health into the health system has been the inclusion of mental health in the national health sector reform strategy at community, primary care and subcounty and county levels. Formerly, it was only at the higher provincial and national levels. This brings attendant implications for supervision, medicine supply and HMIS. The decentralisation of planning and budgets in Kenya brings key decision-making closer to the population it serves, but the challenge is to make and keep mental health as a priority in each county.

The key strengths of the Kenya mental health service (and also of some other East African countries) include the availability of non-medical cadres to support the scarce psychiatrists. These include psychiatric nurses at county and sub-county levels, and general nursing and clinical officer cadres at both primary care and hospital levels. Half of these have now received a brief 40-hour training in mental health.



Case Study 1: Afghanistan - Integration of mental health into primary care

This case study summarises the efforts to integrate mental healthcare into primary care in Afghanistan in the last fifteen years. The focus on mental health was mainly initiated by the Afghan Ministry of Public Health (MoPH) with the support of development partners: the European Union (EU) via its Technical Cooperation Programme, the World Bank (WB), the United States development agency, USAID and local non-governmental organizations (NGOs).

1.1 National context

Afghanistan has experienced the devastating effects of three decades of war and instability and its political and security environment is fragile. The country has faced a great refugee flow with a large number of internally displaced persons (UNHCR, 2013). The main ethnical groups in the country are Pashtun, Tadjik, Hazara and Uzbeks and the main languages spoken are Pushto, Dari, Persian and Turkic. Religious groups include Muslims (Sunni and Shiaa) and a small group of Sikhs (WHO, 2006). The local economy broadly relies on the informal sector (including illicit activities) and the labour market is dominated by the agricultural and service sectors (International Labour Organization (ILO), 2012). Further details on the national context are summarised in Table 1.

Table 1. Overview of national context

Population (thousands)	31,281 ³⁵
Annual population growth rate (annual %)	2.4 ³⁶
Total fertility rate (births per woman)	4.9 ³⁷
Adult literacy rate (%)	31 ³⁸
Gross national income per capita (int. \$)	1,980 ³⁹
Population living below national poverty line (%)	36 ⁴⁰
World Bank income group	Low-income ⁴¹
Human Development Index (rank)	169/187 ⁴²

According to the last Millennium Development Goal (MDG) report, progress in education and health has been very good. However, it is moderate for gender parity and environmental sustainability, and significantly lagging in reducing poverty, women's political participation literacy, and sustainable access to safe drinking water and sanitation (United Nations Development Programme (UNDP), 2014).

1.2 Population health status

The period of armed conflict has left the population with limited and constrained access to health services. In the past, this has been reflected in key health indicators, which only recently have shown improvement: for example, the under-five mortality rate (91/ 1,000 life-births) and maternal mortality ratio (400/ 100,000 life-births) (World Health Organization (WHO), 2015). Life expectancy at birth was one of the lowest in the past, but has recently risen to 61 years (WB, 2013). However, 31% of children are wasted (WHO Global Health Observatory (GHO), 2012).

³⁵ <http://data.worldbank.org/indicator/SP.POP.TOTL>; 2014

³⁶ <http://data.worldbank.org/indicator/SP.POP.GROW>; 2014

³⁷ <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>; 2013

³⁸ <http://www.data.unicef.org/resources/the-state-of-the-world-s-children-report-2015-statistical-tables>

³⁹ <http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD/countries>

⁴⁰ <https://data.un.org/Data.aspx?d=MDG&f=seriesRowID%3A581>; 2008

⁴¹ <http://data.worldbank.org/about/country-and-lending-groups>; 2015

⁴² <http://hdr.undp.org/en/content/human-development-index-hdi>; 2014



The top three causes of years of life lost (YLLs⁴³) are lower respiratory infections, diarrhoeal diseases and preterm birth complications. The leading risk factors are household air pollution, childhood underweight and dietary risks. The third leading cause of disability-adjusted life years (DALYs) were major depressive disorders (Global Burden of Disease (GBD), 2010).

Epidemiological data on mental, neurological and substance use disorders in Afghanistan is scarce. WHO has estimated that over 2 million Afghans suffer from mental health problems and that due to the long period of conflict most Afghans suffer from some level of stress disorder (WHO, 2010b). The mental health situation in the pre-war period was not remarkably different from that in other low-income countries. Several studies which were conducted during the Taliban regime revealed above-average rates for anxiety, post-traumatic stress disorder (PTSD), depression, suicidal ideation and suicide attempts, especially for people living in Taliban-controlled areas (MoPH, 2009). Subsequent studies confirmed the high rates, especially for women, who had elevated depression (58.4%), anxiety (78.2%) and PTSD symptoms (31.9%) (Schulte, 2004). Continued stress, exposure to traumatising events, loss and poverty have made people vulnerable to psychological and social dysfunction which can involve increased substance abuse, suicidal tendencies or dysfunctional family relations.

1.3 Health system

Since the Taliban were deposed in 2001, health care delivery has mainly been through NGOs (Acerra et al., 2009) and an estimated 70% of medical programmes in the country have been implemented by aid organisations (Yusufzai, 2008). Data on health financing shows that General Government Health Expenditure (GGHE) as part of General Government Expenditure (GGE) is far below the 15%-target determined in the Abuja declaration⁴⁴ in 2011. Out-of-pocket expenditure was much higher than the upper benchmark of 20% of the Total Health Expenditure (THE). GGHE as part of Gross Domestic Product (GDP) was below the recommended 5% (see Table 2). In the 2011-2012 period, private sources (mainly households) (73.6%) were the main financier of the health system, followed by central government financing (5.6%) and international donor funding (20.8%) (Afghan MoPH, 2013). The high out-of-pocket spending resents a great burden for poor households in Afghanistan.

Table 2. Overview of the (mental) health system

Total health expenditure per capita (\$) (2013)	55 ⁴⁵
GGHE per capita (\$) (2013)	12
GGHE as % of GGE	7,1 %
Out-of-pocket expenditure as % of total health expenditure	73,8 %
THE as % of GDP	8,1 %
Psychiatrists working in mental health sector	0.01 per 100,000 ⁴⁶
Mental hospital (number)	1 (0.003 per 100,000 population) ⁴⁷
Mental health outpatient facilities (number)	21 (0.072 per 100,000 population) ⁴⁵
Day treatment facilities (number)	1 (0.003 per 100,000 population) ⁴⁵
Community residential facilities (number)	0 ⁴⁵

In 2004, most beds for people with mental disorders were provided by inpatient units in general hospitals and the majority of users were treated in outpatient facilities or inpatient units. Schizophrenia and other disorders were most common in inpatient units, while substance use disorders and schizophrenia were seen most frequently in the mental hospital

⁴³ The years of life lost (YLL), together with the years of life lived with disability (YLD), contribute to the burden of disease measured in disability-adjusted life years (DALYs). The metric YLL quantifies years of life lost due to premature mortality in the population and the years lost due to disability.

⁴⁴ http://www.who.int/healthsystems/publications/abuja_declaration/en/

⁴⁵ WHO Global Health Observatory (same source for all health financing data)

⁴⁶ <http://apps.who.int/gho/data/view.main.MHHRV>; 2014

⁴⁷ http://www.who.int/mental_health/evidence/atlas/profiles/afg_mh_profile.pdf; 2011



(WHO, 2004). Primary healthcare interventions and services as defined in the National Mental Health Strategy are assessment, counselling, first-line treatment, psychotropic drug availability, chronic care, referral, and rehabilitation (Afghan MoPH, 2009).

1.4 Primary care and integration of mental health - best practice

After maternal and child health and communicable diseases, mental health was given priority by the MoPH and donor agencies, but it has only recently become mainstreamed into primary care service delivery. The National Mental Health Strategy 2009-2014 points to several past systemic failures which required increased action to improve mental health. Failures included: lack of skills and capacity of human resources; lack of intersectoral collaboration; dysfunctional referral system; limited policy commitment to rehabilitation, prevention and promotion; lack of specific mental health research; and a concentration of mental health planning and resources at central levels. In the past fifteen years, several efforts have been made to overcome these gaps and to mainstream mental health in primary healthcare.

Governance and leadership:

Mental health legislation exists and was first revised in 1996. Legal provisions concerning mental health are not covered in other laws (for example, welfare, disability and general health legislation) (WHO, 2011). In 2014, mental health legislation was revised and updated, considering the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)⁴⁸ and patient rights. In addition, a code of practice was developed to guide its implementation and follow up.

The MoPH priority and commitment for mental health in Afghanistan is reflected in the Health and Nutrition Sector Strategy (HNSS) stating that, 'as a direct consequence of the years of conflict, Afghanistan has a large number of disabled and mentally ill people for whom treatment and rehabilitation services need to be developed and for whom assistance will be required in order to reintegrate them into the daily life of the country.' (HNSS, 2008:9). The Government of Afghanistan has made a definite and clear commitment in the Afghanistan National Development Strategy (ANDS) to address mental health issues with the strategic service delivery statements of a commitment to: 'Develop a flexible range of integrated mental health support and care services at all levels of the health system.' (ANDS, 2008:241).

In 2003, the Basic Package of Health Services (BPHS) had seven components. Mental health was a second-tier component, only implemented where financial and human resources permitted. In 2005, the MoPH revised the BPHS and upgraded mental health services from the second to the first tier to be equal with the other components (Newbrander, W. et al., 2014; Ventevogel et al., 2012). The incremental cost of delivering the BPHS mental health component equates to a 4% increase in total annual cost or approximately 0.20-0.25 USD per capita in Afghanistan (EPOS, 2011). Standardising the BPHS and including mental health was supported by the EU, USAID and the WB via the SEHAT project (System Enhancement for Health Action in Transition⁴⁹). The project included basket funding and promoted capacity development among NGOs. Altogether, the inclusion of mental health and psychosocial care into the BPHS has been an important step for ensuring that primary healthcare personnel are able to recognise and manage psychosocial problems and mental disorders. Just recently a new category of health staff, under the name of psychosocial counsellors has been created.

The National Mental Health Strategy 2009-2014 was adopted in 2009 and was prepared by a technical team of the Mental Health and Drug Demand Reduction Department of the

⁴⁸ <http://www.un.org/disabilities/default.asp?id=150>

⁴⁹ <http://www.worldbank.org/projects/P129663/afghanistan-system-enhancement-health-action-transition-project?lang=en>



MoPH. The strategy included activities from primary, secondary and tertiary healthcare and emphasizes decentralisation and mental health promotion at district level. Its vision is to allow population-wide access to community-based, comprehensive, coordinated mental healthcare, treatment and follow-up which is expected to be integrated with primary healthcare by 2020. The EU funded a technical cooperation programme to the MoPH which supported rolling out the strategy to all provinces during 2012 (EPOS, 2014).

In 2005, the Mental Health Department was established within the MoPH to further acknowledge mental health issues in the country. It is responsible for multi-agency coordinated work such as:

- Inter-departmental coordination with different relevant technical departments to ensure integrated activities (for example, reproductive health, communicable and non-communicable departments, national tuberculosis control programme, HIV/AIDS unit, disability, nutrition department, and youth and adolescent department);
- Mental health provincial coordination meetings and gatherings to oversee effective service implementation, identify challenges and provide support to overcome the challenges at provincial level. These activities are designed at each provincial level by direct involvement of provincial public health directorates;
- Multi-sector coordination with different ministries (for example Ministries of Women Affairs, Higher Education, Education, Labour and Social Affairs, Counter Narcotics, Interior, Culture and Information);
- Coordination between government, donors and NGOs to ensure harmonised service delivery;
- Training general health workers in basic psychiatry accompanied by psychological and social interventions, such as psychosocial counselling and community-based psychosocial interventions;
- Clinical supervision to emphasise and facilitate the use of non-pharmacological approaches to common mental disorders; and
- Emphasis on teamwork and a good referral system including close follow up and technical supervision for psychological and psychosocial treatment.

The Mental Health Task Force Group was created in 2005 to ease coordination between mental health stakeholders at the national level and as a main decision-making body for mental health activities. Led by the Mental Health Department, it addresses roll-out of mental health in the country by mainstreaming agreed procedures (for example, training of trainers, indicator development, coordination meetings, updating mental health legislation, developing a Code of Practice). The upgrading of the mental health component as part of the Essential Package of Hospital Services (EPHS) mechanisms in Afghanistan is currently being reviewed. The personal commitment to mental health of the current and former Ministers of Public Health has accelerated progress in mental health service delivery and quality.

Human and financial resources

In the 1980s, WHO organised a mental health training for primary healthcare physicians to tackle the shortage of qualified personnel, but there was no follow up due to security reasons (Ventevogel et al., 2002). The EU supports the capacity building of mental health professionals, mainly psychologists and psychiatrists. For example, it supported the International Psychosocial Organisation (IPSO) to train 140 psychosocial counselors in 34 provinces (EU Delegation to Afghanistan). A training programme with training manuals and learning resource packages was developed for all staff categories working in BPHS (medical doctors, nurses, midwives, community health supervisors, community health workers and psychosocial counsellors). The training is conducted for three weeks for each category. The central Kabul psychiatric hospital is progressively involved in technical supervision of mental



health at the level of basic health services. Though mental health has been integrated into BPHS and the Essential Package of Hospital Services (EPHS), appropriate budget allocations are still missing. An essential psychiatric medicines list exists (including antipsychotics, antidepressants, anxiolytics and antiepileptics), but medication is periodically not available. In 2004, the percentage of the population with access to medication was very low (1%) (WHO, 2006). Furthermore, while medical doctors are authorised to prescribe psychotropic medication, primary health care nurses are not (WHO, 2011).

Data and information systems

In 2006, there was no defined mental health data collection. However, 36% of outpatient facilities, all inpatient units and the mental hospital reported data on the number of patients, admissions and diagnoses (WHO, 2006). In 2006, there were only two mental health indicators present in the national routine Health Management Information System (HMIS) : (1) The number of patients with mental or psychosocial problems; (2) The number of trained staff on mental health. During the last quarter of 2014, four new indicators were added to the HMIS: (3) The number of patients with common mental disorders recorded in last quarter; (4) The number of clients recorded who received psychosocial counseling during last quarter; (5) The number of mental disorder cases referred in last quarter; (6) The number of clients recorded who received follow-up visits during last quarter.

Service delivery

In 2005, psychosocial intervention centers were established by NGOs in the capital, but rural areas were left out (WHO, 2006). A transition took place from emergency and NGO-led mental health and psychosocial interventions to public mental health care integrated into primary care. The EU has provided EUR 7 million to mental health programmes in Afghanistan and furthermore supported the International Medical Corps to renovate Kabul Mental Health Hospital, the only hospital providing psychiatric services⁵⁰. Though the EU has a strong track record on mental health, as various projects cover approximately one third of the country, the challenge is to scale-up services nation-wide and to involve more NGOs. Implementation of Mental Health Gap Action Plan (mhGAP) in three pilot provinces (Parwan, Panjshir and Kapisa) in 2012. An evaluation of the implementation has been done and a plan for the dissemination to other provinces is under development.

Advocacy

There are no family or user associations present in the country (WHO, 2011).

Next steps

An epidemiological baseline study is planned with EU support.

1.5 Key Progress

Mental health monitoring and supervision checklists have been developed in collaboration with the MoPH Health Management Information System (HMIS) department. There has also been adaptation and translation of WHO Quality Rights Toolkit on assessing and improving quality and human rights in mental and social care facilities.

Services available (EPOS, 2015)

- Expansion of tertiary mental health hospital to 100 beds (60 beds for psychiatric and 40 beds for substance abuse) capacity with no long-stay patients;
- Establishment of psychiatric wards in general hospitals (five wards in five regional hospitals with 10-50 beds capacity);
- Psychiatric outpatient delivery services in 26 provincial hospitals;
- Jangalak de-addiction center with 300 beds capacity in Kabul;
- 17 new de-addiction centers (20-50 beds) at provincial level;

⁵⁰ https://ec.europa.eu/europeaid/case-studies/tackling-mental-health-afghanistan_en



- Mental health unit established in key 29 provincial hospitals;
- Getting policy approval of psychiatric ward within structure of all provincial hospitals (the implementation will be started on 2015); and
- Adaptation/start implementation of mhGAP in Parwan, Panjshir and Kapisa provinces.

Patient satisfaction

The implementation of WHO Quality Rights Toolkit was used to assess the quality of the services in the mental health hospital. An assessment of the services in the regional hospitals will be conducted in the last quarter of 2015.

- The proportion of mental health consultations in general care has increased from almost none to 3% in a span of nine years at the national level. Between April-June 2010 and April-June 2013, there is an increase of 120,000 consultations. (MoPH HMIS reports, 2010 and 2013);
- 15 counselling centers in Kabul assisted more than 11,000 clients, of whom 70% reporting significant improvements (IPSO Psycho-social counseling database);
- 200,000 clients were consulted by 250 psychosocial counsellors from December 2012 to December 2013 (IPSO Psycho-social counseling database).

Number of primary care staff trained

In 2013 the following staff received training: 276 medical doctors; 691 nurses, midwives, community health workers and supervisors (medium-level); and 270 psychosocial counselors. In 2014, 142 medical doctors and 702 medium-level staff were trained.

1.6 Conclusion

Afghanistan is an example of a country which made the transition from a situation of NGO-led mental health programmes to a National Mental Health Policy and Programme. It was supported by the interventions of EU, WB, WHO and other bilateral donors. Several models of health care provision needed to be integrated slowly (such as emergency care and public health care). It is clear that integration is a process which requires harmonised activities. The construction of a national public mental health system requires the collaborative efforts of governments, international donors and NGOs.

1.7 Key lessons learned

Afghanistan is one of Asia's poorest countries, yet humanitarian recovery programming has paradoxically resulted in one of the continent's most successful experiences in terms of integrating and scaling up mental health care in selected geographical areas (WHO, 2013). The creation of the Mental Health Department helped to coordinate and oversee activities of multiple stakeholders (for example, WHO, EU and some specialised NGOs such as IPSO, Tabish, International Assistance Mission, Aide Medicale Internationale, Medica-Afghanistan, and HealthNet TPO) (EPOS, 2014). Afghanistan now has substantial experience in scaling up the integration of basic mental healthcare into the general health system and can serve as an inspiring example for other post-conflict countries.

Acronyms

ANDS	Afghanistan National Development Strategy
BPHS	Basic Package of Health Services
DALY	Disability Adjusted Life Year
EU	European Union
EPHS	Essential Package of Health Services
GBD	Global Burden of Disease Study
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure



GHO	Global Health Observatory
HMIS	Health Management Information System
HNSS	Health and Nutrition Sector Strategy
ILO	International Labour Organisation
IPSO	International Psychosocial Organisation
MDG	Millennium Development Goals
MESH	Mentorship and Enhanced Supervision at Health Centers for Mental Health
MHIS	Mental Health Information System
mhGAP	Mental Health Gap Action Plan
MoPH	Afghan Ministry of Public Health
NGO	Non-Governmental Organisation
PTSD	Post-Traumatic Stress Disorder
SEHAT	System Enhancement for Health Action in Transition
THE	Total Health Expenditure
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNDP	United Nations Development Programme
USAID	United States Aid Agency
USD	United States Dollar
WB	World Bank
WHO	World Health Organization
YLD	Years of Life Lived with Disability
YLL	Years of Life Lost

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Case Study 2: Rwanda - Integration of mental health in primary healthcare

This case study summarises efforts to integrate mental healthcare into primary care in Rwanda. During the post-genocide period, new challenges related to trauma and accompanying health problems emerged within communities. This required action on different levels to improve and integrate mental health into primary care.

1.1 National context

Rwanda is a country with an approximate area of 26,000 square kilometers located in Eastern Africa. In the past, it went through a series of major periods of violence that culminated into the 1994 genocide against the Tutsi; claiming one million innocent Rwandans. This slowed down the process of development and negatively impacted the social fabric. The main languages spoken are Kinyarwanda, French and English (all official). Most Rwandans are Christians or follow traditional beliefs often combined with Christianity. The Rwandan economy is small and agricultural based; agriculture accounted for 35% of the Gross Domestic Product (GDP) in 2006 (International Labour Organisation (ILO), 2009). In the past years, population growth has been fast and 46% of the population are under the age of 18 (WHO, 2011). Further information on the national context is summarised in Table 1.

Table 1. Overview of national context

Population (thousands)	11,777 ⁵¹
Annual population growth rate (annual %)	2.7 ⁵²
Total fertility rate (births per woman)	4.5 ⁵³
Adult literacy rate (%)	66 ⁵⁴
Gross national income per capita (int. \$)	1,530 ⁵⁵
Population living below national poverty line (%)	44.9 ⁵⁶
World Bank income group	Low-income ⁵⁷
Human Development Index (rank)	151/187 ⁵⁸

Rwanda's progress towards the Millennium Development Goals (MDGs) has been described as a 'story of success' (United Nations Development Programme (UNDP), 2013). Progress has especially been made to reduce the number of people living in poverty and hunger, as well as in education, health and environment sectors. Nevertheless, continued efforts are required to get women and youth into off-farm employment, reduce under-five and infant mortality rates further and intensify the fight against HIV/AIDS (UNDP, 2014).

1.2 Population health status

Over the last 20 years, although poverty levels remain high, Rwanda has made remarkable improvements in the health status of its population (Overseas Development Institute (ODI), 2011). In 2013, the under-five mortality rate was 42 (per 1,000 live births) and the maternal mortality ratio was 320 (modelled estimate per 100,000 live births). By then, life-expectancy at birth was 64 years and has increased continuously since 2005 (World Bank, 21.08.2015). As many as 44% of children are wasted (WHO Global Health Observatory 2011).

⁵¹ <http://data.worldbank.org/indicator/SP.POP.TOTL>; 2014

⁵² <http://data.worldbank.org/indicator/SP.POP.GROW>; 2014

⁵³ <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>; 2013

⁵⁴ <http://www.data.unicef.org/resources/the-state-of-the-world-s-children-report-2015-statistical-tables>

⁵⁵ <http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD/countries>

⁵⁶ <https://data.un.org/Data.aspx?d=MDG&f=seriesRowID%3A581>; 2008

⁵⁷ <http://data.worldbank.org/about/country-and-lending-groups>; 2015

⁵⁸ <http://hdr.undp.org/en/content/human-development-index-hdi>; 2014



The top three causes of years of life lost (YLLs⁵⁹) are malaria, lower respiratory infections and HIV/AIDS. The leading risk factors are household air pollution, childhood underweight and alcohol use. Major depressive disorder is the eleventh and anxiety disorder the fourteenth leading cause of disability-adjusted life years (DALYs), but their contribution to DALYs has increased since 1990. Interpersonal violence - a risk factor for mental, neurological and substance use disorders (MNS) disorders - has increased by more than 200% since 1990; this can mainly be explained by the 1994 genocide (Global Burden of Disease, 2010).

In Rwanda, neuropsychiatric disorders have been estimated to contribute to 4.8% of the global burden of disease (WHO, 2011). During the post-genocide period new challenges related to trauma and its accompanying problems emerged within communities. In 2012, a nationwide study revealed a prevalence of post-traumatic stress disorder (PTSD) of 26.1% among adults and comorbid depression within 68.4% of the population suffering from PTSD (Munyandamutsa et al. 2012). A study by Bolton (2002), though being geographically limited to the Bugesera region, confirmed the serious problem of depression as 15.5% of the local sample suffered from this disorder. Drug abuse, particularly among young people, is a new mental health challenge in Rwanda (Kanyoni et al., 2015). Epilepsy was the leading cause of consultation in mental health services in the country (Mental Health Division, 2014) and discrimination against people living with epilepsy is high (Sebera et al., 2005). Information on suicide has not been collected prior to 2000 and still today no comprehensive surveillance system of suicide deaths exists (Rubanzana et al., 2015).

1.3 Health system

After the genocide, the Rwandan health system was in a state of almost total collapse; health infrastructure and human capital were nearly completely destroyed. Today, Rwanda's healthcare system is organised along the principles of primary health care. Health centres are the first point of contact for patients and coordinate all outreach and prevention activities held at the community level. Community-level and health centres are attached to the district hospital - a general hospital - which is the next level of care. To address the need for continuity of care, health services are organised by catchment area, so each district hospital covers a geographical area. There are 40 district hospitals in 30 administrative districts. The Ministry of Health has also established provincial hospitals, one in each province of the country. At the top of the healthcare system (tertiary care), there are five national referral and teaching hospitals, and recently three district hospitals were upgraded to referral hospitals. Recent data on health financing shows that General Government Health Expenditure (GGHE) as part of General Government Expenditure (GGE) is above the 15%-target determined in the Abuja Declaration⁶⁰ in 2011. Out-of-pocket expenditure remains slightly higher than the upper benchmark of 20% of total health expenditure and GGHE as part of GDP was only slightly higher than the recommended 5% (see *Table 2*).

⁵⁹ The years of life lost (YLL), together with the years of life lived with disability (YLD), contribute to the burden of disease measured in disability-adjusted life years (DALYs). The metric YLL quantifies years of life lost due to premature mortality in the population and the years lost due to disability.

⁶⁰ http://www.who.int/healthsystems/publications/abuja_declaration/en/



Table 2. Overview of the (mental) health system

Total expenditure on health per capita (\$) (2013)	71 ⁶¹
GGHE per capita (\$) (2013)	41
GGHE as % of GDP (2013)	11,1 %
Out-of-pocket expenditure as % of total health expenditure (2013)	18,4 %
GGHE as % of GGE (2013)	22,3 %
Psychiatrists working in mental health sector (total number, 2015)	7 (further 11 are currently in education to become psychiatrists)
Mental hospital (total number, 2014)	6 (0.05 per 100,000) ⁶²
Mental health outpatient facilities (total number, 2014)	42 (0.36 per 100,000) ¹³
Day treatment facilities (number)	1 (0.01 per 100,000) ⁶³
Community residential facilities (number)	1 (0.01 per 100,000) ¹⁴

1.4 Primary care and integration of mental health - best practice

Before 1995 there was almost no government responsibility for mental health and a national mental health policy did not exist. Since then, mental health policy and legislation have improved and decentralisation of mental healthcare in general hospitals and the integration of mental healthcare into primary care have been implemented in different ways. Key activities are summarised here:

Governance and leadership

An officially-approved Mental Health Policy, (introduced in 1995 and reviewed in 2011) has initiated a process of decentralisation with the creation of referral services. The policy was based on a highly participatory and consultative process and the Rwandan Government's strong leadership has been vital to its implementation. Values and principles developed in the policy promote human rights, community-based approaches and intersectoral collaboration, including with NGOs. The policy requested the creation of a Mental Health Division within the Rwandan Biomedical Center in the Ministry of Health. Its main mission is to implement the Mental Health Policy through a strategic plan under the guidance of the Health Sector Strategic Plan. The division is composed of three units: development of psychiatric care; promotion of mental health and community interventions; prevention and treatment of substance use disorders.

Since 2005, mental health is clearly mentioned within the overall Health Sector Policy as a priority area of intervention. This policy recommended the integration of mental health services into all national health system infrastructures and at community level (Government of Rwanda, 2005). Mental health is also one of the main programmes identified in the third phase of the Health Sector Strategic Plan which runs from July 2014 to June 2018.

The national Mental Health Plan includes the following components: timelines for the implementation of the mental health plan; funding allocation for the implementation of half or more of the items in the mental health plan; shift of services and resources from mental hospitals to community mental health facilities; integration of mental health services into primary care. Some key strategies of the plan include:

- the inclusion of mental health as part of the basic healthcare package and establishing mental health units in all district hospitals across the country;
- support for existing programmes and introduction of psychiatric nurse practitioners in district hospitals to provide community mental health care;
- the development of primary care programmes comprising a mix of specialists and non-specialists mental health professionals (including general nurses, general

⁶¹ WHO Global Health Observatory. Same source for the other health financing data.

⁶² Mental Health Atlas – 2014 Questionnaire; Rwanda Ministry of Health (unpublished document)

⁶³ http://www.who.int/mental_health/evidence/atlas/profiles/en/, 2011



medical practitioners, psychologists, and other allied health providers such as Community Health Workers and NGOs) to provide shared mental health care;

- training health professionals, establishing a cascade supervision and mentorship system and launching a specialisation programme in psychiatry to improve quality of care; and
- integrating mental health care and psychotropic medicine into the community-based health insurance scheme to improve accessibility and reinforce equity.

There is no dedicated Mental Health Legislation but mental health is covered in other laws (such as welfare, disability, and general health legislation) and mental health was included into the Basic Health Care Package.

Human and financial resources

Psychiatric nurses at district hospitals have been empowered and community mental health has been promoted and contributed to strengthening the health system (Ait Mohand et al., n.d.) Regular refresher sessions are held for specialists and nurses who work in district hospitals and referral hospitals. General medical doctors and general nurses from district hospitals and health centers are trained in MNS disorders twice yearly. Community health workers who deal with non-communicable diseases are now being trained in MNS disorders (Dusabeyezu, 2013). Since October 2014 and for a period of two years, Grand Challenges Canada (USD 217,347), the Rwandan Ministry of Health (USD 257,966), Harvard Medical School (USD 309,621) and Partners in Health (USD 278,533) fund the MESH MH model⁶⁴, a training and service delivery model developed by Partners in Health and the Rwandan MoH. It integrates core packages of services for severe mental disorders into routine primary health care, with community-based care and treatments to be provided by non-specialists, including lay health workers with minimal training.

As Rwanda lacks staff with an educational background in psychiatry, the University of Rwanda launched a third-cycle specialisation in psychiatry in 2013 to increase the pool of trained psychiatrists in the country. Since 2002, Belgian technical cooperation supports the Rwandan mental health policy. Furthermore, Partners in Health support mental health on district level and Handicap International supports awareness raising for epilepsy and its treatment.

Service delivery

In contrast to the period before 1994, when mental health care provision was mostly designed through and around the only psychiatric hospital in the country, mental health services are now effectively decentralised across the country. In 1999, mental health care and psychotropic medication has been integrated into the Community-Based Health Insurance scheme (CBHI) (Ait Mohand et al., n. d.). Between 90% and 100% (for those on lowest incomes) of psychotropic medicines and service costs are met by the CBHI. In the past, this scheme has protected households from catastrophic health spending (Lu et al., 2012). A specific list of essential psychotropic medicines has been established for each level of the health system. Prescription regulations authorise primary healthcare doctors to prescribe and continue prescription of psychotherapeutic medicine; the same applies for primary healthcare nurses but with restrictions.

Primary healthcare nurses are allowed to independently diagnose and treat mental disorders within the primary care system (WHO, 2011). The 'referral system' is operational, thereby linking various levels of care, from community level to tertiary care. Officially-approved manuals on the management and treatment of mental disorders are available in the majority of primary healthcare clinics. Official referral procedures from primary to secondary and tertiary care exist, as well as the other way around (WHO, 2011). A collaborative supervisory system has been set up in which each level supports the next and specialists play a role in capacity-building, supervision and quality assurance.

⁶⁴ Mentorship and Enhanced Supervision at Health Centers for Mental Health
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Data and information systems

According to WHO (2011) a section of the National Information System of the Rwandan MoH collects and analyses mental health data.

Advocacy

Members of some genocide survivor associations and other associations are being trained in basic management of PTSD or emotional crisis (Dusabeyezu, 2013).

1.5 Key Progress

Each of the country's 40 district hospitals has its own mental health unit which delivers a comprehensive mental health care package (MoH Rwanda, 2011). Each mental health unit provides inpatient and outpatient mental health care, including analysis and diagnosis, treatment and follow-up, rehabilitative measures, counselling and interaction with families. Eleven of the 40 mental health units located at district hospitals have beds dedicated to patients receiving mental healthcare (between three and twelve beds), whereas the remaining district hospitals are using mainly internal medicine or surgery beds for inpatient mental healthcare. These wards have layouts that allow for good observation and mental and physical care. Mental health units are also essential for inpatient treatment of acute episodes and liaison with other medical services.

In 2014, there were 66 psychiatric nurses and 41 psychologists working in mental health units in district hospitals (Mental Health Division, 2014b). The establishment of mental health units and having at least two psychiatric nurses in each district hospital has led to numerous improvements: transfers to the psychiatric hospital have been reduced; outpatient services have increased; and community-based mental health awareness programmes aiming the prevention and promotion of mental health have been launched.

By decentralising mental health services, geographic accessibility was increased, and the number of transfers to mental health referral structures was reduced. Data from the national health management information system shows that in 2013, all mental health units received 26,757 new mental health cases and performed 135,413 outpatient consultations and 1158 hospitalizations, with only 639 transfers to mental health referral structures. The number of outpatient mental health consultations at district level rose from 19,000 in 2008 to 135,413 in 2013 (Aid Mohand et al., n.d.).

1.6 Conclusion

Rwanda is an example of a post-conflict setting where high political commitment has led to considerable achievements in integrating mental health into primary care.

Mental health policies and plans have been essential tools for coordinating mental health services. The mental healthcare system represents a balance between community-based and hospital-based care. In this regard, a stepped-care approach is provided from health centres in rural areas, to district hospitals and then mental health referral settings in Kigali. This allows for treating patients as near as possible to their homes and shifts to hospital treatment only after community treatment has failed. Rwanda is a good example of how a mix of specialists and non-specialists can effectively deliver mental health services at all health system levels. Though many steps have been taken, certain challenges remain: funds for mental health care are limited; the number of qualified mental health professionals does not meet the burden of disease; and stigma is still threatening people with mental disorders. Future steps will focus on: expanding training for specialisation in psychiatry; complete outpatient mental healthcare provision (for example, by introducing psychiatric emergency care, day care, and child psychiatry); further integrate mental health into general care; further address stigma; and implement a mental health law.



1.7 Key lessons learned

Political commitment and the establishment of a national mental health policy and implementation plan contributed to the success of decentralisation and integration of mental health into primary care. The mental health division has played a key role in integrating mental health in norms, standards and indicators of ongoing programmes of the MoH as well as coordinating consultative processes and dialogue with stakeholders. This expertise has been essential for decentralisation. Integration of mental health care at the local level has supported the health system in general.

The case of Rwanda has shown that general nurses and general medical practitioners can be trained to provide effective people-centred mental healthcare including prescription of psychotropic medications. In particular, including mental health as part of the basic healthcare package was essential for ensuring the following: that psychiatric nurses were recruited in district hospitals; health workers received training; essential psychotropic medicines were available at primary care level; and mental health indicators were integrated in all monitoring and evaluation systems of care (at national and local levels) included planning, quality of care, performance-based financing, management and data collection (Health Management Information System).

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CBHI	Community-Based Health Insurance scheme
DALY	Disability Adjusted Life Year
GBD	Global Burden of Disease
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
GHO	Global Health Observatory
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ILO	International Labour Organization
MDG	Millennium Development Goal
MNS	Mental, neurological and substance use disorders
ODI	Overseas Development Institute
PTSD	Post-Traumatic Stress Disorder
UNDP	United Nations Development Programme
USD	United States Dollar
WB	World Bank
WHO	World Health Organization
YLL	Years of Life Lost
YLD	Years of Life Lived with Disability

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Case Study 3: Guinée Conakry - Mental healthcare pilot programme

This case study summarises efforts to integrate mental health into primary care in Guinea (Conakry). In the past, mental health has played a minor role on the national health agenda but since 2000, particular effort to improve mental healthcare has been made by the Non-Governmental Organisation (NGO) Fraternité Médicale Guinée and the *Santé Mentale en milieu Ouvert Africain* (SaMOA)⁶⁵ project, which is discussed later.

1.1 National context

The West African nation of Guinea spans an area of 245,860 square kilometers. The country has undergone several shocks over the last two years; the most devastating being that of Ebola with its social and economic impact. Guineans belong to 24 different ethnic groups, the main languages spoken are French (official) and more than twenty indigenous languages. The country is predominantly Islamic. Guinea has abundant natural resources (such as bauxite, diamonds and gold) and agriculture employs 80% of the nation's labor force. According to the last Millennium Development Goals (MDGs) Report, progress in the education sector has been very good, moderate in health and gender parity and low in child nutrition. Poverty has even increased between 2002 (49%) and 2012 (55.2%) (UNDP, 2014). Further details on the national context are summarized in *Table 1*.

Table 1. Overview of national context

Population (thousands)	11,745 ⁶⁶
Annual population growth rate (annual %)	2.5 ⁶⁷
Total fertility rate (births per woman)	4.9 ⁶⁸
Adult literacy rate (%)	25 ⁶⁹
Gross national income per capita (int. \$)	1,140 ⁷⁰
Population living below national poverty line (%)	55.2 ⁷¹
World Bank income group	Low-income ⁷²
Human Development Index (rank)	179/187 ⁷³

1.2 Population health status

In 2013, the under-five mortality rate (94 per 1,000 live births) and maternal mortality ratio (650/100,000 live births) was slightly higher compared to the regional average and life expectancy was 58 years (WHO, 2015). As many as 35% of children are wasted. The prevalence rate of female genital mutilation (FGM) is almost 99% (UNICEF, 2005). FGM is closely linked to female health and can cause immediate and delayed complications, including psychological problems (Karmaker et al., 2011).

The top three causes of years of life lost (YLLs⁷⁴) are malaria, lower respiratory infections and diarrhoeal diseases. The leading risk factors are childhood underweight, household air pollution and suboptimal breastfeeding. Epilepsy was the sixteenth major depressive disorder and the eighteenth leading cause of disability-adjusted life years (DALYs) (Global

⁶⁵ Santé Mentale en milieu Ouvert Africain (SaMOA)

⁶⁶ <http://data.worldbank.org/indicator/SP.POP.TOTL>; 2014

⁶⁷ <http://data.worldbank.org/indicator/SP.POP.GROW>; 2014

⁶⁸ <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>; 2013

⁶⁹ <http://www.data.unicef.org/resources/the-state-of-the-world-s-children-report-2015-statistical-tables>

⁷⁰ <http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD/countries>

⁷¹ <https://data.un.org/Data.aspx?d=MDG&f=seriesRowID%3A581>; 2008

⁷² <http://data.worldbank.org/about/country-and-lending-groups>; 2015

⁷³ <http://hdr.undp.org/en/content/human-development-index-hdi>; 2014

⁷⁴ The years of life lost (YLL), together with the years of life lived with disability (YLD), contribute to the burden of disease measured in disability-adjusted life years (DALYs). The metric YLL quantifies years of life lost due to premature mortality in the population and the years lost due to disability.



Burden of Disease, 2010). In Guinea, neuropsychiatric disorders are estimated to contribute to 6.5% of the global burden of disease (WHO, 2011).

1.3 Health system

Data on health financing shows that General Government Health Expenditure (GGHE) as part of General Government Expenditure (GGE) is below the 15%-target determined in the Abudja declaration⁷⁵ in 2011. Out-of-pocket expenditure was much higher than the upper benchmark of 20% of the Total Health Expenditure (THE) and GGHE as part of Gross Domestic Product (GDP) was below the recommended 5% (see Table 2).

Table 2. Overview of the (mental) health system

Total expenditure on health per capita (\$)	25 ⁷⁶
GGHE per capita (\$) (2013)	9
GGHE as % of GGE	6.8 %
Out-of-pocket expenditure as % of THE	56.4 %
THE as % of GDP	24.7 %
Psychiatrists working in mental health sector	0.03 ⁷⁷
Mental hospital (number)	0 ⁷⁸
Mental health outpatient facilities (number)	0 ⁶⁵
Day treatment facilities (number)	2 (0.02 per 100,000) ⁶⁵
Community residential facilities (number)	0 ⁶⁵

1.4 Primary healthcare and integration of mental health

In Guinea, while significant progress has been made in primary healthcare programmes, little improvement has been made in the field of mental health. The psychiatrist ratio per capita is one of the lowest in the world and a similar gap in the number of neurologists prevails throughout the country (Sow et al., 2014). A mental health policy and plan is present and the mental health plan includes the integration of mental health services into primary care. However, no dedicated mental health legislation exists and legal provisions concerning mental health are not covered in other laws (such as social welfare, disability and general health legislation) (WHO, 2011). Training for mental health specialists is provided in the public sector, but specialisation in psychiatry is not provided. In 2011, there was almost no training provided for mental health social workers and nurses (WHO, 2011). Primary healthcare doctors are allowed to prescribe and continue prescription of psychotropic medication but with restrictions. The same applies for primary healthcare nurses. Official referral procedures for referring persons from primary care to secondary and tertiary care exist, as well as referral procedures from tertiary and secondary care to primary care (WHO, 2011).

The SaMOA project implemented by Fraternité Médicale Guinée (FMG)

In order to address the treatment gap of people with MNS disorders, FMG (a Guinean medical association) opted for the integration of neuropsychiatric health care into the daily work of the general practitioners working in its health centers. In 2000, a partnership between FMG and a Belgian mental health center (Centre de santé mentale 'La Gerbe') was initiated. Together they developed the SaMOA project (2000 to 2003). With the financial support of the European Commission and technical support from Medicus Mundi Belgium, the project integrated mental health support into three (urban) health centers run by FMG (FMG, 2005). The model of care employed in these health centers was based on a three-dimensional approach: medical, socio-psychological and community-based. The idea was

⁷⁵ http://www.who.int/healthsystems/publications/abuja_declaration/en/

⁷⁶ WHO Global Health Observatory (same source for all health financing data)

⁷⁷ <http://apps.who.int/gho/data/view.main.MHHRv>; 2014

⁷⁸ http://www.who.int/mental_health/evidence/atlas/profiles/en/, 2011



also to make treatment available to people with MNS disorders outside of Conakry. The package of care offered for people with MNS disorders consisted of identifying patients, medical treatment, follow-up, psychosocial support, family and community reintegration through discussion groups, workshops and social support interventions (Sow et al., n.d.).

Through the combined efforts of the healthcare team and the village community, care was provided to a significant number of patients; something that a specialised structure located in large cities could never achieve (Sow & FGM, 2010). During the period 2000-2003, the pilot project depended on initial funding from the EU. Since this external funding was halted, perhaps rather prematurely, it was difficult to quickly scale up the initial activities.

1.5 Key Progress

Outcomes related to the activities conducted by FMG have been described by Sow et al. (2014). From January 2000 to June 2013, 7079 cases of mental disorder were diagnosed among which 47% were psychoses, 33% were epilepsy cases and the remaining 20% represented depression, dementia, neurosis, social problems and cerebral motor deficiencies. Among patients put under treatment, two main molecules were used for psychosis (different forms of *Haloperidol* and *Akineton* as corrector) and for epilepsy, four essential generic drugs (*carbamazepine*, *phenobarbital*, *phenytoin* and *sodium valproate*).

Positive impacts of the project for patients and their families, health care providers and health centers have been reported. At the level of health centers and providers impacts have been made on several levels. Patient-provider relationships have improved (beyond people with MNS disorders). General practitioners have been trained to adopt a more holistic biopsychosocial approach with psychiatric patients and spontaneously applied a similar approach vis-à-vis other patients, spending more time, listening and discussing with them and paying more attention to their psychosomatic problems.

Relationships between health centers and the communities they serve have improved. Communities started to see healthcare providers and the health centers as partners and contributed to the development of the relationship. Relationships between primary health centers and referral hospitals also improved. Given the fact that the care package provided by the programme was not available in district hospitals, the project has reversed the usual pattern of the health pyramid. This usually sees primary healthcare centers referring their patients to a hospital. In this case, the opposite took place, hospitals sent their patients to the lower level of care. The momentum created by the project has allowed the emergence of several community-led initiatives such as economic interest groups among intervention communities, involvement of young people in the village around health promotion activities and the establishment of patient support groups. Health centres offer opportunities for training and internships for medical students in public health and community health workers. (Successful health centres are coveted by academics whose students are engaged in the internships and the development of dissertations.) The project involved several actors from different socio-medical fields and initiated networking activities among associations which in the past operated in isolation for each other.

A major challenge has been to scale up the mental health services and to develop a sustainable referral system for mental health at the district (Prefecture) level. In the period 2004-2013 after the initial pilot phase of the project, the three FMG health centres providing mental healthcare were still operational. Furthermore, two public health clinics and three faith-based (not-for-profit private) health centres provided mental health care along the same lines. The absence of basic referral mental healthcare in district and regional hospitals is still a major challenge. The private sector is not yet involved in mental health.

The Ebola crisis has put mental health higher on the agenda, and key actors, such as WHO and UNICEF are facilitating training on mental health. However, much of this training is of



short duration only (courses of two to three days), and may not always lead to a sustainable and robust scaling up of basic mental health services.

1.6 Conclusion

The SaMOA example illustrates an innovative way of how to integrate mental health into primary healthcare services under the lead of a local NGO. In addition, the SaMOA project has shown that initial funding to do the following is a sustainable approach to integrating mental health into primary healthcare centres in Guinea: train staff; provide a starting stock of essential generic drugs; conduct reintegration workshops; and provide supportive teaching materials. In order to replicate and to scale up the approach, similar projects are a worthwhile investment for donors.

Nevertheless, some difficulties encountered during implementation need to be mentioned. These include the relationship between primary healthcare centers and specialised services, the motivation of community volunteers, access to drugs, and the increasing workload for staff (Sow et al., n.d.). Scaling up of initial experiences, and the establishment of a sustainable referral system are key challenges.

1.7 Key lessons learned

Involving actors of different socio-medical fields is beneficial to initiate networking around mental health. A focus on mental health can improve patient-provider communication and can impact on the population's health beyond mental health. Initial funding to integrate mental health activities into health centres (for example, train staff and provide supporting materials) led to sustainable and routinised mental healthcare. This was conducted in areas covered by the pilot project and by additional public and not-for-profit private health centres; the approach may be a worthwhile investment for donors. Additional initial funding is required to scale-up activities nation-wide. To ensure the development of sustainable mental health services - including a functional referral system at district and regional levels - a comprehensive approach, including well-designed capacity development activities is necessary. 'Quick and dirty' training programmes on mental health – now being provided as a result of the ebola crisis - may not lead to sustainable quality mental health services.

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
DALY	Disability Adjusted Life Year
FGM	Female Genital Mutilation
FMG	Fraternité Médicale Guinée
GBD	Global Burden of Disease Study
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
HIV	Human Immunodeficiency Virus
MDG	Millennium Development Goal
MNS	Mental, Neurological and Substance use
NGO	Non-Governmental Organisation
SaMOA	Santé Mental en milieu Ouvert Africain
THE	Total Health Expenditure
UNICEF	Children's rights and emergency relief organisation
YLL	Years of Life Lost
YLD	Years of Life Lived with Disability

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Case Study 4: Kenya - Integration of mental health in primary health care

This case study summarises efforts to integrate mental health into primary care in Kenya in the last fifteen years. Although integration of mental health in primary care in Kenya had been a policy objective since the 1980s, there had been little practical implementation until 2005. The focus on mental health in Kenya was increased by a DFID-funded collaboration between the Kenya Ministry of Health and the WHO Collaborating Centre, the Institute of Psychiatry, London 2000-2004. It conducted detailed situation appraisal and stakeholder consultation, epidemiological and qualitative studies, policy dialogue, and strategic planning (Kiima & Jenkins, 2010). A Nuffield-funded programme on national primary care training on mental health then followed in 2005-2010 (Jenkins et al 2010., a & b). This was a collaboration between the Kenya Ministry of Health, the Kenya Medical Training Centre, the Kenya Psychiatric Association and the WHO Collaborating Centre, the Institute of Psychiatry. A DFID/Nuffield programme of training evaluation took place in 2011-2013 (Jenkins et al., 2011; Jenkins et al., 2012; Othieno et al., 2012).

1.1 National context

Kenya is in sub-Saharan Africa and was a low-income country until 2014 when it became a lower-middle income country. This was because Kenya's gross domestic product (GDP) per capita rose from USD 399 in 2000 to USD 1040.55 in 2013, although poverty levels remain high at 45.9% (United Nations Development Programme, 2013). Kenya's population is growing rapidly by about one million a year, from 10 million in 1969 to an estimated 43.2.million in 2013. This figure is extrapolated from the 2009 census (Kenya Bureau of Statistics, 2011). Nearly 50% of the population are aged under 15. Life expectancy at birth is 57 years, and the adult literacy rate is 87%. The infant mortality rate is 55 per 1000 live births, the maternal mortality rate is 490 per 100,000 live births and the HIV prevalence rate is currently estimated at 5.6% (Kimanga et al., 2014). Most people speak Kiswahili, English and several tribal languages; 59% of women and 56% percent of men live in rural areas.

The percentages of women and men with primary school education are similar, although more men have a secondary or higher level of education (49% of men compared with 43% of women). About 70% of respondents are Protestant, about 20% are Roman Catholic, and about 7% are Muslim (Kenya Bureau of Statistics 2014). There is an overall decline from the 8.1 births per woman in the mid-1970s to 3.9 in 2014. The percentage of women who have begun childbearing increases rapidly with age, from about 3% in women age 15 to 40% among women age 19. The main employment is agriculture and casual labour, public sector workers and professionals, private professionals and private companies. The main development challenges are rapid urbanisation, a highly inefficient agricultural sector and a food supply that is vulnerable to catastrophic drought and floods.



Table 1. Overview of national context

Population (thousands)	44,354 ⁷⁹
Annual population growth rate (annual %)	2.7 ⁸⁰
Total fertility rate (births per woman)	4.4 ⁸¹
Adult literacy rate (%)	72 ⁸²
Gross national income per capita (int. \$)	2,890 ⁸³
Population living below national poverty line (%)	45.9 ⁸⁴
World Bank income group	Lower-middle-income ⁸⁵
Human Development Index (rank)	147/187 ⁸⁶

1.2 Population health status

The infant mortality rate decreased to 36 deaths per 1,000 live births in 2014 from 52 in 2008-09. Similarly, the under-five mortality rate decreased to 49 deaths per 1,000 live births in 2014 from 74 in 2008-09. Life expectancy at birth is 58.1 years for men and 61.4 for women. Important public health challenges are HIV/AIDS, stroke and coronary artery disease, the shift from communicable to non-communicable disease and population control. Wasting among children is still high at 44% (2011).

The most recent epidemiological data demonstrates adult prevalence rates of common mental disorders (10.3%), psychotic symptoms (13.9% with one or more symptoms and 3.8% with two or more symptoms), Attention Deficit Hyperactivity Disorder (ADHD) (13.1%), Post-Traumatic Stress Disorder (14.9%), current alcohol consumption (9.2%) with lifetime use only marginally higher (10.8%), hazardous drinking (6.4%), current cannabis use (0.7%), lifetime cannabis use (1.4%), lifetime and current nicotine use (0.3%), suicidal thoughts (0.7%, 4.2% and 7.9% for last week, last year and lifetime respectively) and suicidal attempts (0.5%, 1.2% and 1.9% for last week, last year and lifetime respectively) (Jenkins et al., 2015 a-g) .

1.3 Health system

Table 2. Overview of the (mental) health system

Total health expenditure (THE) on health per capita (\$) (2013)	45 ^{87/88}
Total health expenditure per capita (THE)	\$44.51 as of 2013.
General government health expenditure (GGHE) per capita (\$USD) (2013)	19 USD per capita 2013
THE as % of GDP (2013)	4.5 %
Out-of-pocket expenditure as % of THE (2013)	44.64 % 2013
GGHE as % of total public budget (2013)	5.9 9.7% in 2006.
Psychiatrists working in mental health sector	0.19 ⁸⁹
Mental hospital (number)	Information unavailable ⁹⁰
Mental health outpatient facilities (number)	Information unavailable ¹¹
Day treatment facilities (number)	Information unavailable ¹¹
Community residential facilities (number)	Information unavailable ¹¹

Relevant national policies

The Kenya Constitution (2010), Chapter Four: the Bill of Rights, guarantees everyone - including persons with mental disorders - rights and fundamental freedoms. Article 25

⁷⁹ <http://data.worldbank.org/indicator/SP.POP.TOTL>; 2014

⁸⁰ <http://data.worldbank.org/indicator/SP.POP.GROW>; 2014

⁸¹ <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>; 2013

⁸² <http://www.data.unicef.org/resources/the-state-of-the-world-s-children-report-2015-statistical-tables>

⁸³ <http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD/countries>

⁸⁴ <https://data.un.org/Data.aspx?d=MDG&f=seriesRowID%3A581>; 2008

⁸⁵ <http://data.worldbank.org/about/country-and-lending-groups>; 2015

⁸⁶ <http://hdr.undp.org/en/content/human-development-index-hdi>; 2014

⁸⁷ <http://data.worldbank.org/indicator/SH.XPD.PCAP>; 2013

⁸⁸ WHO Global Health Observatory (source for all health financing data)

⁸⁹ <http://apps.who.int/gho/data/view.main.MHHRV>; 2014

⁹⁰ http://www.who.int/mental_health/evidence/atlas/profiles/en/; 2011



provides for the Bill of Rights which are non-derogable and may not be limited. Article 43 (1) states that, 'Every person has the right to the highest attainable standard of health, which includes the right to health care services inclusive of mental health'. The Kenya Health Sector Strategic and Investment Plan (2012-2017) includes mental health.

Overview of health care system and main service providers

The configuration of Kenya's health system has kept evolving over the last decade, with major changes at national level (splitting in 2008 from one Ministry of Health into two and now remerged back to one). The functions of the Ministry of Health now include: National Health Policy formulation; National Health Legislation formulation; National Health Regulation; National Health Standards and Guidelines formulation; National Referral Health facilities; and capacity building and technical assistance to county governments.

Major changes have also occurred at provincial and district level, changing from eight provinces and 72 (2000), then 250 (2007) districts to 49 counties (2010) with consequent changes in staffing, administrative structures and responsibilities. General administrative levels are county level, sub-county level, ward level, location level and village level. In parallel, the health service has evolved from six levels of national referral hospitals, provincial general hospitals, district general hospitals, health centres, dispensaries and volunteer community health workers into six levels of national referral hospitals, county hospitals, sub-county hospitals, health centres, dispensaries and volunteer community health workers.

At County level, there is the County Department for Health, with a County Director for Health, a County Chief Officer for Health, and other members of the county health management team. Furthermore, there are sub-county health management teams, hospital health management teams, health facility health management teams and a community health committee. In the redefinition of these administrative arrangements, the challenge has been to keep mental health as a priority, and integrated well into each level.

Health service financing

The Constitution of Kenya 2010 devolved health services functions to the 47 County governments. The National government was left with the National Health Referral health facilities. The Ministry of Health therefore, at the moment, is responsible for funding Mathari National Teaching and Referral Hospital for mental health. The county governments are responsible for funding county health services which include mental health services at community, primary, general and specialised levels. The Commission for Revenue Allocation (CRA) is mandated by the Constitution to divide and allocate revenue vertically between the National Government and the county governments as well as horizontally between the 47 county governments.

In Kenya, the health services are provided by the following stakeholders; the National Government through the National Health Referral health facilities; the County Governments through the county health services; the Faith-Based Organisations (FBOs) health facilities; the Non-Governmental Organisations (NGOs) health facilities; and the private sector health facilities. The National and County Governments charge user fees through a cost-sharing policy where the fees are subsidised and a waiver is provided for those who are assessed unable to afford. The FBOs and NGOs charge fees at cost with no profit. The private sector charges are based on the prevailing market rates. Except for a few hospitals in urban areas, most FBOs and NGOs have established health facilities in rural areas, remote areas and hard-to-reach areas in Kenya. All the health providers mainly complement one another.

Currently, Kenya is developing Universal Health Coverage (UHC) where every person will have access to a health medical insurance scheme whereby the government will cover those in need. Traditional medicine is also widespread and actively used.



1.4 Primary care and integration of mental health - best practice

Primary care and integration of mental health best practice.

Kenya adopted a national Primary Health Care strategy in 1979 and added mental health as the ninth element of Primary Health Care in 1982. However, Kenya had no explicit mental health policy or significant implementation or inclusion of mental health in primary care until the last fifteen years. During this period, there has been consistent policy dialogue to place mental health on the national agenda and to make integration of mental health into primary care a key policy objective (achieved). Over half of Kenya's primary care staff have received a five-day Continuing Professional Development training in mental health. The Kenya Medical Training College curriculum for the basic training for nurses and clinical officers now includes assessment and management of mental disorders. The supply of basic psychotropics at primary care level has been gradually improved. However, efforts to get about 12 disorders included in the health management information system have not yet been successful.

Governance and leadership

The draft Kenya Health Policy 2014-2030 includes mental health in its strategic objectives. The draft Kenya Health Bill 2015 includes mental health in Part Six. The draft Kenya Mental Health Policy 2015 was initially drafted in 2004, has been through extensive stakeholder consultation, regularly revised to be consistent with the repeated health sector reforms, including the new Kenya Constitution, and is again at final stages. The Kenya 1994 Mental Health Act was replaced by the Mental Health Act 1989, and the revised Mental Bill 2015 is in Parliament awaiting discussion and enactment. The Division of Mental Health was established at the Ministry of Health Headquarters in 1987. A Senior Deputy Director of Medical Services (Chief Medical Specialist/Psychiatrist) was posted as the Head among other duties. The Mental Health Act 1989 established the office of the Director of Mental Health and he was appointed to the new position with a multidisciplinary team, and this establishment has been maintained despite major internal ministry changes.

Financial resource allocation to mental health

Mental healthcare in Kenya is predominantly government funded. Budgets, originally centralised in the Ministry of Health, were decentralised in 2008 to local district councils, and now to counties as part of Treasury reforms. Since each county government develops its annual integrated development plan for all services, it is not possible at the moment to quantify the funds allocated to mental health services. At the moment, funding levels vary from one county government to another.

Human resources and service delivery

Primary care is delivered in health centres and dispensaries by nurses and clinical officers, both with a general three-year nursing and medical training respectively. Officially, clinical officers but not nurses are allowed to prescribe, but in practice nurses prescribe if no clinical officer is available. Each primary care centre has attached volunteer community health workers with no formal training except that given ad hoc by the local primary care centre.

Mental health specialist care is largely delivered at district level by psychiatric nurses running outpatient clinics, by psychiatric nurses at provincial levels running inpatient units and outpatient clinics, and by the national referral hospitals at Mathari, University of Nairobi, Gil Gil hospital and Moi University. The total number of hospital beds for a population of over 43 million is 1,114 (distributed between four national hospitals, six provincial units of twenty-two beds each and five district units (eight to twenty beds) which works out at less than one bed per 34,000 population. In practice, since most beds are clustered in the national hospitals, in most parts of the country there are only twenty-two beds per four million population, which is one bed per 200,000 population.



For basic training, medical students are trained at the University of Nairobi and the University of Moi. Psychologists and social workers are trained at the University of Nairobi. Nurses and clinical officers are trained at KMTC.

For post-basic training, the University of Nairobi trains psychiatrists in a four-year Master of Medicine degree. The KMTC trains psychiatric nurses in a two-year diploma, and has begun a two-year clinical officer in psychiatry course.

For Continuing Professional Development, Nuffield Foundation funded a collaboration between the Ministry of Health, the KMTC and the WHO Collaborating Centre, Institute of Psychiatry to develop and implement mental health training for primary care staff. The KMTC mental health CPD training programme is a 40-hour training course for primary care. It was devised for Kenya in 2004, piloted and subsequently systematically rolled out across nearly half of Kenya's primary care staff in collaboration with the Government of Kenya in 2005-2010 [Jenkins et al 2010 a and b].

The training programme uses a sustainable general health systems approach, in which the content of the training was informed by studies of attitudes to mental health in the general health system, traditional healers and the community. This was based on the WHO 1996 mental health assessment and treatment guidelines adapted for Kenya. It was closely aligned to the generic tasks of the health workers for child health, reproductive health, communicable and non-communicable diseases, as set out in the Kenya National Health Sector Strategic plan. The training delivery was integrated into the normal national training delivery system. The overall course is approved by the Nursing Council of Kenya and the Kenya Clinical Officer Council for 40 hours credit for Continuing Professional Development of staff.

Clinical skills rehearsed during the training include: generic communication skills; giving psychosocial support; breaking bad news; training community healthworkers; biopsychosocial assessment and management of each mental disorder; assessment and management of suicidal risk; prescription of medicines; explanation of side effects and their management; and consideration of human rights and other ethical issues within the primary care clinical setting. The training encourages intersectoral liaison with social welfare, education, employment, criminal justice system, NGOs, faith groups and traditional healers. The training programme has now been used to train over 2000 front-line health workers, all 250 district psychiatric nurses, 100 district public health nurses, and all eight regional psychiatrists. Despite national commitment, the KMTC has struggled to maintain the CPD programme once the external funding came to an end.

1.5 Key Progress

A pragmatic cluster Randomised Controlled Trial (RCT) of 100 clinics and 1200 clients found significant improvements over a 12 week period in General Health Questionnaire, WHO Disability Assessment Schedule (WHODAS) and EQ questionnaires. This was in clients attending the intervention clinics where two staff had been trained, relative to the clients attending control clinics where no staff had been trained (Jenkins et al., 2013a). These results were despite the fact that during the period of the RCT, the medicine supply was extremely patchy and district-level supervision for mental health was not present. This indicates that training is worthwhile even when medicine supply and supervision cannot be guaranteed.

Focus group studies were conducted with the health workers and clients in the trial and found that the health workers in the intervention group perceived an increase in their communication, diagnostic and counselling skills. Clients in the intervention group noticed and appreciated these enhanced skills, while health workers and clients in the control group were both aware of the lack of these skills (Jenkins et al., 2012; Othieno et al., 2012). Health system challenges were explored (Jenkins et al., 2013b).



1.6 Conclusion

Mental health is now integrated and decentralised in Kenya's health system and is mainstreamed in its national policies, legislations and plans. Integration has required inclusion at policy level, as well as funding comprehensive and systematic CPD training of primary care workers, aligned to their generic work. More work is needed to ensure CPD on mental health is sustained.

1.7 Key lessons learned

There is a need to strengthen the supply of psychotropic medication, the mental health categories in the health management information system, and the specification of mental health in the county and subcounty level targets of the national health sector strategic plan. This will enable supervision of primary care by county personnel. Indeed continued health system strengthening (especially improved supplies, information systems, supervision, and planning) is likely to enable enhanced health worker effectiveness in all clinical areas, including mental health.

A major lever for horizontal integration of mental health into the health system has been the inclusion of mental health in the national health sector reform strategy at community, primary care and subcounty and county levels, rather than formerly only at the higher provincial and national levels. With such integration at all levels, supportive supervision from the county and sub-county levels to primary care can become routine practice rather than very scarce activity. The major decentralisation of planning and budgets in Kenya brings key decision-making closer to the population it serves, but the challenge is to make and keep mental health as a priority in each county.

Key strengths of the Kenya mental health service include the availability of non-medical cadres to support the scarce psychiatrists. These include psychiatric nurses at county and sub-county levels, and general nursing and clinical officer cadres at both primary care and hospital levels, half of whom have now received a brief 40-hour training in mental health.

Acronyms

ADHD	Attention Deficit Hyperactivity Disorder
AIDS	Acquired Immune Deficiency Syndrome
CEC	County Executive Committee
CPD	Continuing Professional Development
DFID	UK Department for International Development
FBO	Faith-Based Organisation
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
HIV	Human Immunodeficiency Virus
KMTC	Kenya Medical Training College
MoH	Ministry of Health
NGO	Non-Governmental Organisation
PTSD	Post-Traumatic Stress Disorder
RCT	Randomised Controlled Trial
THE	Total Health Expenditure
UHC	Universal Health Coverage
UNDP	United Nations Development Programme
USD	United States Dollar
WHO	World Health Organization
WHODAS	World Health Organization Disability Assessment Schedule



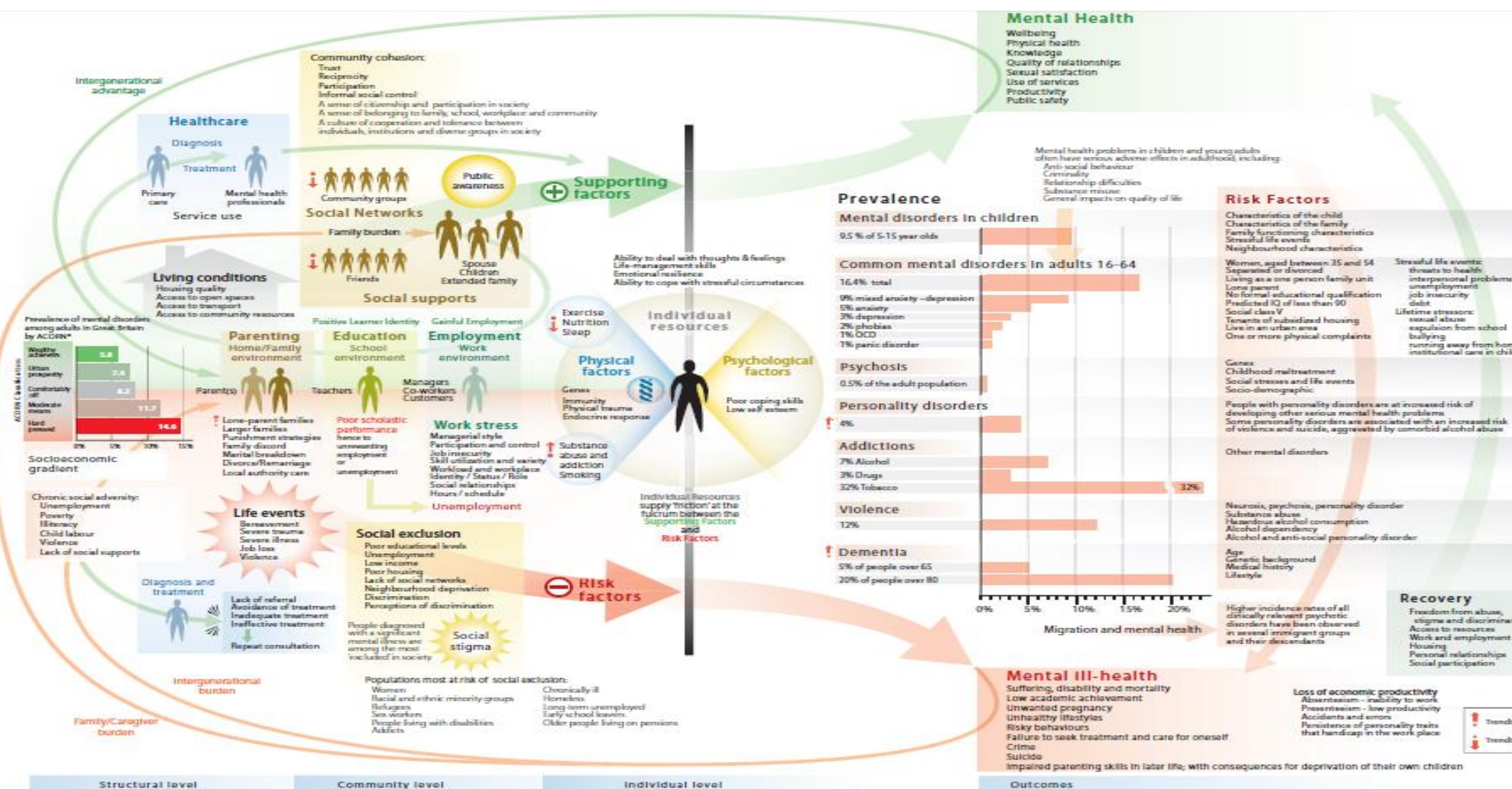
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Annex 2 - RISK AND SUPPORTING FACTORS



Overview of the risk factors and supporting factors that weight upon the 'fulcrum' of a person's individual resources and tip the balance towards mental health or mental ill-health. Also showing the kinds of mental disorders, their prevalence, and associated risk factors. (Foresight Mental Capital and Wellbeing Project, Final Project Report, 2008, The Government Office for Science, London)



Annex 3 - FRAGILE SITUATIONS

Definition	UN (2015) definition of 'least developed countries (LDCs)'	World Bank (2015) definition of 'fragile situations'	OECD (2015) definition of fragile states and economies	mhGAP – countries in need of intensified support to improve mental health	EU (2007-2013) countries supported in the area of health	EU (2014-2020) countries with health as focal sector
Countries	Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso , Burundi , Cambodia, Central African Republic , Chad, Comoros, Democratic Republic of Congo , Côte d'Ivoire, Eritrea, Guinea-Bissau , Haiti, Kiribati, Kosovo, Liberia, Madagascar, Mali, Marshall Islands, Micronesia, Myanmar, Sierra Leone, Solomon Islands, South Sudan , Sudan, Togo, Tuvalu, Yemen , West Bank & Gaza, Zimbabwe , Bosnia & Herzegovina, Iraq, Libya , Syria	Afghanistan, Burundi , Central African Republic , Chad, Comoros, Democratic Republic of Congo , Côte d'Ivoire, Eritrea, Guinea-Bissau , Haiti, Kiribati, Kosovo, Liberia, Madagascar, Mali, Marshall Islands, Micronesia, Myanmar, Sierra Leone, Solomon Islands, South Sudan , Sudan, Togo, Tuvalu, Yemen , West Bank & Gaza, Zimbabwe , Bosnia & Herzegovina, Iraq, Libya , Syria	Afghanistan, Bangladesh, Bosnia and Herzegovina, Burundi , Cameroon, Central African Republic , Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia , Guinea , Guinea-Bissau , Haiti, Iraq, Kenya, Kiribati, Kosovo, Liberia, Libya , Madagascar, Malawi, Mali, Marshall Islands, Mauritania , Micronesia, Myanmar, Nepal, Niger, Nigeria , Pakistan, Rwanda, Sierra Leone, Solomon Islands, South Sudan , Sri Lanka, Sudan, Syrian Arab Republic, Timor-Leste, Togo, Tuvalu, Uganda, West Bank and Gaza Strip, Yemen , Zimbabwe	Burundi , Côte d'Ivoire, Democratic Republic of Congo , Ethiopia , Ghana, Kenya, Liberia, Malawi, Nigeria , Bolivia, Colombia, Cuba, Ecuador, Guyana, Haiti, Nicaragua, Peru, Suriname, Bangladesh, India, Indonesia, Nepal, Sri Lanka, Thailand, Timor-Leste, Azerbaijan, Belarus, Georgia, Kyrgyzstan, Republic of Moldova, Tajikistan , Ukraine, Uzbekistan, Afghanistan , Djibouti, Egypt, Islamic Republic of Iran, Jordan, Pakistan, Sudan , Yemen , Cambodia, China, Lao People's Democratic Republic, Mongolia, Philippines, Solomon Islands, Viet Nam	Angola, Burkina Faso , Burundi , Chad, Congo Brazzaville, Democratic Republic of Congo , Ghana, Guinea Bissau , Guinea Conakry , Ivory Coast, Liberia, Mozambique, Namibia, Niger, Nigeria , Sao Tome e Principe, Sierra Leone, South Africa, South Sudan , Swaziland, Zambia, Zimbabwe , Afghanistan , Bangladesh, India, Myanmar, Philippines, Tajikistan , Syria, Timor Leste, Uzbekistan, Vietnam, Yemen , Algeria, Egypt, Moldova, Morocco , Libya , Peru, Dominica, Jamaica, Saint Lucia, Saint Vincent and the Grenadines	Burkina Faso , Burundi , Central African Republic , Democratic Republic of Congo , Ethiopia , Guinea Conakry , Guinea Bissau , Mauritania , Nigeria , South Sudan , Zimbabwe , Afghanistan , Tajikistan , Morocco , Libya , Belize, Grenada
Total	48	33	50	60	43	17

Note: bold = Countries with a focus on the health sector in EU development cooperation (period 2014-2020).

Annex 4 - EVIDENCE-BASED INTERVENTIONS

Table 1: Evidence-based interventions to address the priority conditions

Condition	Evidence-based interventions	Examples of interventions to be included in the package
Depression	<ul style="list-style-type: none"> • Treatment with antidepressant medicines • Psychosocial interventions 	<ul style="list-style-type: none"> • Treatment with older or newer antidepressants by trained primary health-care professionals. • Psychosocial interventions such as cognitive behaviour therapy or problem solving. • Referral and supervisory support by specialists.
Schizophrenia and other psychotic disorders	<ul style="list-style-type: none"> • Treatment with antipsychotic medicines • Family or community psychosocial interventions 	<ul style="list-style-type: none"> • Treatment with older antipsychotics by trained primary health-care professional within community setting. • Community-based rehabilitation. • Referral and supervisory support by specialists.
Suicide	<ul style="list-style-type: none"> • Restriction of access to common methods of suicide • Prevention and treatment of depression, and alcohol and drug dependence 	<ul style="list-style-type: none"> • Multisectoral measures that relate to public health, such as restriction of availability of most toxic pesticides, and storage of supplies in secure facilities. • See examples of interventions for depression, disorders due to use of alcohol, and disorders due to use of illicit drugs.

Scaling up care for mental, neurological, and substance use disorders

11

Condition	Evidence-based interventions	Examples of interventions to be included in the package
Epilepsy	<ul style="list-style-type: none"> • Identification and treatment with antiepileptic medicines 	<ul style="list-style-type: none"> • Treatment with first-line antiepileptic medicines by trained primary health-care professionals. • Referral and supervisory support by specialists.
Dementia	<ul style="list-style-type: none"> • Interventions directed towards caregivers 	<ul style="list-style-type: none"> • Basic education about dementia and specific training on management of problem behaviours by trained primary health-care professionals.
Disorders due to use of alcohol	<ul style="list-style-type: none"> • Comprehensive policy measures aimed at reduction of harmful use of alcohol • Interventions for hazardous drinking and treatment of alcohol use disorders with pharmacological and psychosocial interventions 	<ul style="list-style-type: none"> • Policy and legislative interventions including regulation of availability of alcohol, enactment of appropriate drink-driving policies, and reduction of the demand for alcohol through taxation and pricing mechanisms. • Screening and brief interventions by trained primary health-care professionals. • Early identification and treatment of alcohol use disorders in primary health care. • Referral and supervisory support by specialists.
Disorders due to illicit drug use	<ul style="list-style-type: none"> • Pharmacological and psychosocial interventions, including agonist maintenance treatment for opioid dependence 	<ul style="list-style-type: none"> • Psychosocially assisted pharmacotherapy of opioid dependence using opioid agonists such as methadone or buprenorphine. • Early identification and provision of prevention and treatment interventions for drug use disorders by trained primary health-care professionals. • Referral and supervisory support by specialists.
Mental disorders in children	<ul style="list-style-type: none"> • Prevention of developmental disorders • Pharmacological and psychosocial interventions 	<ul style="list-style-type: none"> • Measures within health sector such as provision of skilled care at birth, effective community-based services for maternal and child health care, prenatal screening for Down's syndrome, and prevention of alcohol abuse by mothers. • Multisectoral measures that relate to public health such as fortification of food with iodine and folic acid, and interventions to reduce child abuse. • Identification and initial care in primary health-care settings. • Referral and supervisory support by specialists.

Source: mhGAP

Annex 5 - SELECTION OF NGOS, DONORS AND NETWORKS

Name	Description	Website
National mental health networks and NGOs		
BasicNeeds¹	Works with people suffering from mental and neurological illnesses in rural and urban areas in Africa and Asia.	http://www.basicneeds.org/
Christoffel Blindenmission (CBM)	International Christian development organisation committed to improving the quality of life of people with disabilities in low income regions.	http://www.cbm.org/i/community-mental-health-246594.php
African Mental Health Foundation¹	NGO in Kenya which is regionally supporting evidence-based policy, service provision and health promotion for mental and neurological health, and substance use.	http://www.africanmentalhealthfoundation.org/
Mental Health Association of Tanzania¹	Advocates for mental health services in Tanzania.	www.mehata.org
Mental Health Society Ghana	Membership-based association for service users advocating for the needs and rights of people with mental illness or epilepsy in Ghana.	http://www.mehsog.org/
Cape Mental Health Society¹	Provides or facilitates comprehensive, pro-active and enabling mental health services in the Western Cape, South Africa.	http://www.capementalhealth.co.za/
Manas	Works both at the demand and supply end of community mental health needs in non-hospital settings in India.	http://manas.org.in/
SANJIVINI Society for Mental Health	Provides free and confidential counseling to people with emotional and mental distress in India.	http://www.sanjivini-society.org/
Fracarita¹	A not-for-profit organization of the Congregation of the Brothers of Charity whose aim is to support the services of the congregation especially in Latin America, Africa and Asia. They support vulnerable people in the fields of mental health care, care for people with a disability and education.	http://www.fracarita-international.org/
Regional mental health networks and NGOs		
Pacific Island Mental Health Network (PIMHnet)	The network, launched during the Pacific Island Meeting of Health Ministers in Vanuatu (2007), has been established to overcome mental health challenges of the Pacific Islands. The 18 network countries are able to draw on their collective experience, knowledge and resources in order to promote mental health and develop mental health systems that provide effective treatment.	http://www.who.int/mental_health/policy/pimhnet/en/
African Association of Psychiatrists and Allied Professionals (AAPAP)	Meets every year in a different country for 3 -4 days to share research and operational studies.	http://psychologyin-africa.com/associations/2013/3/2/african-association-of-psychiatrists-and-allied-professions
Global mental health networks and NGOs		
Movement for Global Mental Health (MGMH)	Network of individuals and organisations that aim to improve services for people living with mental health problems and psychosocial disabilities worldwide, especially in LMICs where effective services are often scarce.	http://www.globalmentalhealth.org/
Centre for Global Mental Health (CGMH)	The centre was launched in October 2009 and aims to foster research and training in policy, prevention, treatment and care. It is engaged in over 40 research projects in more than 30 countries worldwide on key themes such as: understanding the burden of mental disorders, improving access to care, building capacity and engaging policymakers.	http://www.centreforglobalmentalhealth.org/
Mental Health Innovation Network (MHIN)	An online community of researchers, practitioners, service user organisations and policy makers.	http://mhinnovation.net/
International Mental Health Collaborating Network (IMHCN)	An International non-governmental organization founded by mental health organizations and individuals who have developed good practices and services in community mental health based on the whole life whole system approach. Its membership consists of professionals, managers, service users and experts of experience, family members, and policy makers from many countries.	http://www.imhcn.org/
World Federation of Mental Health	International network of mental health workers of all disciplines, consumers, family members and concerned citizens.	http://wfmh.com/
World Psychiatric	International association of national psychiatric societies aiming to	http://www.wpanet.net

Association	increase knowledge and skills necessary for work in the field of mental health and the care for mentally ill. Its member societies originate from 117 countries representing more than 200,000 psychiatrists.	org/
World Organization of Family Doctors (Wonca) – Working party on mental health	WONCA offers international consultancy services in primary mental health care, through its Working Party on Mental Health. It works closely with WHO and tailors its services specifically to support the mhGAP programme.	http://www.globalfamilydoctor.com/groups/WorkingParties/MentalHealth3.aspx
Global Forum for Health Research (GFHR)	Is an independent, international organization committed to bringing together governments of LMICs, donors and the research community. It has funded mental health research in LMICs.	http://www.globalforumhealth.org/
Gulbenkian – Global Mental Health Platform	An initiative that continues the successful global health activities and mental health projects recently promoted by the Calouste Gulbenkian Foundation. Its goal is to make mental health part of the global health agenda.	http://gulbenkianmhpplatform.com/
Mental Health and Psychosocial Support Network (MHPSS)	Connects people, networks and organisations for sharing resources and building knowledge related to mental health in emergency settings and situations of adversity.	http://mhpss.net/
Mental Health Worldwide	Advocacy group dedicated to increase awareness about mental health and related issues and conditions.	http://mentalhealthworldwide.com/
Global mental health funders		
Grand Challenges in Global Mental Health	USA Government initiative seeking to identify the main challenges facing global mental health.	https://grandchallengesgmh.nimh.nih.gov/
Grand Challenges Canada	Canadian Government initiative supporting integrated science/technology, social and business innovation in global health in LMICs and Canada.	http://www.grandchallenges.ca/
National Institute of Mental Health (NIMH)	USA Government Department supporting basic and clinical research for prevention, recovery, and cure of mental disorders.	http://www.nimh.nih.gov/index.shtml
Wellcome Trust	Global charitable foundation supporting research in biomedicine and the medical humanities.	http://www.wellcome.ac.uk/
DFiD	UK Government Department supporting development-focused research.	https://www.gov.uk/government/organisations/department-for-international-development

Note: ¹The organisation or network has a focus on integration of mental health into primary care. This table is only a selection of national, regional and global stakeholders working towards improving mental health in low-resource settings. The list is based on the consultants' experiences and was composed successively during the writing process. A more comprehensive overview of 263 mental health NGOs worldwide can be found here: <http://in2mentalhealth.com/2011/06/23/50-mental-health-ngosuser-organizations-around-the-world/>.

Annex 6 - CURRENT OPERATIONAL RESEARCH

Priorities for global mental health research (Lancet Global Mental Health Group, 2007)

Panel 2: Priorities for global mental health research

Research priorities for depressive disorders, anxiety disorders, and other common mental disorders (CMD)

- Cost-effectiveness trials of interventions for CMD in primary and secondary care
- Research on social interventions designed to reduce risk of CMD (eg. microfinance and interventions for gender-based violence and other forms of interpersonal violence)
- Research on health policies and systems to scale up effective strategies for detection and treatment of CMD in primary care and other routine health-care settings
- Effectiveness of innovative and simple cognitive and behavioural strategies for treatment of CMD that can be administered by general physicians and community-health workers
- Health systems and epidemiological research to determine the economic and hidden costs of untreated CMD, and assess the benefits of reduction of disability or days out-of-role for people with CMD

Research priorities for alcohol-use and other substance-abuse disorders

- Research on health policies and systems to determine the most effective intersectoral (social, economic, and population-based) strategies to reduce consumption in high-risk groups (especially men)
- Effectiveness of early detection and treatment methods that are brief and culturally appropriate, and that can be implemented by non-specialist health workers in the course of routine primary care
- Effectiveness of new and innovative brief interventions for prevention of alcohol abuse, especially in adolescents and young adults
- Health systems and epidemiological research on how to quantify the economic benefits of reduction of disability or days out-of-role for people with substance-abuse disorders
- Effectiveness of different settings for delivery of substance-use interventions (such as schools, religious institutions, community groups, and health-care settings)

Research priorities for child and adolescent mental disorders

- Training, support, and supervision needed to enable existing maternal and child health workers to recognise and provide basic treatment for common maternal, child, and adolescent mental disorders
- The effectiveness and cost-effectiveness of school-based interventions, including in schools for children with special needs
- Research on health policies and systems to integrate the management of mental disorders in children and adolescents with existing management programmes for physical diseases
- The effectiveness of new culturally appropriate community interventions for child and adolescent mental disorders
- Research on health policies and systems to scale up feasible, effective, and cost-effective parenting and social-skill interventions in early childhood care

Research priorities for psychotic disorders

- Research on health policies and systems to develop effective and cost-effective methods for delivery of family interventions in low-resource settings to decrease relapses of psychotic disorders
- Effectiveness and safety of dispensation of antipsychotic medication by general community-health workers to reduce relapse and admission rates
- Effectiveness of affordable models of community-based treatment and rehabilitation services that are culturally appropriate and sustainable
- Research on health policies and systems to identify barriers to access to care (such as stigma), and to increase access to care, especially early in the course of these disorders
- Effectiveness of partnerships with non-governmental and voluntary organisations to rehabilitate patients with chronic schizophrenia and other psychoses

Research on mental health policy and development

EGYPT	<ul style="list-style-type: none"> • Jenkins, R., Heshmat, A., Loza, N., Soror, E., Siekkinen, I. (2010). Mental health policy and implementation in Egypt. <i>International Journal of Mental Health Systems</i> Jun 24;4:17
KENYA	<ul style="list-style-type: none"> • Kiima, D. & Jenkins, R (2010). Mental health policy in Kenya -an integrated approach to scaling up equitable care for poor populations. <i>International Journal of Mental Health Systems</i>, 4 (1) 19 • Mugawebster, F. & Jenkins, R. (2010). Health care models guiding mental health policy in Kenya 1965 - 1997. <i>International Journal of Mental Health Systems</i> 4 (1), 9.
TANZANIA (Mainland)	<ul style="list-style-type: none"> • Mbatia, J. and Jenkins, R. (2010). Mental health policy in Tanzania. <i>Psychiatric Services</i> 61, 1028-1031.
ZANZIBAR	<ul style="list-style-type: none"> • Jenkins, R., Mussa, M., Haji, S.A., Haji, M.S., Salim, A., Suleiman, S., Riyami, A.S., Wakil A. & Mbatia, J. (2011). Developing and implementing mental health policy in Zanzibar, a low income country off the coast of East Africa. <i>International Journal of Mental Health Systems</i>, 5:6
RUSSIA	<ul style="list-style-type: none"> • Jenkins, R., McDaid, D., Watkins, J., Lancashire, S., Nikiforov, A., Potasheva, A., Samyshkin, Y., Huxley, P & Atun, R. (2010). Medical and social assessment in Russia. <i>Psychiatric Services</i> 61, 222-224. • Jenkins, R., Bobyleva, Z., Goldberg, D., Gask, L., Zacroeva, A., Potasheva, A., Krasnov, A. & McDaid, D. (2009). Integrating mental health into primary care in Sverdlovsk. <i>Mental Health in Family Medicine</i> 6, 29-36. • Jenkins, R., Lancashire, L., McDaid, D., Samyshkin, Y., Green, S., Watkins, J., Potasheva, A., Nikiforov, A., Bobylova, Z., Gafurov, V., Goldberg, D., Huxley, P., Lucas, J., Purchase, N. & Atun, R. (2007). Mental health reform in Russia: an integrated approach to achieve social inclusion and recovery. <i>Bulletin of the World Health Organisation</i> 85, 858-866.
EUROPE	<ul style="list-style-type: none"> • Bielsa, C. V., Braddick, F., Jané-Lopis, E., Jenkins, R. & Pura, D. (2010). Child and adolescent mental health policies, programmes and infrastructures across Europe. <i>International Journal of Mental Health Promotion</i>, 12 (4): 10-26.

Research on training of primary care staff

IRAQ	RCT evaluation: <ul style="list-style-type: none"> • Sadiq, S., Bradley, M. & Jenkins, R. (2011). Integration of mental health into primary care in Iraq. <i>Mental Health in Family Medicine</i>, 8, 39-49
KENYA	Description: <ul style="list-style-type: none"> • Jenkins, R., Kiima, D., Okonji, M., Njenga, F., Kingora, J. & Lock, S. (2010). Integration of mental health in primary care and community health workers in Kenya-context, rationale, coverage and sustainability. <i>Mental Health in Family Medicine</i>, 7(1): 37-47.

	<ul style="list-style-type: none"> • Jenkins, R., Kiima, D., Njenga, F., Okonji, M., Kingora, J., Kathuku, D. & Lock, S. (2010). Integration of mental health into primary care in Kenya. <i>World Psychiatry</i> 9, 118-120. <p>RCT evaluation:</p> <ul style="list-style-type: none"> • Jenkins, R., Othieno, C., Okeyo, S., Kaseje, D., Aruwa, J., Oyugi, H., & Bassett, P. (2013). Short structured general mental health in service training programme in Kenya improves patient health and social outcomes but not detection of mental health problems- a pragmatic cluster randomised controlled trial. <i>International journal of mental health systems</i>, 7(1): 25. <p>Focus group evaluation:</p> <ul style="list-style-type: none"> • Jenkins, R., Othieno, C., Okeyo, S., Aruwa, J., Kingora, J., & Jenkins, B. (2013). Health system challenges to integration of mental health delivery in primary care in Kenya- perspectives of primary care health workers. <i>BMC health services research</i>, 13(1): 368. • Othieno, C., Jenkins, R., Okeyo, S., Aruwa, J., Wallcraft, J. & Jenkins, B. (2012). Perspectives and concerns of clients at primary health care facilities involved in evaluation of a national mental health training programme for primary care in Kenya. <i>International Journal of Mental Health Systems</i>, 2013 Jan 23; 7(1): 5. • Jenkins, R., Othieno, C., Okeyo, S., Aruwa, J., Wallcraft, J. & Jenkins, B. (2012). Exploring the perspectives and experiences of health workers at primary health facilities in Kenya following training. <i>International journal of mental health systems</i>, 7(1): 6.
MALAWI	<p>RCT evaluation:</p> <ul style="list-style-type: none"> • Kauye, F., Jenkins, R., & Rahman, A. (2014). Training primary health care workers in mental health and its impact on diagnoses of common mental disorders in primary care of a developing country, Malawi: a cluster randomized controlled trial 2014. <i>Psychological medicine</i>, 44(03): 657-666.
NIGERIA	<p>Description and follow-up of training:</p> <ul style="list-style-type: none"> • Makanjuola, V., Doku, V., Jenkins, R. & Gureje, O. (2012). Monitoring and evaluation of the activities of trainees in the 'training of trainers' workshop at Ibadan, south-west Nigeria. <i>Mental Health in Family Medicine</i>, 9(1): 25-32. • Makanjuola, V., Doku, V., Jenkins, R., & Gureje, O. (2012). Impact of a one-week intensive 'training of trainers' workshop for community health workers in south-west Nigeria. <i>Mental Health in Family Medicine</i>, 9(1): 33-38.
PAKISTAN	<p>Description:</p> <ul style="list-style-type: none"> • Taj, R., Khan, A. & Jenkins, R. (2011). Integrating mental health into primary care in the remote areas of Pakistan. <i>South Asian Journal of Psychiatry</i>, 2, 43-44.
SOMALIA	<p>Description:</p> <ul style="list-style-type: none"> • Syed Sherriff, R., Regi, M., Mohamede, A., Haibe, F., Whitwell, S. & Jenkins, R. (2012). Mental health in Somalia. <i>International Psychiatry</i>, 8: 89-92. • Syed Sheriff, R., Bass, N., Hughes, P., Ade-Ogunlade, P., Ismail, A., Whitwell, S., & Jenkins, R. (2013). Use of interactive teaching techniques to introduce mental health training to medical schools in a resource poor setting: original. <i>African journal of psychiatry</i> 16(4), 256-263. • Syed Sheriff, R., Mohamed, A., Baracoa, A., Nair, A., Peachey, K., Haiti, F., Jenkins, R. (2010). Facing mental health challenges in post-conflict Somaliland. <i>Psychiatric Services</i>, 61: 225-227.
SRI LANKA	<p>Description:</p> <ul style="list-style-type: none"> • Jenkins, R., Mendis, J., Cooray, S. & Cooray, M. (2012). Integration of mental health into primary care in Sri Lanka. <i>Mental Health in Family Medicine</i>, 9(1), 15-24.

Annex 7 - GLOBAL BURDEN OF MENTAL DISORDERS

TABLE 1 | GLOBAL BURDEN OF MENTAL, NEUROLOGICAL AND SUBSTANCE-USE (MNS) DISORDERS*

Rank	Worldwide		High-income countries [†]		Low- and middle-income countries	
	Cause	DALYs [‡] (millions)	Cause	DALYs (millions)	Cause	DALYs (millions)
1	Unipolar depressive disorders	65.5	Unipolar depressive disorders	10.0	Unipolar depressive disorders	55.5
2	Alcohol-use disorders	23.7	Alzheimer's and other dementias	4.4	Alcohol-use disorders	19.5
3	Schizophrenia	16.8	Alcohol-use disorders	4.2	Schizophrenia	15.2
4	Bipolar affective disorder	14.4	Drug-use disorders	1.9	Bipolar affective disorder	12.9
5	Alzheimer's and other dementias	11.2	Schizophrenia	1.6	Epilepsy	7.3
6	Drug-use disorders	8.4	Bipolar affective disorder	1.5	Alzheimer's and other dementias	6.8
7	Epilepsy	7.9	Migraine	1.4	Drug-use disorders	6.5
8	Migraine	7.8	Panic disorder	0.8	Migraine	6.3
9	Panic disorder	7.0	Insomnia (primary)	0.8	Panic disorder	6.2
10	Obsessive-compulsive disorder	5.1	Parkinson's disease	0.7	Obsessive-compulsive disorder	4.5
11	Insomnia (primary)	3.6	Obsessive-compulsive disorder	0.6	Post-traumatic stress disorder	3.0
12	Post-traumatic stress disorder	3.5	Epilepsy	0.5	Insomnia (primary)	2.9
13	Parkinson's disease	1.7	Post-traumatic stress disorder	0.5	Multiple sclerosis	1.2
14	Multiple sclerosis	1.5	Multiple sclerosis	0.3	Parkinson's disease	1.0

*Data from ref. 1. Examples of MNS disorders under the purview of the Grand Challenges in Global Mental Health initiative.

[†]World Bank criteria for income (2009 gross national income (GNI) per capita): low income is US\$995 equivalent or less; middle income is \$996–12,195; high income is \$12,196 or more.

[‡]A disability-adjusted life year (DALY) is a unit for measuring the amount of health lost because of a disease or injury. It is calculated as the present value of the future years of disability-free life that are lost as a result of the premature deaths or disability occurring in a particular year.