

Chapter 11

Health Care Platform Interventions

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INTRODUCTION

Evidence-based interventions often fail to achieve their goal, not so much because of an inherent flaw in the interventions, but because of the unpredictable behavior of the system around them. Every intervention, from the simplest to the most complex, has an effect on the overall system, and the overall system has an effect on every intervention (Savigny and Adam 2009). As a result of this, the current *Disease Control Priorities* series has shifted its focus from a strictly disorder-oriented intervention analysis (vertical approach) to a more horizontal approach focusing on health system strengthening.

This chapter seeks to identify cost-effective interventions that can be appropriately packaged for one or more specific mental, neurological, and substance use (MNS) disorders, as well as for different levels or platforms of the health or welfare system. A platform is the level of the health or welfare system at which interventions can be appropriately, effectively, and efficiently delivered. A particular platform is defined on the basis of *where* the intervention will be delivered (the setting) and *who* will deliver the intervention (service provider). There are essentially three major platforms for the provision of interventions: population, community, and health care. A specific delivery channel—such as a school—can be the vehicle for the delivery of a particular intervention on a specified platform (the community platform). Similarly, a primary health care center is the delivery channel for a specified platform (the health

care platform). Identifying the set of interventions that fall within a particular delivery channel will help decision makers to identify potential opportunities, synergies, and efficiencies. This identification will also reflect how resources are often allocated in practice, for example, to schools or primary health care services, rather than to specific interventions or disorders.

Chapter 10 of this volume (Petersen and others 2015) considers the evidence relating to interventions that improve mental health at the population and community levels. This chapter outlines the main elements and features of a health care platform and its delivery channels, namely, informal health care, primary health care, and specialized services. We consider evidence-based interventions that can be delivered in general health care settings and mental health care settings, as well as broader health system–strengthening strategies for more effective and efficient delivery of services on this platform.

ELEMENTS OF A MENTAL HEALTH CARE DELIVERY PLATFORM

Health care services as a delivery platform for improving population mental health consist of three interlinked service delivery channels:

- Self-care and informal health care
- Primary health care
- Specialist health care.

These three key delivery channels map well onto the commonly cited *Service Organization Pyramid for an Optimal Mix of Services for Mental Health* supported by the World Health Organization (WHO) (figure 11.1) (WHO 2003a). At each subsequent level of the pyramid, the mental health needs of individuals become greater and require more intensive professional assistance, usually resulting in higher costs of care. In certain settings beset with conflict, natural disaster, or other emergencies, a further channel for delivering much-needed mental health care is humanitarian aid and emergency response.

Self-Care and Informal Health Care

The foundation of the health care delivery platform rests on self-care and emphasizes health worker–patient partnerships. Persons with MNS disorders and their family and friends play a central role in the management of mental health problems. The role of individuals may range from collaborative decision-making concerning their treatment, to actively adhering to prescribed medication, to changing health-related behaviors, such as drug and alcohol use, stress management, and identification of seizure triggers and avoiding them for seizure control.

Self-care is important for MNS disorders, but it is also important for the prevention and treatment of physical health problems (WHO 2003a). Self-care is most effective when it is supported by populationwide health promotion programs and formal

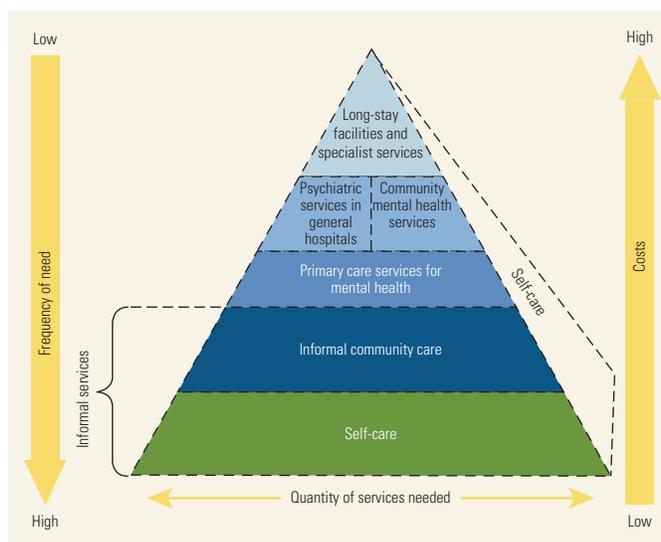
health care services. Health promotion interventions delivered at the population level can be important in improving mental health literacy by helping people to recognize problems or illnesses, increasing their knowledge about the causes of disorders and options for treatment, and informing them about where to go to get help (see chapter 10 in this volume, Petersen and others 2015).

Informal health care comprises service providers who are not part of the formal health care system, such as traditional healers, village elders, faith-based organizations, peers, user and family associations, and lay people (WHO 2003a). Traditional and religious healers are of particular significance, as populations throughout East Asia and Pacific, South Asia, Latin America and the Caribbean, and Sub-Saharan Africa often use traditional medicine to meet their health needs (WHO 2002). In many parts of the world, making contact with such informal providers represents the initial pathway to care (Bekele and others 2009); these service providers are typically very accessible and more acceptable because they are integral members of the local community. Given the widespread presence of traditional and religious healers and the shortage of human resources in mainstream biomedical services, it is imperative that primary health and other formal care services establish strong links with informal health care providers, especially traditional healers (Patel 2011). It is also critical to note that the evidence base regarding the effectiveness of services provided by traditional and religious healers is limited. Nevertheless, it is essential to engage with them, as they provide accessible, acceptable, and affordable care, and efforts need to be made to ensure that their practices do not harm the patients.

Peers are another key human resource at this level of health care. Peer-led education and behavioral interventions have been effective with target populations and health issues in low- and middle-income countries (LMICs) (Manandhar and others 2004; Medley and others 2009; Tripathy and others 2010). Peers are more numerous, may be perceived as more approachable, and may be able to identify with other community members, as they share similar characteristics, experiences, and health conditions with members of the target population (Simoni and others 2011).

Mental health self-help groups form another key component of informal community care. Mental health self-help groups may be defined as “any mutual support oriented initiative directed by people with [MNS disorders] or their family members” (Brown and others 2008, 105). Participation in mental health self-help groups has a positive impact on the clinical and social outcomes

Figure 11.1 World Health Organization Service Organization Pyramid for an Optimal Mix of Services for Mental Health



Source: Reprinted from *Mental Health Policy and Service Guidance Package*, World Health Organization (WHO), “Organization of Services for Mental health,” page 34, WHO 2003a. Reprinted with permission.

of patients with MNS disorders (Pistrang, Barker, and Humphreys 2008). Some of these self-help groups are primarily concerned with the provision of peer support, while others may devote their efforts toward changing public policies and, more broadly, changing public attitudes. Still others may focus on self-empowerment, including monitoring and critiquing the mental health services they are receiving (Cohen and others 2012). Social support also plays an important role in self-management of epilepsy (Jayalakshmi and others 2014; Walker and others 2014). However, informal community care should not be viewed as a substitute for publicly funded, evidence-based mental health care.

Stigmatization of and discrimination against people with MNS disorders is common in all sections of society, from community to schools, workplace, and even health care settings. Stigma and discrimination present formidable barriers to social inclusion for affected people and their families, and to access to appropriate health care (Shidhaye and Kermode 2013). This is particularly important in the area of self-care and informal care services, which are relatively less regulated and less subject to quality review or policy oversight. Interventions at the community level to address negative attitudes toward people with MNS disorders and improve health care utilization are covered in chapter 10 in this volume (Petersen and others 2015).

Primary Health Care

Delivery of mental health services through primary health care is a fundamental component of a mental health care delivery platform, since it serves as the first level of care within the formal health care system. The strong emphasis on primary health care is due to the fact that the services provided at this level of the health system are generally accessible, affordable, and acceptable for individuals, families, and communities (WHO 2003a). Where the provision of mental health care is integrated into these services, access is improved, MNS disorders are more likely to be identified and treated, and comorbid physical and mental health problems can be managed more seamlessly.

Specialist Health Care

Psychiatric Services in First-Level Hospitals and Community Mental Health Services

People with severe MNS disorders may require hospitalization at some point. First-level hospitals provide an accessible and acceptable location for 24-hour medical care for people with acute worsening of disorders, in the same way that these facilities manage

acute exacerbations of physical health conditions (WHO 2003a).

The mental health services provided in first-level hospitals also enable 24-hour access to services for any physical health problems that might arise during the course of inpatient stays. Ideally, first-level hospitals will have wards dedicated to the treatment of MNS disorders; these wards will have floor plans that support good observation and care, minimizing the risk of neglect and suicide. To minimize the risk of human rights violations, facilities should adhere to clear policies and guidelines that support the treatment and management of MNS disorders within a framework that promotes human dignity and uses evidence-based clinical practice.

In addition, specialist mental health services are needed in the community for severe cases that cannot be managed by generalists. Examples include assertive community treatment teams and community outreach teams, which provide support to service users to enable them to continue to function in the community without requiring admission, and close liaison with general primary care services and other social and criminal justice services (WHO 2003a).

Extended-Stay Facilities and Specialist Psychiatric Services

A small minority of people with MNS disorders requires specialist care (WHO 2003a). For example, people with treatment-resistant or complex presentations may need to be referred to specialized centers for further testing and treatment. In LMICs with meager resources, the demand of the population and the emphasis of the public health system is to treat persons with severe MNS disorders. These aspects of care provision along with services for vulnerable populations—such as individuals living in abject poverty; women, especially in childbearing age; children facing abuse; and elderly persons—should not be overlooked when designing programs.

Because of their severe mental disorders or intellectual disabilities and lack of family support, many of these individuals may occasionally require ongoing care in community-based residential facilities. Unfortunately, very scarce resources are allocated to these services. The vulnerable populations require particular attention, from a mental health care perspective and a financial risk protection perspective. The final part of this volume addresses the issue of financial risk protection at length. Forensic psychiatry is another type of specialist service in this category. The need for referral to specialist and extended-stay services is reduced when first-level hospitals are staffed with highly specialized health workers, such as psychiatrists and psychologists.

Emergency Mental Health Care

The traumas, personal losses, and other consequences of armed conflict and disasters place affected populations at an increased risk of mental and behavioral problems; these consequences can overwhelm the local capacity to respond, particularly if the existing infrastructure or health system is already weak. Moreover, the local health care system may have been rendered dysfunctional as a result of the emergency situation, placing further limits on access to key resources, such as mental health professionals or essential psychotropic medicines. There is a heightened need to identify and allocate resources to provide mental health and psychosocial support in these humanitarian settings, for those with mental or behavioral problems induced by emergencies and those with preexisting illness. International humanitarian aid and emergency response at the national level can be a channel for rapidly enabling or supporting the availability of and access to basic or specialist care. In many countries, such emergencies have provided opportunities for systemic change or service reform in public mental health (WHO 2013a). Emergency response or relief efforts are essentially concerned with setting up, organizing, and rebuilding services for local populations; the central principles and standard practice of care, including what evidence-based interventions should be prioritized, remain unchanged.

Relationships among Different Delivery Channels

No single service delivery channel can meet all mental health needs. For example, on the one hand, primary mental health care must be complemented by specialist care services that primary health workers can use for referrals, support, and supervision; on the other hand, primary mental health care needs to promote and support self-care and informal community care that encourages the involvement of people in their own recovery. Support of self-care and management can be provided via routine primary care visits or via group sessions led by health or lay workers in health care settings or community venues. Another increasingly accessible option for the effective support of self-care and management is telephone- or Internet-based programs. In short, the potential of the health care system as a delivery platform for enhanced mental health and well-being can only be fully realized if genuine continuity and collaboration of care occur across the three service delivery channels; continuity and collaboration, in turn, rely on an appropriate flow of support, supervision, information-sharing, and education.

EVIDENCE-BASED INTERVENTIONS FOR HEALTH CARE DELIVERY PLATFORMS

A strong evidence base supports integrated services across the different delivery channels of the health care platform. This evidence has been synthesized in several publications, including the *mhGAP Intervention Guide* (WHO 2010b); a series of papers on packages of care for MNS disorders in LMICs, published in *PLoS Medicine* (Patel and Thornicroft 2009); and a report on mental health in primary health care (WHO and WONCA 2008). Earlier disagreement and controversy over emergency mental health care has given way to emerging consensus on key social and mental health intervention strategies and principles, as exemplified by the Inter-Agency Standing Committee's *Guidelines on Mental Health and Psychosocial Support in Emergency Settings* (IASC 2007); the inclusion of a mental and social aspects of health standard in the handbook on minimal standards in disaster response (Sphere 2011); and the report on sustainable mental health care after emergencies, *Building Back Better* (WHO 2013a).

For each of the delivery channels, interventions may be categorized as follows:

- Promotion and primary prevention
- Identification and case detection
- Treatment, care, and rehabilitation.

Table 11.1 summarizes the evidence base for interventions by various delivery channels. The interventions are intended as examples rather than as recommendations.

SYSTEM-STRENGTHENING STRATEGIES FOR INTEGRATED HEALTH CARE DELIVERY

The availability of evidence-based interventions does not ensure their translation into practice. In this section, we address the question of how to integrate evidence-based mental health care interventions into primary care and self-care delivery channels and how to link this integration to specialist care.

A comprehensive and multifaceted approach that contains the following elements is essential for the successful integration of mental health into health care systems:

- A **whole-of-government approach** involves the promotion, pursuit, and protection of health through concerted action by many sectors of government.

Table 11.1 Examples of Evidence-Based Interventions Relating to the Mental Health Care Delivery Platform, by Various Delivery Channels

Delivery channel	Promotion and primary prevention	Identification and case detection	Treatment, care, and rehabilitation
Self-care and informal health care	<ul style="list-style-type: none"> Adoption of a healthy lifestyle, including diet and physical activity Self-monitoring of high-risk behaviors, such as substance abuse 	<ul style="list-style-type: none"> Self-detection of depression and anxiety disorders 	<ul style="list-style-type: none"> Web-based psychological therapy for depression and anxiety disorders Self-managed treatment of migraine Self-identification and management of seizure triggers Improved adherence to anti-epileptic treatment by intensive reminders and implementation intention interventions
Primary health care	<ul style="list-style-type: none"> Parent skills training for internalizing and externalizing problems in child and parental mental health 	<ul style="list-style-type: none"> Screening for developmental delays in children Screening and brief interventions for alcohol use disorders by trained primary health care staff Community-based case-finding of psychosis and severe depression Diagnosis of depression, anxiety disorders, maternal depression, alcohol use disorders, dementia, headaches, and epilepsy 	<ul style="list-style-type: none"> Management—pharmacological and psychosocial interventions—of depression, anxiety, psychosis, alcohol use disorders, epilepsy, dementia, and drug use based on mhGAP Intervention Guidelines Cognitive behavioral therapy–based interventions for anxiety disorders in children Cognitive behavioral therapy–based interventions for depression and anxiety disorders in adults and mothers in the perinatal period Management of alcohol withdrawal in conjunction with motivational interviewing and motivation enhancement involving family and friends Interventions for caregivers of patients with psychosis and dementia
Specialist health care		<ul style="list-style-type: none"> Diagnosis of complex childhood mental disorders Diagnosis of severe psychosis and depression Diagnosis of secondary causes of headache 	<ul style="list-style-type: none"> Electroconvulsive therapy for severe refractory depression Surgical interventions for refractory epilepsy Pharmacological management of dementia (cholinesterase inhibitors and memantine) Methadone maintenance therapy for opioid dependence, buprenorphine as opioid substitution therapy Management of refractory psychosis using clozapine Management of severe alcohol withdrawal Management of severe maternal depression using antidepressants Stimulant medication for severe cases of attention-deficit hyperactivity disorder Cognitive behavioral therapy–based interventions and anger control training for adolescents with disruptive behavioral disorders

Note: The list of evidence-based interventions in the table is for illustration. mhGAP = Mental Health Gap Action Programme (WHO 2010b).

These include ministries of planning and development, finance, law and justice, labor, education, and social welfare. The health system cannot tackle the health, social, and economic determinants and consequences of MNS disorders alone.

- A **public health approach** stresses the establishment of partnerships between patients and service providers, as well as equitable access for the whole population (Lund and others 2012). This approach requires the integration of care at the patient level. Services should be person centered and coordinated across diseases and settings. Collaborative, coordinated, and continuing care, within a framework of evidence-based interventions, provides the foundation of the public health approach. This means providing good quality, accessible services to those in need, as well as preventing the onset of disease and promoting mental health and well-being over the entire life course (WHO 2010a). Priority setting and provision of interventions based on the needs of the population under consideration are also an integral part of the public health approach, which is also central to the work undertaken by the Disease Control Priorities Network.

Table 11.2 summarizes the key features of a public mental health approach.

- A **systems approach** to integrated service planning and development encompasses the critical ingredients of a health system—good governance, appropriate resourcing, timely information, and the actual delivery of health services or technologies—that need to be in place for desired health outcomes or program goals to be realized. Effective governance, strong leadership, and cogent policy making merit particular mention, since they provide the framework for appropriate action and subsequent service development. Indeed, a well-articulated mental health policy, along with a clear mental health implementation plan and budget, can be a strong driver for change and can appreciably

boost efforts to deliver mental health services at the primary care level (WHO and WONCA 2008).

How to operationalize the public health, whole-of-government, and systems approaches to integrate service delivery for MNS disorders is a major challenge. In South Africa, some important steps have been taken toward intersectoral collaboration, particularly at the national level, such as a national forum on forensic psychiatry convened by the Department of Health, with the South African Police Service (SAPS), the Department of Justice, and the Department of Correctional Services. The Departments of Education and Correctional Services have developed policies regarding mental health, and SAPS has developed a standing order that sets out roles and responsibilities for police in relation to mental health. At the provincial level, there are formal collaborations between the government department responsible for mental health and other departments and agencies in most provinces across a range of sectors. Some provinces have also established intersectoral forums for mental health, and intersectoral collaboration is a standing item on the agenda of the quarterly meetings of the provincial mental health coordinators. However, at the district level, such intersectoral collaboration is not common. A policy brief prepared by the Mental Health and Poverty Project provides specific recommendations for shared responsibilities in policy and program development among sectors, such as education, social development, housing, justice and constitutional development, correctional services, labor, local government, public works, and mental health (MHaPP 2008).

Many evidence-based interventions fail to translate into practice because key decision makers, especially in LMICs, are merely seen as targets for dissemination of study results by academicians and researchers. To address this challenge, it is imperative to understand that research should be concerned with the users of the research and not purely the production of knowledge. The users may include managers and teams using

Table 11.2 Key Characteristics of a Public Health Approach to MNS Disorder Prevention and Management

Prevention essentials	Management essentials
Promotion of healthy behaviors	Person-centered care and support
Prevention of exposure to adverse events and risks	Family and community support
Early detection	Coordinated, holistic care
Intersectoral collaboration	Continuity of care and proactive follow-up
Life course approach	

Source: WHO and Calouste Gulbenkian Foundation 2014.

Note: MNS = mental, neurological, and substance use.

research findings, executive decision makers seeking advice for specific decisions, policy makers who need to be informed about particular programs, practitioners who need to be convinced to use interventions that are based on evidence, people who are influenced to change their behavior to have a healthier life, or communities that are conducting the research and taking action through the research to improve their conditions. It is critical to involve these actors in the identification, design, and conduct phases of research and program implementation (Peters and others 2013).

Within the three broad approaches, specific strategies can be identified for integrated health care delivery.

Strategy 1: Improving the Organization and Delivery of Services through Collaborative Stepped Care

Collaborative care is an evidence-based approach to improve the management of MNS disorders at the primary care level. The overall aim of collaborative care is to enhance the quality of care and quality of life, consumer satisfaction, and system efficiency for patients with complex, long-term problems (Kodner and Spreeuwenberg 2002). Collaborative care has been used successfully for the management of common mental disorders, such as depression, as well as for comorbidities cutting across multiple services, providers, and settings (Katon and others 2010). Collaborative care is closely related to a stepped care approach; some programs describe themselves as *collaborative stepped care*, in that they incorporate aspects of each approach within their interventions (Patel and others 2010). In the stepped care approach, patients typically start treatment with low-intensity, low-cost interventions. Treatment results are monitored systematically, and patients move to a higher-intensity treatment only if necessary. Programs seek to maximize efficiency by deploying available human resources according to need, reserving the most specialized and intensive resources for those with the most complex or severe problems.

The essential element of collaborative care is a multidisciplinary team approach that seeks to integrate primary care professionals and specialists. Collaborative care rests primarily on the presence of a case manager with enhanced responsibilities for integration of care across comorbid conditions. It starts with systematic identification of those in need, followed by close involvement of patients in joint decision-making regarding their care. It continues with the design of a holistic care plan that includes medication management and psychological interventions and, where appropriate, social care, with a streamlined referral pathway that allows patients to move easily from one service to another.

There is provision for regular and planned monitoring of patients and systematic caseload reviews and consultation with mental health specialists regarding patients who do not show clinical improvement (WHO and Calouste Gulbenkian Foundation 2014).

Collaborative care is the best-evaluated model for treating common mental disorders in primary care. A recent Cochrane Collaboration review of 79 randomized controlled trials concluded that collaborative care for depression is consistently more effective than usual care; it has also been shown to be effective in a range of MNS disorders—*anxiety disorders and post-traumatic stress disorder*—and for improving general health outcomes. The evidence base for collaborative care is mostly from high-income countries (HICs), although evidence from LMICs is growing (Archer and others 2012). It might be very difficult to replicate these case studies directly in low-income settings, but it is possible to extract the lessons from these experiences and contextualize them for a particular setting. There is absolutely no one-size-fits-all strategy for the heterogeneous settings across and within the countries. It is critical to test rigorously and generate evidence around the contextualization of these strategies in low-resource settings. The Balanced Care Model provides guidelines for the inclusion of program components that are appropriate for the available resources (Thornicroft and Tansella 2013).

Mental health programs can be designed on the basis of these guiding principles, drawing on the following case studies.

- The MANAS (MANashanti Sudhar Shodh, or project to promote mental health) study in Goa, India, is the largest mental health care trial to date in that country. The study showed that a lay counselor-led collaborative stepped care intervention for depression and anxiety disorders in primary health care settings led to substantial reductions in the prevalence of these disorders, suicidal behaviors, and days of work lost, compared with usual care. The trial also evaluated the economic impact of the intervention and found that the overall health system costs were lower in the intervention arm, despite the intervention costs, because patients recovered sooner and had lower overall health care costs (Patel and others 2010).
- The Home Care Program for elderly people affected by dementia, led by the Dementia Society of Goa, evaluated a community-based collaborative care model led by lay counselors. The model showed benefits in reducing caregiver burden and improving caregiver mental health (Dias and others 2008).
- In Chile, a multicomponent intervention lasting three months and comprising nine weekly sessions

of psychoeducational groups, structured and systematic follow-up, and pharmacotherapy for women with severe depression, and led by nonmedical health workers, demonstrated that at the six-month follow-up, 70 percent of the stepped care group had recovered, compared with 30 percent in the usual-care group (Araya and others 2003). The program is being rolled out across Chile. A similar program was subsequently tested among low-income mothers in postnatal primary care clinics in Santiago, Chile. The program demonstrated significant improvement in the intervention group (Rojas and others 2007).

- In Ibadan, Nigeria, a pilot study evaluated the usefulness of a stepped care intervention for depression. The intervention was delivered by non-physician primary health workers, with support and supervision by physicians and psychiatrists, as needed, using mobile phones. The intervention was based on WHO's mhGAP guidelines, adapted for the Nigerian health system. Recovery at follow-up, defined as no longer meeting the *Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR*, 4th edition (APA 2000), major depression criteria at six months, was achieved by 73.0 percent of the participants in the intervention group and 51.6 percent in the usual-care group, representing a risk difference of 21.4 percent. A fully powered study is being implemented to determine the effectiveness and cost-effectiveness of the package (WHO and Calouste Gulbenkian Foundation 2014).
- The Headache Management Trial assessed the effect of a coordinated headache management program in general clinical practice. Patients in the intervention arm received a headache management program consisting of a class specifically designed to inform them about headache types, triggers, and treatment options; diagnosis and treatment by a professional specially trained in headache care; and proactive follow-up by a case manager. This trial demonstrated that a systematic approach to headache care is practical and achievable in a general clinical setting and effectively reduced headache disability in a wide range of patients (Matchar and others 2008).

These case studies primarily focused on evidence generation and were conducted in controlled settings. There are also several case studies from LMICs.

- In the city of Sobral, Brazil, primary care practitioners conducted physical and mental health assessments for all patients as part of integrated primary care for mental health. Primary care practitioners treat patients if they are able, or request an assessment

from a specialist mental health team, which makes regular visits to family health centers. Joint consultations are undertaken among mental health specialists, primary care practitioners, and patients. This model ensures good-quality mental health care, and it serves as a training and supervision tool whereby primary care practitioners gain skills that enable greater competence and autonomy in managing mental disorders (WHO and WONCA 2008).

- A similar model is being practiced as part of the District Mental Health Programme in Thiruvananthapuram district, Kerala, India. Trained medical officers diagnose and treat mental disorders as part of their general primary care functions. A multidisciplinary district mental health team provides outreach clinical services, including direct management of complex cases and in-service training and support of the trained medical officers and other workers in the primary care centers. The primary care centers have incrementally assumed responsibility for independently operating mental health clinics with minimal support from the mental health team (WHO and WONCA 2008).
- In the Moorreesburg district of Western Cape province, South Africa, the role of primary care practitioners is filled by general primary care nurses, who provide basic mental health services in the primary health clinic. They are supported by specialist mental health nurses and a psychiatrist, who visits the clinic intermittently to manage complex cases and provide supervision (WHO and WONCA 2008).
- The European Headache Federation and Lifting the Burden: the Global Campaign against Headache (Steiner and others 2011) has proposed a collaborative care model for the management of headache disorders. In this model, 90 percent of people consulting for migraine and tension-type headaches can be diagnosed and managed by staff at the primary care level. In the case of the remaining 10 percent of the patients, common primary and secondary headache disorders can be recognized but not necessarily managed; these can be referred to the next level, where physicians can provide more advanced care. Finally, specialists can provide advanced care to approximately 1 percent of patients first seen at the first-level and second-level facilities, and can focus on the diagnosis and management of the underlying causes of all secondary headache disorders. There is a demonstrational intervention project based on this model in Yekaterinburg, Sverdlovsk Oblast, Russian Federation (Lebedeva and others 2013). Headache services in China have been designed on this model (Yu and others 2014).

The collaborative stepped care approach relies heavily on the introduction of additional human resources, identification of core competencies, adequate training to ensure that these core competencies are fulfilled, and specialist support to maintain these competencies. The next section describes this critical component of mental health system strengthening in more detail.

Strategy 2: Strengthening Human Resources for Mental Health through Task-Sharing

One of the main reasons for the substantial treatment gap for MNS disorders is the lack of a skilled workforce. In HICs, the number of mental health workers is often inadequate; in LMICs, the situation is dramatically worse, with an estimated shortage of 1.18 million workers (Kakuma and others 2011). The collaborative stepped care approach can be implemented only if skilled human resources are available at the different levels of service delivery.

Task-Sharing Approach

Task-sharing is a human resource innovation in which the skills to deliver specific mental health care tasks are transferred to appropriately trained and supervised general health workers. This process helps in improving access to evidence-based mental health care and leads to more efficient use of the limited resources. This approach has been evaluated for mental health service delivery, and its efficacy has been established using rigorous evaluation methodologies (Araya and others 2003; Patel and others 2010; Rahman and others 2008). Task-sharing is implemented through a collaborative care framework with four key human resources: the community health worker or case manager; the person with a mental health problem and family members; the primary or general health care physician; and the mental health professional (Bower and Gilbody 2005). The overall shortage of human resources can be addressed by introducing newly skilled nonspecialist health workers at the community level; reorienting medical officers and paramedical staff to integrate mental health interventions; and redefining the role of specialists from service providers to leaders, trainers, and supervisors of mental health programs.

The task-sharing approach is at the heart of establishing the collaborative stepped care model of care; the most crucial element in this approach is the availability of a case manager. The results of the MANAS trial clearly indicate the effectiveness of a lay health counselor or case manager leading the collaborative stepped care intervention for common mental disorders in public primary health care facilities in India (Patel and others 2010). Several global case studies have found that primary

care for mental health is usually most effective where a mental health coordinator or case manager is responsible for overseeing integration (WHO and WONCA 2008). These case managers can play a crucial role in screening; engaging; educating patients and family members; maintaining close follow-up; tracking adherence and clinical outcomes; and delivering targeted, evidence-based, psychological interventions, such as motivational interviewing, behavioral activation, problem solving, or interpersonal therapy (Patel and others 2013). The case managers can serve as the link between the primary care and self-care platforms, and can work under the close supervision of the medical officers. The evidence base for psychological interventions delivered using a task-sharing approach is set out in box 11.1.

A recent multi-site, qualitative study as part of the PRogramme for Improving Mental health carE (PRIME) investigated the acceptability and feasibility of task-sharing mental health care in five LMICs. The study examined the perceptions of primary care service providers (physicians, nurses, and community health workers), community members, and service users (Mendenhall and others 2014). Task-sharing mental health services is feasible as long as the following key conditions are met:

- Increased numbers of human resources and better access to medications
- Ongoing structured supportive supervision at the community and primary care levels
- Adequate training and compensation for health workers involved in task-sharing.

Competency-Based Education

Primary care workers function best when their tasks related to mental health service delivery are limited and achievable. The most common reasons for failure to integrate mental health care into primary care programs are the lack of adequate assessment and the overly ambitious target-setting without the necessary customization of the detailed activities, and a full and explicit agreement on the targets and activities needed to achieve them (Patel and others 2013). A shift away from knowledge-based education to competency-based education is needed. This approach mainly focuses on the skills of providers, with the ultimate goal of improving patient outcomes. *Competency* is defined as an attribute of an individual human resource and the ability of that worker to deliver an intervention to a desired performance standard based on the acquired knowledge and skills.

The Institute of Medicine's (IOM) Forum on Neuroscience and Nervous System Disorders convened a workshop to discuss and identify core competencies that specialized and nonspecialized primary care providers

Box 11.1

Clinical and Functional Outcomes of Psychological Interventions Delivered Using a Task-Sharing Approach

- Recovery of adults suffering from depression or anxiety, or both, at 7–12 months following the intervention
- Reduction in symptoms for mothers with perinatal depression symptoms
- Reduction in the prevalence and the symptoms of adults with post-traumatic stress disorder over six months
- Improvement in symptoms of people with dementia
- Improvement in the mental well-being, burden, and distress of caregivers of people with dementia
- Decrease in the amount of alcohol consumed by people with alcohol-use disorders
- Reduction in functional impairment of children affected by post-traumatic stress disorder at six and 12 months following the intervention.

Sources: Clarke, King, and Prost 2013; van Ginneken and others 2013.

might need to help ensure the effective delivery of services for depression, psychosis, epilepsy, and alcohol use disorders in Sub-Saharan Africa (IOM 2013). Table 11.3 lists the steps to strengthen human resource competencies for MNS disorders; the core competencies for all service providers across MNS disorders are listed in table 11.4. In addition to the common competencies for all service providers, the IOM framework also focuses on a diverse range of cadre-specific competencies.

Pre-service and in-service training of primary care workers on mental health issues is an essential prerequisite for the integration of mental health into primary care platforms. The training, to the extent possible, should happen in primary care or community mental health care facilities, to ensure that practical experience is gained and that ongoing training and support are facilitated (WHO and WONCA 2008). The effects of training are nearly always short lived if health workers do not practice newly learned skills and receive ongoing specialist supervision. A trial from Kenya did not find any impact of the training program of medical officers on improvement in diagnostic rates of mental disorders (Jenkins and others 2013). A quasi-experimental study from Brazil had similar findings and noted that wider changes in the system of care may be required to augment training and encourage reliable changes in clinical practice (Goncalves and others 2013). Ongoing support and supervision from mental health specialists are essential. Case studies from Australia, Brazil, and South Africa have demonstrated that a collaborative stepped care approach, in which joint consultations and interventions occur between primary care workers and

mental health specialists, increases the skills of primary care workers and builds mental health networks (WHO and WONCA 2008).

Specialist Transitioning

Specialists, especially in LMICs, are usually engaged in service delivery. It is imperative to make a transition from providing clinical services to training and supervising the primary health care staff and providing direct clinical interventions judiciously and sparingly. In separate projects focusing on integrated primary care for mental health in the city of Sobral, Brazil, and the Sembabule district of Uganda, specialists together with medical officers in primary care visited primary care settings and assessed patients. Over time, psychiatrists started taking less active roles, while general practitioners assumed added responsibilities, under the supervision of the psychiatrists. Specialists can interact with primary care staff via referral and back-referral (WHO and WONCA 2008).

Planning and Consultation

Involving primary health care staff in the overall program planning and rollout process enhances ownership and commitment to achieve the planned outcomes within agreed timelines (Patel and others 2013). Consultations with general practitioners have been demonstrated to be one of the key factors in the success of the new mental health services in Australia (WHO and WONCA 2008). Decisions need to be made after careful consideration of local circumstances; this requires consultation with policy makers as well as users of mental health services and their families and the primary care staff.

Table 11.3 Steps to Strengthen Human Resource Competencies for MNS Disorders

Step 1:	Understand the tasks necessary for delivering evidence-based interventions.
Step 2:	Define the candidate core competencies needed to perform those tasks to an expected standard, acknowledging that there might be limits to what a particular human resource category may be able to do, or is permitted to do in a particular context.
Step 3:	Define how individual health care workers can acquire and maintain these competencies and how to evaluate them.

Source: IOM 2013.

Note: MNS = mental, neurological, and substance use.

Table 11.4 Core Competencies for All Service Providers across MNS Disorders

Competency
<i>Screening and identification</i>
<ul style="list-style-type: none">• Demonstrate awareness of common signs and symptoms of MNS disorders• Recognize the potential for risk to self and others• Demonstrate basic knowledge of causes• Provide the patient and community with awareness and education• Demonstrate cultural competence• Demonstrate knowledge of other MNS disorders
<i>Formal diagnosis and referral</i>
<ul style="list-style-type: none">• Demonstrate knowledge of when to refer to the next level of care or other providers• Demonstrate knowledge of providers for specialized care within the community
<i>Treatment and care</i>
<ul style="list-style-type: none">• Provide support for patients and families while in treatment and care• Identify and assist patients and families in overcoming barriers to successful treatment and recovery, for example, adherence, stigma, finances, accessibility, and access to social support• Demonstrate ability to monitor mental status• Demonstrate knowledge of how to offer emergency first aid• Initiate and participate in community-based treatment, care, and prevention programs• Demonstrate knowledge of treatment and care resources in the community• Promote mental health literacy, for example, to minimize the impact of stigma and discrimination• Communicate to the public about MNS disorders• Monitor for adherence to regimens and side effects of medication• Practice good therapeutic patient interactions, for example, communication, relationship, and attitude• Provide links between patients and community resources• Identify available resources to support patients, for example, rehabilitation and medication supplies• Promote activities to raise awareness and improve the uptake of interventions and the use of services• Protect patients and identify vulnerabilities, for example, human rights• Demonstrate respect, compassion, and responsiveness to patient needs• Demonstrate knowledge and skills to use information technology to improve treatment and care.

Source: IOM 2013.

Note: MNS = mental, neurological, and substance use.

Psychotropic Medications

It is important to ensure that primary care staff members have the appropriate permission to prescribe psychotropic medications, and they must be adequately trained to perform this task. In many countries, nurses and even general physicians are not permitted to prescribe psychotropic medications. If access to psychotropic medications is to be improved, then initiatives to allow primary care nurses to prescribe psychotropic medications need to be promoted and undertaken, provided appropriate training and supervision is conducted. In Belize, psychiatric nurse practitioners have been given additional prescription rights. In Uganda, general primary care nurses are permitted to prescribe psychotropic medication to patients who require continued medication on the recommendation of a mental health professional (WHO and WONCA 2008).

Strategy 3: Integrating Mental Health into Existing Health Programs

MNS disorders frequently occur throughout the course of many noncommunicable diseases and infectious diseases, such as HIV/AIDS and tuberculosis, increasing morbidity and mortality (Prince and others 2007). People with comorbid disorders risk poor outcomes for both disorders. To achieve the desired outcomes for priority programs in the health sector, it is crucial to manage MNS disorders, pursue synergies in the health system, and deliver interventions through integrated approaches to care. Expansion and integration of mental health services in primary health care can be achieved by using existing service delivery for maternal and child health, noncommunicable diseases, and HIV/AIDS and tuberculosis (Collins and others 2013). Patients with severe MNS disorders often do not receive appropriate care for their general health conditions because of the negative attitudes of service providers, resulting in reductions of 10–25 years in life expectancy compared with the general population. Integration of MNS services within other health care platforms is essential.

Maternal and Child Health Programs

Maternal depression is the second leading cause of disease burden in women worldwide, following infections and parasitic diseases (Rahman and others 2013). Systematic reviews from HICs provide evidence of the effectiveness of psychological therapies—including cognitive behavioral therapy (CBT) and interpersonal therapy that can be delivered in individual or group format—and pharmacotherapy in the treatment of maternal depression (Rahman and others 2013). Promising evidence

suggests the benefits of the integration of maternal mental health into maternal and child health (MCH) programs. Examples of community-based trials with a maternal mental health component integrated into an MCH program, and a case study demonstrating that the screening and management of maternal mental disorders can be integrated successfully into an existing health system at a facility level, build a strong case for the integration of mental health care into MCH programs (Rahman and others 2013). The Thinking Healthy Programme in Pakistan is a simple and culturally appropriate intervention for integrating depression care into an MCH program. The intervention is child centered, ensuring buy-in from the families and avoiding stigmatization. It is woven into the routine work of the community health workers, so it is not perceived as an additional burden. The Thinking Healthy Programme has been further adapted so that it can be used universally for all women rather than only depressed women (Rahman and others 2013).

The Perinatal Mental Health Project in the Western Cape Province in South Africa developed a stepped care intervention for maternal mental health that is integrated into antenatal care in three primary care midwife obstetric units (Honikman and others 2012). Midwives are trained to screen women routinely during their antenatal visits for maternal mood and anxiety disorders. Women who screen positive for anxiety or depression are referred to onsite counselors who also act as case managers. Women are referred to an onsite psychiatrist when specialist intervention is indicated. The Perinatal Mental Health Project works directly with facility managers and health workers through collaborative partnerships, focusing on problem solving and capacity development in the primary health care system. Over a three-year period, 90 percent of all women attending antenatal care in the maternity clinic were offered mental health screening, with 95 percent uptake. Of those screened, 32 percent qualified for referral; of these, 47 percent received counseling through the program. This case study clearly demonstrates that onsite, integrated mental health services can increase access for women who have scarce resources and competing health, family, and economic priorities (Honikman and others 2012).

Parenting skills training aims to enhance and support the parental role through education and skills enhancement, thereby improving emotional and behavioral outcomes for children. Primary health care workers can play a significant role in this training. The use of scarce professional resources to train parents is a cost-effective use of resources. Several systematic reviews have shown parent skills training to be effective for reducing

internalizing and externalizing problems in children (Furlong and others 2012; Kaminski and others 2008), as well as reducing the risk of unintentional childhood injuries (Kendrick and others 2013) and improving the mental health of parents (Barlow and others 2014). Individual and group parent training have been beneficial. Four components of parenting skills training have been found to be most effective:

- Increasing positive parent-child interactions
- Teaching parents how to communicate emotionally with their children
- Teaching parents the use of time-out as a means of discipline
- Supporting parents to respond in a consistent manner to their children's behavior (Kaminski and others 2008).

Noncommunicable Disease Programs

Existing service delivery platforms for noncommunicable diseases are also promising entry points for the integration of mental health into primary care. The collaborative care models discussed demonstrate a strong evidence base for integration in primary care settings.

In North America, TEAMcare USA and TEAMcare Canada provide team-based primary care for diabetes, coronary heart disease, and depression. TEAMcare trains primary care staff to work in collaborative teams that deliver care in a clinic and by phone. Each service user is assigned a TEAMcare care manager, usually a medically supervised nurse, who serves as the conduit for the consultation team, the primary care team, and the service user. The program takes a treat-to-target approach, modifying treatment as needed to ensure improvement in symptoms. The program teaches self-care skills to service users to control illnesses and encourages behaviors that enhance the quality of life. About 1,400 people have received TEAMcare, with a trial showing improvements in medical disease control and depression symptoms (Katon and others 2012). In the United Kingdom, 3 Dimensions of Care for Diabetes uses a team consisting of a psychiatrist and a social worker from a nongovernmental organization embedded in the diabetes care team to integrate medical, psychological, and social care for people with diabetes and mental health problems, and social problems, such as housing and debt (Parsonage, Fossey, and Tutty 2012).

The National Depression Detection and Treatment Program in Chile integrated depression care with more traditional primary care programs for the management of hypertension and diabetes within a network of 520 primary care clinics. The program follows a collaborative stepped care approach and is led by psychologists, with additional support from physicians and specialists for

severe depression (Araya and others 2012). In Myanmar and several other LMICs, epilepsy has been included as part of the process of local adaptation and implementation of WHO's package of essential noncommunicable disease interventions in primary care (WHO and Calouste Gulbenkian Foundation 2014).

Care for patients with dementia can be well integrated with health care for noncommunicable diseases. Patients with dementia need to be assessed for behavioral and psychosocial symptoms, in addition to a careful physical assessment to monitor hearing and visual impairments, pain, constipation, urinary tract infections, and bed sores that may explain some exacerbation of psychological symptoms. Monitoring and effective treatment of vascular risk factors and diseases, including high blood pressure, hypercholesterolemia, smoking, obesity, and diabetes, to improve secondary prevention of cerebrovascular events, are an integral component of care. A well-conducted clinical trial of cognitive stimulation (reality orientation, games, and discussions based on information processing rather than knowledge) conducted in the United Kingdom as a group intervention and a small pilot trial from Brazil suggest that cognitive benefits from this intervention are similar to the benefits from pharmacological management of dementia using cholinesterase inhibitors (Prince and others 2009). Cognitive rehabilitation, an individualized therapy designed to enhance residual cognitive skills and cope with deficits, showed promise in uncontrolled case series undertaken in HICs. A large body of literature attests to the benefits of caregiver interventions in dementia. These include psychoeducational interventions, often caregiver training; psychological therapies such as CBT and counseling; caregiver support; and respite care (Chapter 5 in this volume, Thakur and others 2015). Many interventions combine several of these elements. Interventions targeting the caregiver may have small, but significant, beneficial effects on the behavior of the person with dementia.

HIV/AIDS and Tuberculosis Programs

WHO's Integrated Management of Adult and Adolescent Illness (IMAI) is a broadly disseminated health care strategy that addresses the overall health of patients with HIV/AIDS and co-occurring tuberculosis; clear opportunities exist for the integration of mental health in this program. IMAI promotes the inclusion of mental health in the overall care model for HIV/AIDS, as the mental health needs of many persons living with HIV/AIDS can be largely addressed with little duplication or waste, while improving program outcomes, such as antiretroviral drug adherence (WHO 2013b). Interventions for substance use disorders can be

integrated with HIV/AIDS interventions. This delivery channel can be used to identify individuals who use injectable drugs, as well as those with dependence on opioids, cannabis, and cocaine. The evidence base supports the efficacy of brief interventions on harm from drug use and the overall pattern of drug consumption, including drug abstinence. The brief intervention constitutes a single session of 5–30 minutes, incorporating individualized feedback and advice on reducing or stopping cannabis/psychostimulant consumption, and the offer of follow-up (NICE 2008).

In South Africa, the government has published integrated guidelines for all primary health workers, including HIV/AIDS; major noncommunicable diseases; and a range of mental health problems, including depression, anxiety, mania, substance abuse, and psychosis. These guidelines, called Primary Care 101 (PC101) (DOH 2012), are used by the national Department of Health as part of a primary care revitalization program to deliver integrated care within a chronic disease management framework (Asmall and Mahomed 2013). This approach includes consolidating care for all patients with chronic diseases into a single care delivery point at the facility level and strengthening clinical decision support for nurses. PC101 provides a set of clinical algorithms using a pragmatic signs-and-symptoms approach and integrates detection and management of MNS disorders with other chronic conditions. The guidelines include training materials delivered in a cascaded train-the-trainer format and ongoing support for primary care practitioners from trainers at the district and sub-district levels. At the community level, outreach teams of community health workers are trained to support clinically stable patients and self-care.

QUALITY OF CARE FOR MNS DISORDERS

Quality in health care has been defined by the IOM as the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (IOM 2001). Good-quality care is effective, efficient, equitable, timely, person centered, and safe, and delivers a positive patient experience (IOM 2001).

Despite the strong and growing knowledge base for delivery of mental health services, the treatment gap for MNS disorders remains unacceptably large, with over 90 percent of people with mental disorders in LMICs going without treatment (Kohn and others 2004). This treatment gap is not just a quantitative phenomenon; it also contains an important quality

of care dimension. There is a significant gap between what is known about effective treatment and what is actually provided to and experienced by consumers in routine care (Proctor and others 2009). In the language of universal health coverage, it is the difference between contact coverage and effective coverage; that is, substantial improvement in access to care needs to be accompanied by improvement in the quality of service delivery. The inadequacy of resources and low priority given to MNS disorders might suggest that consideration of the quality of care is subservient to the quantity of available and accessible services. However, quality improvement (QI) mechanisms ensure that available resources are well-utilized, in the sense that those in contact with services actually derive appropriate benefit from evidence-based interventions.

Moreover, good-quality services help to build people's confidence in making use of mental health care interventions, increasing the likelihood of seeking the care that they need (Funk and others 2009). Low-quality services lead people with MNS disorders to experience human rights violations and discrimination in health care settings. In many countries, the quality of care in inpatient and outpatient facilities is poor or even harmful and can actively hinder recovery (The Health Foundation 2013).

QI methods have been shown to be effective for sustained scale-up and adaptation of standardized treatment packages for Millennium Development Goal health priority areas. QI could be included as a routine part of mental health implementation and customization (Patel and others 2013). Quality assurance (QA) involves the use of tools and logic to assess quality performance. QI is the use of methods to enhance quality performance. QA/QI is an integrative process for identifying current levels of quality and improving the quality of performance. QA/QI plays an important role in monitoring and improving the implementation of evidence-based practices; it also helps to monitor and improve the quality of training and supervision required for the delivery of services. Some important QI approaches are continuous quality improvement, Lean, Six Sigma, Plan Do Study Act, Statistical Process Control, and Total Quality Management (The Health Foundation 2013).

QI frameworks and guidelines for LMICs have been developed in the form of a WHO guidance package for QI in mental health services (WHO 2003b). The package provides an integrated resource for the planning and refining of mental health systems on a national scale (Funk and others 2009). In a quality framework, standards and criteria are important tools for assessment

and improvement. A standard is a broad statement of the desired and achievable level of performance against which actual performance can be measured. The criteria are measurable elements of service provision. Criteria relate to the desired outcome or performance of staff or services. The standard is achieved when all criteria associated with it are met.

Protection of human rights is a critical aspect of the quality of mental health care. The treatment provided in health care settings is often intended to keep people and their conditions under control rather than to enhance their autonomy and improve their quality of life. People can be seen as objects of treatment rather than human beings with the same rights and entitlements as everybody else. They often are not consulted on their care or recovery plans; many receive treatment against their wishes. The situation in inpatient facilities is often far worse: people may be locked away for weeks, months, and even years in psychiatric hospitals or social care homes, where they can be subject to dehumanizing, degrading treatment, including violence and abuse (WHO 2003b).

WHO developed the QualityRights Toolkit to assess and improve the quality of life and human rights of people with MNS disorders receiving treatment in mental health and social care facilities (WHO 2012). People living in these facilities are isolated from society and have little or no opportunity to lead normal, fulfilling lives in the community. WHO recommends that countries progressively close down this type of facility and instead establish community-based services and integrate mental health into primary care services and the services offered by general hospitals. Although this tool does not endorse long-stay facilities as an appropriate setting for treatment and care, as long as these types of facilities continue to exist all over the world, there is a need to promote the rights of those residing in them.

The QualityRights Toolkit covers the following five themes drawn from the United Nations Convention on the Rights of Persons with Disabilities:

- Right to an adequate standard of living and social protection
- Right to enjoyment of the highest attainable standard of physical and mental health
- Right to exercise legal capacity and the right to personal liberty and security of person
- Freedom from torture or cruel, inhuman, or degrading treatment or punishment and from exploitation, violence, and abuse
- Right to live independently and be included in the community.

A comprehensive assessment of facilities based on these themes can help to identify problems in existing health care practices and to plan effective means to ensure that the services are of good quality, respectful of human rights, and responsive to the users' requirements, and promote the users' autonomy, dignity, and right to self-determination.

CONCLUSIONS

This chapter has described the health care delivery platform and its delivery channels and evidence-based interventions. The key points for effective and efficient delivery of mental health services are as follows:

- To deliver interventions for MNS disorders, the focus needs to move from vertical programs to horizontal health service platforms.
- The WHO pyramid framework of self-care, primary care, and specialist care continues to provide a useful approach for understanding potential delivery channels.
- A set of evidence-based interventions within this framework can be identified for promotion and prevention; identification and case detection; and treatment, care, and rehabilitation interventions.
- The delivery of these interventions requires an approach that embraces public health, systems, and whole-government principles.
- The key strategies for this delivery are implementing collaborative stepped care, strengthening human resources, and integrating mental health into general health care.
- Finally, it is important not only to improve access to health services, but also to focus on improving the quality of care delivered.

Recommendations for policy makers include adopting these principles and strategies using a platformwide approach. Policy makers need to engage with a wide range of stakeholders in this process and make use of the best available evidence in a transparent manner.

NOTE

Disclaimer: Dan Chisholm is a staff member of the World Health Organization. The author alone is responsible for the views expressed in this publication, and they do not necessarily represent the decisions, policy, or views of the World Health Organization.

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World Bank Income Classifications as of July 2014 are as follows, based on estimates of gross national income (GNI) per capita for 2013:

- Low-income countries (LICs) = US\$1,045 or less
- Middle-income countries (MICs) are subdivided:
 - a) Lower-middle-income = US\$1,046 to US\$4,125
 - b) Upper-middle-income (UMICs) = US\$4,126 to US\$12,745
- High-income countries (HICs) = US\$12,746 or more.

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