



# The spectrum of major depressive disorder burden in Southeast Asia

**Call-to-Action for policy leaders**

—  
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## We must leave no one behind

Southeast Asia has a lot to be proud of. Home to more than 650 million people and one of the fastest developing economic blocs in the world, the region continues to be a place of high inspiration and productive public-private collaboration.

A case in point is the United Nations Sustainable Development Goal #3, which seeks to increase the level of healthcare access and affordability to a population in Southeast Asia. The effect will create not only healthier societies, but achieve wider economic development.

Much of the emphasis to date has been in the form of physical health – both in chronic as well as infectious disease fashion. While indeed physical health should remain a priority, we must not overlook the equally, if not greater, challenge ahead – our mental wellbeing.

The burden of mental illness is as high as 10% in some Southeast Asian countries, in a region where the budget allocation for mental healthcare per capita can be as low as US\$1 and often there are fewer than 1.0 psychiatrists per 100,000 people. The current approach will not adequately meet the demand for help, especially as the COVID-19 pandemic has exacerbated the mental distress that many are facing.

These statements ring true for Major Depressive Disorder (MDD). Among the highest burden within the mental illness category, MDD can become treatment-resistant and patients may become suicidal if not managed properly. Like other well-studied disease areas, MDD is in fact a spectrum of sub-conditions, ranging in severity and requiring tailored interventions. We applaud Southeast

Asia governments for their increasing emphasis on mental health, and we now call for a focused set of policies aimed at directly supporting people with their differing MDD needs. And we mustn't overlook the strategic role of a collaborative community in empowering people's individual journeys, even as clinical capacity expands out.

The inspiration for this whitepaper stems from a similar report for the Asia-Pacific region in 2020. We spoke to Southeast Asia leaders across government, healthcare providers, and even patients directly in order to better understand their views on policies around the MDD spectrum. This whitepaper is designed to foster discussion points for continued collaboration on the mental healthcare among public and private sectors.

We trust you find the insights useful, and look forward to further dialogue on MDD. Let us realise the vision of health-for-all by leaving no one behind, including mental health wellbeing and especially those in need of greater support for their MDD conditions.

Sincerely,



**Dr. Alvin Ng Lai Oon**  
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# ▶ Executive summary

## Health-for-all cannot be achieved without mental wellbeing too

Southeast Asia (SEA) is one of the world’s most dynamic blocs. Apart from rising productivity and growth, the region’s 668 million people<sup>[1]</sup> are also poised to exit the middle-income trap in terms of healthcare outcomes, with initiatives such as Universal Health Coverage (UHC). However, one key ingredient is missing in this push for “health-for-all”.

SEA has emphasised physical health in terms of policy focus and resource allocation. This approach is laudable – the region is rapidly ageing, and over 10 million people die each year from non-communicable diseases<sup>[2]</sup>. But as the COVID-19 pandemic has reminded us, there is no health-for-all without paying attention to the mental wellbeing of the population too. While there is increasing policy emphasis on improved mental healthcare, there is also a need for greater specificity regarding policies and treatments tailored to the spectrum of mental illnesses.

A disproportionately large segment of the population lives with severe depressive disorder, as observed in the below diagram.

KPMG, Johnson & Johnson, among leading healthcare practitioners and active patients voices across SEA, have undertaken extensive field research over the past year on the topic of Major Depressive Disorder (MDD). Following [a policy report on this matter at the Asia-Pacific level in 2020](#), we listened to stakeholders calling for greater attention in SEA. The purpose of this SEA report is to share our findings with policy leaders and to foster public-private collaborative discussion to shape the future of MDD care pathways. We highlight the challenges faced, lessons learnt, and conclude with a recommended path ahead, supported by bespoke country-level considerations.

### Where do things currently stand?

While the wider topic of depression is more commonly acknowledged than in the past, there remains much confusion and stigma over how the disease manifests itself within society. In this paper, we focus on MDD and its sub-types, given the large impact it is having in this region.

### Global vs APAC comparator

As a % of total burden of disease

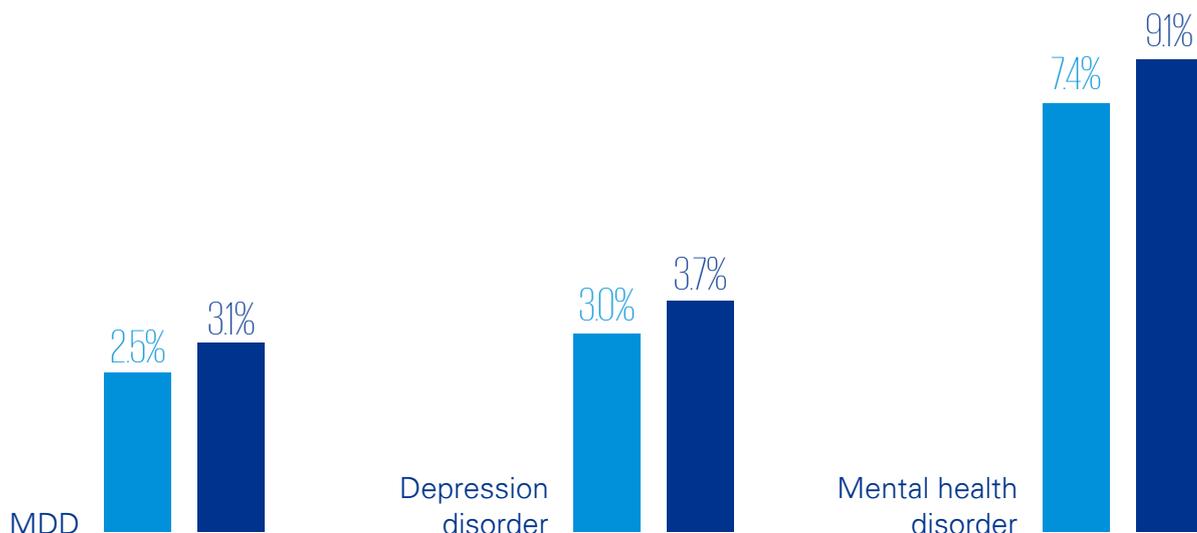
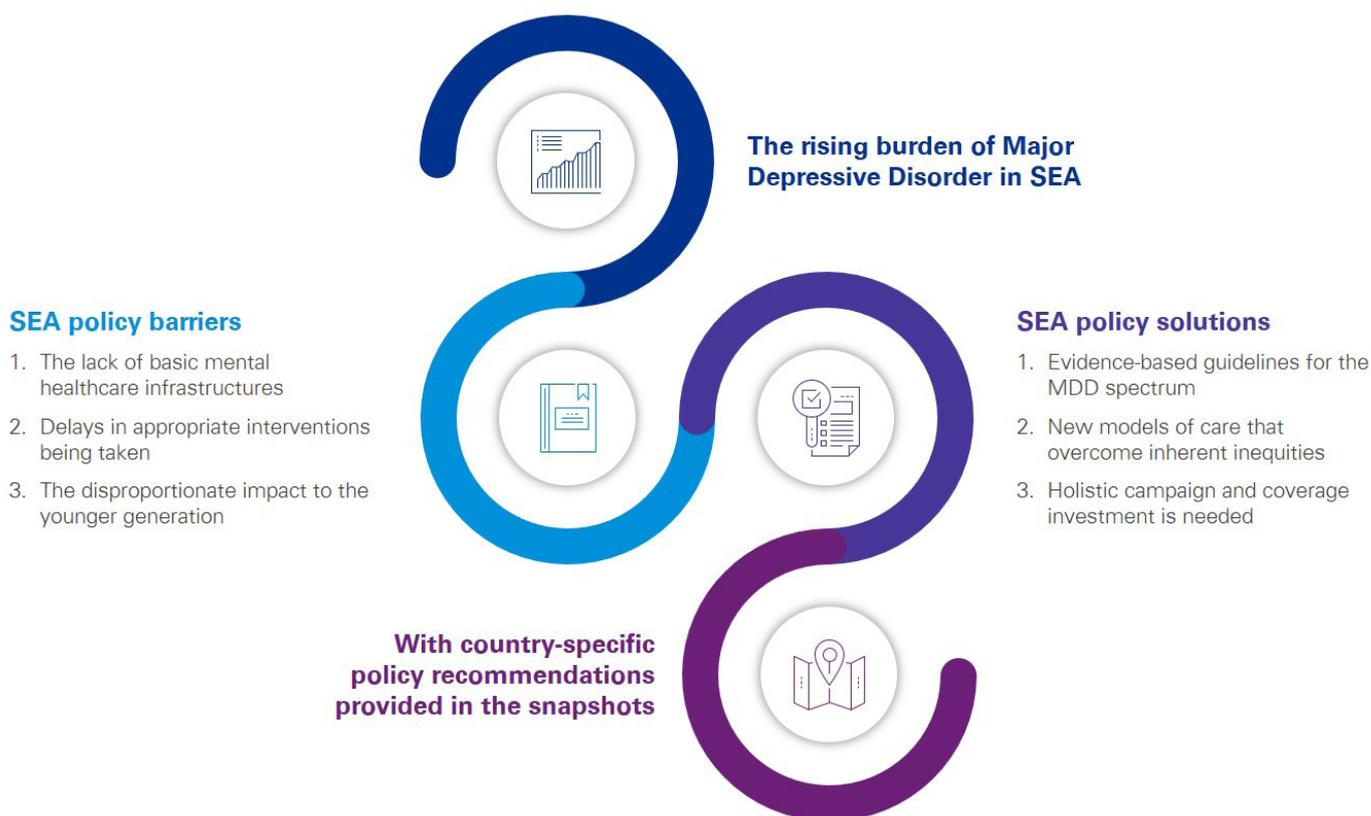


Figure Citations: <sup>[3]</sup><sup>[4]</sup>

The burden of MDD, in terms of Disability-Adjusted Life Years (DALYs), is among the highest of any disease area, physical or mental, and proportionally higher in the Asia-Pacific compared to the rest of the world (see diagram above). But this is just the tip of the iceberg: we believe the statistics are under-reported because of limitations in regional health system surveillance and the stigma attached to those suffering from the disease. Employers and schools can play a big role in overcoming this, particularly since many victims fear revealing their illnesses to their bosses out of concerns that their livelihoods will be affected, while approaches based on folklore are common in rural areas in many countries. In treatment, while diagnostic tools and some interventions are available, the over-reliance on current medications may no longer be fit-for-purpose.

COVID-19 has exacerbated the situation. Job losses, the toll of losing loved ones, and social isolation have all contributed to a mental health crisis. As a result, calls to hotlines and suicide attempts have all gone off the charts, and worries persists that the crisis will have a profound effect on future generations.<sup>[59]</sup>

Fortunately, for public and private sectors alike, there is a way forward. SEA policymakers can learn from best practices, both in the region and globally, to better anticipate the leading-edge interventions that will become available to support those living with MDD. Effective planning (centrally and rurally), collaboration, and committing to MDD intervention will ensure that SEA nations will be well prepared to give those affected by MDD the support they require.



# Southeast Asia perspectives: A consistent set of challenges

## SEA must embed the MDD spectrum into health-for-all policy strategies

Southeast Asia (SEA) is undertaking an ambitious healthcare transformation. The proposed adoption and optimisation of Sustainable Development Goals (SDGs), such as #3 for UHC, which is aimed at creating health-for-all, grants healthcare access and affordability to the region's sizeable populations.<sup>[4]</sup> However, mental well-being is one area that has traditionally been neglected in policy. Without greater focus on the specificities around mental illness, it is likely that the SDG programme will be limited and not as beneficial as planned.

### The state of affairs for mental healthcare in SEA

Despite the admirable intentions of UHC and other healthcare transformation programmes in the region, healthcare systems in SEA are chronically underfunded, with about 5% or less of GDP allocation (versus the 10% target set by the Organisation for Economic Cooperation and Development (OECD)<sup>[6]</sup>). As a result, funding for mental healthcare is especially low in the region, especially when compared to the burden it causes in Disability Adjusted Life Years (DALYs).

The league table below provides a comparison of how countries in SEA are addressing their mental healthcare and depression needs. The range of indicators corresponds to the access and affordability of support:

	Burden <sup>1</sup>	Budget <sup>2</sup>	Coverage <sup>3</sup>	Policy <sup>4</sup>	Psychiatrists <sup>5</sup>
<b>Singapore</b>	9.4% <sup>[7]</sup>	\$40.0 <sup>[8] [89]</sup>	80% <sup>[14]</sup>	Yes <sup>[18]</sup>	4.4 <sup>[22]</sup>
<b>Malaysia</b>	7.6% <sup>[7]</sup>	\$2.6 <sup>[9] [89]</sup>	N/A <sup>6</sup>	No <sup>[19]</sup>	1.0 <sup>[9]</sup>
<b>Vietnam</b>	5.6% <sup>[7]</sup>	N/A	80% <sup>[16]</sup>	No <sup>[20]</sup>	0.9 <sup>[23]</sup>
<b>Thailand</b>	6.3% <sup>[7]</sup>	\$1.5 <sup>[10]</sup>	100% <sup>[10]</sup>	Yes <sup>[21]</sup>	1.3 <sup>[24]</sup>
<b>Indonesia</b>	5.0% <sup>[7]</sup>	\$1.1 <sup>[11] [12]</sup>	100% <sup>[17]</sup>	No <sup>[19]</sup>	0.3 <sup>[17]</sup>
<b>Philippines</b>	4.7% <sup>[7]</sup>	\$0.1 <sup>[13]</sup>	100% <sup>[13]</sup>	No <sup>[19]</sup>	0.5 <sup>[42]</sup>

#### Definitions

- Mental health and neurodevelopment disorders as a share (%) of DALYs (2016)
- Per-capita annual expenditures for mental healthcare-related services (2017-2020)
- % mental healthcare-related expenditures eligible for government insurance reimbursement (2017-2020)
- Government mental health policy with mention of MDD programmes
- Number of trained psychiatrists per 100,000 in the population (2017-2020)
- While Malaysia does not have a national reimbursement scheme for mental healthcare-related expenses, the country adopts a different approach which instead, heavily subsidises out-of-pocket expenses for all Malaysian patients at point of service in public healthcare facilities, such that only nominal fees have to be paid for treatment <sup>[25]</sup>

While all the countries in SEA have implemented national mental health policies, the mental healthcare budget per capita highlights the lack of emphasis in this area. Worse, the ratio of trained psychiatrists means those with the disease are unable to get proper help.

**Explaining the concept of the MDD spectrum with sub-type conditions**

To increase the understanding of mental illness, it is critical to understand that the disease is not a monolithic one. Depression, in particular, has to be understood not

just as a singular condition, but rather as an illness that takes many forms. Each sub-type of the disease may require different interventions, access, and affordability considerations.

The diagrammatic visualisation of the nine key signs of depression, as set out by the American Psychiatric Association (APA) and adopted internationally,<sup>[26]</sup> can be articulated into the heterogeneity of disease presentation. The message for stakeholders across the public and private sectors is for more targeted mental healthcare support.

**The following are the nine tell-tale signs of Depression <sup>[26]</sup>**

Feeling depressed

Losing interest in pleasurable activities (anhedonia)

Moving more slowly or more quickly

Thinking about death (suicidal ideation)

Experiencing appetite changes (anorexia)

Sleeping abnormalities (somnia)

Having low energy (fatigue)

Having low self-esteem

Having difficulty concentrating or making decisions



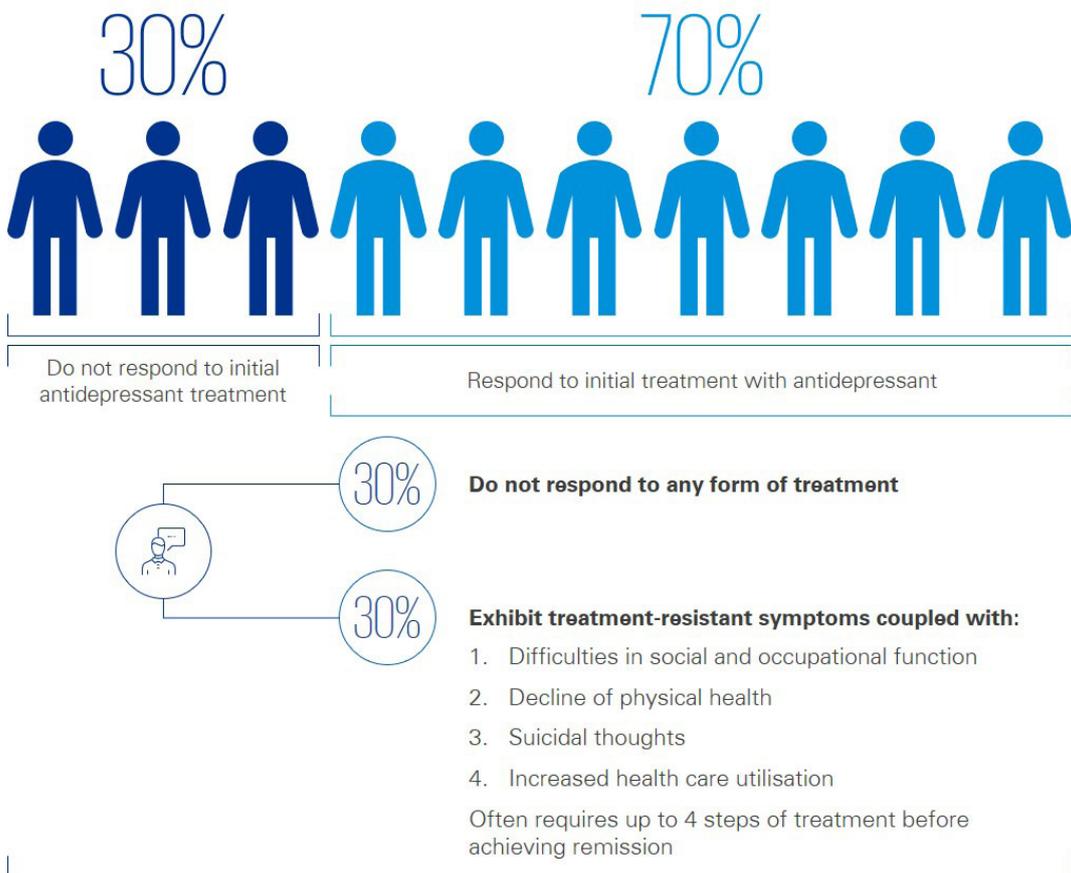
MDD, the focus of this report, is characterised as having at least five of the nine symptoms listed above for more than two weeks, with increasing levels of severity.<sup>[27]</sup> MDD has long been overlooked, even though it kills about a million people around the world each year.<sup>[43]</sup> Often seen as a homogeneous disorder, treatment pathways for MDD range from psychological (e.g. Cognitive Behavioural Therapy (CBT)) to pharmacological (e.g. antidepressant medications like Selective Serotonin Reuptake Inhibitors (SSRIs)) to lifestyle changes (e.g. diet and exercise).<sup>[28]</sup> These interventions are typically prescribed in combination. The most extreme cases inevitably lead to highly invasive procedures such as Electroconvulsive Therapy (ECT).<sup>[26]</sup> The truth, in our view, is that each person living with MDD deals with a unique form of the condition, and reacts to interventions differently. Thus, the manifesting of certain core symptoms over others requires more individualised treatments towards the MDD sub-types.

**Treatment Resistant Depression (TRD) – a war we must begin to fight now**

Treatment Resistant Depression (TRD), a sub-type of MDD, is defined as a failure of two drug treatments of adequate doses, for 4-8 weeks in duration with adequate adherence, during a major depressive episode.<sup>[29]</sup> People living with TRD have high rates of relapse, and do not respond well to antidepressant treatments. In our Asia-Pacific study, the healthcare practitioner community we surveyed stated that up to 40% of MDD patients tend to relapse after the first round of medication, and an alarming 90% after the second round.<sup>[19]</sup> People living with TRD can remain unwell for a long time, leading to a sense of hopelessness and increasing the likelihood of self-harm. It is estimated that 30% of people with TRD will attempt suicide at least once.<sup>[45]</sup>

In this report, we call on SEA policymakers to understand the differences between MDD and TRD, as well as the associated scale of impact that such a condition can have, and thus the need for alternative forms of interventions for those living with TRD.

**Of those receiving treatment <sup>[30]</sup>**



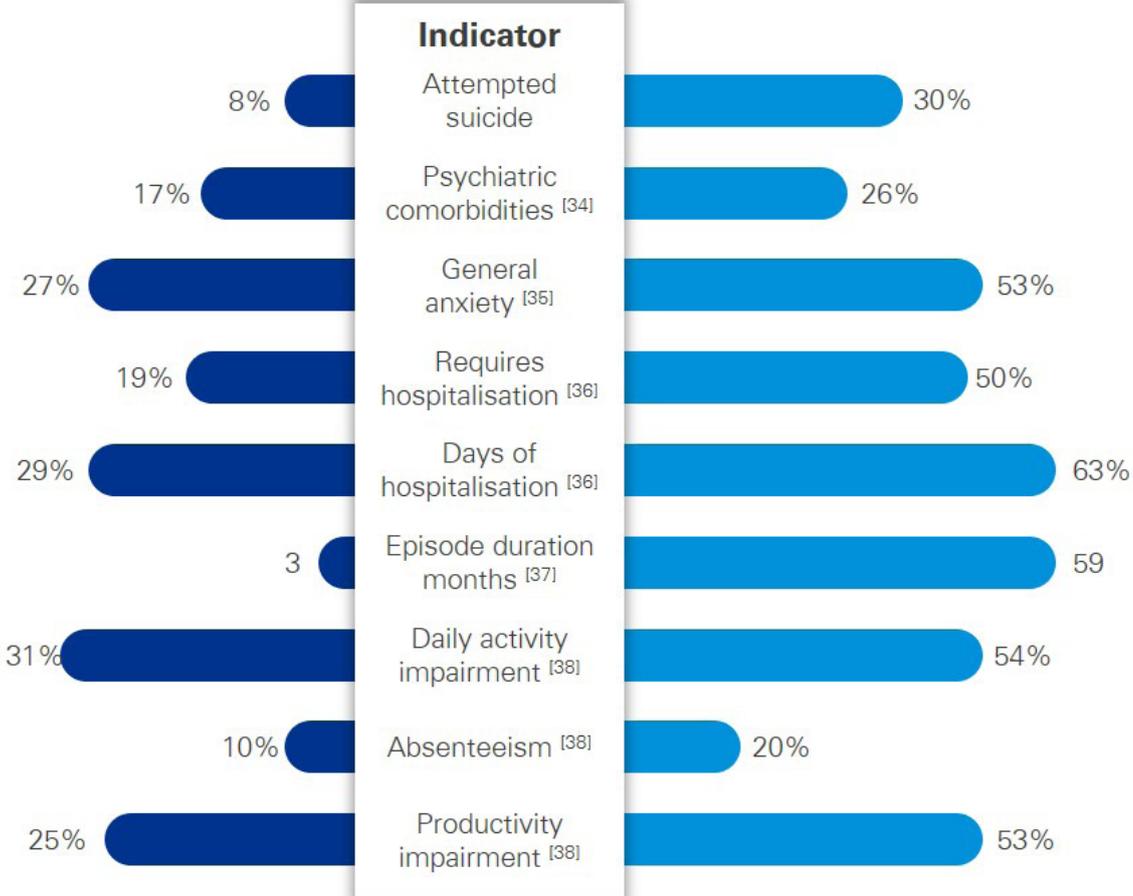
### Major Depressive Disorder (MDD) <sup>[31]</sup>

Is a psychiatric disorder characterised by a “depressed mood, with a markedly diminished interest or pleasure in all activities that must persist for at least two weeks”



### Treatment-Resistant Depression (TRD) <sup>[30]</sup>

A sub-type of MDD, is defined as a failure of two drug treatments of adequate doses, for 4-8 weeks in duration with adequate adherence, during a major depressive episode



The common treatment for those with TRD is a continuation of antidepressant medication regimes, often accompanied by a change of medication or dosage amount. In some cases, an augmented regime using mood stabilisers or anti-psychotic drugs is observed. In the most severe cases, patients are sent for ECT, a psychiatric treatment that utilises small energy currents passed through the brain to create a brief seizure in the hopes of changing brain chemistry and thus minimising the risk of suicide.<sup>[40]</sup> This treatment itself carries risks such as memory loss, however. As greater understanding of the TRD pathway emerges, it is necessary for stakeholders to care and support those with unmet needs, creating capacity for novel interventions in SEA.

**MDD with Suicidal Ideation (MDSI) – the battle that needs to be sequestered**

A suicide occurs around the world every 40 seconds and, according to the WHO, is the second leading cause of death among people aged between 15 and 29.<sup>[46]</sup> MDD with Suicidal Ideation, or MDSI, is a more serious manifestation that involves active plans to kill oneself or passive thoughts about wanting to die.<sup>[47]</sup> Suicide is a very sensitive topic riddled with stigmas, and we found that views about MDSI vary quite extensively across SEA.

Based on observations captured during 2021, the proportion of MDSI patients among those living with MDD can be as high as 21% in SEA. The majority are members of the working class between the ages of 20-40 years old, with females being more broadly represented.<sup>[44]</sup> There is variability in the data, however: MDSI is more

common among a relatively younger demographic in Vietnam and Singapore, while in Thailand, it is males who are disproportionately affected. In almost all instances, however, MDSI leads to a very high level of hospitalisations, and thus intensive utilisation of healthcare resources.<sup>[44]</sup>

Country	Acute MDSI prevalence (% of MDD patients)	MDSI - % of hospitalisation in public and private facilities
Singapore	5%	65%
Malaysia	7%	45%
Vietnam	21%	93%
Thailand	5%	82%
Indonesia	8%	61%
Philippines	16%	28%

The increasing level of MDD and its sub-types will continue to consume the finite resources being allocated to mental healthcare in SEA. In order to address these issues, it is necessary to examine the policy barriers that prevent progress on MDD understanding and treatment solutions.

**SEA MDD policy barrier #1: The lack of basic mental healthcare infrastructures**

Healthcare is a passionate and people-driven field. The ongoing COVID-19 pandemic has boosted jobs in the healthcare sector,<sup>[39]</sup> drawing interest in helping fellow members of society, and being part of the “greater good.” However, we remain approximately five million people short of the optimal healthcare workforce in SEA,<sup>[41]</sup> and will likely never be able to fully provide the supply-side resources to match this rise in demand.

This shortfall is down to a few distinct factors. First, mental healthcare workers in SEA simply do not enjoy the same status as their peers in other sectors in the eyes of the general public. Through our research, we heard from various care providers across markets that the perception of mental healthcare as a career choice remains undervalued. In most countries, graduating medical students are given the freedom to self-select their

specialties of interest, rather than be assigned based on population health needs, further aggravating the challenge of recruiting workers to the mental healthcare space.

Accordingly, the number of trained psychiatrists in SEA is well below the WHO’s recommendation of 10.0 professionals per 100,000 population<sup>[54]</sup>. As per the table shown above, the Philippines, Vietnam, Thailand, Malaysia, and Indonesia average around 1.0 or fewer such professionals per capita; Singapore is marginally better at 4.4. However, we do note that there are plans to address this shortfall: in Singapore, for instance, there is intentional cross-training at the primary care level to identify and triage mental illness; in Malaysia, similarly, efforts to expand support capacity include a better collaboration framework across Ministries, and involving the academic community.

But unless enhanced coverage schemes and more novel forms of intervention are considered, the rural versus urban divide in SEA will render these efforts to scale up resources meaningless. Triage at the primary care level, a hallmark of successful UHC design, is only as effective as the continuum pathway referrals for cases that require more advanced support, as is the situation with MDD and its sub-types, like TRD and MDSI, in our opinion. In practically all SEA nations, limited facilities, professionals, and guidelines for severe mental illness, especially in non-urban communities and despite their large share of

sufferers, will remain a reality for the foreseeable future unless action is taken.

“Digital” type tools alone can’t circumvent the mental healthcare resource challenge, as SEA still lacks some requisite infrastructure. In the Philippines, for example, there is no registry for records of patients with mental illness, nor are the systems being used to capture disparate data points integrated.<sup>[19]</sup> In Malaysia, systems used for mental illness interventions vary across the country.<sup>[19]</sup>

## SEA MDD policy barrier #2: Delays in appropriate interventions being taken

While the rise of mental healthcare policies in SEA as well as MDD data (like diagnoses trends and epidemiological insights) is promising, there is no doubt that stigmas related to the disease are detrimental to progress in treating it. The lack of understanding about MDD and its sub-types is closely tied to cultural and religious beliefs, and is present at all levels of society. This results in delays seeking help and being treated with the most appropriate interventions available.

disorders, such as substance abuse, received no treatment for their condition<sup>[48]</sup>. The MDD treatment gap, defined as the number of individuals in need of help versus those who actually receive it, stood at 73%<sup>[49]</sup>. Paradoxically, research has found that people who are employed or have higher education levels in SEA societies are less likely to seek treatment for their mental illness<sup>[49]</sup>, indicating a strong need for more targeted understanding campaigns in the workplace and educational settings.

The social stigma that an MDD victim is undesirable, remains widespread. Males, who are expected to live up to certain social standards, face the most pressure. In Vietnam, our field research found that males feel the need to maintain household stability rather than seek help. In Indonesia, a discriminatory practice known as Pasung (or “shackle”), in which people with mental illness are physically restrained, exists, though it has been banned since 1977<sup>[50]</sup>. The government estimates that some 57,000 people with psycho-social disabilities, especially in rural communities, “live in chains” (only 2,000 cases of which are reported each year)<sup>[50]</sup>. In Malaysia, MDD is considered to bring shame to one’s family, as a sign of personal weakness.<sup>[19]</sup>

“Workforce empathy and employer support models are not in place,” said Rajakanth Raman, a leading voice for patient advocacy efforts in Singapore. “While some employers have Corporate Social Responsibility (CSR) type programmes, many small-to-midsize companies lack sufficient resources.” Many stakeholders we spoke to said that people lack access to information, or that the intervention options provided are too scientific and technical to be easily understood.

“Having MDD is seen to be against the religious ideals in some communities,” said Dr. Feisul Idzwan Mustapha, Deputy Director of Disease Control at the Ministry of Health in Malaysia. “Such behaviour further fuels stigmatisation of the illness and prevents appropriate treatment from being administered.” Dr. Pichai Ittasakul, a psychiatrist in Thailand, added that, “With stigmas still embedded into societies, most people only recognise the larger category of depression, rather than the full disease spectrum.”

A side-effect of the poor attitudes towards MDD is potentially even more harmful – individuals who might seek alternative treatment options. This situation is particularly prominent in rural regions, where health literacy is low. In Indonesia, for example, patients often visit “dukuns” (spiritual healers) as a first choice, especially since formal healthcare centres or trained professionals<sup>[50]</sup> are lacking. For these patients, herbal remedies are a common course of treatment. Further, self-treatment and forms of Traditional Chinese Medicine (TCM), such as herbs and acupuncture, are also commonplace<sup>[51]</sup>. This issue is present in Singapore as well, even with a strong UHC system and relatively higher healthcare literacy – the usage of TCM for mental healthcare, at 17% of the total, is four times higher than the worldwide average<sup>[52]</sup>. While we do not argue for or against the merits of such interventions in this report, there is clearly a risk for SEA policymakers in not appropriately managing the care pathways, especially for patients who suffer the more severe effects of the MDD spectrum.

In Singapore, it is common for employees to hide their conditions from their bosses because of career advancement concerns.<sup>[19]</sup> On a related point, the Singapore Mental Health Study in 2016 found that the majority of people with mood, anxiety, and related

**SEA policy barrier #3: The disproportionate impact to the younger generation**

Children and adolescents are emerging as the primary cohort suffering from MDD, with the highest increase in diagnosis rates in the region. In Singapore, an estimated 18%, or nearly one in five, youths are diagnosed with depression, with MDD sufferers making up the bulk. [53] A study in Malaysia found that 424,000 children had already experienced mental illness.<sup>[57]</sup> In Thailand, 33.6% of mental healthcare consults in the first six months of 2019 corresponded to those aged between 11-25 years, an increase from previous years. There has also been a rise in suicide rates by 8%, to 5.33 per 100,000 people between the ages of 20-24<sup>[59]</sup>.

With COVID-19, populations are already under a tremendous amount of mental stress, as economic losses affect everyday lives, and people are unable to socially interact with extended family and friends. This will lead to more mental health-related issues. In the Philippines,

the national mental healthcare hotline is now receiving an average of between 32-37 calls per day, compared to around 15 pre-pandemic.<sup>[61]</sup> Concurrently, deaths due to suicide in the Philippines increased by 25.7 between 2019 and 2020.<sup>[62]</sup> In Singapore, the Singapore Association for Mental Health saw hotline calls increase by 50% in recent times<sup>[63]</sup>. In Malaysia, repeated lockdowns have caused emotional distress, income loss, and fear for safety, leading to nearly 500 suicide attempts over a six-month period, a record for the country<sup>[64]</sup>. Given the propensity for such activities to affect the younger generations, SEA is at risk of affecting an entire future generation if action is not taken.

In order to tackle the rising cost of MDD and sub-type conditions like TRD and MDSI, we need to learn from the worldwide best practices and tactical solutions. Next, we will explore such findings and their use cases.

**Key Takeaways from Section 4****1**

Social stigmas about MDD, lack of understanding from patients and communities, as well as underdiagnosis of the condition represents a major public health issue.

**2**

The direct and indirect economic toll of MDD, and related impacts such as suicide, suggest a relook by SEA governments at insufficient resource allocation.

**3**

The lack of modernised infrastructure, community-orientated support models, and specialist referral networks requires greater policy intervention to help those in need.

# ▶ Southeast Asia perspectives: Policies for a more supported MDD future

## The tools are ready, now to assemble the policy pieces into action

The rise in focus on healthcare, mental well-being, and even the recognition of MDD diagnosis rate, in light of the COVID-19 pandemic, can be viewed as positive momentum. With greater understanding, forward-thinking governments can embrace a generational strategy through fit-for-purpose, health-for-all policies.

This section explores policy solutions for the issues raised previously in this paper. We outline three main possibilities: evidence-based approaches to MDD policies, new models of care, and creating capacity for improved coverage schemes. In the country snapshots that follow, we utilise these policies to provide bespoke recommendations.

### SEA MDD policy solution #1: Evidence-based guidelines for the MDD spectrum

The approach to MDD in SEA remains too general, with depression being diagnosed and dealt with in vague terms. We believe that adopting pre-existing international protocols for the diagnosis on the MDD spectrum, as well as measurements for the success of outcomes associated with effective interventions, will be beneficial for SEA nations.

On the diagnosis side, most countries in the Asia-Pacific use the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), though variability in the adoption and rigour remain prominent. Specific to the depression category, tools such as Montgomery-Asberg Depression Scale (MADRS), Hamilton Depression Rating Scale, Beck Depression Inventory – Fast Screen (BDI FS), and Geriatric Depression Scale (GDS) are also available.

The World Health Organisation (WHO) has had a keen focus on SEA for the implementation of the Mental Health Gap Action Programme (mhGAP) protocols to facilitate the training up of allied mental healthcare workers in low-resource settings, as well as to improve identification of mental illness in communities.<sup>[58]</sup> The WHO is even working on porting a primary care depression testing system into SEA, as developed for the likes of Bangladesh and Nepal.<sup>[58]</sup>

On treatment guidelines in SEA, we observe mixed approaches. In Singapore, the Ministry of Health published its clinical practice guidelines in 2004, providing evidence-based protocols for the management of patients with depression and covering all aspects of the care continuum, from clinical evaluation to treatment principles for a range of interventions. New medications are frequently being assessed and approved for their suitability.

Malaysia has been quite progressive in its implementation of such guidelines too. Under its Mental Health Act of 2001, well-defined regulations were set in place for mental healthcare services that cover public as well as private sector facilities, including psychiatric nursing homes and community-based care centres. In 2019, the Ministry of Health introduced guidelines for the management of MDD and TRD<sup>[66]</sup>, outlining the patient pathways for access and affordability of treatments. To support this, the 5th edition of the National Essential Medicines List was published in 2019 and aimed to provide affordable, accessible and high-quality medications to the population. The coverage extends to medications required for mental health treatment, and depressive disorders as well <sup>[67]</sup>. According to the psychiatrist community we spoke to in Malaysia, such efforts are driving an improved consistency in the quality of care being provided.

In Thailand, which has one of the highest MDD diagnosis rates in the region, efforts are already underway to establish a nationwide, evidence-based surveillance system for MDD and sub-conditions like MDSI. The system includes a two-question survey tool executed through community-level screenings, followed by a nine-question scale to assess the severity of the MDD, with particular attention paid to relapse and suicidal situations. To date, more than 14 million people have been screened<sup>[68]</sup>. Thailand's health insurance system includes medication in its coverage of mental health treatment. However, there remain supply limitations of MDD medication, especially at district hospitals.<sup>[69]</sup>

Other countries or sub-territories in SEA can learn from these regional and international best practices. In Vietnam, for example, the lack of mental healthcare infrastructure, including psychiatric and psychotherapeutic professionals, renders adoption of guidelines less effective.<sup>[19]</sup> With most psychiatric cases being of the depression and schizophrenia variety, the finite resources and limited novel treatment availability could be right-sized, with more modernised guidelines, access, and investment.

Now is the time to align SEA practices to international standards. As diagnostic and therapeutic advancements develop, such guidelines will allow SEA policymakers to establish critical pathways for access and affordability to the needed interventions.

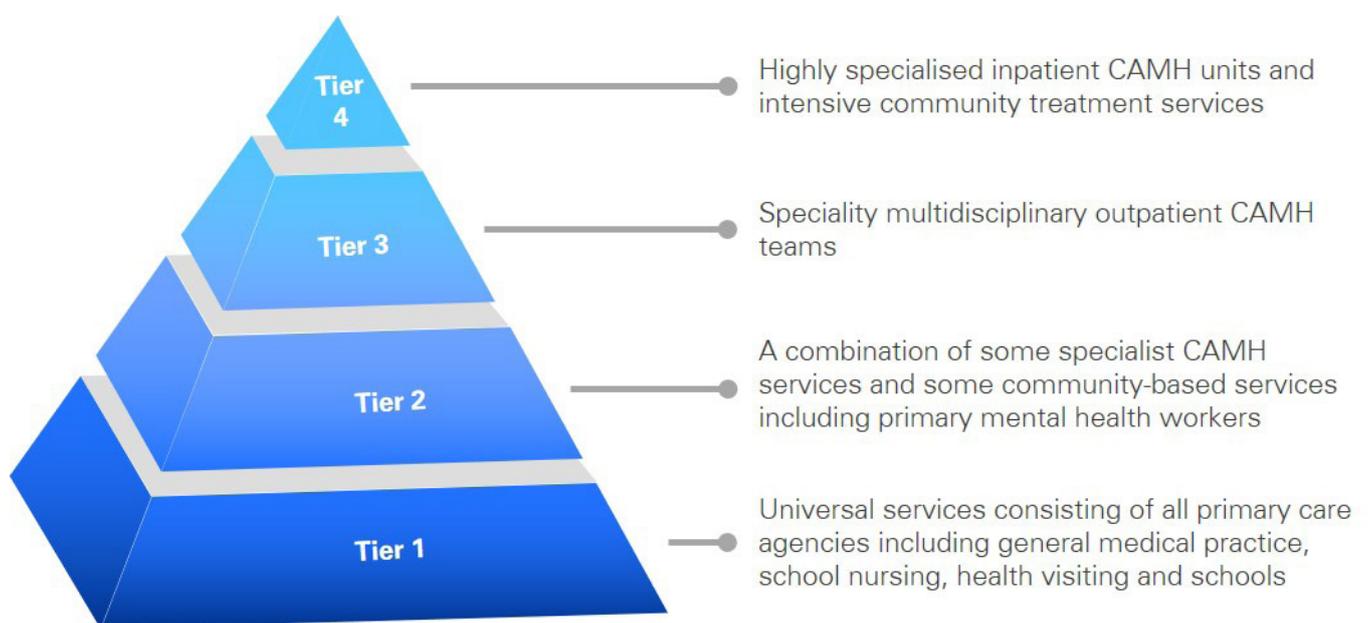
### SEA MDD policy solution #2: New models of care that overcome inherent inequities

The current issues with diagnosing and caring for sufferers of MDD in SEA mean that it is essential to look at newer models of care implemented amongst peers, to borrow ideas for a more supportive framework. The timing aligns with the broader healthcare transformations underway in SEA.

critical for the care of patients who have more severe forms of MDD.

One solution is to improve the care coordination between community and specialist centres that deal with mental healthcare needs. We emphasise that this model is not a simple dichotomy – the role of community-based carers is to achieve earlier intervention and to avoid further deterioration in MDD patients. Specialist and formalised psychiatric care settings, backed by strong referral networks through the community centres, remain

An example of the above is the Child & Adolescent Mental Health Services (CAMHS) framework used by the United Kingdom's National Health Service (NHS)<sup>[71]</sup>. CAMHS deploys a tiered system for mental healthcare services in the community, where diagnosing mental healthcare service at a specific threshold (Tier 2 in this model dictates the calling in of specialists to come to the primary care setting for support). At higher levels, multi-disciplinary teams are deployed, working together to shift the patients into specialty or tertiary facilities, especially in situations with more severe cases that are persistent, such as TRD.



Continuing with new models of care, it is also important to mention the rise of digitised health in SEA. Vietnam completed a two-month pilot project during the COVID-19 pandemic to connect 1,000 rural health centres to tele-consultation services as part of the national digital transformation initiative<sup>[74]</sup>. The pilot was specifically aimed at addressing more complicated disease states requiring specialist intervention, including for mental healthcare needs. The Philippines government, moreover, has utilised a similar framework, approving the use of e-prescription and medication delivery. This allows care facilities and pharmacies to work more closely together in providing patient-centric support, which we believe is a good foundation for providing mental health support as well.

Of course, stronger referral pathways and increased use of digital tools do not mean we can overlook the people factor. In the aforementioned example from the Philippines, the number of healthcare workers in the community who can serve the populations with mental illnesses was increased in tandem with introduction of digital health models of care. The Ministry of Health conducted training for primary care doctors to expand their capacities with more experience in

mental healthcare. This is a great example to be leveraged by other nations in the region.

Addressing the shortage of medical workforce also requires innovative approaches. One multinational healthcare company, for instance, has invested US\$250 million towards recruiting, training and retaining such workers.<sup>[75]</sup> As part of the effort, the company collaborated with partners like the WHO and UNICEF. Its approach extends to providing mental health support for these workers – recognition of the critical role mental well-being plays in general healthcare.

Finally, there needs to be a focus on both the early-stage triage and tailored support for the more severe cases along the MDD spectrum. But access and affordability, and remaining issues of stigma and unclear coverage pathways, can become problematic if the pace of innovation exceeds system capacity. More modern and appropriate SEA policies must be urgently adopted to ensure that new models of care are in sync with the call for more evidence-based MDD treatment guidelines.

### SEA MDD policy solution #3: Holistic campaign and coverage investment is needed

Evidence-based guidelines and new models of care that reflect tailored support patients with different diagnoses on the MDD spectrum are two policy moves in SEA that can improve the state of mental wellbeing. Unfortunately, such policies may be ineffective without sufficient funding for coverage models to empower these health-for-all ambitions.

Enhanced coverage schemes for MDD and its sub-type conditions that encompass better educational investments as well as treatment reimbursement schemes are therefore required at all levels. In part, this means government investments in improved MDD understanding at earlier stages of life. Take Singapore, which recently refreshed its Character & Citizenship Education (CCE) curriculum after the COVID-19 pandemic.<sup>[76]</sup> Together, the Education and Health Ministries will teach mental well-being in schools, helping students to better understand common illness symptoms and how to seek help for themselves and others, as well as developing empathy towards those suffering. In Thailand last year, the Department of Mental

Health, along with UNICEF, launched the “Sound of Happiness” campaign as an adolescent coping mechanism.<sup>[77]</sup> Podcasts from influencers and experts openly discuss conditions such as MDD, while promoting youth-friendly mental healthcare services for those in need.

Such educational campaigns, under proper government guidance, can manifest themselves into the new models of care. In Thailand, Knowing Mind (Thai-based mental health organisation) and Love Frankie (a social change agency) are collaborating on a mental health understanding effort called “Unknown Together” to provide expert panel discussions; the country then formalised its mental well-being information exchanges through the Mental Health Check-up app, sponsored by the Department of Mental Health, Ministry of Public Health, and Somdet Chaopraya Institute of Psychiatry. At the employer level, Singapore’s Tripartite Alliance for Fair & Progressive Employment Practices (TAFEP), backed by a civil society push, has mandated the removal of mental illness declarations on job applications.<sup>[78]</sup>

Better coverage schemes and targeted campaigns go hand-in-hand; improved understanding of MDD through educational programmes leads to more efficient use of the care support networks being established. The uptake of the Mental Illness Awareness and Support Association (MIASA) network in Malaysia for example, gained traction due to Tengku Puteri Iman Afzan, daughter of King Abdullah of Pahang, being a royal patron of MIASA.<sup>[19]</sup> The Samaritans of Singapore interventional network partners, with 987FM radio personality Sonia Chew, sought to reach at-risk youths earlier and to facilitate the process of seeking help.<sup>[79]</sup>

The investment allocation toward mental healthcare in SEA is subpar. Although many services and products are increasingly covered through the expanding national health insurance schemes, the per capita ratios (averaging out to US\$1 per person and <1.0 psychiatrists per 100,000 people, as shown in the earlier table) call for increasing the investment vis-à-vis the demand of those with a condition of MDD and the associated economic implications. Now is the appropriate time to modernise the coverage policies for MDD and patients diagnoses within this spectrum of disorder, to establish the access pathways for all patients.

SEA policymakers can take note from some of the leading countries in the Asia-Pacific about proper investment plans ([see our sister paper here](#)). For example, we highlight Australia for its MDD DALYs burden nearly twice the other countries (a sign of reduced stigma and improved diagnostics), allocating US\$400 per capita in mental healthcare expenditures, full insurance reimbursement coverage, 13.5 psychiatrists per 100,000 people, and a number of grassroots efforts to drive educational campaigns and treatment access pathways across all levels of society.<sup>[80]</sup> Such efforts are truly paving the way in resource allocation toward MDD support and capacity for novel interventions; SEA policymakers can use such models as reference points.

We trust these policy solution themes as well as illustrative best practices inspire hope for SEA policymakers. Mental healthcare falls within the ambition for broader health and socioeconomic reform. Let us tackle the issues head-on. Fortunately for SEA policymakers, there are many great examples of initiatives underway both within the region as well as internationally. The time is now to set the policy actions in motion.

## Key Takeaways from Section 5

**1**

While we recognise SEA's leadership in driving more focus on the topic of mental healthcare, the current approach toward MDD remains too general.

**2**

We call for consideration of new models of care to be implemented, such as improving coordination between community and specialist centres in the countries.

**3**

To enact the above, increased investment levels and enhanced coverage schemes will be required, especially aimed at better education and treatment reimbursement.

# The path forward

While we applaud SEA policymakers for driving progress on inclusive mental healthcare policies, including in some cases with specific recognition of MDD and its sub-type conditions, more is still needed. Never has attention to the topic been higher due to the stressors associated with COVID-19; though, equally, the risk of inaction at this stage may lead to dire consequences.

In the subsequent section with country snapshots, we provide bespoke policy suggestions for SEA policymakers to consider ahead. We conclude here with one vision of the future in which we carry on like today, or another vision in which the effective MDD spectrum guidelines, models of care, and coverage schemes are adopted. Let us seek to leave a generational legacy by once and for all leaving no one behind in mental healthcare support.

Good	Steps	Better
Fazilah has been depressed, but thinks she is just tired from work.	<b>1</b>	Fazilah has been depressed, and suspects that she is on the depression spectrum after having seen an ad on the train about mental illness.
She refrains from telling her family or her employers out of fear of discrimination.	<b>2</b>	She tells her family about her feelings, and they encouraged her to seek help from the community centre which has been trained in mental illness.
She heard about traditional healers who use herbal medicine for spiritual disturbances, and visits one of them.	<b>3</b>	The social worker at the community centre gave her a digital flyer about depression, how to seek referral mental healthcare services, and governmental financial support available.
After 1 month, her condition worsened and she started having suicidal thoughts. She then decides to visit a GP in her local village.	<b>4</b>	After learning more about depression, she tells the social worker that she wants to seek treatment. The social worker refers her to a GP in her town who is trained in mental health disorders.
Her GP prescribes a generic anti-depressant, because he is not familiar with her symptoms.	<b>5</b>	The GP has been trained on diagnosing MDD, and prescribes her with anti-depressants.
Fazilah's symptoms don't improve for weeks. Her employer blames her for being unproductive.	<b>6</b>	Fazilah tells her employer about her diagnosis. The employer allows her schedule flexibility to accommodate her treatment and condition. However, her condition continues to worsen, and she began having suicidal ideation.
Her stress aggravates and she attempts suicide. Her sister finds out and refers her to a different GP.	<b>7</b>	Her social worker reminds her to go for her follow-up appointment. She visits the same GP on time, and informs the GP of her suicidal thoughts.
The GP refers her to a larger hospital in the capital city. Fazilah delays the appointment because it is difficult for her to arrange the trip.	<b>8</b>	The GP, recognising MDSI, refers Fazilah to a specialised facility in a nearby city for better treatment options (the transport to which is fully reimbursed).
When she finally went to the capital city, the psychiatrist diagnosed her as MDD, and prescribes MDD-specific anti-depressants. The consultation lasted only 5 minutes.	<b>9</b>	She goes to the psychiatrist after 4-6 weeks. After failure of two rounds of antidepressants of adequate dose/duration and reading her diagnostic history from a centralised database, the psychiatrist spends sufficient time to have a well-rounded assessment of Fazilah, and diagnoses TRD with suicidal tendency.
After being hospitalised for several weeks, Fazilah's condition doesn't improve. The psychiatrist classifies her condition as TRD, and suggests ECT treatment. Fazilah exhausts her personal budget for treatment, because it is not covered by the national reimbursement scheme.	<b>10</b>	The psychiatrist suggests a novel, more targeted intervention. Fazilah uses the national reimbursement scheme to pay for the bulk of the treatment.
Fazilah feels better, but suffers from ECT side-effects such as memory loss. Her psychiatrist suggests that she stay in the hospital for some time to observe her recovery. Unfortunately, her budget doesn't allow that and she decides to go home.	<b>11</b>	She recovers well after the appropriate treatment and maintains regular tele-consultation with the psychiatrist after she returns home.
When she returns to work, Fazilah informs her employer of her condition, but she still gets overloaded and is the target of insensitive remarks.	<b>12</b>	When she returns to work, her employer asks her about her condition. The employer learns about TRD and ensures that Fazilah is not overloaded and regularly checks in on her.

**Fazilah relapses a year later, feeling hopeless and alone.**

**Fazilah is relapse-free. She is more productive at work, and feels loved and supported by her community.**

# Country snapshots

## Indonesia

### Market Indicators



Population size  
273.5 m (2020) <sup>[89]</sup>



Aged 65+ (%)  
6 (2019) <sup>[90]</sup>



Healthcare spend vs. GDP (%)  
2.9 (2018) <sup>[91]</sup>



Mental health budget vs. total (%)  
1 (2020) <sup>[91]</sup>

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
28.5 million (2016) <sup>[108]</sup>



Mental health % of total DALYs (%)  
5 (2016) <sup>[7]</sup>



MDD prevalence (%) (2021)  
1 <sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
8 <sup>[44]</sup>



Suicide rate per 100,000 population  
31 (2017) <sup>[109][108]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
11 <sup>[112]</sup>



Annual budget for mental healthcare (US\$)  
335.7 million <sup>[11]</sup>



Public reimbursement for mental health (%)  
100 (2017) <sup>[17]</sup>



Trained psychiatrists per 100,000 population  
0.3 (2017) <sup>[17]</sup>

### Other facts:

Proportion of patients with depression not seeking treatment (2019): 58 percent <sup>[132]</sup>

Suicide cases from patients suffering from depression (2017): 51.7 percent individuals who died due to suicide suffered from MDD <sup>[133]</sup>

Out of the total population suffering from symptoms of mental illnesses, only 42 percent of individuals were willing to actively seek professional help <sup>[134]</sup>

Indonesia presents one of the most interesting cases of depression understanding and access in SEA. In the past five years, many policies have been implemented to address mental illness. However, despite the up to 100% public reimbursement for treatment in 2017,<sup>[17]</sup> there remains limited access to adequate mental healthcare services.<sup>[125]</sup> In addition, care needs for those recovering from attempted suicide are also not covered. What is causing these gaps? Our research suggested that this is down to local alternative treatments, shortage of resources, and lack of data, as well as the associated stigmas at all levels.

The depression treatment gap in Indonesia is a high 83%,<sup>[19]</sup> partly because patients seek alternative options such as going to “dukuns,” or through spiritual means. The motivation for alternative treatments is closely linked to stigma and discrimination. Some Indonesians consult psychologists to avoid medication. Others, unique to Indonesia, turn to the practice of “Pasung”: confining and restraining individuals suffering from mental illnesses. Pasung (or “shackle”) is common in rural areas, and is frequently committed by family members of low socioeconomic status. In 2014, the government passed the Law of Republic of Indonesia Number 18, which pertains to mental disorders, along with banning the practice of Pasung. Various anti-pasung programmes have been introduced and implemented, such as Indonesia Bebas Pasung (pasung-free Indonesia) and Jawa Timur Bebas Pasung (pasung-free East Java). Unfortunately, the objectives of these programmes have not been achieved yet, and Pasung is still frequently practised. Approximately 1,655 cases of Pasung were recorded in 2017<sup>[126]</sup>. Along with this, due to fears that patients may be subjected to discriminatory practices and inhuman treatments related to the stigmas associated with depression,<sup>[127]</sup> even potentially criminal charges in the case of attempted suicide, doctors would be hesitant to give a formal diagnosis of such mental health conditions, especially in rural areas. This has further hindered patients from receiving proper treatments or to only speaking to local healers.

The good news is that the government has recognised the threat posed by such stigmas (at the individual as well as care practitioner level), and has taken steps to eliminate them by including mental healthcare services in nationwide programmes and guidelines. In January 2017, the Healthy Indonesian Programme with a Family Approach was launched, which was focused on overall healthcare<sup>[129]</sup>. The programme is a comprehensive

initiative that covers 12 facets of family health, including mental health, and aims to integrate mental and physical wellness. It also released national guidelines aimed at streamlining the mental healthcare services to provide quality support at competitive prices. Community-based mental health organisations, such as Indonesian Schizophrenia Community Care, Bipolar Care Indonesia, and the Indonesian Mental Health Association, also play a significant role in reducing stigma. “Various ethnic groups in urban and remote areas could have differing perceptions of depression,” said Dr. Margarita Maramis of DR Soetomo Hospital in Surabaya. Dr. Maramis also pointed out the importance of community and family support in the diagnosis and treatment of depression, something that we all can help with.

Another hurdle in access to services appropriate for depression in Indonesia is the shortage of practitioners and interventions, which further compounds the stigmas amongst the medical community. There are only 0.3 psychiatrists per 100,000 people<sup>[17]</sup>. Trained professionals are simply overwhelmed by the number of patients in public hospitals, so much so that psychiatrists cannot afford to spend time on psychotherapy. Eight of 34 provinces in Indonesia do not have a specialist institution for mental healthcare, and three do not have a single trained psychiatrist<sup>[127]</sup>. This has resulted in a lack of access that exacerbates the detrimental impact of mental health in the population, especially in the more rural areas.

A third prominent aspect of depression in Indonesia is the lack of data for research and policy-making. The social stigma attached to mental health illness has led to less formal diagnoses of depression at the puskesmas (primary health centres).<sup>[128]</sup> This has resulted in under-reporting of the true burden of the disease at a local and national level, along with delayed treatment to patients, as individuals are much more likely to seek medical care only when their symptoms become especially severe. Evidence suggests that while diagnoses of depression are low, prescription of antidepressant medication has been increasing, meaning that they are being used to treat anxiety disorders and/or somatic expressions of psychological distress instead of depression, as a result of the stigma associated with the condition.<sup>[128]</sup> These misdiagnoses and misinformed treatments can be avoided by reducing stigma around depression. We are hopeful that the vicious cycle of data shortage and poor healthcare provision can be reversed by increasing the visibility and acceptance of depression in Indonesia.

## The following are our bespoke policy calls-to-action for Indonesia:

- ▶ Designate champions within government agencies and among healthcare professionals for depression, to drive top-down understanding, buy-in, and education against stigma.
- ▶ Improve accurate diagnosis and data collection of MDD and its sub-types. Use the data, while being respectful of patient privacy, for educational campaigns and to conduct cost/benefit analyses.
- ▶ Concurrently, dig into the MDD spectrum detail, such as TRD and MDSI. Align medical practice to the latest guidelines, perhaps by establishing a specialist group to be the country's centre of excellence.
- ▶ Partner with telehealth providers/start-ups to develop MDD screening tools that facilitate self-assessment of depression and comorbidities. Consider more novel approaches to intervention that circumvent the shortage of professionals – concepts like telepsychiatry, as well as newer treatment agents to address more severe sub-types like TRD and MDSI.

# Country snapshots

## Malaysia

### Market Indicators



Population size  
32.4 million (2020) <sup>[89]</sup>



Aged 65+ (%)  
69 (2019) <sup>[106]</sup>



Healthcare spend vs. GDP (%)  
3.8 (2018) <sup>[107]</sup>



Mental health budget vs. total (%)  
1.3 (2017) <sup>[15]</sup>

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
3.7 million (2016) <sup>[108]</sup>



Mental health % of total DALYs (%)  
76 (2016) <sup>[7]</sup>



MDD prevalence (%) (2021)  
2.4 <sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
7 <sup>[44]</sup>



Suicide rate per 100,000 population  
7.9 (2017) <sup>[109]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
26 <sup>[9]</sup>



Annual budget for mental healthcare (US\$)  
84.6 million (2020) <sup>[110]</sup>



Public reimbursement for mental health (%)  
No national reimbursement scheme <sup>[15]</sup>



Trained psychiatrists per 100,000 population  
10 (2018) <sup>[9]</sup>

### Other facts:

Estimated cost of mental health conditions to the Malaysian economy -  
US\$3.5 billion (RM14.46 billion, 2018) <sup>[112]</sup>

1 in 5 students in Malaysia suffer from mental health problems (2016) <sup>[113]</sup>

Prevalence of mental health problems in adults:  
29.2 percent (2016) <sup>[113]</sup>

Attempted suicide cases from patients suffering from depression (2020):  
465 individuals attempted suicide between January and June 2020 alone <sup>[114]</sup>

In the past decade, Malaysia has witnessed progress in addressing depression at the policy, institutional, and community level. The pandemic has also catalysed the transition to teleconsultation. However, understanding of MDD is still lacking among the general public, with even some practitioners being unfamiliar with the difference between MDD and MDSI. With half a million Malaysians experiencing symptoms of depression and an economic burden of US\$3.5 billion attributed to mental health issues, there is more to be done to help make mental health treatment accessible, especially in terms of raising education, combating stigma, and reducing the cost of mismanaged care.<sup>[9]</sup>

To increase access to depression-related services and treatment, noteworthy government efforts in the past five years include: 22 Community Mental Healthcare Centers (MENTARI), established in 2015 to rehabilitate patients with serious mental illnesses and reintegrate them into society,<sup>[97]</sup> while the Ministry of Health announced a five-year National Mental Health Strategic Action Plan in 2016.<sup>[98]</sup> Recent discussions include plans for more MENTARI centers, and enhanced data surveillance such as for mental illnesses and suicide. However, there has been a lack of concrete steps taken in conjunction with the stated ambition to improve mental healthcare practices.

The good news is that there are many things that every Malaysian can do to help people living with depression. “There are two forms of stigma that compound each other: self-stigma and social stigma,” said Dr. Alvin Ng Lai Onn, Professor at Sunway University and active voice among the patient cohort. Self-stigma originates from a lack of knowledge and understanding about mental illness. A study has revealed that almost one in five Malaysian adolescents is depressed<sup>[99]</sup>; one reason for this condition is that there is insufficient knowledge about depression and its treatment options. In fact, an alarming 35.1% of Malaysian adults have low health literacy, defined as the ability to find, understand, and use health information and services needed<sup>[101]</sup>. Understanding comes before acceptance. It is therefore paramount to ramp up educational efforts and information transparency for the Malaysian public.

Indeed, the Malaysian government has taken considerable steps towards increasing mental health education and understanding. “Let’s TALK Minda Sihat” is a Ministry of Health campaign focusing on community empowerment and mental health literacy introduced in 2020.<sup>[104]</sup> The National Counselling Policy was introduced at a National Social Council meeting in 2020, seeking to address mental health issues in the community by empowering the counselling services.<sup>[103]</sup> In addition, the Ministry of Women, Family and Community Development (KPWMKM) has launched a tele-counselling hotline for psychological and counselling services for those affected by the COVID-19 pandemic<sup>[141]</sup>. We look forward to more such efforts to reach wider audiences.

Social stigma, on the other hand, is about accepting and normalising mental health issues as part of life. Until today, attempted suicide is considered a crime in Malaysia<sup>[100]</sup>, signalling that mental health issues are “illegal” and should be kept secret (though there is palpable pressure from civil society to decriminalise it). This sentiment is worsened by the lack of informed consent, making people feel less safe in telling others about their mental conditions. Additionally, while there has been growing demand to include mental well-being practices at the workplace, many people are hesitant to discuss depression in this setting as there is still a sizeable stigma attached. Social stigma disproportionately impacts youths, who – despite being info-savvy – are still in the process of forming their social identities, and hence are more susceptible to social pressures.<sup>[102]</sup> In fact, there has been a sharp increase in the rate of acute MDSI in young working professionals.<sup>[44]</sup>

“Half of all mental disorders begin by the age of 14, and three-quarters by the mid-20s.<sup>[105]</sup> Therefore, earlier intervention needs to be addressed urgently,” said The Befrienders Kuala Lumpur patron Tan Sri Lee Lam Thye in a statement in conjunction with World Health Day 2020. We posit that there is no better time than now to acknowledge, embrace, and support people experiencing mental distress in Malaysia.

## The following are our bespoke policy calls-to-action for Malaysia:

-  Continue the educational efforts. Differentiate and target mental health understanding, based on social class, to improve message delivery and to reduce stigma. Concurrently, open the dialogue about de-criminalisation of suicide attempts.
-  Examine the role of the employer (public and private) as mental healthcare educational channels. There should be full coverage and support programmes in place.
-  Implement stepped care services to address low-medium intensity mental health problems, alleviating stress in the system to provide more targeted treatment for patients with the more severe forms of depression. In addition, activate more community care centres as a shelter for patients in need.
-  Drive understanding across care provider channels (hospitals, GPs, clinics) with enhanced guidelines that cover the MDD spectrum, including by creating capacity for the new types of treatment agents available especially for MDD sub-types like TRD and MDSI.

# Country snapshots

## Philippines

### Market Indicators



Population size  
109.6 million (2020)<sup>[69]</sup>



Aged 65+ (%)  
5.3 (2019)<sup>[38]</sup>



Healthcare spend vs. GDP (%)  
4.6 (2019)<sup>[39]</sup>



Mental health budget vs. total (%)  
3-5 (2019)<sup>[54]</sup>

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
10.9 million (2016)<sup>[108]</sup>



Mental health % of total DALYs (%)  
4.7 (2016)<sup>[7]</sup>



MDD prevalence (%) (2021)  
1.4<sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
16<sup>[44]</sup>



Suicide rate per 100,000 population  
6 (2017)<sup>[109]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
0.3 (2017)<sup>[13]</sup>



Annual budget for mental healthcare (US\$)  
12.9 million (2020)<sup>[110]</sup>



Public reimbursement for mental health (%)  
100 (2020)<sup>[13]</sup>



Trained psychiatrists per 100,000 population  
0.5 (2020)<sup>[135]</sup>

### Other facts:

Reported treatment and therapy costs per session in Metro Manila:

US\$93.4 (2020)<sup>[140]</sup>

25.7 percent increase in deaths due to suicides 2020 as compared to 2019<sup>[62]</sup>

According to WHO, the Philippines has experienced a drastic increase in mental health problems in recent years, especially during the pandemic. MDD is among the top three most common mental illnesses in the Philippines.<sup>[136]</sup> The country has made a commendable effort to respond to this increase. However, more can be done, especially in terms of patient data management, treatment coverage, accessibility, and novel care delivery mechanisms like telemedicine.

In recent years, the surge of demand for mental healthcare services has overwhelmed the system. The NCMH Crisis Hotline, flagship program of the DOH and NCHM for suicide prevention, received more than double the amount of calls daily from March to May 2020, compared to 2019.<sup>[61]</sup> By contrast, there are only 46 outpatient facilities (or 0.05 facilities per 100,000 population), four community residential facilities (0.02 per 100,000 population), and two tertiary care psychiatric hospitals in the entire country.<sup>[54]</sup> Additionally, the vast majority of psychiatrists engage in private practice in major urban areas, particularly Metro Manila, suggesting that mental healthcare services are extremely inaccessible in rural areas.<sup>[54]</sup>

As with other SEA countries, there is a cultural stigma against seeking help, despite high rates of psychological distress in the Philippines. For instance, there is a cultural drive to “save face” when a threat to or loss of one’s social position exists, and as such, Filipinos may have difficulty in admitting to having depression or seeking help.<sup>[19]</sup> In other cases, when problems are thought to be socially related, Filipinos turn to family and peer networks before seeking medical help, due to the strong emphasis on family support in the country.<sup>[54]</sup> When Filipinos do seek professional help, it is usually done in combination with other sources of care, or when the symptoms are too severe to handle within the family.

Recognising the overflowing demand and the reluctance to seek help, the government has in recent years made an effort to streamline mental support in healthcare services. In 2018, the Philippines Mental Health Bill became law. The Act aims to integrate psychiatric services and programmes in the public health system to support Filipinos experiencing mental illnesses like depression, while providing a clearer understanding of the illnesses, along with their treatment and care.<sup>[135]</sup> To raise awareness, the Department of Health established a Quality Rights Coordinating Committee, which oversees the rollout of an e-learning course on a national scale.<sup>[70]</sup> These efforts

are steps in the right direction to alleviate the distress increasingly experienced by the population.

The most prominent insurance is offered by PhilHealth, which has a stated intention to launch more mental health packages that include the cost of therapy consultations with psychiatrists.<sup>[137]</sup> While we recognise that PhilHealth has helped many patients, there are some areas that can be improved. For example, coverage is limited only to depression patients who require “acute in-patient care”<sup>[137]</sup>. Even with the Department of Health’s Medicine Access Program for Mental Health and PhilHealth combined, reliable affordability of psychotropic drugs is still in question.<sup>[137]</sup> As a result, the majority of individuals have high out-of-pocket expenditures for depression.

In parallel with the increasing government investment in treatment coverage, policymakers have also pointed out the need for more data to inform high-level initiatives. “Mental health records are not captured nor integrated, leading to a lack in understanding of the current landscape and unmet needs required in order to support policymaking decision,” said Frances Prescilla Cuevas, Chief Health Program Officer at the Philippines Department of Health. Currently, the nationwide level of data is limited because the country’s electronic patient records database does not capture mental health elements. There is no registry for it, and mental healthcare providers are not mandated to share the information collected.

This will hopefully be improved by the adoption of telemedicine at the national level. There is a wealth of online mental healthcare therapy consultations available for patients to seek help virtually, including but not limited to Mind Care Club, Recovery Hub, Ateneo Bulatao Center, and Circle of Hope Community Services. While such models hold the promise of giving policymakers access to aggregate mental service data, two things have yet to be resolved: first, many citizens who do not have the means to perform online payments will not be able to access virtual services; and second, an integrated platform across various online service providers has not been built. Such efforts are a step in the right direction, but more will still need to be done. Not to mention that there remains disparity in the quality of internet connection for many Filipinos.

## The following are our bespoke policy calls-to-action for Philippines:

-  Incorporate mental health data into the national electronic patient records, integrating and aggregating said data to facilitate targeted policymaking and decisions. Concurrently, consider similar digital tooling for decentralised rapid depression diagnostics.
-  Strengthen the existing tiered approach of mental healthcare to alleviate stress in the system by providing targeted treatment for patients with varying severities of depression, (self-care as first level, quickly followed by community level, hospitals, and specialist referral networks tied to the MDD spectrum). Activate the promised PhilHealth packages.
-  Partner with next-gen care delivery services like telepsychiatry, to boost governmental efforts in reaching rural audiences through the educational campaigns. This can further enable the more appropriate treatment pathway for patients who are suffering.
-  Dig into the MDD spectrum detail, such as TRD and MDSI. Align medical practice to international guidelines, including by bringing conditions like TRD into local guidelines. Initiate funding for better coverage capacity, using HTA procedures for the latest interventions available.

# Country snapshots

## Singapore

### Market Indicators



Population size  
5.8 million (2020)<sup>[89]</sup>



Aged 65+ (%)  
12.4 (2019)<sup>[90]</sup>



Healthcare spend vs. GDP (%)  
5.9 (2020)<sup>[91]</sup>



Mental health budget vs. total (%)  
18 (2019)<sup>[92]</sup>

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
0.5 million<sup>[48]</sup>



Mental health % of total DALYs (%)  
9.4 (2016)<sup>[7]</sup>



MDD prevalence (%) (2021)  
23<sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
5<sup>[44]</sup>



Suicide rate per 100,000 population  
8.4 (2018)<sup>[93]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
40 (2018)<sup>[94]</sup>



Annual budget for mental healthcare (US\$)  
N/A



Public reimbursement for mental health (%)  
80<sup>[14]</sup>



Trained psychiatrists per 100,000 population  
4.4 (2018)<sup>[22]</sup>

### Other facts:

Average time taken between onset of symptoms and seeking help is  
**one year** for MDD<sup>[48]</sup>

Subsidised one-year treatment cost of mental illnesses (2019) ranges between  
US\$12,838-25,131<sup>[56]</sup>

Mental disorders contribution to combined burden of early death and disability (2017):  
**10.2 per cent**<sup>[95]</sup>

Singapore is among the SEA front-runners in tackling issues related to depression. In the past decade, the Singaporean government has strengthened its efforts through a variety of educational campaigns, policy support, and technological initiatives, especially for chronic mental illnesses, including MDD. While these efforts have had some positive effects, we can do more to make empowerment sustainable.

With a lifetime prevalence of 6.3%, MDD is the most common mental illness in Singapore.<sup>[48]</sup> The treatment gap, defined as the number of individuals in need of mental health versus those who actually receive treatment, stood at 73% for MDD.<sup>[81]</sup> Like other SEA countries, stigmatisation of depression and lack of awareness are the key reasons for the low diagnosis rate. Suicidal ideation is found in 42% of MDD cases, and is common across all stages of severity.<sup>[82]</sup> Compared to neighbouring countries, Singaporean youth attempt to defy these stigmas with more people suffering from MDSI seeking professional help in a timely manner.<sup>[83]</sup> While there is proactive effort from patients, there is still an unmet need: current treatment is not focused on suicidality.

In Singapore's fast-paced economy, stigma against depression in the workplace is a prominent hurdle, undermining both equality and productivity. A firm believer of equal employment opportunity, the Tripartite Alliance for Fair and Progressive Employment Practices (TAFEP) mandates that all employers remove declarations of mental illness conditions from their job application forms<sup>[78]</sup>. This is a step in the right direction. However, for people on the depression spectrum to succeed in the workplace, support will need to continue beyond recruitment. Indeed, the Society for Men's Health Singapore (SMHS) found that patients who are employed or more highly educated were less likely to seek treatment<sup>[49]</sup>. The vicious cycle is perpetuated when students and employees refuse to seek help, taking a toll on their productivity, which leads in turn to more mental distress and less disposable income to access care services. To reduce discrimination and encourage employees to seek treatment, access to pertinent information is key. "People are aware of depression in Singapore, but may not understand the entire depression spectrum," said Rajakanth Raman, a leading voice for patient advocacy efforts in the country. To truly support people with depression in the workplace, a deeper understanding the condition is an essential first step in taking care of both our colleagues and ourselves.

1 Teleconsultations are a type of telemedicine service, where digital information and communication technologies, such as computers and mobile devices are used to deliver health-related information.

In a teleconsultation, patients can have consultations with doctors, nurses and allied health professionals in the comfort of their homes or at a location where privacy is assured. These virtual appointments enable patients to receive ongoing care where in-person clinic consultations are not necessary or possible.

In the past year, Singapore has boosted its financial support for patients with mental illness. The government now spends 18% of its total healthcare budget on mental health, which is considered high in the region.<sup>[92]</sup> In December 2020, the in-patient psychiatric treatments claim limits increased from S\$100 per day for up to 35 days, to S\$160 per day for up to 60 days. In addition, MediSave can be used to pay for the remainder – up to S\$150 per day and capped at \$5,000 per year<sup>[84]</sup>. Psychiatric patients are able to receive subsidies based on their means-testing status for medications on the Standard Drug List which includes anti-depressants.<sup>[85]</sup> However, despite the increased financial support, affordability issues persist. MediShield does not cover outpatient expenses, and the use of Medisave for medication is subject to a 15% co-payment by the patient for each claim.<sup>[86]</sup> In any case, psychiatric patients often face problems in keeping their jobs and thus tend to exhaust their MediSave funds quickly. Hence, treatment subsidies need to be coupled with employment support for the combined effort to be sustainable.

One promising development in Singapore was brought about by the increasing access to new care delivery models like teleconsultations. The national helpline established by the Ministry of Social and Family Development (MSF) for psychological support observed an increase in calls from 3,826 in March 2020 to 4,319 in April and 4,265 in May 2020<sup>[87]</sup>. The National Healthcare Group Polyclinics also introduced teleconsultations<sup>1</sup>, which witnessed an increase of 10% in patients seeking treatment for mental health conditions in the first half of 2020<sup>[88]</sup>. In October 2020, telehealth provider Doctor Anywhere launched a mental health consultation service for companies to help support their employees<sup>[73]</sup>. Though the rise of popularity of teleconsultations may be partly attributed to COVID-19, it is a ray of light, especially as mobile devices are increasingly prevalent amongst the population. Taking the first step to seek help, no matter how small, is already a move in the right direction towards more targeted support mechanisms.

**The following are our bespoke policy calls-to-action for Singapore:**

-  Foster cross-Ministerial collaboration, for example the inclusion of mental healthcare therapy practitioners under the Allied Health Professions Act, to ensure greater accountability and to protect against substandard services.
-  Allow outpatient and follow-up depression care to be covered under MedishieldLife, while freeing up Medisave capacity for more critical patients requiring hospital support.
-  Join up the pooling of funds across government, employers, insurers to drive higher subsidy to medications, thereby improving patient protection against financial distress.
-  Continue to serve as an advanced therapeutics leader in the region by aligning to evolving international standards for clinical trials, new delivery models, and novel interventions.

# Country snapshots

## Thailand

### Market Indicators



Population size  
698 million (2020)<sup>[89]</sup>



Aged 65+ (%)  
12.4 (2019)<sup>[145]</sup>



Healthcare spend vs. GDP (%)  
3.8 (2018)<sup>[146]</sup>



Mental health budget vs. total (%)  
0.3 (2017)<sup>[10]</sup>

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
8.8 million (2016)<sup>[108]</sup>



Mental health % of total DALYs (%)  
6.3 (2016)<sup>[7]</sup>



MDD prevalence (%) (2021)  
26<sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
5<sup>[44]</sup>



Suicide rate per 100,000 population  
7.37 (2020)<sup>[147]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
15 (2017)<sup>[10]</sup>



Annual budget for mental healthcare (US\$)  
N/A



Public reimbursement for mental health (%)  
100 (2017)<sup>[10]</sup>



Trained psychiatrists per 100,000 population  
1.34 (2017)<sup>[24]</sup>

### Other facts:

Methods of attempting suicide are more aggressive among males.<sup>[44]</sup>

Treated cases of severe mental disorder (per 100,000 population, 2017):  
7815<sup>[10]</sup>

22 percent increase in deaths by suicides in first half of 2020 as compared to 2019<sup>[144]</sup>

In the past 15 years, the Thai government has undertaken significant work to establish a nationwide evidence-based surveillance and care system for depression and suicide. By 2016, more than 14 million individuals in the country were screened for depression, while 1.7 million citizens received psychosocial interventions<sup>[68]</sup>. Additionally, the successful administration of the system has led to a drastic increase in accessibility of standard care for people with depressive disorders, rising from 5 percent in 2009 to 49 percent in 2016<sup>[68]</sup>.

Among the national initiatives was an online campaign called “Unknown Together,” launched by the United Nations (UN) of Thailand, along with Knowing Mind (a Thai-based mental health organisation) and Love Frankie (a social change agency), which explores growing mental health concerns via expert panel discussions. Increasing the understanding regarding mental illness has made patients amenable to seeking help, such as through the New Counselling Service (NCS) and Psychological Services International (PSI).

Nevertheless, resource allocation to mental healthcare remains disproportionately low for the DALYs impact compared to other disease areas. A key factor that undermines the Thai government’s effort to increase access to depression treatment is the shortage of psychiatrists. “Becoming a psychiatrist may be seen as unpopular among medical students,” said Dr. Pichai Ittasakul, a local psychiatrist. It is not difficult to see why. Current trained professionals face higher levels of emotional exhaustion associated with working more than 50 hours a week and treating more patients per day<sup>[141]</sup>. As of 2020, 49.3% psychiatrists suffered from high levels of exhaustion, a drastic increase compared to 17.1% in 2011<sup>[141]</sup>. Additionally, accessibility to psychiatric care is further skewed by location, as most psychiatrists prefer to work in the Bangkok metropolitan area. “Around 50% [of psychiatrists are] located in Bangkok,” said Dr. Ittasakul. This might be attributed to the fact that most psychiatric hospitals are located in urbanised instead of rural areas, and to the political instability in certain provinces.

This trend is especially disheartening for patients with MDSI – while GPs can share the workload of following up with mild to moderate MDD, more specialised conditions, such as MDSI, are better managed by psychiatrists. The outlook, unless greater policy interventions are taken, is shaky. Mental disorders are excluded from most private insurance plans, and the existing pathways for novel depression treatments need to be reviewed – SNRI drug classes are not even listed in the NLEM antidepressant category, much less the more advanced therapies arriving soon.

Unique to Thailand, the prevalence of depression among the elderly hill tribe population was observed to be 32.9 percent<sup>[55]</sup>. This cohort also suffers from various socioeconomic disadvantages which hinder access to depression treatments in a timely manner. These range from the patriarchal culture and family influence on decision-making, to education and financial management. Moreover, approximately 30% of tribal individuals have not been granted Thai citizenship, rendering them unable to access basic healthcare and education in the country<sup>[55]</sup>.

Another group that has been disproportionately affected by depression in Thailand is youths. Between 2018 and 2019, there was an 12% increase in youth between the ages of 11-25 years old calling in for mental healthcare consults. Although MDSI diagnosis concentrates in the 20-40 age group, the suicide rate for young adults aged 20-24 has increased from 4.94 per 100,000 in 2018 to 5.33 per 100,000 in 2018<sup>[59]</sup>. It is estimated that the direct economic impact due to suicide in Thailand is more than US\$400 million.<sup>[60]</sup> In response, Thailand has taken considerable steps to address the mental health issues among youths. In July 2020, the Department of Mental Health (DMH), UNICEF Thailand, and JOOX Thailand launched the “Sound of Happiness” campaign to help children and adolescents cope with mental issues<sup>[77]</sup>. The campaign features podcasts from DMH experts, and covers topics such as depression, stress, relationships, and bullying. It not only provides guidance and support, but also promotes youth-friendly support services.

Various digital tools have been significant helpers in the effort to make mental support services more accessible, especially for youths. The Mental Health Check Up app developed by the DMH and the Somdet Chaopraya Institute of Psychiatry provides individuals with a quick check-up on the go<sup>[142]</sup>. Mobile applications such as Ooca, a telepsychiatry platform that provides easy access to doctors and other trained professionals, have gained traction in Thailand. Since its launch, Ooca has amassed 52,000 individual users in Thailand and 20,000 registered companies, both Thai and international enterprises<sup>[72]</sup>. Ooca is expected to sign a Memorandum of Understanding (MoU) with the DMH, which will make the app accessible to underprivileged youths in universities across the country for free<sup>[72]</sup>. Beyond its accessibility to teenagers, more digitised practices for mental healthcare services have the following benefits according to the stakeholders we spoke to in Thailand: decreased costs for patients as well as doctors; doctors get better non-verbal cues than over the telephone; and more collaborative patient care with inputs from other specialties and departments.

Despite the line-up of mental health initiatives, COVID-19 has hit Thailand rather hard in terms of mental health. According to the country's DMH, stress levels amongst the general public have increased from 2.7 percent to 4.2 percent in 2020<sup>[143]</sup>. Concurrently, depressive symptoms among the general public have become more prominent, and suicide rates also increased in 2020. During the first six months of that year, around 2,551 individuals committed suicide, indicating an increase of over 22 percent compared to the same period in the previous year<sup>[144]</sup>.

Fortunately, the Thai government and people have been resilient and quick to respond, rolling out several promising initiatives to manage the mental impact of the pandemic. For example, the DMH has developed the Mental Health Check-in tool to assess COVID-19 related mental issues on medical workers and volunteers<sup>[142]</sup>. The questionnaire-based evaluation provides suggestions and access to professional help if required. As the nation continues to keep up with the growing efforts surrounding mental healthcare, the platform is being created for Thailand to become a leader in the region in newer models of care and intervention.

## The following are our bespoke policy calls-to-action for Thailand:

-  Utilise a national planning cycle to revamp the mental healthcare programme, with right-sized resource allocation to tackle leading drivers of economic loss (like suicide).
-  Remove exclusion and discrimination of mental health disorders from insurance schemes, and build out the capacity for greater MDD screening and treatment beyond major cities.
-  Drive educational programmes to improve mental health literacy, particularly about the MDD spectrum, amongst government, medical professional specialism, and the wider population.
-  Now that newer models of care have been tested (such as telepsychiatry), codify these into policy and seek to create funding pathways for more targeted medications with the aim to reduce out-of-pocket expenditures.

# Country snapshots

## Vietnam

### Market Indicators



Population size  
97.3 million (2020)<sup>[69]</sup>



Aged 65+ (%)  
7.6 (2019)<sup>[122]</sup>



Healthcare spend vs. GDP (%)  
6.6 (2019)<sup>[123]</sup>



Mental health budget vs. total (%)  
N/A

### Disease Indicators



Mental illness & neuro-developmental disorders prevalence  
9.6 million (2016)<sup>[108]</sup>



Mental health % of total DALYs (%)  
5.6 (2016)<sup>[7]</sup>



MDD prevalence (%) (2021)  
1.2<sup>[44]</sup>



Proportion of acute MDSI in MDD patients (%) (2021)  
21<sup>[44]</sup>



Suicide rate per 100,000 population  
7.4 (2017)<sup>[109]</sup>

### MDD Scoring



Annual per capita mental health expenditure (US\$)  
Lack of verifiable source



Annual budget for mental healthcare (US\$)  
Lack of verifiable source



Public reimbursement for mental health (%)  
80 (2017)<sup>[16]</sup>



Trained psychiatrists per 100,000 population  
0.9 (2014)<sup>[23]</sup>

### Other facts:

Specifically, above 70 years of age was observed to have the highest prevalence of depression in the country with 5.9 percent of 70+ years of age suffering from depressive disorders<sup>[24]</sup>

Most MDSI patients are between 18 to 30 years of age<sup>[44]</sup>

Only one-third of industry workers in Vietnam with positive depressive symptoms used mental healthcare services in 2019<sup>[117]</sup>

Vietnam has experienced impressive progress, both in improving mental illness focus and treatment capacity in the past decade. That said, funding capacity remains an issue, as state budgets have been cut (in some cases by half) despite the rise in mental disorders.<sup>[51]</sup> More effort is needed in reducing stigmatisation, raising information dissemination, optimising the structures of care, and improving mental healthcare resources and infrastructure.

Up to 40,000 Vietnamese commit suicide due to depression each year<sup>[116]</sup>, yet the prevalence rate for the disease was reported to be merely 4.9% in 2020.<sup>[115]</sup> “Most of the time, we do not know the symptoms that people are exhibiting are related to having depression,” said Tam Nguyen, Director of Basic Needs and an active patient voice in the community. Another possibility is that people are reluctant to identify as having depression as they believe it is incurable. Even if a patient is aware that he or she has depression and actively seeks help, they do not necessarily know where to get treatment, especially when living outside the larger cities. When people attempt suicide, the first responders are emergency doctors, who are unfamiliar with MDSI, and are hence unable to accurately diagnose or administer appropriate treatments.

Interestingly, young adults under 30 and females are the most affected cohorts by MDSI in Vietnam.<sup>[44]</sup> Among them, advanced levels of education seem to be a more significant predictor than socioeconomic status, possibly attributed to the high-stress schooling environment. Around 60% of patients with acute MDSI are females, which hints at the effect of societal gender norms<sup>[118]</sup>. Another development that has hindered effective MDD management is the preference for alternative treatments to Western medicine.<sup>[119]</sup> These alternative treatments include traditional Vietnamese and Chinese medicines using herbs, acupuncture, massage, and various forms of exercise to promote the flow of “inner energy”; meditation, special diets, and spiritual healing. To address the information gap and social stigma, some Hamlet Health Workers (HHWs) were taught how to identify mental health problems and access drugs for their patients, to better assist their corresponding communities.<sup>[118]</sup>

Vietnam has implemented significant efforts to add depression into the National Health Target Programme, with the Community-based Mental Health Care (CMHC) programmed, since 2001.<sup>[121]</sup> CMHC consists of screening, referral, treatment, management, and follow-up between primary health centres with district, provincial, and tertiary hospitals. However, only 2% of those enrolled in the programme are treated for depression.<sup>[120]</sup> This suggests low capability at the primary care level and weak structure between primary care and higher-level hospitals. Therefore, a strong mental healthcare referral network is needed in which outpatient departments in psychiatric hospitals should be established.

At present, the hospital-based mental healthcare service is mainly from the public sector, which is limited in terms of capacity. People with mental healthcare needs could instead be encouraged to choose to access private providers or other specialised services. Such a move, which requires a degree of open licensing and infrastructure development, addresses stigma challenges too.

The government aims to provide more professional support for provincial and district hospitals as well as health clinics, especially in far-flung areas.<sup>[121]</sup> One initiative that has promoted access to treatment is the development of new care delivery models like telemedicine. As part of the national digital transformation programme under the direction of the Vietnamese government, a two-month pilot project connected 1,000 health centres to provide remote consultation and telehealth treatment.<sup>[74]</sup> Many consultations on patients with complicated mental illnesses have been conducted promptly, leading to successful intervention and strengthened referral networks on to specialists. Hopefully, Vietnam will continue to explore new models of care and coverage in order to provide a more effective and tailored solution to the aforementioned challenges.

## The following are our bespoke policy calls-to-action for Vietnam:

-  Expand on the broader healthcare reform efforts by building capacity for MDD screening outside of the urban areas and at the primary care level. Stand up specialist referral networks for the more advanced treatments required, including through the establishment of more outpatient departments at psychiatric hospitals. Allow private sector facilities too, to increase access to help for the population.
-  Concurrently, raise the level of understanding of the MDD spectrum across government, care providers, and the wider communities, including for sub-conditions like TRD and MDSI. Align to international standards and scale up medical societies through proper guidelines.
-  Leverage neighbouring country models for depression educational campaigns, nationally and locally as well as online and offline. Continue to solicit grassroots efforts.
-  Invest in pathways and coverage schemes that recognise the novel care delivery models and interventions available, especially along the MDD spectrum and targeted treatment agents.



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