Global Mental Health 2

Resources for mental health: scarcity, inequity, and inefficiency

Shekhar Saxena, Graham Thornicroft, Martin Knapp, Harvey Whiteford

Resources for mental health include policy and infrastructure within countries, mental health services, community resources, human resources, and funding. We discuss here the general availability of these resources, especially in low-income and middle-income countries. Government spending on mental health in most of the relevant countries is far lower than is needed, based on the proportionate burden of mental disorders and the availability of cost-effective and affordable interventions. The poorest countries spend the lowest percentages of their overall health budgets on mental health. Most care is now institutionally based, and the transition to community care would require additional funds that have not been made available in most countries. Human resources available for mental health care in most low-income and middle-income countries are very limited, and shortages are likely to persist. Not only are resources for mental health scarce, they are also inequitably distributed—between countries, and within regions, and within communities. Populations with high rates of socioeconomic deprivation have the highest need for mental health care, but the lowest access to it. Stigma about mental disorders also constrains use of available resources. People with mental illnesses are also vulnerable to abuse of their human rights. Inefficiencies in the use of available resources for mental health care include allocative and technical inefficiencies in financing mechanisms and interventions, and an overconcentration of resources in large institutions. Scarcity of available resources, inequities in their distribution, and inefficiencies in their use pose the three main obstacles to better mental health, especially in low-income and middle-income countries.

Introduction

Mental health is an integral and essential component of health. Human, social, and financial resources will be needed to achieve the World Health Report objective of adequate access to effective and humane treatment for those who suffer from a mental disorder. We review here the availability, distribution, and use of such resources for mental health care worldwide. We have summarised available evidence, including from the relevant WHO publications and databases. The limitations of our review include its selective, rather than systematic, nature and its focus on mental health services, rather than prevention and promotion, which have been discussed elsewhere.

The scope of our review is global but data show that the severest examples of scarcity of resources, inequity of distribution, and inefficiency of resource-use are in low-income and middle-income countries (as per the World Bank’s classification).

These three themes—of scarcity, inequity and inefficiency—are inter-related and often seem to accentuate each other. For example, countries with fewer mental health resources commonly distribute them less equitably because they rely on private rather than collective financing mechanisms. In turn, the general neglect of mental disorders in under-resourced health systems can affect not only national productivity, but also individual quality of life.

Scarcity of resources

Information on resources for mental health care has been scant compared with information on prevalence, type, and burden of mental disorders. However, analysis of data from WHO’s Atlas project (panel 1) shows widespread, systematic, and long-term neglect of resources for mental health care in low-income and middle-income countries.

Policy and infrastructure

Mental health policies and plans for their implementation are essential for coordination of services and activities to improve mental health and reduce the burden of mental disorders. The elements of such policies must be determined to some extent by local circumstances, but key components can be identified and recommended. About a third of all countries in the world have no such policy or plan, and in the African region, for example, this proportion is nearly half. Moreover, because nearly 40% of countries that do have policies have not revised them since 1990, these policies do not incorporate the substantial recent developments in mental health care.

A mental health policy framework must include legislation for protection of the basic human and civil rights of people with mental disorders, especially those in receipt of involuntary treatment. 135 (78%) countries, with 69% of the world’s population, have laws about mental health; the rest do not have specific legal protection for people with mental illness. About half the existing laws are more than 15 years old, and 16% were enacted before 1960, when the human rights of people with severe mental disorders began to receive greater attention.

Discrimination against people with mental disorders is widespread, often formalised, and sometimes even codified in law. For example, although most countries have some provision for disability benefits, 41 (22%) of countries worldwide, and 26 (45%) of low-income countries,

For the Atlas database see http://www.who.int/mental_health/evidence/atlas/
specifically exclude mentally ill people from such entitlements. Another example of systematic discrimination is exclusion of mental disorders from some social and private insurance schemes for health care, for example in the USA,9 some European countries,10 and China.11

Mental health services
A balance of community-based and hospital-based services has been shown to be the most effective form of comprehensive mental health care.12,13 Yet such a balance has only been achieved in a few high-income countries, where financial resources have been matched by the political will to increase community care. If community-based mental health care is defined broadly, as “any type of care, supervision and rehabilitation of patients with mental illness outside the hospital by health and social workers based in the community”, then only about half the countries in Africa, the eastern Mediterranean, and southeast Asia provide such care.1 Within countries, the balance of services varies widely; for example, community-based care is restricted to only a few areas in China, India, Paraguay, and Zambia.1 Overall about 52% of low-income countries and about 97% of high-income countries provide community-based care.

Evidence suggests that, in low-income and middle-income countries, support for primary care services to enable them to identify and treat people with mental disorders, with training, assistance, and supervision by available specialist mental health staff, is the best way to extend mental health care to the population.2,14 A systematic review of community-based models of care for adults with depression, schizophrenia, panic disorder, and bipolar disorders in low-income and middle-income countries has reported that such models did improve clinical outcomes, with some cost savings.15 Five key areas for expansion of primary care to achieve general adult mental health care have been identified, although they should be adapted to suit local conditions: outpatient or ambulatory clinics; mobile community mental health teams for outreach services; acute inpatient care; long-term community-based residential care; and rehabilitation, occupation, and work.16,17 Worldwide only 111 (59%) of all countries have facilities to train primary-care workers in mental health care. Appropriate training needs to be combined with continued supervision and support to achieve effective mental health care in primary-care settings.18

A very large or very small number of psychiatric beds relative to the mental health budget can indicate that services for people with serious mental disorders are not adequate. If most of these beds are in large institutional settings such as mental hospitals, custodial care tends to be the standard mode for treatment of serious mental disorders, along with insufficient choice in treatments, services that are distant from the homes of residents, and inflexibility in the resource base. Most countries in Africa and Asia have too few beds, and a large proportion of these beds are in mental hospitals; a median of 0·34 beds are available per 10 000 population in Africa and 0·33 in South-East Asia Regions, with 73% and 83% in mental hospitals, respectively.19 South Africa has relatively few inpatient beds,20 although numbers vary between provinces, and yet services for people with mental disorders are perhaps better here than most countries in Africa. By contrast, the European region has a median of eight beds per 100 000 population, although in the low-income and middle-income countries of central and eastern Europe more than 80% of these are in mental hospitals.21

Unavailability of essential medicines also constrains mental health treatment. About a quarter of low-income countries do not provide even basic antidepressant medicines in primary-care settings. In many others, the supply does not extend to all regions of a country or is irregular, despite the fact that effective pharmacological treatment for many disorders depends on continuous access to medication for extended periods. Since medicines are often not available in health-care facilities, patients and families can be forced to pay for them. Because of the disproportionate prevalence of mental health problems in lower income groups, mental health care can be unaffordable for some groups, and thus inequitable. Moreover, the cost of essential medicines is relatively high in low-income countries: for example, a 1-year supply of one of the least expensive antidepressant medicines costs only twice in high-income countries what it costs in low-income countries, whereas gross national product (GNP) per head in these countries differs by a factor of 12·5.
Care of people with mental disorders draws on community resources that include formally structured bodies such as international and indigenous non-governmental organisations (NGOs); consumer and family associations; and informal resources of family, friends, and other social networks that often bear most of the burden of care. Community resources also include traditional, indigenous, and alternative health-care systems and community-based social and rehabilitative services.

88% of countries have at least one NGO that is active in mental health. Common NGO activities include advocacy, mental health promotion, prevention of mental disorders, rehabilitation, and direct service provision. The NGO sector has sustained and increased its efforts towards the achievement of access to mental health care for all who need it. NGOs often innovate by development of new services, or supplement inadequate state infrastructure for mental health care. NGOs also provide care in countries affected by conflicts, wars, and disasters such as the 2004 Asian tsunami. However, in most low-income and middle-income countries the population coverage and the range of services provided by NGOs are not comprehensive. Sustainability of NGO activities will depend on efforts to build up locally controlled structures and effective collaboration between NGOs and governments. Consumer and family associations have also become more established and active in many low-income and middle-income countries, although they tend to be weak or fragmented in countries where need is greatest. People with mental health needs and their families tend to have few opportunities to participate in decision-making about treatment; this is true in all countries, but especially in those with low and middle incomes.

Community resources

Mental health care relies on professionals, rather than advanced technology or equipment. Shortages of psychiatrists, psychiatric nurses, psychologists, and social workers (see figures 1 and 2) hinder treatment and care in low-income and middle-income countries. Studies from
several African countries\textsuperscript{22,27–30} show that inadequate numbers of health-care professionals are the main limiting factor in psychiatric care. The serious shortage of psychiatrists in low-income countries is illustrated by Chad, Eritrea, and Liberia (with populations of 9, 4.2, and 3.5 million, respectively), which have only one psychiatrist in each country, and by Afghanistan, Rwanda, and Togo (with populations of 25, 8.5, and 5 million, respectively), which have just two psychiatrists each.\textsuperscript{5}

Low-income countries have a median of 0.05 psychiatrists and 0.16 psychiatric nurses per 100 000 population. High-income countries have a ratio of psychiatric health-workers to population that is about 200 times higher. These figures show the huge inequities in the distribution of skilled human resources for mental health across the world.

Concern about the scarcity of human resources for mental health in low-income and middle-income countries is accentuated by reports of large-scale migration of mental health professionals to countries with higher incomes.\textsuperscript{31,32} In low-income and middle-income countries, the general loss of health professionals is\textsuperscript{33,34} especially disruptive for mental health systems, because they tend to be underdeveloped. A review of education and training of mental health professionals\textsuperscript{10,35} has shown that, even in the absence of migratory depletion, training facilities in low-income and middle-income countries are grossly inadequate to make up for the scarcity of professionals.

**Financial resources**

Almost a third of countries (31%) do not have a specified public budget for mental health. Of the 101 countries that have a designated mental health budget, 21 (with more than 1 billion people), spend less than 1% of their total health budget on mental health (figure 3). In Africa and southeast Asia, most countries spend less than 1% of their small health budgets on mental health services. Figure 4 shows the global burden of neuropsychiatric disease,\textsuperscript{36} and figure 5 compares gross domestic product (GDP) per head with the proportion of the total health budget allocated to mental health. The logarithmic trendline shows that mental health in low-income countries faces a double disadvantage: the poorest countries spend the smallest proportion of their already scarce resources on mental health.

The table compares the relative burden of mental disorders with the relative budget assigned to mental health,\textsuperscript{5,36} and shows that the proportionate burden of mental disorders in low-income and middle-income countries is smaller than in high-income countries (mainly due to a larger burden of infectious diseases). However, comparatively, the budget for mental health in middle-income countries is even smaller. These gaps between burden and budget seem to merit action, by use of effective and affordable interventions;\textsuperscript{2,37} however, decisionmakers need to consider the relative cost-effectiveness of alternative uses of available resources.

The way in which available financial resources are used is crucial for provision of effective care to as many people as possible. Prepayment financing mechanisms—such as social insurance, voluntary health insurance, and tax-based arrangements—can pool risks; can redistribute benefits to people with the greatest need; and can be made progressive, so that poor individuals pay less for equivalent health care.
than rich people. But although out-of-pocket-payments can target need neither as effectively nor as equitably as these alternative systems, they are still widely used. Worldwide, the most common method of financing mental health care is taxation (60%), followed by social insurance (19%), out-of-pocket payments (16%), external grants (3%), and voluntary insurance (2%). But more than a third of low-income countries rely on out-of-pocket payments as a primary source of finance for mental health care, compared with only 3% of high-income countries.

One reason for such reliance is that low-income and some middle-income countries do not have the infrastructure for introduction of prepayment mechanisms. Tax-based financing (eg, income tax) can be ineffective if employment is largely informal or if tax compliance and collection are poor. But indirect taxes (eg, sales tax) fall disproportionately on those low-income groups in which mental disorders are most prevalent. Problems with generation of sufficient tax revenues have prompted suggestions for alternative methods of financing. For example, social health insurance (SHI), has now been introduced in many East European and former Soviet states. In SHI systems, salary-based contributions by workers to so-called sickness funds are administered and managed by public or quasipublic bodies to provide cover for unemployed, retired, and other disadvantaged or vulnerable people. Governments usually make transfers to such funds from general taxation, and employers can also contribute. Payments are usually progressive, so that higher earners pay more, but not adjusted for health risk. However, the benefits of SHI are generally restricted to those who contribute. The high rates of unemployment and disrupted working patterns for people with serious mental illness mean that many people with common mental disorders cannot access SHI. In many countries (eg, in parts of South America) SHI cover is only available to urban populations; in Mozambique, only civil servants are covered. In some East European

Figure 4: Percentage of neuropsychiatric DALYs out of total DALYs (2002) Reproduced from WHO, with permission of WHO.

Figure 5: Association between specified budget for mental health as a proportion of total health budget and gross domestic product per capita Logarithmic trendline, \( y = \frac{1041}{1 \ln(x) - 4.9884}, R^2 = 0.2507 \) Reproduced from WHO Mental Health Atlas, with permission of WHO.
Inequities in access to mental health care

Not only are resources for mental health scarce, but they are also distributed inequitably: between countries, between regions, and within local communities. Need and access tend to vary inversely—those with highest need have least access to care. The rate of mental disorders and the need for care are highest in poor people, those who are least educated, women, young people, and rural communities; yet these groups have low access to appropriate services. Within communities, disadvantaged populations such as homeless people and refugees tend to have high rates of mental disorder, as do the indigenous populations of countries with colonial histories, even when these countries have a high average income per head.

**Socioeconomic status**

Poverty is linked to poor health status. Poverty is more than low-income or low consumption: it encompasses non-monetary aspects such as social exclusion, social vulnerability, and denial of opportunities and choice. For example the UN Development Programme has designed the Human Development Index as a comparative aggregate measure of life expectancy, literacy, education, and standard of living, and the World Bank has identified increased opportunity, empowerment, and security as means to overcome poverty. Children born into poverty face various risk factors for mental and physical illness. Risk factors in poor children’s families and communities combine with scarcity of protective factors to increases the likelihood of mental health problems and developmental disabilities. Relative poverty and inequality within communities are associated with increased risk of mental health problems.

Poverty and its associated psychosocial stressors, such as violence, unemployment, and insecurity, are correlated with the onset of adult mental disorder. Epidemiological data from five studies in low-income and middle-income countries showed that people with low education and low income were most vulnerable to common mental disorders, irrespective of the society in which they lived, and that relative poverty was a risk factor for common mental disorders. However, not all studies have reported a link between poverty and mental illness.

Another review of 11 community studies in six low-income and middle-income countries in Africa, Asia, and Latin America, reported a consistent association between poor education and high rates of mental disorders. This finding was replicated in Chile and Columbia. The investigators suggested that poor education could be a marker for childhood adversity, which increases the risk of mental illness.

Sex is also an important determinant of mental disorders, help-seeking, and the need for services. In many countries, more women than men meet criteria for common mental disorders such as anxiety and depression. In Chile, Araya and colleagues showed that women, and especially those with little education and in low social classes, had high rates of common mental disorders. Harpham and colleagues recorded the same link in Columbia. Patel and co-workers showed that nearly half of people who attended primary care in India had common mental disorders, and that such disorders were associated with poverty and female sex, after controlling for other social and demographic variables.

Inequity of access to scarce resources is especially pronounced for children and adolescents with mental disorders. Out-of-pocket user payments provide an immediate, flexible, and low-maintenance source of revenue, but do not protect individuals against disproportionately high costs, or distribute benefits towards those with greater needs. User charges disadvantage the poor, and are open to corruption. Furthermore, people who are already reluctant to seek help for a mental health problem (eg, because of stigma) might be forced by the high cost of out-of-pocket payments to delay treatment until their needs are acute and the necessary care is even more expensive. In India, the risk of out-of-pocket payments exceeding 10% of household income was much higher for women than for those with other index conditions.

<table>
<thead>
<tr>
<th>Burden of mental disorder</th>
<th>Proportion of budget for mental health</th>
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<tbody>
<tr>
<td>Low-income countries</td>
<td>7.88%</td>
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<tr>
<td>Lower-middle-income countries</td>
<td>14.50%</td>
</tr>
<tr>
<td>Higher-middle-income countries</td>
<td>19.56%</td>
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<tr>
<td>High-income countries</td>
<td>21.37%</td>
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<tr>
<td>All countries</td>
<td>11.48%</td>
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Table: Burden of mental disorders and budget for mental health

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Panel 2: Resources for child and adolescent mental health care

About half of all lifetime mental disorders begin before the age of 14 years. Worldwide prevalence rates for child and adolescent mental disorders are around 20%, and similar types of disorders are reported in different cultures.

The WHO Atlas on Child and Adolescent Mental Health Resources gathered information about child and adolescent mental health resources from 66 countries. The results showed that the regions in the world with the highest percentage of the population under the age of 19 years were those with the lowest level of resources. Specific child and adolescent mental health policies were generally absent, despite the finding that mental health programmes will not be adequately developed without relevant policies. A designated institution or governmental entity with overall responsibility for child and adolescent mental health services could only be identified in less than a third of all countries. Acknowledgment of the UN Convention on the Rights of the Child (often seen as a corollary of child mental health policy) far exceeded its use in policy or programme development. 30 of 66 countries identified a national policy incorporating child rights, most often with a specific focus on abuse, rather than more general child mental health needs. This gap is important, since advocacy for child mental health services is complex and too often an adversarial process.

No countries had adequate numbers of providers, trained to implement effective treatments. Most low-income and middle-income countries had one child psychiatrist for every 1–4 million people. Other relevant deficiencies were absence of standards for training; failure to use available potential resources; and inability to implement supplemental training for those in contact with children who might need care. Standards for training were non-existent in many regions and lacked enforcement in many others. Only 10 of 66 countries reported that more than 25% of their paediatricians had mental health training, although paediatricians were identified as providers of mental health care in 37 of 66 countries. Despite obvious need, countries failed to identify the training of primary health-care professionals as a resource for child mental health services. Less than 10% of child and adolescent mental health services were provided by primary-care clinicians. Retraining or supplemental training of adult psychiatrists has also lagged in many countries.

Panel 2 describes this situation, which is exacerbated by the correlation between low income and a large proportion of young people.

Rural populations also have inadequate access to care, since mental health professionals in most low-income and middle-income countries tend to live in and around the largest cities. Of 20 countries that assessed their mental health systems with the WHO Assessment Instrument for Mental Health Systems (AIMS) method, 12 reported that rural populations were under-represented among users of outpatient services. Similarly, six of 13 countries reported that ethnic and religious minorities were under-represented in the use of outpatient services. The main reason for this barrier to access was that services did not use strategies to deliver care equitably to all groups.

Stigma and discrimination

Though under-provision of resources remains the most important barrier to effective mental health care, even in the highest-income countries, most people with mental disorders receive no effective care; for example, in the USA, two-thirds of people with mental disorders received no treatment (and paradoxically half who did receive treatment did not meet diagnostic criteria for a mental illness). Use of mental health care is therefore constrained by demand as well as supply. Stigma and discrimination are important factors in the reluctance of many people worldwide to seek help, or even to accept that their difficulties relate to mental illness. In Ethiopia, for example, 75% of relatives of people with diagnoses of schizophrenia or mood disorders said that they had experienced stigma because of the presence of mental illness in the family, and 37% wanted to conceal the fact that a relative was ill.

A survey in South Africa reported a general public perception that mental illnesses were related to either stress or insufficient willpower, rather than medical causes. People therefore believed that such problems could be dealt with by discussion, rather than consultation with health professionals. Similar views have also been reported in countries such as Turkey, Siberia, and Mongolia. Such attributions are associated with blame and rejection, as opposed to sympathetic or helpful responses to people with mental illness.

In China, a large-scale survey reported that more than half the family members of people with schizophrenia said that the effect of stigma on them and their family was such that they had decided to conceal the mental illness in their family. Stigma was greatest in urban areas and for people with the most education. In India, relatives of people with schizophrenia were sufficiently concerned about the effects of stigma on marital prospects and the possibility of rejection by the community that they hid the condition from others. Indian women with mental disorders reported the highest levels of stigma, in addition to that associated with separation or divorce, and were especially disadvantaged since they often received no financial support from their former husbands.

In India, psychiatrists are the least preferred option for people seeking help for mental illness.

Research on help-seeking by young people has not fully explained the very low rates of consultation by those who are mentally ill. Potential explanations for avoidance of health care by young people include low levels of so-called mental health literacy (ie, the ability to correctly identify mental illness in oneself or one’s peers) and negative emotional responses or attitudes to people with mental illness (ie, stigma). In many countries, young people are ignorant about mental illness. Young people who seek and receive mental health care also face barriers to care.

Compared with adults, young people have less favourable attitudes towards people with mental illness, and young people with mental illness might be exposed to more stigma than adults. Because young people are often embarrassed about mental illness and believe that it should be handled privately; they tend to seek help less often. Stigma is therefore a barrier to help-seeking by young people for mental illnesses.

In many countries a sense of shame contributes to inhibition about seeking help for mental disorders.

Cultural differences in stigmatisation and help-seeking.
include a reliance on religious authority figures in Muslim countries.\textsuperscript{98,114-120} So-called structural discrimination, in which people with mental illness are not considered to have the same value as people who do not have mental illness,\textsuperscript{113,121} is exacerbated by popular misunderstandings of mental illness, which affect people’s ability to seek help and disclose their problems.\textsuperscript{122} Experiences of shame about self and blame from others have been widely reported.\textsuperscript{124}

Mental illnesses are more stigmatised than physical disorders,\textsuperscript{125,126} and indeed have been referred to as the “ultimate stigma”.\textsuperscript{127} Rejection and avoidance of people with mental illness seem to be universal phenomena.\textsuperscript{128}

Stigma leads to avoidance and under-use of mental health care, and exacerbates inequity, since individuals in greatest need of help, such as mentally ill people who are homeless, experience the most stigma, and are hence effectively excluded from care.\textsuperscript{129} National public education campaigns and local interventions based on direct social contact with people with mental illness might be effective for reduction of stigma.\textsuperscript{130,131}

**Human rights**

Many people with mental disorders experience outright abuses of their human rights, and sometimes even within treatment facilities. This type of inequity is much less common in the treatment of other medical conditions. Most countries routinely report violations of human rights of psychiatric patients,\textsuperscript{132,133} and few countries have legislation that adequately protects the rights of people with mental disorders. WHO data showed that in a substantial number of low-income and middle-income countries, patients in mental hospitals were physically restrained or secluded for long durations.\textsuperscript{69} The abuses associated with involuntary detention vary from country to country in both the private and public sectors. A study in four Central American countries\textsuperscript{134} showed that mental health workers employed in the private sector had a greater awareness of patient rights than those employed in the public sector, and that this difference was greater than the difference in awareness between countries.

In accordance with the objectives of the UN Charter and other relevant international agreements, human rights are the fundamental basis for mental health legislation, together with equality and non-discrimination, the rights to privacy and individual autonomy, freedom from inhuman and degrading treatment, the principle of least restrictive environment, and the right to information and participation.\textsuperscript{135} Jones\textsuperscript{136} argues that existing international human rights laws can be applied to the human rights abuses experienced by people with mental disorders. Such laws could be used as crude but useful instruments to apply pressure to protect people with mental disorders from abuses of their human rights.

**Inefficiencies in use of resources**

Inefficiencies characterise all health systems, but are perhaps most visible when resources are already scarce and inequitably distributed. If mental health systems are analysed from the perspective of allocative efficiency (ie, whether the distribution of resources best meets a society’s needs) the extent of untreated psychiatric morbidity and the high associated burden of disability suggest that resources for mental health are not distributed efficiently. Most low-income and middle-income countries give low priority to mental health policies despite evidence that mental disorders cause a high and growing disability burden and long-term effects on quality of life, and that treatments for mental disorders are relatively cost effective, compared with those for other conditions.\textsuperscript{137} Governments still need to be persuaded to allocate much larger proportions of public resources to mental health, and not to rely on the inevitably patchy, uncertain and time-limited initiatives of donor countries and NGOs. Although, to prioritise mental health, governments would need to make difficult trade-offs between investments in different public policies, mental health policy has probably been unfairly disadvantaged by the endemic stigma attached to mental illness.

Even those governments that are committed to improvement of mental health are hindered by the scarcity of research about the link between resources expended and outcomes achieved. Most studies on the effectiveness or cost-effectiveness of mental health interventions have been in North America, western Europe or Australia, with very few in low-income or middle-income countries.\textsuperscript{138,139} Even if evidence for the effectiveness of interventions could be generalised from one country to another—which has been contested\textsuperscript{140}—cost-effectiveness evidence travels especially badly between countries. Cost-effectiveness can be affected by differences in health systems and other relevant systems such as education, housing, criminal justice, and income support, differences in financing arrangements and incentive structures, and differences in relative price levels.\textsuperscript{141} What works and what seems cost effective in the USA, for example, might not be cost effective in a low-income country where, in relative terms, salaries are low and medications very expensive.

Lack of evidence is not the only reason for a poor return in terms of health improvements and quality-of-life gains from the resources actually committed to treatment and support for people with mental illnesses (ie, poor technical efficiency). For example, many middle-income countries that have made substantial investments in large asylums are reluctant to replace them with community-based interventions and inpatient facilities in general hospitals. However, well planned community-care arrangements that have sufficient resources to ensure appropriate accommodation and adequate support staff are more cost effective than asylums for people with long-term mental health problems and associated needs.\textsuperscript{142,143} Data from the WHO Atlas showed that two-thirds of all mental health beds were still in specialist mental hospitals,\textsuperscript{7} and WHO-AIMS data\textsuperscript{6} showed that 18 of 19 low-income and middle-income...
countries spent more than half of their mental health budgets on mental hospitals. One barrier to a transition to community-based care is the need for “double funding” as hospitals run down and community-based systems develop. Such investment is likely to pay for itself in the longer term but can appear unaffordable in the short-term. Another barrier might be resistance from high-level staff at mental hospitals, who might protect their vested interests by attempts to maintain the institutions that provide them with prestige, power, and financial control.131

Some evidence-based pharmacological treatments are unaffordable in most low-income and middle-income countries. For example, newer generations of medications (such as the atypical antipsychotics and the newer forms of antidepressant) that are only marginally more effective than other drugs are unlikely to be cost-effective (according to the criteria suggested by the Commission on Macroeconomics and Health)140 because of their substantially higher prices.13,141 Irrespective of whether they are cost-effective, effective psychosocial interventions132 are feasible only if there are sufficient staff to deliver them. Shortages of appropriately trained staff in many countries make it impossible to implement many of the evidence-based interventions used in high-income countries. WHO has argued that the most efficient interventions for common mental disorders are as cost-effective as interventions for other chronic, non-communicable conditions, and are very affordable (on the grounds that each healthy year of life gained costs less than a year of average income per head).37 Community-based interventions that use older drugs for severe mental disorders are also relatively affordable (on the grounds that each healthy year of life gained costs less than three times the average income per head).13

Arrangements for financing of mental health services often create inefficiencies. As described earlier, risk-pooling arrangements can be infeasible or very difficult to implement: tax-based financing can be ruled out by informal employment and low tax compliance; social health insurance can exclude people with chronic mental health problems who have disrupted work patterns; and voluntary health insurance is not affordable for most people in low-income and middle-income countries. Therefore, many countries rely on out-of-pocket payments, which are not only grossly inequitable but also create perverse incentives. For many people, mental health treatments are unaffordable; studies have shown that introduction of out-of-pocket payments or increases in costs reduce use of mental health services.13 Moreover, because the individuals who pay for these services generally have little understanding about the effectiveness of available treatments, they are vulnerable to misinformation from unscrupulous providers.

Many mental health problems affect not only an individual’s health but also their family relations, their employment, their needs for income and accommodation, and their behaviour (eg, illnesses that cause withdrawn or disruptive behaviour). Even if financial risks can be pooled, the breadth of these effects can create other barriers to efficiency, since—in principle—they should be addressed by many systems, such as social services, income maintenance, housing, and criminal justice. Co-ordination of action across so many areas of public policy is difficult even in those high-income countries that have recognised the challenge. Professional rivalry, budget protection, and narrowly defined performance criteria can inhibit system-wide cost-effectiveness. Paradoxically perhaps, this “silo budgeting” problem becomes more acute as services are shifted from hospital to community-based arrangements and as countries recognise the need to address non-health needs as well as health needs of people who use mental health services.

**Implications for policy and practice**

Scarcity of resources for mental health, inequity in access to them, and inefficiencies in their use have serious consequences, the most direct of which is that people who need care get none. The treatment gap—the proportion of those who need but do not receive care—is too high for some mental disorders. As many as one in three individuals with schizophrenia and other non-affective psychoses do not receive any treatment.142 The treatment gaps for depression and dysthymia, bipolar illness, panic, generalised anxiety, and obsessive compulsive disorders are all greater than 50%. The challenge is greatest in developing regions of the world: WHO has reported that the treatment gap for serious disorders is 35–50% for developed countries and 76–85% for low-income and middle-income countries.143 Even for those who receive some treatment, the proportion who receive effective and humane treatment is small. We cannot escape the conclusion that most of those who need care for mental disorders do not receive effective care. The consequences include an enormous amount of disability, human suffering, and economic loss.

In the past few years policymakers have become more aware of the importance of mental health, especially in countries with low and middle-incomes. This increased awareness has been demonstrated by the publication of World Health Report 2001,2 a call for action from Ministers of Health144 and the passing of a strongly worded resolution by the World Health Assembly145 and by European Ministers of Health.146 However, increased awareness has not yet been translated into greater investment of resources. We suggest that the issue of resources for mental health is complex: severe scarcity of resources is further compounded by inequity in their distribution and inefficiencies in their use. These obstacles need to be surmounted before real gains can be made for mental health care—worldwide and in low-income and middle-income countries. Innovative, concerted, and sustained efforts are needed to remove these obstacles and achieve better mental health.