

An Economist Intelligence Unit briefing paper

MENTAL HEALTH AND INTEGRATION

PROVISION FOR SUPPORTING PEOPLE WITH MENTAL ILLNESS: A COMPARISON OF 15 ASIA-PACIFIC COUNTRIES



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Mental illness is the second largest contributor to years lost due to disability (YLDs) in the Asia-Pacific region. Nowhere, though, do more than half of those affected receive any medical treatment. This is not some temporary crisis. It is business as usual.

Across the region, policy makers and health systems are taking note. In 2010, Japan declared mental illness to be one of just five priority diseases; China passed its first ever mental health law in 2012; Indonesia significantly modernised its legislation in 2014 and India adopted its first mental health policy the same year. Meanwhile, at the international level, APEC and ASEAN have also begun to engage with the issue.

All fifteen states and jurisdictions¹—called countries here for simplicity—covered in this study aspire to treat those living with mental illness outside of institutions and to support their integration into the community. This EIU study, sponsored by Janssen Asia Pacific, examines how well countries in the region are currently doing in this regard. To do so, it draws on an Index measuring performance across a range of areas relative to integration, as well as interviews with 19 local and international experts in mental healthcare and substantial desk research. Its key findings include:

Mental illness places a huge health and economic burden on Asia-Pacific: The use of metrics introduced in the 1990s has revealed the previously masked toll of mental illness. On average, it causes more than one-fifth of YLDs in the 15 Index countries and 9.3% of disability adjusted life years (DALYs—a joint measure of YLDs and early deaths). Between now and 2030 it will reduce economic growth in India and China by \$11 trillion. In Australia and New Zealand it currently knocks 3.5% and 5% respectively off GDP. Because the effect of suicide—a particularly large problem in South Korea and Japan—is not included in these calculations, the real human and financial cost of mental illness is likely far worse.

The relative impact of mental illness is growing: As measured in age-standardised DALYs, the absolute burden of mental illness is changing little in every Index country with no clear connection between economic growth and individual risk. Nevertheless, faster progress against other kinds of disease has increased the proportion of the health burden for which mental illness is responsible, raising its public health importance.

Too few are being treated. In countries such as Australia and Singapore, under half of those

with a mental illness receive medical care and in India and China, only around a tenth. These are in line with global estimates for developed and developing countries. Worse still, such treatment is often insufficient. In Australia, just 16% of those with anxiety disorders receive "adequate" treatment.

The ideal is patient-focussed, community-based, integrated service provision; the reality is not: Treatment now aims to support those living with mental illness to "recover." This, in essence, means their being able to live a meaningful life—as defined by them—in the community. This requires integrated medical, social, housing and employment services. Although such an approach has been recognised as best practice for several decades, including now by authorities in all Index countries, in a majority of countries most care remains hospital based.

Our Index shows that countries fall into four groups on mental health integration: National scores are hugely diverse: on employment opportunities, two countries earned 100 out of 100 and three got zero. Overall, though, four clear groupings emerge: (1) New Zealand and Australia; (2) high income Asian countries (Taiwan, Singapore, South Korea, Japan, Hong Kong); (3) upper middle income countries (Malaysia, China, Thailand); and (4) lower middle income countries (India, the Philippines, Vietnam, Indonesia, Pakistan). The membership of these groups shows a clear link between success in this area and levels of economic development, but a closer look indicates that much more is involved.

New Zealand and Australia: In addition to devoting substantial resources to mental health, these countries perform well because of a very long history of consistent efforts to implement community-based care that has allowed them to build up the necessary infrastructure, practice and personnel. More importantly, both have seen a marked cultural shift in this area, with

stigma against those living with mental illness decreasing and non-government and non-clinical stakeholders having a substantial role in policy-setting and delivery of relevant services. Both countries, though, are still working on weaknesses, such as access for socially-marginalised groups and rural dwellers.

High income Asian countries: These countries have advanced health systems and governments with the technical capacity needed for high quality social services. They have also, for most of the last decade, been trying to implement community-based provision for those living with mental illness. These services, however, are still relatively under-developed and under-staffed. A major reason is the time it takes health systems to increase budgets, build up trained human resources, align diverse policies across multiple government sectors in the same direction and coordinate multidisciplinary service. However, the high levels of institutionalisation in Japan, South Korea and to some extent Taiwan, show the difficulty of overcoming entrenched economic interests and clinical practice. Finally, progress against stigma has been slow—and may still be reversible—while the role of patient advocacy is slight. Concerns about suicide rates, however, should keep policy focused on mental health.

Upper middle income countries: These countries have also shown much greater commitment to community-based care, but began more recently than high income countries. Moreover, Malaysia and China have expanded community-based, integrated medical services for those living with mental illness while hospital-based services in Malaysia and Thailand are more often in general rather than specialist psychiatric institutions. Development of necessary general and mental health care facilities and personnel, though, are still much less advanced than in high income countries and the needs greater, including huge treatment gaps, too few clinicians, few or no nonmedical services and little coordination between those which do exist and healthcare providers.

The ideal is patient-focussed, community-based, integrated service provision; the reality is not

Lower middle income countries: Here, the challenges are huge: little available medical treatment for those living with mental illness, including an entirely inadequate number of mental health professionals; a nearly complete lack of non-medical services; the concentration of most mental healthcare in large hospitals which are often dilapidated and, in some countries, the scene of human rights abuses; budgets insufficient for pressing health needs but health systems which lack the technical capacity to fully spend them. On the other hand, experts interviewed for this study point to signs of improvement and the enactment of important new legislation and programmes.

Several challenges are common to countries in all groups, although they take different forms:

• Data: In developing states, even basic information on prevalence is guesswork. More economically advanced ones have this data, but little information on outcomes.

- The rural-urban divide: In many developing states, rural service provision is either sparse or non-existent, forcing those in need of care either to go without or face expensive and potentially difficult journeys to major centres. Provision is better in wealthier countries but lower usage rates of mental health services in rural areas and higher ones for suicide indicate improvement is needed.
- Stigma: Stigma against those living with mental illness, especially severe conditions such as schizophrenia, is pervasive and takes a wide range of shapes, from being placed in chains to perceived unfair treatment by friends. Too often, there is an underlying belief that those affected by these diseases are morally tainted and dangerous—if not physically then socially. Addressing this will involve substantial cultural change and a more prominent human rights perspective in the discussion of mental health. Failure to address it, though, will undermine all progress towards community integration.



The Economist Intelligence Unit (EIU) undertook a study aimed at assessing the degree of commitment of 15 countries within the Asia-Pacific region to integrating those with mental illness into their communities. The research was commissioned and funded by Janssen Asia Pacific, a division of Johnson & Johnson Pte. Ltd.

This report focuses on the results of this benchmarking study, called the Asia-Pacific Mental Health Integration Index. Drawing on lessons from the EIU's 2014 European Mental Health Integration Index, this edition index compares the level of effort in each of the countries on indicators associated with integrating individuals suffering from mental illness into society. Data for the Index was collected between March and May 2016. The set of 18 indicators were grouped into four categories:

- **Environment** for those with mental illness in leading a full life
- Access for people with mental illness to medical help and services
- Opportunities, specifically job-related, available to those with mental illness, and
- **Governance** of the system, including human rights issues and efforts to combat stigma

A full description of the Index methodology

appears in the Appendix to this report. During construction of the Index, the EIU consulted a number of experts from across the world. For their time and advice throughout this project, we would like to extend our special thanks to the following:

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- Vikram Patel, Public Health Foundation of India. India
- Siham Sikander, Human Development Research Foundation, Pakistan
- Atsuro Tsutsumi, Associate Professor, Organisation of Global Affairs, Kanazawa University, Japan
- Dan Yu, Chief Officer, The Mental Health Association of Hong Kong, Hong Kong
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Intelligence Unit

Introduction: Asia-Pacific's mental health challenge

A huge problem becomes too visible to ignore

"In both developed and developing Asia-Pacific countries, people have begun to understand the importance of mental illness," says Atsuro Tsutsumi, Associate Professor in Kanazawa University's Organisation of Global Affairs. "But it is still behind other 'sexy' diseases." Perhaps the most worrying thing about this equivocal situation is just how much progress it represents.

Mental illness is a broad term covering a diverse range of conditions.² Until recent decades, though, one thing they have all long had in common in Asia-Pacific—and much of the world—is that societies felt more comfortable ignoring than addressing them. Such care as existed typically involved the isolation - frequently permanent - of those seriously affected in hospitals, usually far from major population centres.

The best sign of the longevity of these attitudes is that the World Health Organisation's (WHO) clarion call "No health without mental health," though now so ubiquitous as to be almost a cliché, has represented a widespread international consensus for just a little over a decade. Even today, patients are sometimes kept in chains, either by their families or even mental health facilities, in several countries in this study. Nor are problems limited to less developed states: in 2014 a scandal arose in South Korea from the discovery of salt farmers in remote settlements using mentally ill slave labourers.

Until the 1990s, healthcare data abetted this tendency to look away. Available figures focussed on mortality. As a direct cause of death, mental illness has always been, and remains, a minor public health issue. According to data from the WHO's Global Burden of Disease (GBD) survey, in 2013 in the 15 countries covered in this study, on average mental illnesses collectively accounted for less than half of one percent of age-standardised mortality. The vast majority of these deaths arose from alcohol and drug addiction—already a specific area of significant public health focus.

Measures of the disease introduced by the WHO in the 1990s, however, have revealed that mortality figures are the very small tip of an extremely large iceberg. One such metric is Years Lost due to Disability (YLD)—which combines the prevalence of a condition with how debilitating it is over time. Because the onset of mental illness often occurs at a relatively young age, it exacts a high toll—on average more than 20% of YLDs in the Index countries. By this measure, it is the second-biggest health issue in Asia-Pacific.

A more commonly used measurement, Disability Adjusted Life Years (DALYs), combines YLDs with years lost to premature death. Here, national figures are lower, but still indicate that, on average, mental illness causes 9.3% of the total disease burden in Index countries.

Figures from studies other than the GBD survey also reveal a widespread problem. Comparative data is unavailable, but among Index countries

Mental health is a broad term covering a diverse range of conditions in any given year, anywhere from 4% (Singapore) to roughly 20% (Vietnam, Thailand, New Zealand and Australia) of the adult population experiences a diagnosable mental illness.³

The resultant economic cost is substantial.

Again, comparative figures are lacking, but
a Harvard University study estimated that,
between 2012 and 2030, these conditions would
slow productivity increases in China by more
than \$9 trillion and by over \$2 trillion in India.
Meanwhile, the Royal Australian and New Zealand
College of Psychiatrists (RANZCP) calculates
that the annual estimated total costs of mental
illness—from treatment through lost workplace
productivity—barring those associated with
opioid use, were 3.5% of GDP in Australia and 5%
in New Zealand. These figures are similar to those
in other developed countries worldwide.⁴

These assessments of human and economic costs are almost certainly too low. In GBD data, for example, self-harm is in a separate category from mental illness despite their clear link: to cite just one example, a South Korean government study found that 75% of those attempting suicide were

Table 1: Percentage of Deaths Caused 2013 (Age-standardised)

(Age-standardised)		
	Mental illness	Suicide
South Korea	0.41%	4.76%
Japan	0.18%	4.31%
Taiwan	0.42%	2.76%
Hong Kong	0.41%	2.25%
Australia	1.03%	2.12%
New Zealand	0.38%	2.09%
Singapore	0.05%	1.96%
India	0.10%	1.89%
Thailand	1.20%	1.85%
China	0.39%	1.25%
Malaysia	0.55%	0.89%
Vietnam	0.34%	0.75%
Pakistan	0.07%	0.42%
Philippines	0.43%	0.42%
Indonesia	0.14%	0.29%
Source: WHO Global Burden of Disease Data*		

living with more than one mental illness. ⁵ This greatly skews understanding of the mortality burden. In Index countries, deaths due to suicide are far more frequent than those attributed to mental illness (see chart). Indeed, in South Korea and Japan, which have particularly elevated suicide rates, this cause accounts for 4.8% and 4.3% respectively of the entire age-adjusted death toll. In the former, suicide is a killer comparable to diabetes and chronic obstructive pulmonary disease (COPD). In financial terms, in 2012 the total economic cost of suicide to Korea (including treatment and all indirect costs such as lost economic activity) was on its own \$5.9 bn, or just under half a percent of GDP that year. ⁶

Similarly, even in developed countries with universal healthcare, life expectancy for those living with serious mental illness is between 13 and 30 years less than the general population, with the main cause of death being other noncommunicable diseases (NCDs). The factors driving this include riskier behaviour among such individuals: recent Australian research shows that, among those with High Impact Psychotic Disorders, 48% are obese and 66% smokers, with the latter figure unchanged for over a decade despite a general decline in the general population.⁷ Poorer access to general healthcare is also an issue. Another recent Australian study found the gap there widening.8 The RANZCP estimates that in Australia and New Zealand, such early deaths impose—on their own—an annual cost on society of around 1% of GDP.9

A common problem across a diverse region

In short, as Siham Sikander—Director of Pakistan's Human Development Research Foundation, an NGO—puts it, mental illness "is a huge public health issue. The burden is enormous across the region." Where it is most common and whether it is growing, however, again depends on what is being measured.

As the accompanying chart shows, the agestandardised rate of DALYs per capita from this group of diseases is surprisingly steady. The average annual rate of change in every Index country between 1990 and 2013 was under 0.7% and typically far less. This does not mean that the precise mix of conditions has remained fixed. To cite just one example, in these decades several countries have had to deal with extensive post-traumatic stress disorder in the wake of natural disasters. ¹⁰ Nevertheless, the overall, agestandardised mental health burden has remained stable.

This near stasis is all the more noteworthy given other epidemiological changes accompanying rapid economic growth in many of these states. Economic development, depending on how it is achieved, certainly can affect mental health. Dr Sung-Ku Choi, Director of South Korea's National Centre for Mental Health, reports that amid the diverse and complex reasons for his country's high suicide rate, the massive cultural change and intense competitive pressures placed on individual students that were integral to South Korea's development model, certainly played an important role. However, on an overall basis, economic change has had little effect on aggregate national DALYs.

Similarly, levels of national development seem to have no bearing here. Taiwan and Vietnam have nearly identical figures, as do Hong Kong and Thailand. Individual countries will have distinct patterns of morbidity for specific conditions, but in aggregate the impression is one of similarity within—barring Australia and New Zealand—a relatively narrow band of DALYs.

Age-standardised per capita measures, however, give only a partial picture. A recent study of China and India, for example, found that even where these remain stable, changes in the underlying population can have a profound effect on the total burden facing health systems. For example, between 1990 and 2013, the total number of

Table 2: Age-standardized DALYs per 100,000 population attributable to mental illness Average annual change 1990 2000 2013 1990-2013 Australia 3.058 3.138 3.138 0.11% New Zealand 2,805 2,838 2.818 0.02% 2,420 2,405 -0.02% Singapore 2,418 Hong Kong 2,328 2,419 2.364 0.07% Thailand 2,018 2,259 2,347 0.66% Pakistan 2,289 2,300 2,315 0.05% 0.01% Malaysia 2,226 2,271 2,230 India 2,149 2.177 2,191 0.08% China 2,140 2,114 2,035 -0.22% **Philippines** 1.942 1.982 2.006 0.14% South Korea 2.135 2.043 1.970 -0.35% Japan 1,972 1,956 1,973 0.00% Indonesia 1,861 1.876 1.885 0.06% Vietnam 1,822 1,840 1,856 0.08% Taiwan 1.858 1,858 1,855 -0.01% Source: WHO Global Burden of Disease Data*

DALYs in India attributable to schizophrenia rose by over 70% due to population increases and ageing, even while the age-standardised rate remained flat.¹¹

More generally, in many Index countries the proportion of total DALYs attributable to mental illness has risen: on average from 6.8% to 9.3%. Dr Vikram Patel—Professor of International Mental Health at the London School of Economics—explains: "as countries make an economic transition, you see an increase in the proportion of the burden of disease which can be attributed to mental illness. But this does not mean improving economic conditions causes an increase in the prevalence of mental illness. It is mostly due to the reduction in the relative burden of infectious diseases."

Instead, the rise in the relative weight of mental illness reflects far faster progress against other medical conditions. This means that, even while the aggregate risk of mental illness to individuals is not shifting greatly, it is an increasingly pressing public health challenge.

A largely unmet, and evolving, range of needs

More worrying than the size of Asia-Pacific's mental illness burden is, in the words of Professor Chee Ng—director of the University of Melbourne's Asia-Australia Mental Health Partnership—the "long way we have to go in terms of closing the treatment gap and getting enough people treated." Dr Sikander explains the stark realities of Pakistan: "For a country of 200 million people, we have 600 psychiatrists, and slightly fewer trained psychiatric nurses." Accordingly, the "treatment gap"—the proportion of those needing care who do not seek or receive it—is substantial.

Pakistan is not alone. In China, 92% of those with major mental health conditions do not receive treatment; in India the figure is around 90%. The picture in wealthy countries is much different but still far from perfect. In Singapore, 57% of those with generalised anxiety do not get treatment and 60% of people with major depression do not seek it. These figures are consistent with much of the rest of the world, where the treatment gap for mental illness in developed countries is usually above 50% and in many low income countries approaches 90%. In these figures are some some countries approaches 90%.

While too few are getting any care, debate about the nature of appropriate treatment has been active. In recent decades, conventional wisdom has seen two fundamental, intertwined realignments. The first relates to the location of care. Rather than taking place in an institution isolated from the rest of society, accepted best practice is now that, as much as possible, care should occur in the community itself. This is better for the individual receiving care. Large, isolated institutions tended to be grossly inadequate as a result of neglect and, even where well run, patient progress in such a controlled environment frequently did not survive reintroduction into the community. Outpatient and community care is also far less expensive than large hospitals for health systems.

The second shift is the nature of mental health care. Traditionally, psychiatric care—in the frequent cases where the underlying cause of the disease is impossible to treat—has focussed on the elimination of physical symptoms, often through medication. This is described as a biomedical model of care. In recent decades another paradigm, the biopsychosocial model has become more popular. It posits that mental illness can arise from a range of intermingled biological, psychological and social factors. Therefore treatment, rather than relying on a single expert, is best provided by a multi-disciplinary team, including psychiatrists, psychologists, occupational therapists, social workers and other experts appropriate to the patient's needs.

Moreover, rather than elimination of symptoms, the overarching goal of this joint effort is "recovery" or attempting to help individuals affected by mental illness achieve a quality of life and level of independent functioning that is reasonable in their own eyes. A frequently-cited definition of recovery is "a deeply personal, unique process of changing one's attitudes, values, feelings, goals, skills and/or roles. It is a way of living a satisfying, hopeful and contributing life even with limitations caused by the illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness." 15

Both of these shifts require large, complex, cultural and structural transformations within and outside healthcare systems. The process started in Western countries as early as the 1960s in the United States and in the 1970s spread to Western Europe, Australia and New Zealand. In both of the latter, practical deinstitutionalisation was well under way by the time it was adopted as formal policy, and was largely complete by the 1990s. ¹⁶

Formally all the Asian Index countries are now committed to community care. However, as discussed later, adoption of the ideas and changes

Rather than taking place in an institution isolated from the rest of society, accepted best practice is now that, as much as possible, care should occur in the community itself in practice have been markedly slower in high income countries and have not really begun in middle income ones. ¹⁷ Meanwhile, the translation of more political and individual elements of this transition—such as patient advocacy and the ideal of recovery—from individualistic Western societies into more communitarian Asian cultures has been even slower.

Finally, medical treatment is not the only unmet need. As Hugh Norriss, former Director of Strategy, Advocacy and Research of the Mental Health Foundation of New Zealand, puts it: "a lot of people go into psychiatric institutions with a clinical problem but may end up with a social problem." Accordingly, those living with these conditions generally need specialist social, housing and employment services.

To generalise what is discussed in detail later, in developing countries such services are rarely available. Social and housing support typically falls to family members. Where even this is wanting, many end up on the street or remain institutionalised. Professor Hong Ma of Peking University's Institute of Mental Health, explains that it is not unusual for patients from psychiatric hospitals to "have to stay for life [not for medical reasons but] because they are homeless, jobless and have nothing." Some better institutions create their own employment opportunities, such as farms attached to a hospital. Wealthier countries normally provide some level of social and employment services, but these bring their own substantial resource and coordination challenges.

Increasing attention, but what will it mean in practice?

The now undeniable extent of the health burden from mental illness, the substantial treatment gap and the need for care itself to evolve, have not gone unnoticed in the Asia-Pacific region.

Dr Harry Minas—head of the Global and Cultural Mental Health Unit at the Melbourne School of Population and Global Health—says that "mental

health is getting a lot more attention than even five or 10 years ago. The estimated cost of neglecting the issue is getting much better known across the whole region. Governments are becoming much more aware."

One positive result has been the spread of policies and legislation both domestically and internationally. Regional states have engaged in the issue at global levels. Dr Pallab Maulik, deputy director and head of R&D at the George Institute for Global Health, India, calls it a point of local pride that his country led the successful effort to have mental illness included among other non-communicable diseases in the World Health Assembly's recent high profile efforts in those areas. Meanwhile, the Western Pacific Regional Organisation of the WHO, which includes 10 of 15 Index countries, in 2015 issued a detailed agenda, with clear targets, for implementing the WHO's Global Mental Health Action Plan 2013-2020.

International efforts go far beyond the usual global health actors. Since 2011, ASEAN has had a multi-government Mental Health Task Force to encourage better medical and psychosocial provision for those living with mental illness and to share best practice. More recently, the Asia Pacific Economic Cooperation (APEC), although ostensibly an economic body, has issued a Roadmap to Promote Mental Wellness in a Healthy Asia Pacific (2014-2020). Earlier this year, it also began working with the World Bank and the WHO to give mental health a higher profile on the global development agenda.

At the national level, the region has also seen substantial legislative and policy activity. Among the most prominent efforts in the last few years have been China's first ever mental health law (in 2012), a fundamental modernisation of Indonesian legislation in 2014 and adoption of India's very first mental health policy that same year. Now, of the Index countries, only the Philippines and Vietnam lack legislation in this

Those living with these conditions generally need specialist social, housing and employment services area. Wealthier Index countries typically have long mental health law and policy histories, but some—especially the high income Asian states—have greatly stepped up activity in recent years. To cite just one example of many, in 2013 Japan declared mental illness as one of just five priority diseases. Dr Tadashi Takeshima—former director of Mental Health Policy and Administration, in Japan's National Centre of Neurology and Psychology—believes that this designation "will accelerate the future development of mental health reform," in his country.

Widespread questions remain, however, about what this activity will mean in practice. Professor Ng's comment is similar to many, "we all know that having a law does not automatically translate into change at the grassroots. There may be a lack of implementation: resources don't always accompany the law." This is not restricted

to developing countries, he adds. Moreover, money alone does not guarantee the capacity to use it—a widespread issue in middle income countries in particular. Finally, as discussed later, even well-resourced mental health laws and policies have to deal with negative attitudes within society that cannot simply be decreed out of existence.

As policy-makers and other stakeholders wrestle with turning ambition into reality, the challenges are vast but also, inevitably for the region, diverse. Accordingly, the Economist Intelligence Unit has produced the Asia-Pacific Mental Health Integration Index as a tool to help interested stakeholders understand the strengths and weaknesses of current provision for those living with mental illness in each of the 15 Index countries, as well as to point to how these might be improved.

A data caveat

The picture of the mental illness burden sketched in the introduction is broadly accurate but substantial data problems make many specific details blurry.

The most glaring issue is a frequent lack of data, particularly in less economicallydeveloped states. Across much of Southeast Asia, including a number of Index countries, surveys of even high prevalence disorders do not exist and—for the area as a whole—those measuring depression and anxiety cover only about 15% of the population. In South Asia the problem is even greater, with such surveys on average reaching only 5%.18 As Dr Maulik puts it, "current studies available for low and middle income countries are definitely not adequate. There are large gaps, including variability within countries for which we have no data." As a result, national figures rely heavily on models from a few surveys and errors in these, if any, are reproduced across multiple countries in those estimates.

Even where other conditions with a higher public health priority overlap with mental health, relevant data are rarely collected. Professor Ng recalls that when doing a project on perinatal mental health, he had expected the strong emphasis on mother and child health in Southeast Asia would bring some attention to the important, intertwined issue of post-partum depression. Instead, outside of Vietnam, he found hardly any published data on the condition.

Predictably, wealthier countries typically have better data, especially for major depression, anxiety disorders and schizophrenia, but important weaknesses remain. A substantial 2013 literature review found that in high income Asia-Pacific countries outside of Australia and New Zealand, prevalence surveys

of mild depression and of bipolar disorder covered less than 5% of the population on average. ¹⁹ Indeed, notes Dr Patel, data availability varies markedly by individual condition: for example, he says, "not a single Asian country has done a substantive, population-based prevalence survey for autism, though the first such study from India should soon be published."

Prevalence data, however fundamental, is only a beginning. In New Zealand, for example, Mr Norriss says, "we don't have comprehensive data on outcomes. We have inputs but it is hard to know what difference treatment is making." This is a widespread issue and according to Professor Ng, even in Asia-Pacific's developed countries outside of Australia "we know how big the problem is, but we don't have good outcome data."

These data deficiencies are of more than academic concern. At the policy level, says Dr Fung, "it is hard to get policy makers to act without information." The quality of care also suffers. Dr Choi explains that, in South Korea, the poor evidence base means low standardisation of treatment: "every hospital has its own practices." One of the government's main goals in establishing a new National Centre for Mental Health is to collect the information needed for standardisation around best practice.

On the positive side, notes Dr Minas, the vast disparity in the impact of mental illness as measured by YLDs, DALYs and mortality, means that across the region "all countries are becoming aware of the burden of disease metrics, and all are taking steps to improve data." Nevertheless, there is still a long way to go.



The Asia-Pacific Mental Health Integration Index and its results

The Index assesses and ranks 15 Asia-Pacific countries on 18 distinct areas—called indicators. These are all of importance to supporting the ability of those living with mental illness to lead fulfilling lives in the community. Indicators are grouped into one of four categories: environment (the extent to which policy supports the ability of those living with mental illness to have a stable home and family life); access (the existence and availability of health services); opportunities (the degree to which policy promotes those living with mental illness to engage in employment); and governance (efforts to reduce stigma, increase awareness and promote the human rights of mental health service users). The scores are also aggregated into a single, overall score. For a more detailed discussion of how the Index was constructed and its scoring system, please see Appendix 2.

The aim of the Index is not to create an arbitrary list of winners and losers but to promote discussion of how countries are currently doing, how they can improve and to assist in the sharing of best practice among Index countries. The accompanying chart shows the category and overall results.

The results give rise to several important observations:

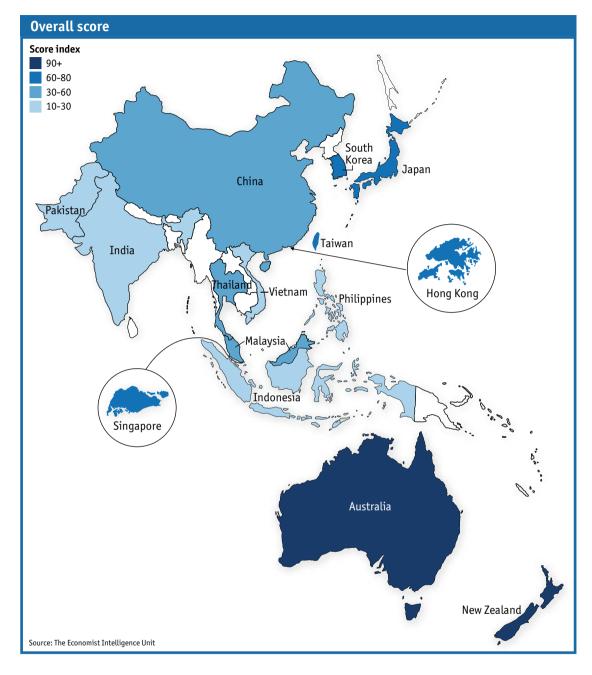
Orderly islands exist within a sea of diversity: Two things about the Index results are immediately striking. One is the vast range of performance they indicate. This is most apparent in the Opportunities category, where two Index countries get full marks and three none at all. Although not as stark in other areas, the difference between top and bottom of the table is always substantial. For the overall score, it reaches 81.9 points, compared to just 60.6 points in a similar Index of twice as many European countries conducted in 2014.

These extensive differences are predictable.
As Dr Minas says, "Asia Pacific is huge and extraordinarily diverse in terms of economic development, history, governmental systems, culture—just about everything you can imagine."

Amidst these wide differences, though, four groupings of countries are clearly visible across the overall and category rankings:

- 1. New Zealand and Australia:
- 2. High Income Asian countries (Taiwan, Singapore, South Korea, Japan and Hong Kong);
- 3. Upper Middle Income countries (Malaysia, China and Thailand);
- 4. Lower Middle Income countries (India, the Philippines, Vietnam, Indonesia and Pakistan).

This is no accident. The challenges countries face integrating those living with mental illness into society are similar within these groups but often very distinct in degree—where not in kind—from those of countries in other groups. Accordingly, this report, rather than trying to paint an inevitably muddled, pan-Asia-Pacific picture, looks at the situation of each of these four groups in turn.



OVE	OVERALL SCORE		
Rank	Country	Score	
1	New Zealand	94.7	
2	Australia	92.2	
3	Taiwan	80.1	
4	Singapore	76.4	
5	South Korea	75.9	
6	Japan	67.4	
7	Hong Kong	65.8	
8	Malaysia	54.1	
9	China	45.5	
10	Thailand	44.6	
11	India	29.4	
12	Philippines	25.5	
13	Vietnam	20.6	
14	Indonesia	16.7	
15	Pakistan	12.8	

However, before doing so, several other general points about the Index scores are worth noting.

The leaders are neither perfect nor hold a monopoly on innovation: New Zealand's and Australia's high scores are appropriate given their relative strengths in this field. Nevertheless, experts from those countries point to several ongoing weaknesses. As discussed in the following section, both

face important questions, including service variability and co-ordination and, in New Zealand's case, high rates of involuntary treatment. Moreover, even good practice can fall short in its results. Although Australia scores full marks on employment opportunities, Dr Minas notes that "the actual achievement of sustained dignified employment for those with severe mental illness is still a major challenge" for diverse reasons.

Similarly, Dr Sikander—who sees Pakistan's last place finish as no surprise—also hopes that improvement will come soon. In particular, the Ministry of Health, under its Mental Health Gap Action Plan, is trialling a programme in locations in four provinces that will train doctors and other primary healthcare workers to recognise and provide basic treatment for nine priority mental illnesses. If successful, this will be rolled out over most of the country.

Wealth matters, but is far from everything: The four country groups within the results point to an important link between national wealth—or income as measured in per capita GDP—and how well countries support those living with mental illness.

New Zealand's GDP per capita, for example, is roughly the same as South Korea's, and less

than half of Singapore's. Direct government outlay on mental health is also an incomplete explanation of differences in outcome.

According to the 2014 WHO Mental Health Atlas, Pakistan spends just \$0.01 per capita in this area annually, while New Zealand reaches \$184.63—a difference consistent with the Index scores. The equivalent figures for South Korea (\$44.81) and Japan (\$153.70), though, suggest that non-economic issues are at play in explaining the former's higher finish.

However, to better understand the important non-economic factors that shape how well countries are addressing Asia-Pacific's mental health burden and its attendant integration challenges, requires a detailed look at the challenges and performance of each of the four country groups that the Index results have defined.

Similarities and differences between the Europe and Asia-Pacific indices

Asia-Pacific is the second region for which the EIU has developed a Mental Health Integration Index. In 2014, it created a European one, which included 30 countries. The two Indices are, by design, identical in their Categories and Indicators. Unfortunately, though, technical differences in scoring make direct comparisons between individual Asia-Pacific and European country results invalid. It is, however, possible to look at similarities and differences in the wider lessons from both pieces of work and, in doing so, shed light on the global challenges of integrating those living with mental illness into the community.

Many findings are similar for both. In Europe and Asia-Pacific wealthier countries do better, but with important qualifications. The leading European countries—Germany, the United Kingdom and Scandinavia—have long histories of steady work on overcoming the barriers to integrated community-based care. Moreover, they all see the task as multi-faceted, scoring highly in every category. In this way, their performance is very similar to that of New Zealand and Australia, which began the transition from institutional to community-based, recovery-focussed care around the same time as Europe's Index leaders.

Another common lesson is that this transition still has a long way to go. Even deinstitutionalisation is frequently incomplete. Like Japan, South Korea and Taiwan, a majority of European Index states—including four of the top 10—have more people in long-stay psychiatric hospitals than under community-based care. More generally, every single country in both Indices still needs to find better ways to integrate different elements of medical treatment, and to coordinate medical care with employment, housing and other social services for people living with mental illness.

The most striking difference between the countries in the two Indices, however, is more cultural. In the West, the drive toward community-based care—and indeed recovery itself—is focussed on the dignity and wishes of the individual patient. This is no accident. The pioneers of deinstitutionalisation in Europe, most famously Franco Basaglia and Italy's Democratic Psychology movement, were human rights campaigners. They lacked hard medical

evidence that care outside of hospitals would work better—it had never really been tried—but were confident that the extensive abuses of human rights in psychiatric institutions were harmful to the mind, as well as ethically repugnant.

These roots are not absent from Asia. Dr Shu-Sen Chang of the National Taiwan University notes that, although "it may not be obvious on the surface," Taiwan's democratic transition of 30 years ago had widespread indirect impacts on the improvement of community care. "It has enhanced awareness of human rights, including for those with mental illness," he adds. This is not universal though. Dr Minas notes, "Some governments in the region are nervous about human rights approaches."

More generally, advocacy work by and on behalf of those living with mental illness is still rare, even in high income, democratic Asian countries, in large part because, as Dr Fung says, "Asians find it hard to share" even the fact they have a mental illness. Such reticence has been overcome with time in other cultures, but translating the central and highly individualised idea of recovery into Asian cultures, is complex. What a personally fulfilling life, or freedom to pursue it, might mean may be quite different in a context where personal autonomy and family or broader societal obligations have a different balance than in the West. Dr Tsutsumi notes that in Asian cultures, for example, with their heavy emphasis on the importance to society of fitting in, patients may actually share a more biomedical focus on symptom elimination and being "cured" rather than wanting to build a new life. At the very least, what people think of as recovery will differ in important respects.²⁰

Not surprisingly, as one 2013 study put it "Development and implementation of the concept of recovery is still in its infancy in most Asian countries," noting that in Hong Kong there was at that point not even an adequate Chinese translation of the term.²¹

Culture is not immutable but, as Asian states advance along the road to community care, adaptation of Western concepts to local norms will be a fascinating area to watch.



Intelligence

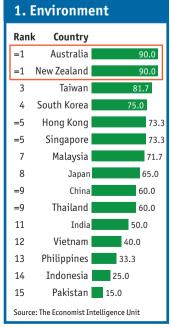


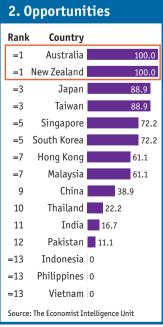
Index rankings



The leaders: New Zealand and Australia

The Index results unambiguously put New Zealand and Australia well ahead of all other countries. They come first and second overall, as well as taking the top two spots in every category. Digging deeper tells the same story: one or the other is alone in or tied for first position on every Index indicator and sub-indicator except for degree of cross-cutting policies and number of psychiatrists. Even on these, though, neither country achieves worse than fourth place. This aligns with the consensus of expert opinion: as Dr Tsutsumi puts it, the results are "not surprising. New Zealand and Australia seem to be much more successful at including persons living with mental illness in the community."









For observers from outside these countries, such as Dr Daniel Fung—president of the Singapore Association for Mental Health—one major driver of success stands out: the substantial resources put into mental health services. In New Zealand, annual spending on these rose from \$270m in fiscal year 1993/94 to \$1.2 billion in 2010/11, or 10% of the health budget. The large majority (76%) goes to community-based care. Such spending has allowed much greater access to care, such as a 51% increase in use of specialists between 2002 and 2009. In the same way, from 1992/3 to 2010/11, Australian national and state government spending on all aspects of mental health care provision rose in real terms by 178%, and the relevant medical and social workforce by 35% per capita.²²

While resources matter greatly, locally-based experts instead point elsewhere first to explain the relative positon of these countries. These leading factors begin with the long history of effort. Dr Minas explains, "Australia and New Zealand have been reforming [mental health provision] for many decades." Part of the advantage time brings is practical. Dr Minas adds, "it takes a long time to move towards a community focus, which includes getting legal architecture, financing and payment systems in place."

Another requirement for success that takes long term effort, says Dr Minas "is the cultural shift needed for populations to become increasingly comfortable with people with mental disorders living in community settings." Judi Clements—former chief executive of the Mental Health Foundation of New Zealand and now chair of the country's Multi-Agency Group—a coalition of government, NGO and consumer bodies fighting discrimination—agrees. "Widely held beliefs—such as thinking people should be excluded from society and cared for in remote places—may be grounded on nothing much, but shifting them is a major social change which does not happen quickly." Although stigma still exists, it has

reduced measurably.²³ Mr Norriss continues, "we've come a long way from a culture where twenty years ago mental illness was seen as quite extreme and shameful to one where people are almost happy to talk about it."

Cultural changes also take time to embed within the healthcare system. For example, a recovery-based approach has been mandatory in all New Zealand mental health services since 1998. That change, though, initially met some resistance in the medical community, and took even longer for practitioners and patients to understand fully.²⁴

A final key differentiator between the Index's leading countries and others combines the need for structural and cultural change: the integration of a wider range of stakeholders into service provision.

Cultural changes take time to embed within the healthcare system

The most important of these stakeholders are the people living with mental illness themselves, sometimes called consumers, followed closely by their carers. In both countries, from the mid-1990s, consumer and carer views became increasingly influential within mental health and social care. In New Zealand, these actors are now integrated across decision-making bodies at every level.²⁵ Even within academic studies, the trend is towards so-called "co-production" between researchers and patients. In Australia meanwhile, says Dr Minas, the participation of such groups is now "a prominent feature." Consumers and their carers have for some time had a role in all national mental health planning and advisory groups and, by 2011, a formal say in the management of three quarters of organisations delivering services at local and state levels.26

The value these groups bring is immense. Mr Norriss points to the important insights which only those with a consumer perspective can provide: for example, "these voices can challenge the damage hospital-based policies

could do to people and educate for approaches that allow for recovery."

New Zealand in particular also benefits from a very strong NGO presence in its provision for those living with mental illness. Currently, several hundred such organisations receive 24% of state mental health spending and "Typically, a person with a psychiatric disability living in the community is treated by a publicsector community mental health team, but receives day-to-day support from NGOs."27 This situation results from, says Mr Norriss, a strong government policy commitment to supporting the third sector including funding and training. These locally-based NGOs are typically better able than state-run bodies to tap into the range of community resources for social support that service users need.

New Zealand and Australia's very high Index scores, however, are relative to those in other countries, including some much less economically developed ones. Provision for individuals living with mental illness is far from perfect. In Australia, for example, the treatment gap has been declining markedly but remains over 50%. Also in line with other wealthier countries, the number receiving "minimally adequate care" is low—for anxiety and affective disorders it's just 16%. 28

Instead of fundamental flaws, however, the issues facing these two countries in the area of mental health relate to making sure the system's strengths work for everyone and in a coherent way. In some cases, this involves making do in an imperfect world. Dr Minas notes that one important difficulty in obtaining secure accommodation for those living with mental illness is that "the price of housing has skyrocketed in major cities. Even those with no health problems find it hard." Here housing policy, rather than health, is the appropriate lever.

Some key weaknesses, however, do remain within mental health care provision. In both countries,

substantial geographic variations in care exist and, to judge by differences in state spending, have worsened over the years in Australia.²⁹ This comes into starkest relief in rural areas—a common problem with different characteristics across every Index country [see box].

Similarly, mental health service usage rates and treatment outcomes for indigenous peoples tend to be weaker and different concepts of what mental health means make it necessary to design services specifically for these groups. This has been a policy concern in both countries for some years, but as Mr Norriss says of New Zealand, even though "we've made progress in being more responsive to indigenous populations, statistics show they are still disadvantaged. There is still more to be done."

Another issue common to both countries is finding a fully coordinated, integrated approach to helping people with mental illness live in the community. When it comes to local service provision, the problem is present in New Zealand but, says Mr Norriss, "it varies between district health boards," and the large NGO presence in the sector has allowed experimentation with effective co-ordination models. At the broader policy level, though, he says, "we still have a long way to go to understand how we can have a plan that looks at all the necessary social, psychological and cultural levers."

In Australia, the issue is a more deep-rooted, systemic one. The constitution's dispersion of responsibility for different elements of care between national, state and local levels, and the important role of consumers and NGOs in the system, makes coordination a perennial problem across all healthcare. With mental health, though, the paramount importance of integration magnifies the impact of these problems. For example, although deinstitutionalisation is well established, in 2010 the Western Australian state government estimated that 43% of those "in specialised"

The issues facing these two countries relate to making sure the system's strengths work for everyone and in a coherent way

mental health hospital beds could be discharged if housing and other appropriate support services were available."31

Once into community care, further poor coordination brings additional problems. A recent high level government review complained of "institutionalisation in the community." In such circumstances, it said, people "receive fragmented help or no help at all, and become stuck in a vicious cycle of poor health and limited life chances. They are moved between disconnected silos of intervention, including hospital wards, patchy support systems in housing, education and employment, and overstretched community and non-government services."³²

While better at coordination, New Zealand has a problem with increased usage of community treatment orders (CTOs), which provide involuntary treatment within the community. Rates of compulsory treatment and seclusion are high by international standards and how CTOs are used has even drawn the attention of the UN Human Rights Commission. 33 Ironically, this may reflect a downside of a long history of effort in the field of mental health. The legal restrictions around CTOs were created in the same

act that began the shift to community care, which appeared in 1992. Although very advanced for its time, since then best practice has moved on and the legislation may require review.³⁴

The Index's leading countries, then, have made substantial progress but are still wrestling with practical issues around integrated, community-based care. This should come as no surprise. The shift towards such service provision is huge and further improvement always possible. The specific issues facing Australia and New Zealand are also not unique: by far the chief weakness of Germany, the top finisher in the EIU's Europe Mental Health Integration Index, is integration of its strong individual services. Similarly, the need to co-ordinate care better and to improve services for marginalized people and groups, are issues facing many of the leading countries in Europe.

The most important change in recent decades in New Zealand and Australia may therefore be the cultural one around perceptions of mental illness and the place of those living with the condition. This will ensure that efforts to address practical issues of service implementation will continue.

New Zealand's "Like Minds, Like Mine"—20 years of combatting stigma

Mr Norriss believes that "a couple of decades of a strong anti-stigma movement" has been a key reason for New Zealand's relative success in community integration of those living with mental illness. Central to this movement is the "Like Minds, Like Mine" anti-stigma and anti-discrimination programme which, when founded in 1997, was the first of a now growing number of such national campaigns worldwide.

Like Minds, Like Mine's structure reflects the country's general approach to mental health services. The government, through the Ministry of Health and Health Promotion Agency, gave the initial impetus, and now provides ongoing funding and oversight. An NGO, the

Mental Health Foundation, delivers national coordination and communication, while various community groups conduct many of the local efforts. At every level, meanwhile, the programme emphasises involvement of those with experience of mental illness in leadership and project delivery.

Like Minds, Like Mine engages in two levels of activity. The first has been a series of nationwide advertising campaigns. Their purpose and nature have grown increasingly ambitious as they have evolved over five phases. The initial aim of advertising was to raise awareness of common mental illnesses, such as depression. Over time, the ads have sought to improve public

	Rank/15	Score/100
Overall score	1	94.7
1) Environment	=1	90.0
2) Opportunities	=1	100.0
3) Access to treatment	2	95.8
4) Governance	1	94.9



attitudes towards ever more debilitating mental illnesses, emphasize the possibility of recovery, combat stereotypes, raise awareness of discrimination and model positive behaviour. Much of the effectiveness of these messages, notes Ms Clements, is that from the start "real people, not actors, were prepared to talk on TV about their lived experience of mental illness"—at the time a global first, she believes.

Looking ahead, Ms Clements says, this aspect of the programme's efforts will change with the times. She says it is moving away from mass media toward more use of social media, with its lower cost and greater ability to reach targeted audiences. Like Minds, Like Mine's other notable activity has been support of community-based projects, usually outsourced to partners. These do not reproduce national efforts at a local level but focus on key constituencies. Some initiatives have a geographic element, such as Christchurch's Pearls of the Pacific which focuses on Pacific Peoples in the

city. Others work with members of specific groups in many locations—such as employers or police—to understand issues relevant to them, or focus on knowledge and attitudes within particular population segments with a high or unrecognised burden from mental illness—such as indigenous peoples and youth.

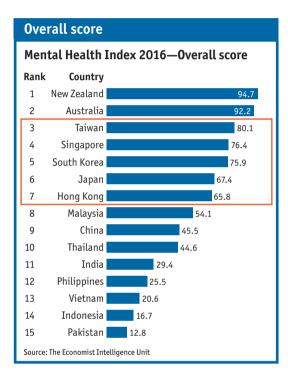
Giving coherence to these constantly evolving and highly diverse efforts is inevitably a challenge. Ms Clements notes that "mission drift" had appeared before the most recent round of community project funding: "there were quite a lot of local groups working on Like Minds with the best possible intentions but not coordinated clearly enough and not focused on challenging discrimination."

Accordingly, in 2011, as part of a so-called programme refresh, the number of partners was reduced—although they included a wider range of organisations—and the focus on anti-discrimination work tightened. Meanwhile, a common set of guiding principles provides intellectual consistency across all programme activities: a human rights approach, which asserts that discrimination infringes on those rights; a social model of disability, which describes disability not as inherent in individual capability but the result of barriers arising from how societies are designed; and the power of contact between excluded and excluding groups to promote attitudinal change.

The strategy of Like Minds, Like Mine would be of little interest if it did no good. Regular impact assessments have been a programme feature since its inception and these indicate progress. Measurement of stigma is difficult and tends to rely on proxy questions about specific attitudes. Repeated surveys of New Zealanders show that many of these have changed over time. For example, between 2000 and 2012, the proportion of people who disagreed with the statement that "I would feel uncomfortable talking to someone who had a mental illness", rose from 61% to 78%. Responses to other questions, however, have shown little change. The general impression from these surveys as a whole is of slow but undeniable progress on attitudes overall.³⁶ The experience of service users also indicates improvement. A recent study found that 48% of this group say that Like Minds, Like Mine had helped reduce discrimination a lot over the last five years, and 22% a little. 37 These results are, of course, imperfect, but they are movement in the right direction.

High income Asia: Taiwan, Singapore, South Korea, Japan, Hong Kong

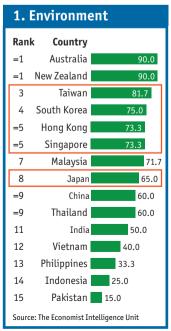
The solid results of the Index's high income Asian countries reflect wealth and—just as important—shared strengths in policy capacity and implementation.

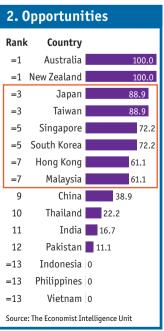


These attributes start with advanced general healthcare systems and governments capable of providing mature social welfare programmes. Looking specifically at services for those living with mental illness, all these countries score full marks for the existence of assertive outreach teams and the provision of employment support. Free or highly subsidised treatment, financial benefits for those affected by these conditions and legal protections around involuntary treatment are also the norm with, for each indicator, four of five countries meeting the Index's top standard, with the exception coming just one rank below.

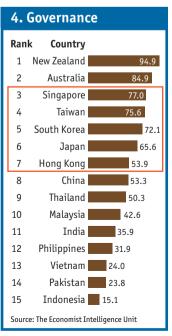
National fortes inevitably vary. When asked where their health system did well on mental health care, expert interviewees from this group all noted low-costs of treatment, but: Dr Shu-Sen Chang of National Taiwan University also pointed to his country's long-standing Mental Health Act; Dr Fung to Singapore's extensive housing services; and Dr Choi to the funding of innovative medicine by South Korea's National Health Insurance system.

Finally, while some type of mental health policy in these jurisdictions has typically existed for









centuries, all have begun, or greatly stepped up, meaningful efforts to create integrated, recovery-focussed, community mental health care only in the last 10 to 15 years.

The dates of certain key policy decisions mark this turning point for each, although change was usually already beginning a few years earlier: in Japan the 2004 release of the "Reform Vision for Health, Medical Care and Mental Health Welfare" began the shift; in Taiwan, the 2007 amendments to the Mental Health Act; in Singapore, the adoption of the first National Mental Health Blueprint that same year; and in Hong Kong, adoption of the Mental Health Service Plan in 2010, which rolled out across the city Integrated Community Centres for Mental Wellness (ICCMW). A precise moment is harder to pin down for South Korea where, since 1998, legislation has mandated the creation of a series of five-year mental health policies. The extent of relevant activity, though, markedly increased under the 2011-2015 plan.

Nor are these isolated actions. Since 2004, Japan has renewed commitment to its reform vision in 2009 and in 2013 declared mental illness a priority disease. Singapore followed up its National Blueprint with a Community Mental Health Master Plan in 2012 and, says Dr Fung, is developing a third phase of reform focussed on population mental health. South Korea's Mental Health Plan for 2016-2020 has over 100 specific items to implement, and Hong Kong is nearing the end of consultation on a comprehensive service framework to provide better coordination of medical and social services for those with severe mental illness.

These policy changes have typically received at least some funding. The most notable example is South Korea, where spending on mental health more than doubled between 2010 and 2014. ³⁸ In improving their services, these countries have also often adapted international best practice to local conditions. Hong Kong's

assertive outreach programme, for example, is based on the high-quality FACT programme in the Netherlands.³⁹ Indeed, one of the great strengths of mental health service provision in the city, says Dan Yu—Chief Officer of The Mental Health Association of Hong Kong—is that "we keep learning from other countries."

The commitment is real and progress is occurring. What then, explains this group's finish markedly behind New Zealand and Australia and—in some cases—results similar to middle income countries?

The experience of Asia's high income countries shows the time involved in developing integrated, recovery-focussed community care and the attendant need for long-term commitment. Dr Fung says of Singapore, nearly a decade since the National Blueprint's launch, "our problem is developing community resources: that is in an elemental phase. The time and money we put in are only starting to bear fruit." Moreover, this effort usually has to overcome entrenched barriers. As Dr Choi says of South Korea, "We understand that community mental health and deinstitutionalisation are really important, but they are very difficult to achieve."

The first common problem for these countries in pursuing community-based care is that, whatever the increases in recent years, new policy commitments lack sufficient system resources. Despite South Korea doubling its mental health budget in the five years up to 2014, it is still only 2.6% of total health spending. 40 On this metric, according to the latest figures available—admittedly sometimes dated—none of the high income Asian Index countries reach 5%, the WHO's recommended minimum for developed states. Moreover, a majority of this money still goes to hospitals rather than community-based services.

The mental health workforce is also too small. Japan has the largest number of psychiatrists per capita (20.1 per 100,000) in the Index, but The experience of Asia's high income countries shows the time involved in developing integrated, recovery-focussed community care and the attendant need for long-term commitment

the figures for the other four states fall between only 2.8 and 6.9 per 100,000. To provide context, 28 of the 30 countries in the *Europe Mental Health Integration Index* have more. This shortfall reflects low current funding but even more, the time needed to build up personnel numbers. According to 0ECD data, between 2004 and 2014, the number of psychiatrists in South Korea nearly doubled. Similarly, over the last 20 years, Dr Chang, reports, Taiwan has seen "substantial growth in the number of well-trained mental health professionals," including an approximate tripling of psychiatrists.

Having so few psychiatrists hurts access. Most of those in Hong Kong are private sector, with only a few hundred employed by the public Hospital Authority. For these, waiting times for an initial visit can last three years. ⁴¹ Moreover, appointments with them last only 5-10 minutes says Mr Yu. Even with such limited per patient service, he adds, low staff numbers at Hong Kong's ICCMWs create "heavy caseloads leading to burn-out." Even in better-staffed Japan, outpatient appointments often take only 10 minutes, and recent research claims that staff shortages may have contributed to a culture of drugging inpatients to keep them docile. ⁴²

More psychiatrists, though, may not be on the cards—at least not universally in these countries. Says Dr Fung, "in Singapore we have shied away from trying to match the OECD's professional to population ratios because we would not be able to sustain it economically." Instead, the city tries to use available resources most effectively, providing appropriate training to non-specialists in mental health—such as school counsellors—and having clinicians practice at the top of their licenses.

However, when looking beyond psychiatrists to allied professions, the situation worsens. Singapore has the most psychologists in this group (1.6 per 100,000), just over one-fortieth of Australia's figure and less than one-eleventh

of the European average. Social worker numbers tell a similar story. This has an impact not only on the extent of care but also its nature. The multi-disciplinary teams required for integrated care need, by definition, multiple disciplines.

As with psychiatry, the time it takes to change explains much of the problem for allied professions. In this case, a major issue in addition to training lag is updating all relevant policies across an entire health system. In Japan, the goal is recovery-based team treatment. Official government certifications for mental health nurses and psychologists do not yet exist, however, although the Japanese Nurses Association has created its own one for psychiatric nursing and a government one for psychologists is expected to appear in the next few years. Meanwhile, in Taiwan, Dr Chang explains, "psychologists can provide independent services but reimbursement under our universal health coverage is not very generous. That has influenced the ratio of psychologists to psychiatrists."

Entrenched system interests further slow system-wide change. Problems with deinstitutionalisation provide the clearest example. Japan has by far the highest number of psychiatric hospital beds in the world (266 per 100,000 in 2014). Although South Korea has far fewer (98 per 100,000), it saw the largest per capita increase in the OECD between 2004 and 2014, starting the period below the OECD average and ending about one and half times that number.⁴³

The Japanese numbers are somewhat inflated by inclusion of long term beds for dementia patients in institutions, which other countries might classify as nursing homes. Nevertheless, deinstitutionalisation has clearly not been occurring. The 2004 Reform Vision estimated that the only thing stopping 69,000 individuals then in long-stay psychiatric hospital beds from being discharged was a lack of facilities to care

Entrenched system interests further slow system-wide change. Problems with deinstitutionalisation provide the clearest example

for them in the community. A 2009 review found that this figure, rather than dropping, had risen to 76,000.⁴⁴ Despite a renewed policy push that year, OECD data show that bed numbers have not declined markedly since. Moreover, two-thirds of them are filled with patients who stay for over a year.⁴⁵ Meanwhile, while community-based services exist, they are not extensive.⁴⁶

South Korea's growth in beds has been accompanied by an unusual parallel rise in the number of community-based facilities, both medical and psycho-social. Nevertheless, the vast majority of care continues to be delivered in hospitals and only a handful of psychiatrists practice outside them.⁴⁷

Two intertwined problems are at play. The first is a misalignment of policy and financial interests. In both countries, hospitals are formally non-profit but often owned by the physicians who practice there. In South Korea 90% of psychiatric hospital beds are private and in Japan, 83%. 48 Most care is provided by psychiatrists who own their own clinics or work in private hospitals. As Dr Choi says of these practitioners in South Korea, "Their main concern is to keep patients longer, not to discharge them, because all their income comes from them. They favour the status quo and it is difficult to change."

Japan and South Korea are only the most prominent examples of this issue. Taiwan has fewer psychiatric beds per capita than either (91 per 100,000 in 2014 according to the country's Ministry of Health and Welfare) but is still above average for a developed country and most of its capacity is for chronic care. Its bed numbers have stayed roughly the same since 2007, when a policy of increasing them was reversed. Dr Chang notes that in Taiwan, economics—in particular health system funding—greatly favours hospitals over community care. The problem is not limited to Asia: Belgium's high number of psychiatric hospitals beds is often

blamed in part on the interests of those running these institutions.

Change, however, needs more than rearranged incentives and plans. Japan, since 2013, has required the country's prefectures to develop local plans for integrated, communitybased care. 49 Dr Tsutsumi believes the government "realizes the importance of de-institutionalization and has made great efforts to achieve it, but the situation has not drastically improved because the support and care systems for them in the community or family have not been sufficiently established." Dr Choi adds that the South Korean government does not wish to push too hard on this issue because, despite the increase in community facilities, "we don't have enough capacity to deal with patients rushed out from mental health hospitals."

Beyond questions of facilities are thorny cultural questions. Social hospitalisation, or the use of inpatient beds by elderly patients better cared for in nursing homes, is widespread in both countries. Moreover, adds Dr Tsutsumi, most Japanese believe that those living with mental illness should be treated in hospital. These two issues come together: in Japan, between 2002 and 2008, the proportion of long-stay psychiatric patients aged over 65 grew steadily from 38% to 47%⁵⁰ and is likely now over half. Getting them back into the community will require addressing the broader issue of social hospitalisation and attitudes toward appropriate care in both countries. "There are some tricky issues," says Dr Choi with understatement.

Sometimes, though, existing healthcare structures can be beneficial. Because of Singapore's small size, one institution—the Institute of Mental Health—provides about 80% of its mental health care. Its transformation from a traditional psychiatric hospital to one leading the creation of community services has helped drive broader change across the country.

In wrestling with all these impediments to community-based care, another major issue in these countries is to bring coherence to service provision. Hong Kong lacks a formal, overarching mental health policy. Even the department responsible for setting one is hard to discern. The Hospital Authority's implementation of its Mental Health Plan helps fill the void but, despite structures for consultation between the Hospital Authority, the Social Welfare department and various service-providing NGOs, coordination remains spotty. 51 Mr Yu believes that without "a mental health policy and a Mental Health Act [like other countries], service planning cannot cater to the needs of the public and is piecemeal."

Even with a long history of formal policy, poor coordination can plague service provision. In South Korea, despite nearly two continuous decades of mental health plans, hospital and community budgets remain fragmented—one reason for the rapid growth of facilities for both. ⁵² As to community care itself, explains Dr Choi, the country's roughly 500 centres were built by, and remain under the separate control of, various government ministries. They had "no communication or coordination" until the National Centre for Mental Health was established in early 2016.

Even strong legislative support for integrated service provision does not guarantee a speedy breakdown of the silos inherent in separate medical, social, employment, housing and other service provision, which those living with mental health need. In Taiwan in 2007, the Ministry of Health was legally required to co-ordinate with the Ministries of Social Affairs, Labour and Education to build up community care services. Institutional progress, however, was slow. The 2013 creation of a combined Ministry of Health and Welfare was supposed to ease interaction between healthcare agencies and social services across the board but, says Dr Chang, it "has not translated into

integrated services for patients with mental illness. Coordination between those providing healthcare and social support is still not ideal."

Finally, beyond perverse system incentives and policy incoherence, societal understanding of mental illness takes time to change in order to support community integration. Mental health literacy typically remains low and stigma an important problem, according to interviewees from these countries, although some sense the latter may be declining. A telling sign in many countries is the tendency of the media to sensationalise killings involving those living with mental illness. Dr Choi notes, "People are scared about psychiatric illnesses and patient symptoms." The results include both an unwillingness for people to seek treatment and societal rejection of steps needed for deinstitutionalisation.

Just as important, ongoing highly negative societal perceptions of those living with these conditions help explain why patient advocacy groups—one of the most important drivers of change in Australia and New Zealand—remain weak across these countries. Dr Fung explains that "in Singapore it is still difficult for someone to say 'I am better now. I can talk about it.'" Moving on to active campaigning and advocacy would be even harder. Dr Chang notes "We are still waiting to see the same trend as in Europe or America, where patients speak for themselves. It is not common in Taiwan."

Rather than patients demanding change, one aspect of the mental health burden in these countries will likely keep governments focussed on mental health. As noted earlier, suicide rates are particularly high in South Korea and Japan—and public policy active—but the issue resonates across other countries in this group. Taiwan has made substantial anti-suicide efforts—and rates have declined in recent years—while a recent spate of teen suicides has raised public attention in Hong Kong. Dr Takeshima believes

Societal understanding of mental illness takes time to change in order to support community integration

The protean challenge of stigma

Stigma against those living with mental illness "is a critical issue," says Professor Ng. "It is very deep and entrenched in many countries, even developed ones." Experts interviewed for this study regularly call it a leading barrier to better community integration.

Stigma's multi-faceted nature and forms, however, make it a complex issue. Specific mental illnesses engender different levels of stigma (schizophrenia, for example, almost always arouses more hostility than depression); the extent of stigma varies over time and by country; the actions to which stigma gives rise can range from chaining and abuse in certain countries to less visible, but still devastating, social exclusion in others. Even those hurt can vary. Everywhere it is the person with the disease, but across much of Asia, developed and developing, relatives' social positions and even marriage prospects can suffer. 53 On the other hand, the most frequent perpetrators of stigmainfluenced actions also tend to be family.

One constant, though, is stigma's pervasiveness. Even in Index-leading New Zealand, in 2010 70% of those living with mental illness reported at least one instance of moderate or substantial unfair treatment within the preceding year.⁵⁴

Despite such substantial variations, some broad generalisation is possible. Stigma involves negative beliefs and consequent actions. Turning to the latter first, certain stigma-induced behaviour, such as outright personal hostility, creates clear impediments to integration. Three less obvious but common challenges show the diverse ways it can powerfully undermine community-based care:

Self-stigma delays treatment: Dr Choi's comments on South Korea apply in any number of developed countries: those in need "do not visit any kind of service. They, and even family members, do not want a diagnosis in their medical records," because of the effect it can have on employment prospects or even buying insurance." In Vietnam, meanwhile, says Tam Nguyen—founder of the Research Centre for Mental Health and Community Development in Hanoi and Country Director of BasicNeeds,

Vietnam—those with symptoms do not seek care because they "think hospitals are for totally 'crazy' people."

Stigma within health systems weakens care quality: Dr Sikander notes that stigma also affects some "health care providers. They shy away from those with mental illness and get awkward about treating them." This, too, is a problem for countries of all incomes: one large Australian study even found health care workers to be more likely than the general public to have more negative attitudes toward those living with mental illness. 55

Stigma within society blocks deinstitutionalisation: People cannot even begin to integrate into the community if the community will not accept them. Dr Chang explains that in Taiwan, whenever the government seeks to build a community-based mental health facility, "the proposal is traditionally rejected by local residents." This leads to a vicious circle: in Japan, some academic studies indicate that stigma leads to a tendency to lock people away; others that the few people living with mental illness in the community contributes to unfamiliarity, allowing stigma to flourish. 56

Such behaviour reflects strong convictions. Across the region, the void created by widespread mental health illiteracy has been filled with a conviction that mental illness demonstrates a substantial moral taint or deficiency. Again, this takes different forms. Dr Sikander notes that, especially in rural Pakistan, "black magic and the evil eye have been part of our cultural narrative for centuries. Anything people don't understand, like mental illness, is labelled as something from some other, often spiritual, dimension." One academic survey found that, in developing Asia, "supernatural, religious and magical approaches to mental illness [are] prevailing."57 Such views are less common in developed countries but there is still frequently a moral dimension. A recent study found that half of Singaporeans believe that mental illness is "a sign of personal weakness" and nine in 10 that people so affected "could get better if they wanted to."58

In many Asian countries mental illness also represents a shameful social failing. Dr Minas explains that "In hierarchical countries, where social order is an important goal, people whose behaviour is different and untidy represent a really big problem. Those with acute or persistent psychotic systems tend to get swept up into social protection centres or institutions."

Being highly unpredictable in Asian societies is damning enough,⁵⁹ but the extreme form of these views is the widespread assumption that those living with mental illness are dangerous, as expressed in media sensationalism. Dr Choi considers typical a recent example where a South Korean schizophrenic patient's delusions led to a tragic murder. Despite the extreme rarity of such behaviour, the media called

loudly "to register all schizophrenic patients and control them." Mr Yu says that, although stigma has been abating slowly in Hong Kong, if the media were to latch onto a violent incident involving someone living with mental illness, "our efforts for reducing stigma will be ruined."

However, it's not all bad news as most experts interviewed for this study sensed some improvement in attitudes. Nevertheless, the fundamental problem remains that the association of moral weakness as well as social and physical danger mean that still, as Dr Ma puts it, "if you are labelled as a mental patient, some people may think you are different from a normal person and should have no rights." It may not be expressed as bluntly in all countries, but a tendency to treat the mentally ill as second class is deeply rooted.

that "mental health has the tendency to be a standalone issue, even in Western countries. Suicide prevention policies can be expected to change societal attitudes toward mental health and people with mental illness."

Upper middle income countries: Malaysia, China and Thailand

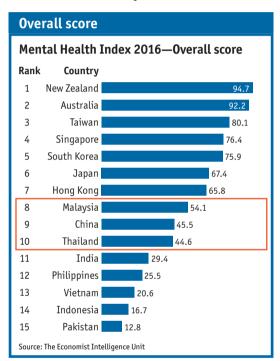
Although generally faring worse than wealthier Index countries, in several categories one or more upper middle income states do about as well as, once even better than, the lowest ranking high income Asian country. In Access to Treatment, however, where indicators reflect spending rather than purely policy choices, they come closer to lower middle income members of the Index. Key similarities in upper middle income countries that drive this outcome are a clearly demonstrated desire to improve inclusion of those living with mental illness in society combined with ongoing, substantial health system, practical and cultural barriers to success.

The three countries have demonstrated, in different ways and usually more recently than in high income Asian countries, greater policy commitment to mental health. There has also been some notable—if limited—improvement

in the nature and extent of services. The most prominent legislative change is China's landmark first Mental Health Law, passed after 27 years of discussion, which came into effect in 2013. It is based on lessons learned from the country's Programme 686. This began in 2005 as a small pilot to create team-based, recovery-focussed, integrated community medical care in China but its success has led to a much wider roll out [see case study].⁶⁰

Malaysia's history of formal mental health legislation is much longer but any momentum toward community-based care is also recent. The country's latest mental health law passed in 2001, but the government took until 2010 to publish the associated regulations. These were essential to making practical progress toward the legislation's aim of increased communitybased care. Sustained institutional funding to carry out this vision appeared only in 2014. Now, though, under the Mentari programme, 20 community facilities—at least one per province are providing multi-disciplinary, team-based assertive community treatment; employment services (including Individual Placement Support and Supported Employment); and patient and carer support groups.

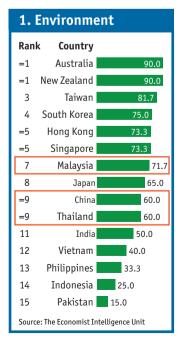
For many years, Thailand's mental health policy has favoured community-based care but progress there has also been slow. Nevertheless, the 2008 Mental Health Act put mental health costs under the country's universal health coverage scheme and required officials to monitor and measure implementation. More recently, in 2012, mental health care was devolved to the country's Area Health Boards

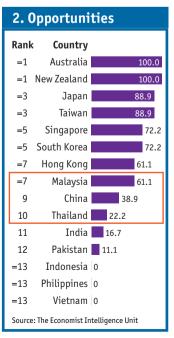


to be delivered in line with the Mental Health Service Plan. This calls for integrated services, on the medical side at least, with the goal of promoting self-management.⁶¹

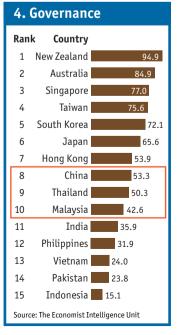
The recent closer engagement in these countries with the burden of mental illness will be essential as they still face major problems in this area. These begin with massive numbers not receiving care. Data quality is poor, but in China around 92% of those with mental disorders never receive care. The currently estimated number of such untreated individuals living with any mental illness is 158 million; Programme 686, although impressive, has so far reached only just over 3 million of the 13 million Chinese which the organisation estimates live with the most severe mental illnesses. National Malaysian estimates are unavailable, but a study in the country's third most-populous province puts the mental illness treatment gap at 90%. In Thailand, general figures are not available, but that for ADHD is 96%.62

Healthcare systems are not well placed to cope and money allocated for change is often insufficient. ⁶³ Qualified personnel are sorely lacking. In the Index Mental Health Workforce









Indicator, Thailand and Malaysia both do particularly poorly, coming in behind even Pakistan and the Philippines, two low income states. Thailand has fewer than half the number of psychiatrists recommended by the WHO for an upper middle income country, says Patanon Kwansanit, head of the International Mental Health Unit in Thailand's Department of Mental Health. In Malaysia, the figure is about a quarter. ⁶⁴ In both, an even greater paucity of psychologists and occupational therapists makes team-based care difficult.

In China, meanwhile, the formal number of psychiatrists has risen markedly in recent years and, at 1.7 per 100,000 in the Index data, is not bad for an upper middle income country. Quality, however, is a serious issue: 14% of registered Chinese psychiatrists have no training at all and a further 29% only a three-year post-secondary diploma. 65 Dr Ma notes that since 2009 there has been a standardised national trial of a clinical training regimen which students take three years to complete. In practice, though, she says "We simply don't have enough psychiatrists." This is part of a much wider, very serious lack of adequately trained mental health personnel across the board. 66

All of these countries are committed to increasing numbers but this takes time and resources. Dr Ma says of China's plan to double its number of psychiatrists to 40,000 by 2020, "I am deeply worried about how we can reach this target; we need realism, not wishful thinking."

Alternatives, however, are problematic. In theory Thai primary care workers have delivered community mental health for years, but they have little, if any, relevant training and stigma makes GPs reluctant to refer patients to mental health services. ⁶⁷ In China, meanwhile, where government policy in part involves more mental health care at the primary level, GPs and community care workers lack the necessary training in mental health says Dr Ma.

Even for those who do get treatment, in these countries the way it is delivered requires attention. Malaysia, with a much higher GDP, is noticeably ahead. Its policy of decentralising care for mental illness across the hospital system—dating back to the 1970s—means that, in addition to four specialist psychiatric facilities, 49 general hospitals in the country provide treatment. Care and medication are also free under Malaysia's universal healthcare system. "We are doing a lot for the seriously mentally ill," says Dr Nor Hayati Ali, a consultant psychiatrist with the Malaysian Ministry of Health. "It is not perfect, but it is something." The gap in the system is that the majority of psychiatric beds are still in the institutions and, while more general hospitals are now offering services, not all have dedicated psychiatric beds. To prevent shortages, efforts have been put into preventing relapses and detecting early psychoses, but "We need to do more community work and integrate better with primary care," Dr Ali explains.

As for social and other services, the situation is patchy. On the one hand, consistent with Malaysia's good performance in the Index's Opportunities category, there has recently been strong emphasis on employment services as an important part of care. On the other hand, notes Dr Ali, coordination of social and health care at the local level tends to depend on the quality of contacts between individuals in the providing organisations.

Thailand has also moved treatment—again free to users—out of purely psychiatric hospitals. Only 17 of the 122 mental health outpatient clinics are in such institutions and 25 general hospitals also provide inpatient care. The country also has an extensive telephone-counselling service. All this said, it would be incorrect to describe care as community-based. No community beds are available for those living with mental illness. Instead, hospital-based "rehabilitation villages" attempt to prepare

patients for the outside world. Similarly, occupational therapy is a strictly inpatient service. 68 At the same time, employment projects are not scaled up. Indeed, the country does poorly in the Index's Opportunities category, scoring only about a third as high as Malaysia. Finally, even among specialist mental health medical professionals, the medical model of the disease is far more prominent that the concept of recovery. 69

In China, meanwhile, mental health faces problems common to the rest of its rapidly evolving health system. Medical insurance is now widespread but limited benefits hinder access to treatment. Although formally the new Mental Health Act also mandates free care for certain elements of treatment, Dr Ma reports that unpublished research from her institution found that 93% of families where two individuals develop a mental illness fall into poverty.

Meanwhile, while regional and urban-rural disparity in care provision are marked in all of these countries, China's figures are particularly stark: two-thirds of rural counties have no mental health beds even after a major programme of building mental health facilities. To Rather than health system weaknesses, however, the biggest barrier for providing adequate care for those living with mental illness in upper middle income countries is the attitude of people themselves. Stigma, as elsewhere, is present in these countries. As Dr Ma notes, "we don't have good research to say how much of a problem it is, but it very clearly is a big one."

Stigma, though, is an almost straightforward problem next to several other cultural issues. Allopathic thinking around the causes and best treatment of mental health has pronounced Western cultural roots. The perspective of Traditional Chinese Medicine (TCM), or Buddhist- and animist-influenced

understanding of mental illness common in Thailand, differ in important ways. ⁷¹ Meanwhile Malaysia's three main cultures—Malay, Chinese, and Indian—all have their own beliefs in these areas, which diverge from each other and from those in the West. ⁷²

This cultural diversity presents challenges. One is a patient preference for traditional medicine to deal with mental illness. In China, scanty available data indicate individuals are more likely to use TCM treatments than Western ones for these conditions, even though the former lack scientific proof of effectiveness. 73 In Malaysia, use of traditional healers for these conditions, says Dr Ali, typically delays going to a Western doctor by 18 months.

Sticking to a Western, scientific approach, however, without respecting the patient's belief system, is ultimately self-defeating. Says Dr Ali, "if I brush off people's beliefs, they might not come to me at all." Dr Minas adds, "when people are struggling to put mental disorder into a cultural context, most would say that the availability of traditional approaches is helpful." Thailand's Department of Mental Health, for example, has worked with local monks on programmes to recognize and treat people with mental health conditions. It has also cooperated in programmes to integrate Buddhist concepts of mindfulness and meditation with Western treatments for certain conditions. Looking ahead, says Dr Kwansanit, the country is "trying to develop recovery model programmes based on cultural specificity, such as rehabilitation by religious leaders in the community."

One particular cultural issue with which community mental healthcare must grapple with in these countries is the role of family. The dominant international concept of mental health, as defined by the WHO, centres squarely on the individual. This can be inconsistent with beliefs in Eastern cultures, especially those where extensive economic development has not

The biggest barrier for providing adequate care for those living with mental illness in upper middle income countries is the attitude of people themselves

weakened social ties. In Malaysia, for example, relevant government policy defines mental health as "the capacity of the individual, the group, and the environment to interact with one another to promote subjective well-being and optimal functioning...towards the achievement of individual and collective goals..."

The most relevant group in the preceding quote is the family of the person living with mental illness. For example, any housing in these countries within the community for service users will almost inevitably be family provided. Relatives' refusal to accept patients upon discharge—a not infrequent occurrence—means permanent institutionalisation. This is not inevitable. Dr Ali says that frequently, "families are our greatest support," but adds that disagreements between older family members about whether intervention is needed can impede care. Even very well meaning attitudes, such as wanting to protect children, can prevent employment and the benefits it can bring, she adds. A wider focus than the individual will therefore be essential to successful care provision in these countries.

The biggest question for upper middle income Index countries is whether today's policy focus will remain. If changes in spending are an indication, the signs are positive. Although Thailand has seen the slowest change in recent years, in 2011 it already spent 4% of its health budget on mental health, not far off that of high income Asian states and up from 3.5% in 2004⁷⁵. Meanwhile, an ever-increasing gathering and analysis of relevant mental health metrics, says Dr Kwansanit, is helping maintain policy maker focus.

In China, signs for the future are positive but not universally so: Programme 686 has seen funding expand rapidly since 2014 and the country has built or expanded 550 mental health facilities in recent years. On the other hand, spending on mental health still accounts for less than 1% of all health spending and certain key initiatives—such as doubling the number of psychiatrists by 2020—have no budget. In Malaysia, in 2011 mental health spending was 0.4% of total health spending, although development of the Mentari initiative will likely involve an increase.

China's programme 686—finding the human resources for community care

China

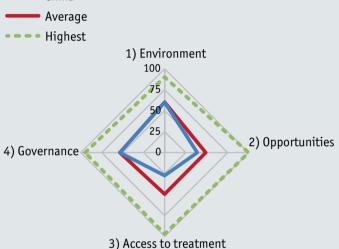
Exhortations to shift mental health service provision—indeed all healthcare—more towards primary care are legion. Examples of success, in middle and low income countries in particular, are rare. However compelling the case for coordination of treatment by a clinician or case manager close to the patient, initiatives too often boil down to tasking poorly trained, overstretched community workers, nurses and doctors with identifying a few common mental illnesses.

One initiative has, however, squared this circle on a very large scale: China's "National Continuing Management and Intervention Programme for Psychoses"—popularly known as Programme 686. Starting from 60 demonstration sites in 2005, by the end of 2014 it had been rolled out to 87% of administrative districts in China and will eventually cover the whole country says Dr Ma, whose Peking University Institute of Mental Health has led the programme from the start. During that time, she adds, it has enrolled 4.3m patients with serious mental illness, and at the end of 2014 was providing community-based management and services for 3.15m.

Various factors have contributed greatly to its success, such as: adequate funding—including for needs-based help in paying for treatment; support from the government and global experts; and the translation of international best practice in a culturally appropriate way. Dr Ma, though, says that the biggest lesson from the programme would apply to all developing countries including China: "if we want to create a [community] mental health service, we must train people and develop human resources."

Programme 686's initial goal was ambitious. Before its launch in 2005, community mental health care did not exist in China. Instead, all treatment occurred in several hundred

	Rank/15	Score/100
Overall score	9	45.5
1) Environment	=9	60.0
2) Opportunities	9	38.9
3) Access to treatment	10	27.4
4) Governance	8	53.3



dilapidated psychiatric institutions. The aim was to "break out of the hospital walls and extend care to the community" says Dr Ma. Patient-centred, recovery-based care would be managed by multi-disciplinary teams based in community clinics. These teams would include doctors and nurses but also social workers, case managers, local police and family and patient representatives. Each clinic would also receive specialist support from an existing nearby psychiatric hospital, to which it could refer, and from which it would have referred, patients as the need arose.

Putting this vision into practice required finding a huge new workforce. China did not have nearly enough specialists to run such a system and those with specialist psychiatric training had no experience with community-based care. Working with non-experts brought its own problems. Dr Ma explains that in China there are six tiers of medical care provision descending from the national to the community

level—at which the clinics in question operate—and then the village. As one gets more local, though, she says, "the amount of information received from training and education by people practicing there tends to go down, and the knowledge remaining at the lowest level may not be much. This is a challenge. We are now resorting to various methods to solve this problem including, for example, distributing to each person engaging in mental health in the community a pocket book with the core information they need."

The main way, though, in which the programme addressed this knowledge deficit has been to build up a wide range of stakeholders with the knowledge needed for community care to operate. By using a train-the-trainer strategy it aimed to multiply its reach quickly. These efforts of course included clinicians. Between 2005 and 2014, the programme trained mental health experts in community-based care, so that by the latter date is was working with 86% of all Chinese psychiatrists and 69% of the country's mental health nurses.

In numerical terms, however, this represented only a small minority (just under 50,000) of the total of 660,000 which the programme trained during this period. Many were other clinicians—primary care physicians, nurses and community health workers. These were taught not just the basics of community mental health, but case management, how to build and oversee

individual treatment plans, how to operate on multi-functional teams and how to build links with the community.

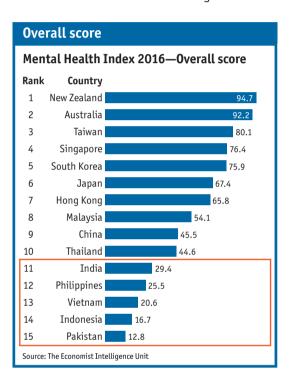
The greatest number of trainees, however, were non-professionals from the community outside the clinic. The majority were members of local village and community committees who contribute to the programme mainly by referring potential patients for diagnosis and by engaging in mental health advocacy. Also, roughly 5% of those trained between 2005 and 2014 were police, to help them in their crisis intervention involving people living with mental illness. These kinds of individuals all take part in wider clinic case management efforts and, especially in low resource areas, work with the primary care team.

The participation of so many stakeholders is one of the hallmarks of the programme. Dr Ma believes that one key lesson from it is that "the comprehensive community team should be expanded continuously," and that potential sources of committed talent should never be overlooked. For example, "family members can be trained into case managers," she notes, and they form an important part of the programme itself. Developing such talent takes time.

Nevertheless, Programme 686's approach to training has allowed it to bring into being a workforce capable of providing millions with effective community-based care.

Lower middle income countries: India, the Philippines, Indonesia, Vietnam and Pakistan

The Index's five lower middle income countries have seen some notable new national mental health laws and policies as well as innovative programmes. However, any brief overview of the current situation of those living with mental



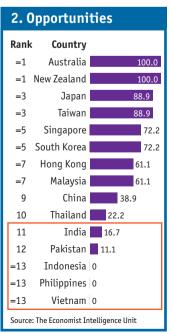
illness in these countries must invariably be bleak.

The overall and category scores show widespread problems. Indeed, these results may unintentionally be too rosy. At the top of this group of countries, India's high score for deinstitutionalisation—about 10% of all its points—comes from a high proportion of people living with mental illness in the community. This, though, reflects large numbers receiving no care at all: that which exists is largely hospital-based.

Several widely-shared weaknesses in these countries explain their Index results. The first is an unclear policy environment. The Philippines and Vietnam lack any mental health law, leaving efforts in this field unfocused and legal rights a minefield. As Mrs Nguyen notes, without a law "it is difficult, not only for those with mental illness, but for service providers to know how to act."

The meaning of existing legislation in other countries is also not always clear. The Indonesian government has yet to issue most of the necessary implementing regulations foreseen in its 2014 Mental Health Act.









Meanwhile, Pakistan's 2001 Mental Health Act was only a Presidential Decree and may even have technically expired. Moreover, constitutional devolution of healthcare in 2012 means that, in practice, Pakistan's provinces need to enact their own legislation—something only half have done.⁷⁸

Formal mental health policies are more common than laws in these countries, although often over a decade old. Moreover, their substantive meaning is unclear when budgets are tiny. "Funding is the elephant in the room," says Dr Sikander. Spending in these countries on mental health is typically at, or less than, just 1% of small total health budgets. Even in the Philippines, where the figure is 5%, inadequate financing has left facilities overcrowded and impeded reform. As of 2011, lack of money restricted plans to create 72 psychiatric units in general hospitals to the opening of only 10.79 Nor is even a new policy a guarantee of resources: within months of India adopting its new Mental Health Policy its total health budget was slashed by 20%.

Worse still, lack of institutional capacity means that even the restricted funding available, is not always spent. In India in 2012-2013, only 42% of the budget for the National Mental Health Programme was used. 80 Similarly, Nova Riyanti Yusuf—a former Indonesian MP who led the campaign for her country's new mental health legislation—notes that she successfully lobbied the government to nearly quintuple spending on mental health between 2010 and 2012 but "unfortunately, the Mental Health Directorate wasn't able to absorb the budget," and it was reduced accordingly.

Overall, notes Dr Minas, "the level of understanding of what it takes to implement [mental health legislation and policy] is still relatively undeveloped" in these countries. The involvement of sub-national levels of government, which can strengthen local

service coordination in wealthier countries, regularly exacerbates difficulties in these. India's landmark 2014 Mental Health Policy, for example, needs to be implemented by the country's individual states but, says Dr Maulik, "regional governments often don't have the facilities to execute it properly." Pakistan, Indonesia and the Philippines have similar issues with healthcare devolved to sub-national governments, which may not have any expertise in mental health.

Collectively, these weakness lead to inadequate mental health system resources. The Index data show that none of these countries has more than one psychiatrist per 100,000 of the population; for India, Indonesia and Pakistan the figure is 0.3 or lower. Psychologists are even rarer and the number of occupational therapists tiny. Moreover, these clinicians and their institutions, are concentrated in urban areas even though in all these countries, except Indonesia, the majority of the population is rural.

Investment in training alone will not solve the problem as pay and conditions encourage emigration. The total number of Indian psychiatric specialists who work in Australia, New Zealand, the UK, and the US is more than twice the number working in India itself. For Pakistan, the multiple is over three; for the Philippines nearly five. 81 Where universal healthcare is not in effect, high costs combine with low supply to limit access further. Dr Cynthia Leynes, past president of the Philippine Psychiatric Association, notes of her country, "most people cannot afford hospital care but in the community there are very few mental health workers." In Pakistan, meanwhile, for many patients being treated for depression, the total costs-including medical fees, drugs, and travel—can top 60% of income.82 Even where subsidies exist for treatment of a limited number of mental illnesses, such as until recently in Vietnam, out-of-pocket costs are a major issue for those with uncovered conditions.83

Lack of institutional capacity means that even the restricted funding available, is not always spent Access issues partially explain massive unmet care need. In India and Indonesia, the best estimates are that only 10% of those with a diagnosable mental illness receive evidence-based care. 84 In the other countries, analysts typically point to international figures given the paucity of data, but all agree with Dr Sikander that "the treatment gap is very wide."

For those who do receive care, its quality tends to vary between the inadequate and the shocking. Treatment remains predominantly based in large psychiatric institutions, which can absorb a huge share of all mental health spending—in the Philippines, up to 95%. 85 This institutional focus is not only contrary to best practice, notes Dr Patel, it wastes already constrained resources. Part of what needs to happen, he says, "is shifting from the almost medieval ways of treating mental illness still in practice in many parts of Asia and reallocating resources to community care."

The institutions themselves are often overcrowded and sometimes home to substantial human rights violations. In Indonesia, a Human Rights Watch investigation found issues in state psychiatric hospitals and government-licensed social care centres including: involuntary admissions; forced medication, including involuntary electroshock therapy without anaesthesia; and even cases of long-term shackling, a practice officially banned in the country since the 1970s.86 Meanwhile India's National Human Rights Commission, after issuing repeated reports on the country's mental health facilities since the 1990s, categorises only about six of the country's 43 psychiatric hospitals as liveable. Human Rights Watch goes further, having found in women's facilities many of the same problems it did in Indonesia.87 Although such extensive accusations do not occur in the Philippines, Dr June Pagaduan-Lopez, convenor of Citizen's Network for Psychosocial Response—a group of mental health professionals—complained to

the press of "abuse and ill treatment in healthcare settings, whether in hospitals, hospices or prison clinics."88

Outside of hospitals, care is typically restricted or non-existent. 9 Dr Minas notes that in these countries "many health professionals in the primary system have very limited knowledge of and skills in responding to mental illness." Meanwhile, research for the Index found only restricted home care availability in these countries and that, barring small, scattered initiatives, community-based assertive outreach teams did not exist. Dr Maulik says of India, "we don't have outreach programmes at a national or regional level, or home-based care programmes. Community-based care is definitely lacking."

The only country with substantial community-based facilities is Vietnam, under its National Mental Health Programme. In practice, however, Mrs Nguyen explains that this service largely consists of rewriting and refilling prescriptions originally approved in hospital, with little or no effort made to adjust dosages in light of changing patient circumstances. "As a result," she adds, "a lot of people drop their medication." In general, in lower middle income countries, says Dr Minas, "the number of people with mental health expertise working at the community level is very low. Most expertise is in institutional settings."

For those not able to access these limited care options, though, the results are stark. The Indonesian government estimates that 18,800 people living with mental illness are currently kept in shackles for extended periods—most by families when no care is available. Although Indonesia has the best data on the issue, in part because of stepped-up government efforts to address the problem, reports of shackling occur in several Index lower middle income countries.

Given these conditions, wider questions relevant to integration of those living with

mental illness become largely meaningless. As one academic put it, "The phenomenon of shackling people with mental illness in Indonesia indicates that the recovery of patients is not optimal." Indeed, the very concept of recovery still has a long way to go in these countries. Mrs Nguyen notes of Vietnam "a lot of people talk about the recovery model but I don't think any real implementation of such services has taken place." Similarly, notes Dr Sikander, in Pakistan "we are still struggling to move away from looking at all mental health issues as purely medicalised and have not been able to move toward the biopsychosocial model."

Non-medical services for those living with mental illness, meanwhile, rarely exist: three of these countries got no points at all in the Index's Opportunities category, which measures employment services. Instead of social responsibility among employers, says Dr Leynes, "once you are diagnosed with a mental illness, there is pressure to kick you out of the company." This combination of a pressing health need and a weak response arises from a mutually-supportive mix of stigma and low mental health literacy. Widespread misunderstanding of the causes of mental illness, fatalism about its prognosis and inadequate care that seems to justify such fears, combine with a high social cost of being associated with the disease. The result is delayed use of evidence-based care. Instead, individuals and families, in most of these countries, more often seek treatment from traditional healers than Western medicine.

Although, as noted earlier, there is potential utility to working with purveyors of traditional medicine, it can have a dark side, including sometimes a complete lack of evidence-based treatment, rampant human rights abuse such as shackling, and treatments that are in varying degrees dangerous, painful and ineffective. 92 Finally, families may simply wish to be rid of the problem. Weak human rights protections mean

that involuntary admission at the direction of family members is a common issue in many of these countries.

The current situation is a long, dark tunnel, but many experts see light at the end of it. Signs of activity are clear: Indonesia passed its first Mental Health Act in 2012; India put in place its first Mental Health Policy in 2014; Pakistan has a separate section in its 2014-2024 national health plan on mental illness and is making efforts to integrate mental health into primary care; Vietnam, says Dr Minas, is about to adopt a new Mental Health Strategy.

Such momentum has receded in the past. Indonesia passed a pioneering mental health law in 1966 along with adopting a policy based on prevention, rehabilitation and treatment. In the following two decades it supported this work with a major mental health facility building programme. These efforts, though, petered out in the 1990s. 93 Nor are governments always consistent. Vietnam's proposed National Mental Health Strategy aside, last year it cut funding sharply for its National Mental Health Programme, which provides outpatients with medication. Although health insurance coverage is expanding in the country, Mrs Nguyen expects that "it will take years for some of the services [previously paid for by the programme] to be covered."

Nevertheless, some optimism seems justified. Interviewees collectively point out that increasingly policy makers are showing real commitment to change. Dr Minas, for example, has seen a greatly enhanced understanding among Vietnam's top officials of the need to coordinate health and social care provision. In Pakistan, meanwhile, says Dr Sikander, rather than a reluctant bureaucrat, "the Director-General of Health is a great ally and enabler for mental health policies."

Moreover, although patient advocacy movements are still weak or non-existent, Ms

The current situation is a long, dark tunnel, but many experts see light at the end of it Yusuf says the Indonesian Mental Health Act's most important result so far "is stimulating a bigger movement from the community and energizing the fighters for mental health here to keep going." Indeed, she believes dwelling on the known deficiencies in mental health provision misses a more important point—a new

unwillingness to look away from human rights abuses and a deep commitment to change. "We have a long way to go. But we're already heading out of the dark tunnel. We cannot accept being told otherwise, especially by those who don't understand where we've been."

The rural-urban divide

Except for entirely urban Hong Kong and Singapore, mental health services in every Index country are poorer in the countryside than the city. Dr Minas calls it "an issue of how equitably available resources are distributed. Most clinicians work in large urban centres and there are just not enough people to go around. The differences between countries are ones of magnitude rather than qualitative."

Those differences in magnitude can matter greatly. In many developing countries, rural mental health services are largely nonexistent. In China, for example, two-thirds of rural districts have no psychiatric hospital beds. 94 In Indonesia, the vast majority of the few available psychiatrists work in the three largest cities, 95 while of Malaysia's roughly 250 psychiatrists, says Dr Tsutsumi, "about 200 are in the Kuala Lumpur area." The Philippines also has its psychiatric care infrastructure highly concentrated in the capital. Dr Leynes explains that "there are very few specialists outside cities. For those living with mental illness [in these areas], care is usually difficult to access," and made harder by the need to travel into the city. Indeed, notes Dr Maulik, for India "even the cost of travelling seen by a doctor at a primary/ secondary care facility and get the needed medicine, not just the medicine itself," can be a major cost burden for patients.

In wealthier countries the situation is better but far from optimal. Says Professor Ng, "Even in Australia, one of the best-resourced health systems in the region, there are still major gaps in rural mental health provision." The number of psychiatrists per capita outside cities is 33% of that in major urban areas and for psychologists it is 54%. The difference is even more pronounced when it comes to spending. Per capita mental health outlay by the country's

universal Medicare programme in the most remote areas is just 11% of that in major cities, even though the prevalence of mental illness is the same. 96

Self-harm data point to the impact of these differences. Suicide rates are higher in rural areas in Australia, China, India, Japan, Malaysia, New Zealand, South Korea and Taiwan. ⁹⁷ Good data is not available for other Index countries with rural areas.

Easy solutions do not exist. The inevitably sparse data indicate that in Index countries mental health literacy is lower in rural areas, 98 but education alone is unlikely to help. Dr Maulik's experience on the project he is leading sums up the broader problem: "when we increased mental health awareness, people in villages went to the primary care centres but these did not have the medicines they needed." Indeed, the willingness of rural residents to use traditional healers—or the tendency of Australians in remote areas relative to those in cities to trust psychiatrists less and alcohol more in battling depression⁹⁹ may be shaped more by access issues than underlying beliefs. An Indian study found that, among rural residents who had used traditional and western care providers, the latter were very much preferred because their therapies worked. 100 Similarly, in rural China, one study found that 80% or rural residents would seek professional medical help in the event of mental illness but only 12% knew of a hospital or clinic where they could go.101

One obvious way to bolster access is better mental health training of primary care providers. This would certainly help, but again will not be enough. A recent suicide prevention programme for rural clinicians in New Zealand, for example, while improving their ability to

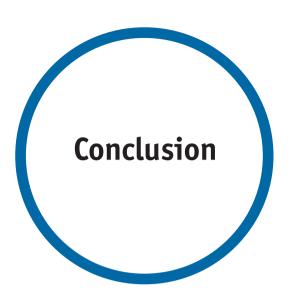
such resources. 102

recognise danger signs made clear the need for training in how to manage such patients and clear referral pathways to specialists. Accordingly, the government is now funding a programme of Rural Mental Wellness Initiatives, but not every government in the Index will have

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Technology may also play a role in reducing the barrier of distance to care access. Dr Minas notes that "a lot of work is taking place on mHealth [mobile phone based] approaches to providing mental health services." The field even has a trendy acronym—mH2. Nevertheless, as with much in the field of mHealth, cost-effectiveness—or even effectiveness—has yet to be demonstrated.

Ultimately, the rural-urban divide in mental health reflects the wider one in health care and addressing it will need to rely on strengthening rural health systems in general, and making sure that mental health is integrated into that shift.



The keys to transformation

Index countries are at markedly different stages in transforming from institutionalisation to providing the care, services and environment necessary for integrating people living with mental illness into the community. None are entirely there, if that is even fully possible. Nevertheless, many of those who have seen less change have in recent years shown substantial signs of increased commitment to this aim which they now all share. The problem is, as Dr Patel puts it, "the significant gap between policy interest and a lack of system capacity to deliver care."

The vast differences between Index countries make detailed recommendations inappropriate. A few general observations, though, are possible:

Vision must have a concrete form: A lack of a mental health law in Vietnam and the Philippines, and of an overarching mental health policy in Hong Kong, weaken efforts to build integrated community care. On the other hand, China's high Index score—only 8.6 points behind Malaysia—despite its relatively recent focus on mental health issues, comes because in Professor Patel's words, it "is leading the way on mental health policy implementation in the region."

Only long term, consistent efforts can overcome entrenched barriers: New Zealand and Australia are further along in this transformation than others because they have worked through many of the necessary practical and systemic challenges. Building up institutions and work forces takes time. Similarly, Dr Chang believes that Taiwan's finish ahead of other high income Asian countries has much to do with "having a Mental Health Act—from 1990—and universal health coverage that includes mental health care—from 1995—in place over the last 20 or more years." Momentum, however, can dissipate, as Indonesia saw decades ago.

Money matters but it's more important how it is used and how funds are applied: Less developed countries have to dedicate more to building mental health system technical capacity, otherwise limited budgets do not even get spent. More generally, funding needs to follow policy goals, with less going to hospitals and more to care in the community. Even most high income Asian countries need to make this shift.

Make use of, but more importantly develop, all available resources: NGOs are not a second-best for impoverished social systems: they are a key to New Zealand's Index-leading performance. Similarly, China's Programme 686 has trained

Building up institutions and work forces takes time

more non-professionals than clinicians, and far more clinic workers than psychiatric specialists. Both cases, though, show that it takes strategy, funding and effort to develop and integrate a range of system resources.

Understand the nature of the challenge: The extent of Asia-Pacific's mental health burden only became clear when new metrics made it so. Too little is known on basic questions of prevalence and what works best. Every health system should consider how to apply limited funds to fill the most pressing data gaps.

Integration ultimately depends on cultural acceptance: Those living with mental illness will never find a place in communities which reject them as dangerous outsiders. More than grudging, watchful acceptance is necessary. In particular, those affected must participate in shaping everything from individual treatment to overarching mental health policy. Moreover, culturally appropriate anti-stigma efforts

need to occur in tandem with the creation of community-based infrastructure.

Getting to this stage inevitably requires cultural transformation. In Europe, appeals to human rights were a powerful force, along with the greater efficacy and cost-effectiveness of community care, in driving this still incomplete change. These considerations have purchase in Asian countries. Nevertheless, marked ambiguity about—in some places hostility to—human rights campaigns and patient advocacy, along with distinct Asian cultural norms surrounding the roles of community, family, and individuals and around conformity's contribution to social order, can impede the acceptance of those living with mental illness.

All cultures evolve: just decades ago those with mental illness were shunned in New Zealand; today, they have a place, however imperfect.

Now, Asian countries must find their own ways to welcome those living with mental illness into the community.

Integration ultimately depends on cultural acceptance



OVERALL SCORE		ENVIRONMENT		OPPORTUNITIES		ACCESS TO TREATM	IENT	GOVERNANCE	
Rank Country	Score	Rank Country	Score	Rank Country	Score	Rank Country	Score	Rank Country	Score
1 New Zealand	94.7	=1 Australia	90.0	=1 Australia	100.0	1 Australia	96.9	1 New Zealand	94.9
2 Australia	92.2	=1 New Zealand	90.0	=1 New Zealand	100.0	2 New Zealand	95.8	2 Australia	84.9
3 Taiwan	80.1	3 Taiwan	81.7	=3 Japan	88.9	3 South Korea	82.7	3 Singapore	77.0
4 Singapore	76.4	4 South Korea	75.0	=3 Taiwan	88.9	4 Singapore	81.5	4 Taiwan	75.6
5 South Korea	75.9	=5 Hong Kong	73.3	=5 Singapore	72.2	5 Taiwan	77.8	5 South Korea	72.1
6 Japan	67.4	=5 Singapore	73.3	=5 South Korea	72.2	6 Hong Kong	72.9	6 Japan	65.6
7 Hong Kong	65.8	7 Malaysia	71.7	=7 Hong Kong	61.1	7 Japan	58.6	7 Hong Kong	53.9
8 Malaysia	54.1	8 Japan	65.0	=7 Malaysia	61.1	8 Malaysia	43.6	8 China	53.3
9 China	45.5	=9 China	60.0	9 China	38.9	9 Thailand	37.0	9 Thailand	50.3
10 Thailand	44.6	=9 Thailand	60.0	10 Thailand	22.2	10 China	27.4	10 Malaysia	42.6
11 India	29.4	11 India	50.0	11 India	16.7	11 Philippines	26.9	11 India	35.9
12 Philippines	25.5	12 Vietnam	40.0	12 Pakistan	11.1	12 Indonesia	20.2	12 Philippines	31.9
13 Vietnam	20.6	13 Philippines	33.3	=13 Indonesia	0.0	13 Vietnam	10.3	13 Vietnam	24.0
14 Indonesia	16.7	14 Indonesia	25.0	=13 Philippines	0.0	14 India	10.0	14 Pakistan	23.8
15 Pakistan	12.8	15 Pakistan	15.0	=13 Vietnam	0.0	15 Pakistan	0.5	15 Indonesia	15.1



The Asia-Pacific Mental Health Integration Index measures the degree of support within 15 Asia-Pacific countries for integrating people with mental illness into society. It copies the framework developed for the European Mental Health Index 2014, cross-checked with experts for relevance, and found to be appropriate for the Asian context. The aim is to contribute to the debate on integration by showing the strengths and weaknesses of individual countries, and therefore where policy improvements may be needed.

The Index scores countries across four categories—Environment, Opportunities, Access to Treatment and Governance. The indicators fall into two broad categories:

- Quantitative: one of the Index's 18 indicators—"Mental health workforce"—is based on quantitative data. It is built from four subindicators covering the number of psychiatrists, nurses, psychologists and social workers.
- Qualitative: 17 indicators are based on qualitative assessment of different elements of a country's mental health service delivery or policy, typically presented on an integer scale of 0-2 or 0-3 (where high score=best).

Data sources

The Economist Intelligence Unit's research team collected Index data from March to May 2016. Wherever possible, publicly available data from official sources are used for the latest available year. The qualitative indicator scores were informed by publicly available information (such as government policies and reviews) and country expert interviews. Qualitative indicators were scored by The Economist Intelligence Unit.

To make data comparable, we normalised them on the basis of:

Normalised x = (x - Min(x)) / (Max(x) - Min(x))

where Min(x) and Max(x) are, respectively, the lowest and highest values in the 15 countries for any given indicator. The normalised value is then transformed into a positive number on a scale of 0-100. This was similarly done for quantitative indicators where a high value indicates a better environment for integration.

Normalised data were then aggregated across categories to enable an overall comparison.

Categories and weights

The indicators fall into four categories:

- Environment: This considers the presence or absence of policies and conditions enabling people with mental illness to enjoy a stable home and family life. It includes indicators such as availability of secure housing and of financial support.
- Access: This considers the presence or absence of policies and conditions enabling access by people with mental illness to healthcare and social services. It includes indicators such as outreach programmes to ensure awareness of such services.
- **Opportunities:** This considers the presence or absence of policy measures that help people with mental illness to find work, stay in work and work free of discrimination.

• **Governance:** This considers the presence or absence of policy measures to combat stigma against people with mental illness and to protect their human rights. It includes such indicators as awareness campaigns and policies encouraging people with mental illness to influence decisions.

Because each category has a different number of indicators but each indicator has the same weight in the index (namely 5.55%, or one-eighteenth of 100%), the various categories have different weights within a country's overall score, as follows:

- Environment (5 indicators) 28%
- Access (5 indicators) 28%
- Opportunities (3 indicators) 17%
- Governance (5 indicators) 28%

The following table provides a brief description of indicators:

Environment (5 indicators)	
Benefits and financial control	Presence or absence of social welfare benefits, and control over personal finances, by those with mental illness.
Deinstitutionalisation	Presence or absence of a deinstitutionalisation policy, and degree of financial support for community-based, deinstitutionalised care.
Home care	Whether the number of people with mental illness who receive long-term support in the community is greater or smaller than the number in long-stay hospitals or institutions.
Parental rights and custody	Presence or absence of policies which protect the child-custody rights of parents with mental illness insofar as possible
Family and carer support	Presence or absence of funded schemes to assist carers, guarantees of legal rights of carers, and/or the presence or absence of family support organisations
Access (5 indicators)	
Assertive outreach	Presence or absence of community-based outreach services and other specialist community mental health services
Mental health workforce	A composite score reflecting the number of psychiatrists, psychologists, mental health nurses and social workers per 100,000 population
Advocacy within the healthcare system	Whether the country provides funding for advocacy schemes for mental health service users
Access to therapy and medication	A composite score reflecting the degree of access of people with mental illness to various therapies, mood stabilisers and/or antipsychotic medication
Support in prison	Prevalence of mental health support measures for incarcerated people who have a mental illness, including post-release

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Opportunities (3 indicators)	
Back-to-work schemes	Presence or absence of back-to-work schemes for people with mental illness; legal duty for employers to make reasonable adjustments to accommodate such employees; funding for practical support when returning to work; availability of "fitness for work" statements from physicians, for example.
Work-placement schemes	Presence or absence of mechanisms to help people with mental illness find work; funded schemes to provide individual work placements; training and vocational support programmes; and funding for individual "job coaches".
Work-related stress	Whether countries have occupational health policies and safety regulations that include preventing work-related stress
Governance (5 indicators)	
Involuntary treatment	Presence or absence of appropriate criteria which must be fulfilled in order to confine or treat a person with mental illness against his/her will
Human rights protection	Whether a country has signed/ratified human rights treaties, and whether it has review bodies to assess human rights protection of users of mental health services
Cross-cutting policies	Presence or absence of formal collaboration among government agencies (education, employment, housing) to address the needs of people with mental illness
Changing attitudes	$Prevalence\ of\ mental\ health\ promotion\ programmes\ in\ the\ workplace\ and\ in\ schools$
Assessment from patient perspective	Degree to which patients' opinions and feedback are taken into consideration in measuring the quality of mental healthcare

Footnotes:

- ¹ Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam.
- ² In this study a "person living with mental illness" describes someone with a mental or behavioural disorder—but not a neurological condition—as described by the WHO's International Classification of Diseases ICD-10 classification. This includes depression, anxiety and schizophrenia. It excludes mild depressive symptoms, which do not meet the criteria for depressive episodes.
- ³ Siow Ann Chong et al., "A Population-based Survey of Mental Disorders in Singapore," *Annals, Academy of Medicine, Singapore*, 2012; "Doctors say Vietnam has more mentally ill patients than reported," *Thanh Nien News*, 14 September 2013; "Mental health: Neglected in Thailand," *Bangkok Post*, 25 September 2012; Australian Bureau of Statistics, *National Survey of Mental Health and Wellbeing: Summary of Results*, 2007; Ronald Kessler et al., "The global burden of mental disorders: An update from the WHO World Mental Health (WMH) Surveys," *Epidemiologia e psichiatria sociale*, 2009.
- ⁴ David Bloom et al., "The Economic Impact of Non-communicable Disease in China and India: Estimates, Projections, and Comparisons," Harvard Program on the Global Demography of Aging Working Paper 107, 2013; The Royal Australian and New Zealand College of Psychiatrists, *The economic cost of serious mental illness and comorbidities in Australia and New Zealand*, 2016; OECD, Making Mental Health Count: The Social and Economic Costs of Neglecting Mental Health Care, 2014.
- ⁵ Sungwon Roh et al., "Mental health services and R&D in South Korea," International Journal of Mental Health Systems, 2016.
- ⁶ "South Korea: Suicides cost society US\$5.9 bln each year," Asia Insurance Review, 13 February 2015.
- ⁷ Marc de Hert et al., "Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care," *World Psychiatry*, 2011; V A Morgan et al., "Psychosis prevalence and physical, metabolic and cognitive co-morbidity; data from the second Australian national survey of psychosis," *Psychological Medicine*, 2014.
- ⁸ David Lawrence et al., "The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population-based registers," BMJ, 2013.
- ⁹ The Royal Australian and New Zealand College of Psychiatrists, *The economic cost of serious mental illness and comorbidities in Australia and New Zealand*, 2016
- ¹⁰ Alexander Samy et al., "Mental Health in the Asia-Pacific Region: An Overview," Journal of Behavioural Science, 2015.
- ¹¹ Fiona Charlson et al., "The burden of mental, neurological, and substance use disorders in China and India: a systematic analysis of community representative epidemiological studies," *Lancet*, 2016.
- ¹² Michael Phillips et al, "Prevalence, associated disability and treatment of mental disorders in four provinces in China, 2001–2005: an epidemiological survey, *Lancet*, 2009; Charlson et al., "Burden in China and India."
- ¹³ Siow Ann Chong et al., "Treatment gap in common mental disorders: the Singapore perspective," *Epidemiology and Psychiatric Sciences*, 2012.
- ¹⁴ Vikram Patel et al., "Reducing the treatment gap for mental disorders: a WPA survey," *World Psychiatry*, 2010; Antonio Lora et al., "Service availability and utilization and treatment gap for schizophrenic disorders: a survey in 50 low- and middle-income countries," *Bulletin of the World Health Organisation*, 2012.
- ¹⁵ William Anthony, "Recovery from Mental Illness: The Guiding Vision of the Mental Health Service System in the 1990s," *Psychosocial Rehabilitation Journal*, 1993
- ¹⁶ Darrel P Doessel et al., "Australia's National Mental Health Strategy and deinstitutionalization: some empirical results," *Australian and New Zealand Journal of Psychiatry*, 2005.
- ¹⁷ See also, Hiroto Ito et al., "Lessons learned in developing community mental health care in East and South East Asia," World Psychology, 2012.
- ¹⁸ Amanda Baxter et al., "Global Epidemiology of Mental Disorders: What Are We Missing?" *PLOS ONE*, 2013.
- ¹⁹ Amanda Baxter et al., "Global Epidemiology of Mental Disorders: What Are We Missing?" PLOS ONE, 2013.
- ²⁰ See, for example, Subhashini Gopal and Anthony R. Henderson, "Trans-Cultural Study of Recovery from Severe Enduring Mental Illness in Chennai, India and Perth, Western Australia," *Journal of Psychosocial Rehabilitation and Mental Health*, 2015.
- ²¹ Samson Tse et al., "Can Recovery-Oriented Mental Health Services be Created in Hong Kong? Struggles and Strategies," *Administration and Policy in Mental Health*, 2013.

- ²² New Zealand Ministry of Health, *Rising to the Challenge: The Mental Health and Addiction Service Development Plan 2012–2017*, 2012; Department of Health and Ageing, *National Mental Health Report 2013: tracking progress of mental health reform in Australia 1993–2011*, 2013; "New Zealand," *WHO Mental Health Atlas*, 2011.
- ²³ Graham Thornicroft et al., "Impact of the 'Like Minds, Like Mine' anti-stigma and discrimination campaign in New Zealand on anticipated and experienced discrimination," Australia and New Zealand Journal of Psychiatry, 2014.
- ²⁴ Mary O'Hagan, "Recovery in New Zealand: Lessons for Australia?," Australian eJournal for the Advancement of Mental Health, 2004.
- ²⁵ See: Libby Gawith and Peter Abrams, "Long journey to recovery for Kiwi consumers: Recent developments in mental health policy and practice in New Zealand," *Australian Psychologist*, 2006.
- ²⁶ Department of Health and Ageing, *National Mental Health Report 2013: tracking progress of mental health reform in Australia* 1993—2011. 2013.
- ²⁷ "New Zealand Health System Review," *Health Systems in Transition*, 2014; New Zealand Ministry of Health, *Rising to the Challenge: The Mental Health and Addiction Service Development Plan 2012–2017*, 2012
- ²⁸ Harvey Whiteford et al., "Estimating treatment rates for mental disorders in Australia," *Australian Health Review*, 2013; Meredith Harris et al., "Frequency and quality of mental health treatment for affective and anxiety disorders among Australian adults," *Medical Journal of Australia*, 2015.
- ²⁹ Department of Health and Ageing, *National Mental Health Report 2013: tracking progress of mental health reform in Australia* 1993–2011, 2013.
- ³⁰ Pat Dudgeon et al., "Effective strategies to strengthen the mental health and wellbeing of Aboriginal and Torres Strait Islander people," *Closing the Gap Clearinghouse*, Issue paper 12, 2014.
- ³¹ Government of Western Australia Mental Health Commission, *Mental Health 2020: Making it personal and everybody's business*, 2010.
- ³² Australian National Mental Health Commission, Report of the National Review of Mental Health Programmes and Services, 2014.
- ³³ Anthony O'Brien, "Community treatment orders in New Zealand: regional variability and international comparisons," *Australasian Psychiatry*, 2014; UN Working Group on Arbitrary Detention, "Statement at the conclusion of its visit to New Zealand (24 March—7 April 2014)."
- ³⁴ Sarah Gordon and Anthony O'Brien, "New Zealand's mental health legislation needs reform to avoid discrimination," *The New Zealand Medical Journal*, 2014.
- ³⁵ Allan Wyllie and James Lauder, "Impacts of National Media Campaign to Counter Stigma and Discrimination Associated with Mental Illness Survey 12," Research Report for Ministry of Health, 2012.
- ³⁶ Allan Wyllie and James Lauder, "Impacts of National Media Campaign to Counter Stigma and Discrimination Associated with Mental Illness Survey 12," Research Report for Ministry of Health, 2012.
- ³⁷ Calum Thornicroft et al., "Impact of the 'Like Minds, Like Mine' anti-stigma and discrimination campaign in New Zealand on anticipated and experienced discrimination," Australian & New Zealand Journal of Psychiatry, 2014.
- 38 Sungwon Roh et al., "Mental health services and R&D in South Korea," International Journal of Mental Health Systems, 2016.
- ³⁹ William Chui et al., "Community psychiatric service in Hong Kong: Moving towards recovery-oriented personalized care," *Asia-Pacific Psychiatry*, 2012.
- ⁴⁰ Sungwon Roh et al., "Mental health services and R&D in South Korea," International Journal of Mental Health Systems, 2016.
- ⁴¹ "Breaking point: Hong Kong's overburdened mental health care system in need of a fix," South China Morning Post, 13 February 2016.
- ⁴² Alan Tasman, "Too Few Psychiatrists for Too Many," *Psychiatric Times*, 16 April 2015; Ruth Taplin and Sandra Lawman, eds., *Mental Health Care in Japan*, 2012.
- ⁴³ OECD. Stat database, accessed 8 August 2016.
- 44 Ryozo Matsuda, "Review of Mental Health Care Reform," Health Policy Monitor, 2009
- ⁴⁵ Hiroto Ito et al., "The Regional Health Care Strategic Plan: The Growing Impact of Mental Disorders in Japan," *Psychiatric Services*, 2013.

- ⁴⁶ Koji Yoshida and Junichiro Ito, "Recovery-Oriented Community-Based Mental Health Service in Japan," *International Journal of Mental Health*, 2012.
- ⁴⁷ Sungwon Roh et al., "Mental health services and R&D in South Korea," International Journal of Mental Health Systems, 2016.
- ⁴⁸ Hiroto Ito, "Mental Health Policy and Services: Where we stand," Chapter 2 of Ruth Taplin and Sandra Lawman, eds., *Mental Health Care in Japan*, 2012; Sungwon Roh et al., "Mental health services and R&D in South Korea," *International Journal of Mental Health Systems*, 2016.
- ⁴⁹ OECD, "Japan," *OECD Reviews of Health Care Quality*, 2014; Hiroto Ito et al., "The Regional Health Care Strategic Plan: The Growing Impact of Mental Disorders in Japan," *Psychiatric Services*, 2013.
- ⁵⁰ Hiroto Ito, "Mental Health Policy and Services: Where we stand," Chapter 2 of Ruth Taplin and Sandra Lawman, eds., *Mental Health Care in Japan*, 2012.
- ⁵¹ Anita Chi-Kwan Lee and Gigi Lam," Hong Kong's Mental Health Policy—Preliminary Findings," *International Journal of Social Science and Humanity*, 2015; Samson Tse et al., "Mental health services in Hong Kong" in *Routledge Handbook of Psychiatry in Asia*, 2015.
- ⁵² Myung-Soo Lee et al., "Service Priority and Standard Performance of Community Mental Health Centers in South Korea: A Delphi Approach," *Psychiatry Investigation*, 2009.
- ⁵³ Christoph Lauber and Wulf Rössler, "Stigma towards people with mental illness in developing countries in Asia," *International Review of Psychiatry*, 2007; Kathleen Griffiths et al., "Stigma in response to mental disorders: a comparison of Australia and Japan," *BMC Psychiatry*, 2006.
- ⁵⁴ Allan Wyllie and Ralph Brown, "Discrimination Reported by Users of Mental Health Services: 2010 Survey," Report for New Zealand Ministry of Health, 2011.
- 55 Claire Henderson et al., "Mental health-related stigma in health care and mental health-care settings," Lancet, 2014.
- ⁵⁶ Shuntaro Ando et al., "Review of mental-health-related stigma in Japan," *Psychiatry and Clinical Neurosciences*, 2013.
- ⁵⁷ Christoph Lauber and Wulf Rössler, "Stigma towards people with mental illness in developing countries in Asia," *International Review of Psychiatry*, 2007.
- ⁵⁸ Institute of Mental Health, Mind Matters: A Study of Mental Health Literacy, 2014.
- ⁵⁹ L H Yang, "Application of mental illness stigma theory to Chinese societies: synthesis and new directions," *Singapore Journal of Medicine*, 2007.
- ⁶⁰ Hong Ma, "Network Building of Chinese Mental Health Care–Introduction of 'Project 686'," January 2015, presentation available at https://www.nationalacademies.org/hmd/~/media/Files/Activity Files/Research/NeuroForum/2015-JAN-13/

 Presentations/ HongManew Introduction of Project 686 in China 20150110Ma Hong.pdf>; Hong Ma, "Integration of hospital and community services—the '686 Project'—is a crucial component in the reform of China's mental health services," *Shanghai Archives of Psychiatry*, 2012.
- ⁶¹ "Mental Health Service Plan," 2016, presentation at http://www.srithanya.go.th.
- ⁶² Michael Phillips et al, "Prevalence, associated disability and treatment of mental disorders in four provinces in China, 2001–2005: an epidemiological survey, *Lancet*, 2009; Yu-Tao Xiang et al., "Mental health in China: challenges and progress," *Lancet*, 2012; Wendy Diana Shoesmith and Nicolas Pang, "The Interpretation of Depressive Symptoms in Urban and Rural Areas in Sabah, Malaysia," *ASEAN Journal of Psychiatry*, 2016; "Mental Health Service Plan," 2016, presentation at http://www.srithanya.go.th.
- ⁶³ "Mental Health Service Plan," 2016, presentation at http://www.srithanya.go.th; Daniel Wong, "A critical review of mental health and mental health related policies in China," *International Journal of Social Welfare*, 2014.
- ⁶⁴ "Malaysia needs 900 more psychiatrists," Rakyat Post, 12 October 2014.
- 65 Vikram Patel et al., "The magnitude of and health system responses to the mental health treatment gap in adults in India and China," Lancet, 2016
- ⁶⁶ Daniel Wong, "A critical review of mental health and mental health related policies in China," *International Journal of Social Welfare*, 2014.
- ⁶⁷ WHO, WHO-AIMS Report on Mental Health System in Thailand, 2006.

- 68 "The Kingdom of Thailand Health System Review," *Health Systems in Transition*, 2015; Yaowaluck Meebunmak, "Community mental health care in Thailand: Care management in two primary care units," Doctoral thesis, Murdoch University, 2009.
- ⁶⁹ Chettha Kaewprom, "Perceptions and practices regarding recovery from Schizophrenia among Thai mental health nurses," doctoral thesis, University of Wollongong, 2011.
- ⁷⁰ Vikram Patel et al., "The magnitude of and health system responses to the mental health treatment gap in adults in India and China," Lancet, 2016
- ⁷¹ P Burnard et al., "Views of mental illness and mental health care in Thailand: a report of an ethnographic study," *Psychiatric and Mental Health Nursing*, 2006.
- ⁷² Amber Haque, "Mental health concepts and program development in Malaysia," *Journal of Mental Health*, 2005.
- ⁷³ Jagadisha Thirthalli et al., "Traditional, complementary, and alternative medicine approaches to mental health care and psychological wellbeing in India and China," *Lancet*, 2016.
- ⁷⁴ Amber Haque, "Mental health concepts and program development in Malaysia," Journal of Mental Health, 2005.
- ⁷⁵ WHO, WHO-AIMS Report on Mental Health System in Thailand, 2006, WHO, Mental Health Atlas 2011, Thailand Country Profile, 2011.
- ⁷⁶ Vikram Patel et al., "The magnitude of and health system responses to the mental health treatment gap in adults in India and China," *Lancet*, 2016; "Mental health in China: what will be achieved by 2020?" *Lancet*, 2015.
- ⁷⁷ WHO, Mental Health Atlas 2011, Malaysia Country Profile, 2011.
- 78 Amina Tareen and Khalida Ijaz Tareen, "Mental health law in Pakistan," BJPsych International, 2016.
- ⁷⁹ "The Philippines Health System Review," Health Systems in Transition, 2011.
- 80 Vikram Patel et al., "The magnitude of and health system responses to the mental health treatment gap in adults in India and China," Lancet, 2016
- ⁸¹ Rachel Jenkins et al., "International Migration of Doctors, and Its Impact on Availability of Psychiatrists in Low and Middle Income Countries," *PLOS One*, 2010.
- ⁸² AA Gadit, "Out-of-Pocket expenditure for depression among patients attending private community psychiatric clinics in Pakistan," *Journal of Mental Health Policy and Economics*, 2004.
- 83 Maria Niemi, "Mental health priorities in Vietnam: a mixed-methods analysis," BMC Health Services Research, 2010.
- ⁸⁴ Fiona Charlson et al., "The burden of mental, neurological, and substance use disorders in China and India: a systematic analysis of community representative epidemiological studies," *Lancet*, 2016; Human Rights Watch, *Living in Hell: Abuses against People with Psychosocial Disabilities in Indonesia*, 2016.
- 85 WHO, WHO-AIMS Report on Mental Health System in the Philippines, 2007.
- ⁸⁶ Living in Hell: Abuses against People with Psychosocial Disabilities in Indonesia, 2016.
- 87 "Mentally ill suffer a horrible fate in India" DW [Deutsche Welle online], 23 August 2013; Human Rights Watch, "Treated Worse than Animals" Abuses against Women and Girls with Psychosocial or Intellectual Disabilities in Institutions in India, 2014.
- 88 "Suicide and the need for a mental health law," Philippine Star Global, 3 August 2015.
- 89 Muhammed Irfan, "Integration of mental health in primary care in Pakistan," *Journal of the Postgraduate Medical Institute*, 2013; "Only 490 psychiatrists for 100 million Pinoys," *Rappler*, 10 October 2014.
- $^{\rm 90}$ Living in Hell: Abuses against People with Psychosocial Disabilities in Indonesia , 2016.
- 91 Mamnuah et al., "Literature review of mental health recovery in Indonesia," GSTF Journal of Nursing and Health Care, 2016
- ⁹² "Mentally ill suffer a horrible fate in India" *DW [Deutsche Welle online]*, 23 August 2013; Human Rights Watch, *Living in Hell: Abuses against People with Psychosocial Disabilities in Indonesia*, 2016.
- 93 I Irmansyah et al., "Human rights of persons with mental illness in Indonesia: more than legislation is needed," *International Journal of Mental Health Systems*, 2009; Hans Pols, "The Development of Psychiatry in Indonesia: From Colonial to Modern Times," *International Review of Psychiatry*, 2006.
- 94 Vikram Patel et al., "The magnitude of and health system responses to the mental health treatment gap in adults in India and China," Lancet, 2016

- 95 "Indonesia lacks psychiatrists," *The Jakarta Post*, 10 September 2011.
- ⁹⁶ National Rural Health Alliance, "Mental Health in Rural and Remote Australia," Fact Sheet, May 2016, http://ruralhealth.org. au/sites/default/files/publications/nrha-election-mental-health-factsheet-1.pdf
- ⁹⁷ Ying-Yeh Chen et al., "Suicide in Asia: Opportunities and Challenges," *Epidemiological Review*, 2012; Herbert Hendin et al., "Epidemiology of Suicide in Asia," chapter 1 of Hendin et al., *Suicide and Suicide Prevention in Asia*, 2008; New Zealand Ministry of Health, "Suicide Facts: Deaths and intentional self-harm hospitalisations 2012," 2015.
- ⁹⁸ Adrian Furnham and Aseel Hamid, "Mental health literacy in non-western countries: a review of the recent literature," *Mental Health Review Journal*, 2014; Yu Yu et al., "Assessment of mental health literacy using a multifaceted measure among a Chinese rural population," *BMJ Open*, 2015; Kathleen Griffiths et al., "Mental health literacy as a function of remoteness of residence: An Australian national study," *BMC Public Health*, 2009.
- ⁹⁹ Kathleen Griffiths et al., "Mental health literacy as a function of remoteness of residence: An Australian national study," *BMC Public Health*, 2009.
- ¹⁰⁰ Julie Schoonover et al., "Perceptions of Traditional Healing for Mental Illness in Rural Gujarat," *Annals of Global Health*, 2014.
- ¹⁰¹ Yu Yu et al., "Mental Health Help-Seeking Intentions and Preferences of Rural Chinese Adults," PLOS One, 2015.
- ¹⁰² "Ministry of Health looks to dig deeper into rural mental health issues," nzDoctor.co.nz, 3 May 2016.
- * Compare, Institute for Health Metrics and Evaluation (IHME), http://vizhub.healthdata.org/gbd-compare

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