KPMG

The hidden cost

Unveiling the economic and social burden of mental health in Asia Pacific

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May 2025

Perspectives on emerging challenges and opportunities for improving mental health outcomes in the region

Contents

Executive Summary

Context

Mental health has gained renewed attention throughout Asia Pacific (APAC). In 2021, KPMG, in collaboration with Johnson & Johnson, jointly released a landmark whitepaper for APAC leaders regarding the rising social and economic cost of major depression, one of many mental health challenges. Four years on, this new whitepaper outlines what has changed (and what has not) in addressing the impacts of mental health more broadly in the region.

KPMG, sponsored by Johnson & Johnson, assessed the mental health landscape in seven countries and jurisdictions in APAC (Australia, Chinese mainland, Hong Kong Special Administrative Region (SAR), Japan, Singapore, South Korea and Taiwan). This whitepaper examines the advancements made since the 2021 publication, identifies new barriers and proposes future considerations to three main themes (please refer to Table 1) on improving access to mental healthcare, modernizing health system design and advancing policies across APAC.

Table 1. Main themes explored in this whitepaper

	Access to care	Health system reform	Policy development
What is it?	Appropriate resource allocation and financial investment enable equitable and sustainable access to preventative care, treatment and community-based services	Redesign of health systems and patient care pathways, supported by a strong mental health workforce, to enable online-offline models of care	Government-led initiatives and policies empower society through improved literacy and awareness, which serve to build mental health knowledge and reduce public stigma
Why is it important?	Ensures individuals receive timely, appropriate mental health services and access to the latest treatment innovation, thus reducing the overall burden of mental health issues on society and improving productivity and quality of life	Integrates mental health services into the broader healthcare system, promoting efficiency, reducing stigma, enhancing multidimensional care and ensuring that mental health is prioritized in the same way as physical health	Provides a framework for implementing and sustaining mental health initiatives, ensuring resources are allocated effectively and there is a coordinated effort to address mental health challenges at a systemic level

Why mental healthcare matters in Asia Pacific

What it is: Over 60 percent of the world's population resides in APAC, and the region accounts for about 50 percent of the global disability-adjusted life years (DALYs)[1] — the total years of life lost due to premature mortality and years lived with a disability[2] — related to mental health. Separately, the prevalence of mental health conditions in APAC rose by 47 percent between 1990 and 2019.[3] The top three mental health conditions contributing to the burden of disease in APAC are depressive disorders, anxiety and schizophrenia.[4] [5]

Why this is important: Mental health is closely connected to overall physical well-being. Poor mental health negatively impacts quality of life, reduces economic productivity and compromises general health outcomes, while driving up healthcare costs.

What is the impact: As the region experiences rapid urbanization, economic prosperity and increasing social pressures, challenges in mental health add to the rising economic and social burden, as seen in:

- High out-of-pocket costs for mental healthcare compared to general medical conditions (e.g. in Singapore, there is a five-fold difference in claim limits between psychiatric care and standard ward services).[6]
- Significant financial and social burden on patients and caregivers (e.g. in Australia, 37.2 hours of primary caregiving are required each week).[7]
- Continued under-investment in mental healthcare (e.g. in South Korea, the mental health budget accounted for only around 3 percent of the total health budget in 2024).[8]

Pressing mental healthcare challenges in Asia Pacific

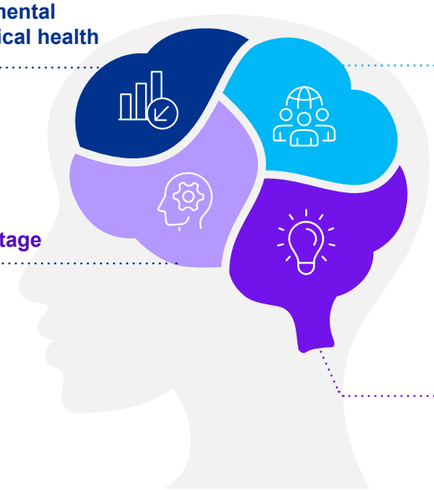
Mental healthcare challenges are multifaceted. Some of the more pressing issues to address include:

Sustained under-investment in mental healthcare as compared to physical health

High-income economies should allocate 10 percent of their health budgets to mental health, but APAC markets fall short.[9]

Mental healthcare resource shortage

A shortage of mental health professionals and psychiatric beds continues to add pressure to the already constrained healthcare system.



Access inequity

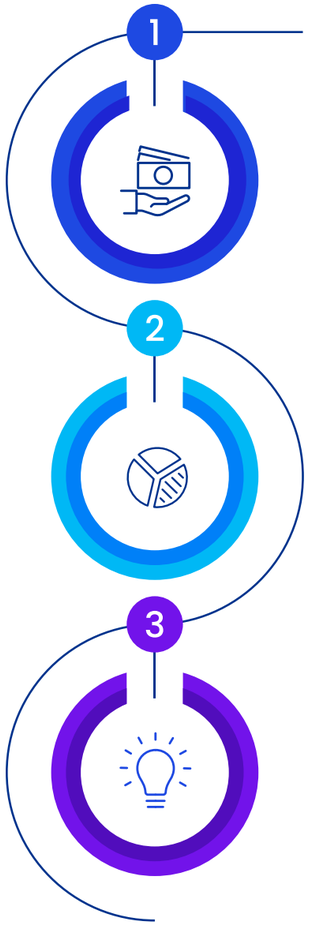
Discontinuity across the care continuum is manifested in the limited coordination between inpatient and outpatient care where patients are not aware of care options beyond the hospital walls. This is exacerbated by inequitable resource distribution across metropolitan and remote areas.

Limited innovation

Limited and slow adoption of digital and treatment innovation in mental healthcare.

Opportunities for change

Three key areas are identified for policymakers to bring about the most needed change. Specifically, increasing:



Investment

Although there are policies aimed at raising awareness, prevention and research in mental health, all APAC markets examined in this paper fall short of the recommended share of health expenditure allocated to mental healthcare (ranging from 1.2 percent to 8.8 percent, compared to the international benchmark of 10 percent for high-income markets).[10] Policies and targeted investments in mental healthcare could be augmented in order to address system challenges, such as workforce and infrastructure shortages, implementing effective campaigns and education to reduce cultural stigma and financing the development, access and adoption of innovation in mental healthcare.

Availability

Only one APAC market meets the recommended ratio of 10 psychiatrists[11] (with the lowest being 3.6) per 100,000 of the population,[12] while just two markets meet the optimal 60 mental health beds[13] (with the lowest being 37.6) per 100,000 of the population.[14] Future policies could focus on addressing access disparities driven by geographical factors (e.g. 20 psychiatrists per 100,000 people in urban areas in Japan compared to 5 in remote areas)[15] and other social determinants of health (such as education, income level, digital literacy). Other than increasing capacity, mental health policies must improve workforce capabilities and reduce stigma surrounding mental healthcare as a profession, promote upskilling to provide culturally sensitive care and increase workforce diversity.[16]

Innovation

Innovation in mental health across the standard of care, from prevention, diagnosis, treatment and monitoring, remains limited. Progress in innovation continues to lag behind that in other therapeutic areas. For example, in 2023, venture funding in oncology (US$334.2 million) and cardiology (US$321.9 million) in APAC was more than double the funding allocated to mental health (less than US$150 million).[17] Between 2018 and 2022, only 4.8 percent of FDA-approved drugs targeted psychiatric conditions, compared to 35.1 percent for hematology and oncology.[18] Similarly, in 2024, the FDA approved more than 60 new drugs for oncology, compared to seven for psychiatry.[19] [20] Policies of the future should move beyond point solutions and instead incentivize more disruptive innovation through the provision of grants and subsidies for digital solutions (e.g. digital and pharmaceutical therapeutics, medtech devices) and treatments (e.g. newer generations of medication) across the full care spectrum. Additionally, such policies could invest in building capacity for the design and deployment of digital systems, new models of care and emerging technologies.

Call-to-action

Improving the mental healthcare landscape requires multi-stakeholder effort. Policymakers are encouraged to discuss the recommendations presented in this paper. Short to medium-term actions can include:

Tackling under-investment

by allocating at least 10 percent of the total healthcare budget to align with international benchmarks, exploring alternative funding mechanisms to incentivize ongoing innovations in mental healthcare, ensuring that patients can access best-in-class innovation across the entire care continuum and updating mental health strategies and policies to better address the changing needs of local populations.

De-stigmatizing mental health

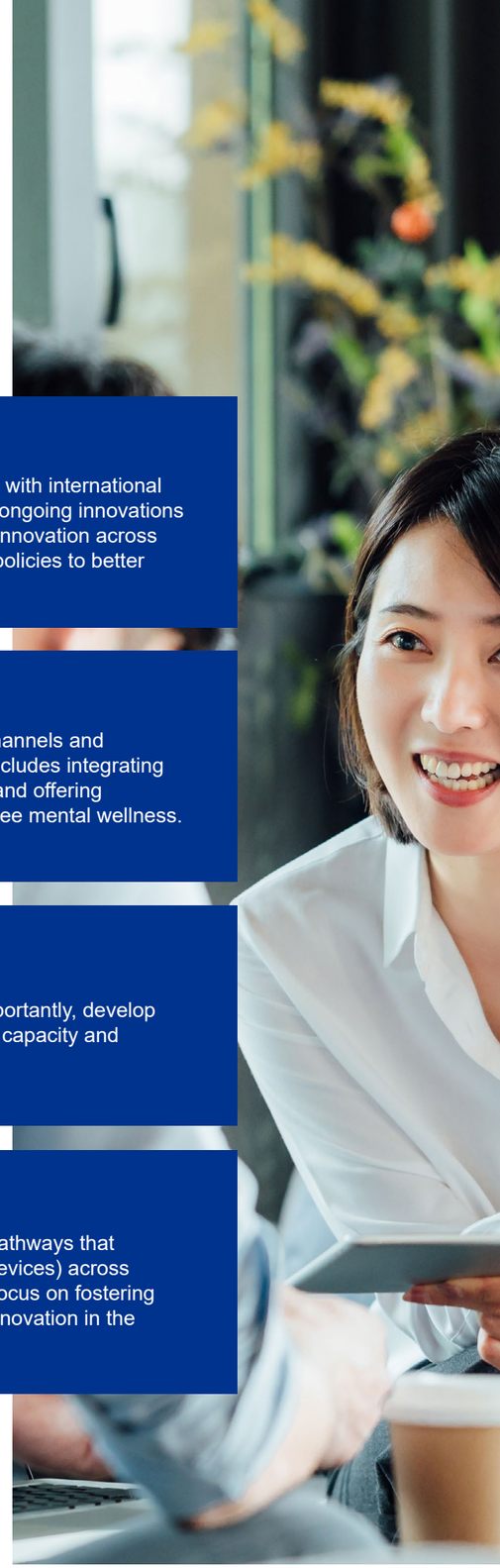
through a life-course approach to education, where communication channels and messaging are tailored to the specific needs of each life stage. This includes integrating mental health education into primary and secondary school curricula and offering workplace training to raise awareness and provide support for employee mental wellness.

Improving availability of resources

by increasing the number of psychiatrists and mental health beds. Importantly, develop policies that address current access disparities, expand infrastructure capacity and strengthen the future workforce's capacity and capabilities.

Innovating the standard of care

that extends beyond point solutions to develop comprehensive care pathways that integrate innovation (e.g. digital health, digital therapeutics, medical devices) across prevention, diagnosis, treatment and monitoring. Future policies can focus on fostering multi-stakeholder collaboration, promoting investment and adopting innovation in the healthcare system.



02

Introduction

2.1 Why mental health matters

The mental health landscape globally

What it is

Approximately one in eight people worldwide, or about 970 million individuals, live with mental health conditions[21] and their prevalence increased by 48 percent from 1990 to 2019.[22] Mental health conditions are the leading contributor to the global non-fatal burden of disease, according to the Institute for Health Metrics and Evaluation. The top three mental health conditions are depressive disorder, anxiety disorders and schizophrenia.[23]

What is the impact

Mental health is integral to an individual's overall well-being. With the rising prevalence of mental health conditions, there has been a corresponding increase in the economic and social burden:

- **Loss of productivity —** The World Health Organization (WHO) estimates that depression and anxiety cost the global economy the equivalent of US$1 trillion annually in lost productivity.[24]
- **Increased healthcare costs —** The National Institute of Mental Health found that in the United States, the annual loss in earnings due to serious mental health conditions was over US$193 billion.[25]
- **Increased absenteeism and decreased presenteeism —** According to the Centers for Disease Control and Prevention, depression contributes to the loss of over 200 million workdays annually in the United States.[26]
- **Deterioration in the quality of life —** The proportion of global DALYs related to mental health conditions has increased from 3.46 percent in 1990 to 5.38 percent in 2021.[27]
- **Burden on caregivers —** Approximately a third of caregivers have experienced emotional or physical strain associated with caregiving responsibilities.[28]

Why this is important

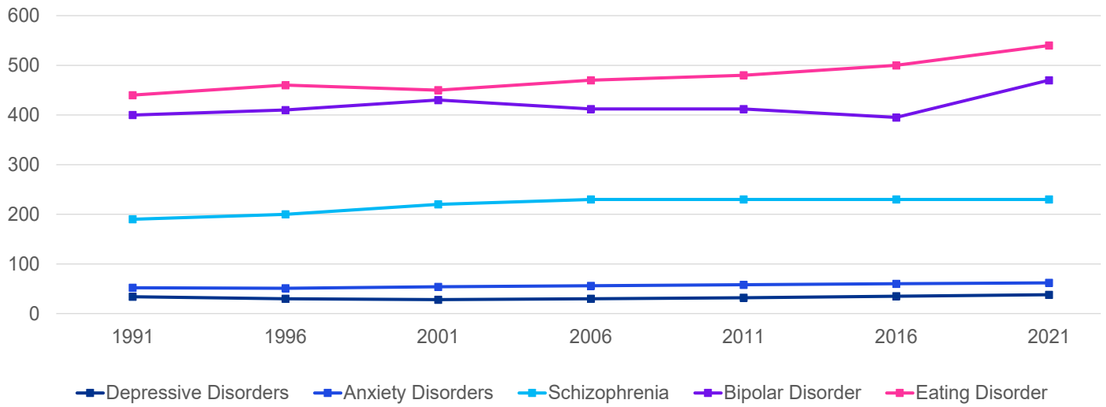
Poor mental health negatively impacts quality of life and general health outcomes worldwide and drives up healthcare costs. The World Economic Forum and Havard School of Public Health have forecasted that the global cost of mental health conditions will increase significantly from US$2.5 trillion in 2010 to US$6 trillion by 2030, surpassing the combined costs of cancer, diabetes and respiratory diseases.[29]

The mental health landscape in Asia Pacific

Similarities to global

More than 60 percent of the world's population lives in Asia Pacific (APAC)[30] and the region accounts for ~50 percent of the global DALYs[31] — the total years of life lost due to premature mortality and years lived with a disability[32] — related to mental health. The prevalence of mental health conditions in APAC increased by 47 percent from 1990 to 2019.[33] Similar to global trends, the top three mental health conditions in the region are depressive disorder, anxiety and schizophrenia, based on the increase in DALYs per 100,000 individuals (see Figure 1 and Figure 2).

Figure 1. Burden of diseases measured by DALYs per 100,000 people in East Asia Pacific, 1991 to 2021[34]



Differences from global

The APAC region faces distinct challenges in the mental health landscape due to the entrenched cultural and social stigma, geographical disparities between metropolitan and remote areas and inequities in access to care. Over 50 percent of individuals with mental health conditions are not receiving any treatment.[35] These challenges also impact the availability and quality of data for reporting, making it difficult to present an accurate representation of the mental health landscape in APAC. Some specific challenges observed include:

- **Culture:** Cultural stigma surrounding mental health in APAC remains strong, with comparative studies showing that Asian cultures have a greater stigma toward mental health than Western cultures.[36] As a result, mental health conditions could be viewed as a "sign of weakness".
- **Geography:** There are notable disparities in access to care and infrastructure between metropolitan and remote areas. In Australia's urban areas, for example, there are approximately 16 psychiatrists per 100,000 people, which is near the OECD average of ~17.5 per 100,000.[37] [38] In regional and remote areas, the number is considerably lower — remote areas in the state of New South Wales have fewer than one per 100,000 and inner and outer regional areas have between one and eight per 100,000.[39]
- **Awareness:** There is limited awareness and a low rate of mental health resource utilization within APAC. For instance, the European Health Literacy Survey released in 2022 revealed that 85.4 percent of respondents in Japan feel their mental health literacy level is insufficient, compared to 47.6 percent in the eight EU markets surveyed (Austria, Bulgaria, Germany, Greece, Ireland, Netherlands, Poland and Spain).[40] In Hong Kong SAR, community-based mental health services, operated by non-profit organizations, are available in each district.[41] However, these services are under-utilized due to a lack of awareness and the difficulty in accessing publicly available information about them, as noted in a stakeholder interview with a representative from a patient advocacy group.

Why mental health is important in Asia Pacific

As APAC experiences rapid urbanization, economic prosperity and increasing social pressures, the economic, social and resource burden of mental health conditions continues to grow. Examples of this are outlined in Table 2 below.

Table 2. Overview of the economic, social and resource burden of mental health in APAC

Economic	Social	Resource
High out-of-pocket costs for mental healthcare compared to general medical conditions: • **Singapore:** A five-fold difference in claim limits (~US$123 per day for psychiatric care compared to ~US$616 per day for standard ward services).[42] **Productivity loss** owing to mental health conditions: • **Japan:** Mental health conditions have the highest cost for productivity loss due to presenteeism (~US$470 per capita) compared to other health conditions.[48] • **Hong Kong SAR:** Total annual costs related to mental health conditions for employers in professional services ranged from ~US$0.72 billion to ~US$1.6 billion.[49] • **South Korea:** The average annual cost per person for absenteeism due to depression was US$181, while the average cost per person for presenteeism related to depression was US$2,114.[50] • **Australia:** 8 million working days are lost annually due to mental health conditions.[51]	Patients and their caregivers face significant **social burden by markets**: • **Hong Kong SAR:** One in three respondents in a survey would consider ending friendships with those diagnosed with mental illness.[43] • **Australia:** 37.2 hours of primary caregiving were required each week.[44] • **Chinese mainland:** 72 percent of caregivers experienced high caregiving burden and some experienced severe depression and anxiety.[45] 10 percent of caregivers resigned from their jobs and 30 percent requested time off from work.[46] • **Taiwan:** A study examining the impact of caregiving burden found that caregivers of mental health patients experienced poorer quality of life when they faced a higher caregiving burden, elevated psychological distress and reduced self-esteem. In particular, caregivers of individuals with schizophrenia were reported to have significantly lower quality of life compared to those caring for individuals with bipolar disorder or major depressive disorder.[47]	**Continued underinvestment** in mental healthcare across APAC: • According to United for Global Mental Health, the Lancet expenditure target stated that low-income markets, lower middle-income markets and upper middle-income markets could afford to allocate a minimum of 5 percent of health budgets and high-income markets could allocate a minimum of 10 percent[52] towards mental healthcare services. • **Singapore:** Government Expenditure on mental health increased by 10.6 percent from 2020 to 2021 but still stood at only 3 percent of overall government health expenditure.[53] • **South Korea:** The mental health budget in 2024 increased by ~19 percent from 2023. However, it still only accounts for ~3 percent of the total health budget.[54]

By refining health system design and strengthening government policies, mental health outcomes can be improved, leading to better overall well-being and increased productivity in the region.

2.2 Objectives and approach

OBJECTIVES

This whitepaper aims to:

- Examine current barriers and propose future considerations to improve mental healthcare access, highlight alternative designs to improve health systems and patient care pathways and advance government policies across APAC.
- Propose recommendations for key stakeholder groups as a call to action.
- Deep-dive into the mental healthcare landscape across APAC (see Appendix: Focus Asia Pacific market snapshot).

APPROACH

The insights and proposed considerations in this whitepaper were developed through primary research consultations with key opinion leaders (KOLs), patient advocacy group (PAG) representatives [n = 17] (refer to the full list of contributing authors in **Acknowledgments**) and secondary analysis of databases and official publications (see **References**). Research findings on key barriers and considerations were categorized into three themes (access to mental healthcare, health system reform and policy development), which were further broken into topics. The findings were complemented by market-specific snapshots to highlight specific market needs and provide nuanced perspectives for each market.

2.3 About this whitepaper

Current state of mental health policy in Asia Pacific

This whitepaper draws on two prior publications focused on major depressive disorder (MDD) and schizophrenia, namely The rising social and economic cost of major depression: seeing the full spectrum (2020) and The spectrum of major depressive disorder burden in Southeast Asia (2021). These publications explore the challenges of MDD, including an understanding of sub-types, barriers in diagnosis and treatment, stigma and social and economic outcomes on well-being. The publications also explored future policy considerations, such as the development of healthcare standards, guidelines and financial coverage for MDD diagnosis and treatment, new models of care and investment priorities.

This whitepaper expands upon these prior publications by covering the breadth of mental health burden while building upon prior barriers and considerations to assess what has changed or not since the last publication. This paper will skew focus towards MDD and schizophrenia as the conditions that have the highest growth rates within APAC. To support localized action, this whitepaper supports findings with specific APAC market snapshots; each presenting an overview of the current mental health policies, health systems, resource allocation, barriers and future considerations within the market.

Progress in mental healthcare since 2021

New policies in mental health have been developed across APAC since 2021, as outlined in Table 3.

Table 3. National mental health policies and plans developed since 2021 in focused APAC markets

Focus APAC market	Examples of mental health policies or plans in place (non-exhaustive)	Year of publication	Government expenditure on mental health as % of total government health expenditure	Psychiatrists per 100,000 population
Australia	Vision 30[55] National Mental Health Workforce Strategy (2022 to 2032)[56]	2022	6.8 percent[57]	16.0[58]
Chinese mainland	The National Health Plan of the 14th Five-Year Plan[59] Work Plan of Healthy China Action in 2023 Strategy (2022 to 2032)[60]	2022 2023	1.2 percent[61] (Spending on public psychiatric hospitals and psychiatric health institutions)	3.6[62]
Hong Kong SAR	Mental Health Policy Amendments[63]	2023	3.5 percent[64] [65]	7.6[66]
Japan	Revised Mental Health and Welfare Act[67]	2024	8.8 percent[68]	13.3[69]
Singapore	National Mental Health and Well-being Strategy[70]	2023	3.0 percent[71]	5.0[72]
South Korea	Transformative Plan for Mental Health Policy Innovation[73]	2023	3.0 percent[75]	9.0[77]
Taiwan	National Mental Health Resilience Plan (2025 to 2030)[74]	2024	2.5 percent[76]	9.3[78]

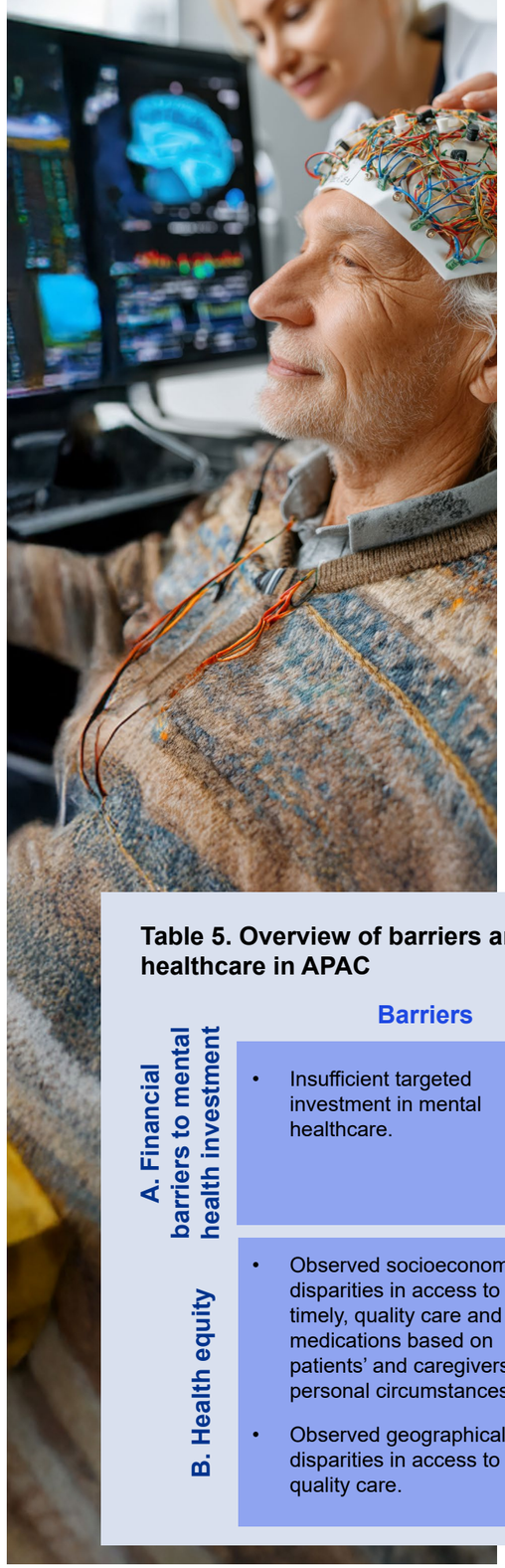
Overview of mental health challenges in Asia Pacific

The mental health landscape in APAC is undergoing significant changes. While some systemic challenges previously identified remain unresolved, new challenges have become more apparent in recent years (Table This presents an opportunity to take stock of current access, reforms and policy and look at how existing system issues and new emerging issues can be resolved to ensure improved and sustainable economic and social outcomes in APAC.

Table 4. Overview of existing and new challenges in mental health

	Challenges in mental healthcare explored in 2020–2021 papers[79] [80]	New challenges since 2021
Access to mental healthcare	• Underinvestment in mental healthcare in APAC. • Lack of basic mental healthcare infrastructure. • Disparity in resource allocation and availability between geographical areas.	• Disproportionate government funding allocation to treatment compared to prevention and early intervention. • Healthcare budgets have increased, but the allocation for mental health has not been proportional to other areas of health. • Disparity in access to timely, quality care and range of medication based on patients' socioeconomic backgrounds.
Health system reform	• Delays in appropriate interventions being taken.	• Fragmented healthcare system with limited integration and coordination across the care continuum. • Slow rate of digital adoption in mental healthcare compared to other areas of health. • Well-being challenges among mental healthcare professionals (such as burnout). • Inconsistent health data collection creates a challenge in monitoring and assessing the effectiveness of mental health initiatives.
Policy development	• Social and cultural stigma, complicated by the lack of awareness and knowledge of mental health. • Lack of targeted policies addressing mental health sub-types of MDD.	• Policy implementation challenges in clinical practice due to limited public consultation during policy development. • Fragmented data collection and limited monitoring of new policy effectiveness.

The following chapters of this whitepaper will explore these new challenges that have emerged in the mental health landscape since 2021.



Access to mental healthcare in Asia Pacific

> *Mental health is a basic human right for all people. Everyone, whoever and wherever they are, has a deserving and inherent right to the highest attainable standard of mental health."*
>
> **World Health Organization**

Access to mental healthcare across APAC is inequitable due to chronic underinvestment in the necessary infrastructure and inadequate resource allocation for prevention and treatment, thus impacting individuals' health and social determinants (e.g. geographic location, housing, education and employment). This section examines the main barriers and primary considerations for addressing the challenges outlined in Table 5.

They highlight the importance of making targeted investments in mental healthcare, as it improves resource availability and accessibility to digital and treatment innovation.

Table 5. Overview of barriers and considerations for improving access to mental healthcare in APAC

	Barriers	Considerations
A. Financial barriers to mental health investment	• Insufficient targeted investment in mental healthcare.	**A.1** Explore alternative, public and private mixed financing mechanisms for top-up needs.
B. Health equity	• Observed socioeconomic disparities in access to timely, quality care and medications based on patients' and caregivers' personal circumstances. • Observed geographical disparities in access to quality care.	**B.1** Incorporate essential mental health medications and services into universal health coverage (UHC) and national health insurance (NHI) schemes. **B.2** Update clinical guidelines to integrate health equity considerations to promote fairness and accessibility. **B.3** Enhance the mental health workforce by integrating digital tools to augment the capacity to serve more patients and improve efficiency.

A. Financial – general mental health investment

Funding availability affects the delivery of mental health services, infrastructure improvements, workforce expansion and skill development. It influences both the affordability of care for patients and the long-term sustainability of services provided by healthcare professionals.

Mental health investment barriers

Insufficient targeted investment in mental healthcare

What is it: Mental healthcare continues to be an underinvested area in APAC. Despite the nominal increase in healthcare expenditure, there is limited targeted investment in mental health support services (e.g. insurance coverage, timeliness in care access, mental health workforce capacity) to meet growing demand.

What is the impact: Chronic underinvestment in mental health continues to drive the increasing social and economic burden of poor mental health, surpassing the capacity and capability of workforces to meet the rising demand for care. The financial and social burden of mental health can be manifested in productivity loss for patients and their caregivers who can no longer work at their full capacity.

Evidence and examples: United for Global Mental Health recommends that low- to middle-upper-income markets dedicate at least 5 percent of the health budget to mental health and 10 percent in high-income markets.[81] According to this guide, APAC markets are consistently underinvesting in mental health, as shown in Table 6.

Table 6. Government expenditure on mental health across APAC markets

Market	Government expenditure on mental health	As a % of total government health expenditure	Year
Australia[82]	AUD11.585 billion	6.78 percent	2021–2022
Chinese mainland[83]	CNY1,146 billion*	1.2 percent*	2023
Hong Kong SAR[84] [85]	HKD6,086 million	3.5 percent	2022–2023
Japan[86]	JPY1,050.3 billion	8.8 percent	2021
Singapore[88]	SGD379.1 million	3.0 percent	2022
South Korea[87]	KRW527.5 billion	3.0 percent	2024
Taiwan[89]	NTD5.607 billion	2.5 percent	2024

*Spending on public psychiatric hospitals and psychiatric health institutions

Considerations for financial investment in mental health

A.1 Explore alternatives, public and private mixed financing mechanisms for top-up needs

Why is it important: Alternative public-private mixed funding mechanisms make mental health medications, treatments and services more affordable and accessible to the public without disadvantaging individuals from lower socioeconomic backgrounds. These mechanisms help maintain accountability by ensuring that people still have a variety of mental health treatment options to choose from.

What is it: Financing mechanisms that leverage public-private partnerships to subsidize costs associated with mental health services can include:

- **Subsidized health insurance plans** that cover essential mental health medications.
- **Tiered coverage plans** where the government covers essential medications and private insurance covers higher-end and newer generations of medications.
- **Income-based co-payment models** where the government bears most of the medication cost for lower-income earners with limited private health insurance, but support is reduced for higher-income earners.
- **Bulk procurement agreements** can be negotiated between the government and pharmaceutical companies where mental health medications can be sold at lower prices to maintain affordability.
- **Private health saving accounts** where the government provides tax incentives to individuals to voluntarily set aside tax-free savings to cover mental healthcare and medication.

How to address: Financing mechanisms mostly rely on government subsidies and reimbursement and collaboration with the private sector (e.g. private health insurance companies and pharmaceutical companies) to reduce the cost of mental health treatments and medications passed onto individuals. As health systems evolve and individuals in APAC experience greater economic prosperity, they are increasingly able to invest in their own mental healthcare needs (e.g. private insurance policies that co-pay for psychology consultations).

Evidence and examples:

- Funding increase for long-acting injectables (LAIs) in Taiwan: In August 2024, Taiwan's National Institute of Health published a study tracking over 50,000 first-time hospitalized schizophrenia patients. The study found that patients receiving LAIs without early medication interruptions had a 12 percent to 13 percent lower risk of rehospitalization compared to those who did not receive them.[90] LAIs are used as a form of treatment for schizophrenia and bipolar disorder. Data from health insurance claims showed a 35.7 percent increase in the usage rate of LAIs from 61 percent in 2022 to 82.8 percent in 2023.[91] This increase reflects strong domestic demand, with plans to raise the funding to US$94.5 million in 2025 from US$84.3 million between 2022 to 2024.[92]
- Co-Pay Assist Plan in Singapore: Under the Comprehensive Co-Payment Scheme, the insurer pays for half of the co-pay medical bills incurred in Singapore government-restructured or private hospitals for kidney dialysis, chemotherapy, radiotherapy for cancer and use of cyclosporin and erythropoietin.[93] Similar co-payment models can be extended to include mental health services, making them more accessible.

B. Health equity

There are many social determinants that impact individuals' mental wellness and ability to access timely, quality mental healthcare, such as socioeconomic status, education level, employment, geographical location and housing. Addressing health inequities enables access to timely and quality care.

Health equity barriers

Observed socioeconomic disparities in access to timely, quality care and medications based on patients' and caregivers' personal circumstances

What is it: Mental health services can present a significant financial burden to individuals and caregivers as costs of long-term medications, hospitalization and/or ongoing psychotherapy accumulate rapidly. Disparities in individuals and their caregivers' socioeconomic circumstances and mental health literacy levels create inequities in accessing quality, timely care.

What is the impact: With limited public health insurance coverage for mental health services, private healthcare options are often financially unattainable and unsustainable for individuals from lower socioeconomic backgrounds, who are already faced with a host of financial and social challenges such as poor living conditions, housing instability, food insecurity, difficult working conditions and limited education opportunities. These barriers can delay or discourage individuals from seeking timely treatment, worsening health outcomes and quality of life, especially for conditions like depression and increasing the likelihood of recurring mental health crises.

Evidence and examples:

- **Mental health burden for Indigenous Australians:** Mental health conditions are among the leading causes of disease burden for First Nations people. There are disparities in mental healthcare access between First Nations people and non-Indigenous Australians where the main barriers include culturally safe and responsive health services not being available near their homes (often in remote and rural areas) and limited transport options to access care.[94]
- **South Korea:** A main burden for schizophrenia patients is the cumulative cost of long-term care, whereby sanatoria and rehabilitation account for 90 percent of direct non-healthcare costs. Individuals miss the opportunity for early intervention, resulting in poor prognosis and requiring inpatient care.[95]
- **Singapore:** The wait time for a psychiatric appointment can be up to 47 days[96] at a public hospital compared to 3 days[97] in a private health clinic.

Observed geographical disparities in access to quality care

What is it: Mental health facilities tend to be concentrated more in metropolitan and urban areas compared to remote and rural areas, resulting in disparity in resource allocation. Facilities in metropolitan areas are often better equipped with health professionals, infrastructure (e.g. hospital beds) and specialized services compared to those in remote areas.

What is the impact: As a result of this resource scarcity, individuals residing in remote areas often need to travel long distances for care or delay their treatment. They may also face longer wait times and limited treatment options. Geographical disparities in resource distribution can exacerbate health inequities between rural and urban populations, especially given that rural populations witness a higher prevalence of mental health conditions due to social isolation, poverty and cultural stigma.[98]

Evidence and examples:

- **Australia:** Most major cities have an average of 16 psychiatrists per 100,000 people compared to the average of less than 1 to 8 psychiatrists per 100,000 people in regional and remote areas.[99]
- **Japan:** Urban areas have 20 psychiatrists per 100,000 people compared to 10 in suburban and 5 in rural areas.[100]
- **South Korea:** Between June 2014 to June 2024, the number of psychiatrists increased by 1,165, with 67.3 percent (784) of them concentrated in metropolitan areas like Seoul and Gyeonggi. At the same time, the number of psychiatrists in Gangwon, a rural area, decreased from 98 to 87.[101]

Health equity considerations

Updating clinical guidelines to include more effective treatments and a broader range of medications for different sub-types of mental health conditions, as well as improving workforce distribution to reduce disparities in the availability and quality of care between metropolitan and rural areas can help address health inequities.

B.1 Incorporate essential mental health medications and services into UHC and NHI schemes

Why is it important: Health inequities in resource distribution can be addressed at the health system level by revising national health insurance schemes to cover a broader range of medications. By doing this, health systems can make mental health treatments and medications more affordable by including them on the Essential Medications List (EML) under UHC or NHI schemes. Lowering treatment expenses promotes early intervention, supports long-term care adherence, improves overall health outcomes and reduces health inequities.

What is it: Review and update (e.g. annually) the list of essential mental health medications covered by public health insurance. This enables newer generations of medications with proven efficacy to be made accessible to the public.

How to address: Healthcare systems should regularly review and update their lists of essential mental health medications covered by public health insurance, which would help enable newer generations of medications with proven efficacy to be made accessible to the public. They can also rely on the EML created by global public health agencies, such as the WHO, to review and update what treatments or medications are eligible for coverage under UHC and NHI guidelines. The EML can also be used as a guide for markets in determining which medications qualify for government subsidies, particularly for emerging, more effective treatments for depression, schizophrenia and anxiety. The list could also support governments in their negotiations with pharmaceutical companies to purchase essential medications in bulk at discounted prices and distribute them in the public health network.

Evidence and examples:

- **Updates to the Pharmaceutical Benefits Scheme (PBS) in Australia:** The PBS subsidizes mental health medications to make them accessible to Australians.[102] The Pharmaceutical Benefits Advisory Committee has recommended PBS funding for SPRAVATO nasal spray for eligible patients with treatment-resistant major depression who are non-responsive to at least two oral anti-depressant drugs.[103]
- **National Health Insurance in Japan:** Japan's National Health Insurance scheme subsidizes psychiatric medications such as psychotropic drugs.[104]
- **Medisave and MediShield Life in Singapore:** MediShield, a health insurance program, covers essential inpatient mental health treatments.[105] Medisave can help cover part of the costs for outpatient treatment for certain mental health conditions (depression, schizophrenia, anxiety, bipolar disorder), including necessary medications.[106]

B.2 Update clinical guidelines to integrate health equity considerations to promote fairness and accessibility

Why is it important: Clinical guidelines are essential to supporting mental healthcare workers as they diagnose and treat patients, regardless of their socioeconomic status.[107] To ensure health equity, clinical guidelines should be developed with the aim of promoting health equity, fairness and accessibility to treatments, while taking into consideration the effectiveness of clinical options and their feasibility.[108]

What is it: To ensure health equity, clinical guidelines should be developed with the aim of promoting health equity, fairness and accessibility to treatments, while also taking into consideration the effectiveness of clinical options and feasibility of implementation.

How to address: Development and revision of clinical guidelines should be conducted in consultation with representatives from underserved or socioeconomically disadvantaged populations to ensure that the needs of diverse populations are met. The clinical practice guideline development process should aim to reduce structural inequities, such as inequitable distribution of power and resources.

Evidence and examples:

- **Aboriginal Mental Health Guidelines in Australia:** The Aboriginal Mental Health Clinical Practice Guideline was created with input from First Nations communities and is regularly updated as new evidence becomes available.[109] The Aboriginal Mental Health Consultation Guideline emphasizes the use of culturally appropriate tools, such as the MR23 WACHS Mental Health Cultural Information Gathering Tool.[110] This tool was adapted through extensive consultations to better meet the cultural needs of Western Australian populations.[111]
- **Working well together document in the United kingdom:** In 2019, the National Collaborating Centre for Mental Health (NCCMH) developed the Working Well Together document, which provided guidance and resources for commissioners of mental health services. The goal was to enhance local strategic decision-making about present and future mental health services by collaborating with communities, particularly those experiencing inequalities.[112] Additionally, the NCCMH developed the Advancing Mental Health Equality resource to offer guidance in recognizing and reducing inequalities related to mental health support, care and treatment.[113]

B.3 Enhance the mental health workforce by integrating digital tools to augment the capacity to serve more patients and improve efficiency

Why is it important: The current healthcare workforce is operating at full capacity. While reallocating resources from metropolitan areas to underserved regions (e.g. through mandatory clinical placements in rural areas) could enhance resource availability, this may not be a sustainable long-term solution. Digital tools such as telehealth offer an opportunity to increase the capacity and efficiency of care delivery in remote areas by allowing individuals to receive treatment closer to home, thus potentially boosting treatment uptake and adherence.

What is it: Design, build and implement digital tools (e.g. telemedicine, remote monitoring, mobile health clinics, health information systems) to augment the capacity and efficiency of the existing mental health workforce to serve populations in remote and rural areas.

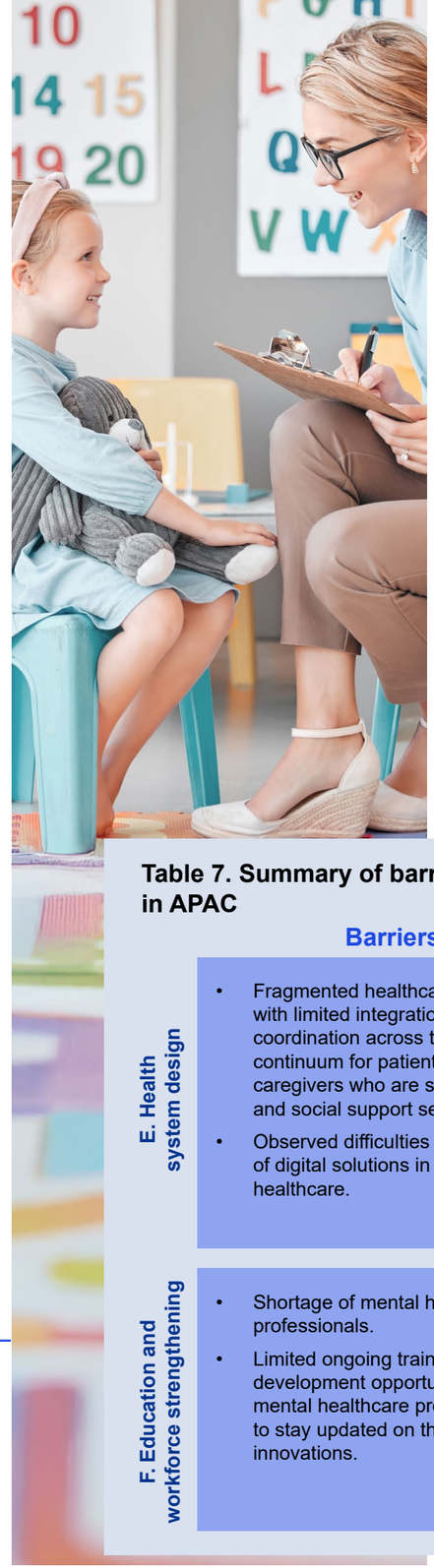
How to address:

- Government initiatives can encourage the use of wearables and digital apps for remote monitoring.
- Mobile health clinics can automate tasks like patient registration, diagnosis logging and prescription tracking, allowing healthcare professionals to treat more patients in resource-limited communities.
- Implementing health information systems can replace paper records, making it easier to share patient information, prescriptions and treatment plans between providers, reducing administrative work and improving care quality.

Evidence and examples:

- **Telemedicine in Chinese mainland:** Telemedicine is used to improve unequal resource allocation of healthcare resources, thus closing the gap between rural and metropolitan areas in terms of the capability and quality of medical services provided.[114] Additionally, telepsychiatry has also been made available in rural areas where there are fewer psychiatrists.
- **Telehealth initiative in Australia:** The inclusion of telehealth services in the Medicare Benefits Schedule enables individuals to receive subsidized psychological care remotely.[115]

> *Mental health is recognised and accepted by governments in the Asia Pacific region as a condition impacting a broad range of stakeholders, yet without appropriate and fair access to treatment for all. There needs to be a real solution that supports the community."*
>
> **Peter Liddell**
> *Head of Life Sciences, KPMG Asia Pacific*



Mental health system reform in Asia Pacific

A well-organized healthcare system can support the effective delivery of both mental and physical health services across various settings, including homes, schools, workplaces, hospitals and community-based facilities.[116] A comprehensive health system ensures continuity of care, allowing patients to easily navigate the system and access the necessary support and services beyond institutional settings (such as follow-up appointments at local health facilities, remote health monitoring). A well-designed patient care pathway that integrates both mental and physical healthcare can improve overall health outcomes. This chapter explores the barriers and future considerations, as summarized in Table 7 below, in reshaping mental health systems, patient care pathways and mental health workforce strengthening in APAC.

The key barriers and considerations discussed in this section highlight the importance of investing in talent-building mental healthcare to improve the capability and capacity of care provision to wider populations.

Note — Mental health systems across APAC are heterogeneous due to varied economic, social and political factors. Although the barriers and considerations explored in this chapter are common to multiple markets within APAC, the specific nuances are drawn out in the Appendix: Focus Asia Pacific market snapshot.

Table 7. Summary of barriers and considerations in mental health system reform in APAC

	Barriers	Considerations
E. Health system design	• Fragmented healthcare systems with limited integration and coordination across the care continuum for patients and caregivers who are seeking clinical and social support services. • Observed difficulties in the adoption of digital solutions in mental healthcare.	**C.1** Improve efficiency in the transition of care and reduce operational complexity in care delivery by integrating online and offline community-based care models. **C.2** Explore integrative care models to provide holistic prevention and care that cuts across mental and physical health. **C.3** Design a digital health platform that can integrate digital products and services to better coordinate care for patients and caregivers across the care continuum.
F. Education and workforce strengthening	• Shortage of mental healthcare professionals. • Limited ongoing training and development opportunities for mental healthcare professionals to stay updated on the latest innovations.	**D.1** Design and implement wellness programs that improve the well-being of mental healthcare professionals. **D.2** Design the future workforce strategy to balance the increase in the mental health talent supply and diversify community-based roles. **D.3** Support workforce upskilling in using emerging technologies and incorporating medical product innovations to provide care.

C. Health system design

Health system design involves planning, coordination and delivery of care to meet the needs of individuals across the care continuum, including prevention, treatment, rehabilitation and ongoing monitoring and management. A well-structured health system, supported by a skilled and well-equipped workforce, enables effective, timely and coordinated care for patients and their caregivers.

Health system design barriers

Fragmented healthcare systems with limited integration and coordination across the care continuum for patients and caregivers who are seeking clinical and social support services

What is it: There is noticeable discontinuity across the care continuum, as mental health is often treated separately from general physical health and is primarily provided in institutional settings, such as psychiatric hospitals. Moreover, there is generally low availability of and access to community-based facilities for preventive care, follow-up appointments and ongoing health monitoring.

What is the impact: As a result of this fragmented health system, there is limited coordination between inpatient and community-based facilities, creating challenges for patients and caregivers in their access to care as they lack a clear understanding of the care required, available options and where to seek help outside of hospitals. This compromises overall health outcomes because patients are more likely to re-integrate into the community when receiving care in community settings closer to home.

Evidence and examples:

- **Hong Kong SAR:** Mental healthcare in Hong Kong SAR is fragmented. The planning and delivery of medical and social services for mental health are decentralized whereby clinical care provided by professionals, such as psychiatrists, is separate from services offered by the social sector. This reduces the ability to deliver holistic care to patients, particularly as patients often undergo repetitive treatments.[117]
- **South Korea:** There is fragmentation in the mental health service provider network due to the absence of a central coordinator to foster collaboration among providers. At an Open Dialogue workshop held as part of the WHO QualityRights Project in South Korea, participants expressed that a fragmented network hindered care continuity, highlighting the need for a system that can seamlessly transition patients from hospitalization to care outside of hospitals.[118]

Observed difficulties in the adoption of digital solutions in mental healthcare

What is it: While health systems may acknowledge the need for digital solutions, their adoption can be hindered by:

- **A fragmented health system** that limits technology integration and data exchange between systems.
- **Significant disparities in infrastructure and connectivity between metropolitan and remote areas** slow down the adoption of digital solutions
- **Disparities in digital savviness, understanding and usage among healthcare professionals.** This includes limited familiarity with and training in electronic health records and health information systems and resistance to adopting telemedicine due to concerns about patient privacy and data security.
- **Lingering stigma surrounding mental health,** which results in data gaps and under-reporting of the financial and social burden of mental health in APAC.
- **Resistance among mental health professionals towards technology** due to concerns about patient privacy and data security. Professionals may also resist using AI because of perceptions that emerging technologies may not be able to build therapeutic bonds and provide humanistic care.[119]

What is the impact: The slow adoption rate of digital health solutions exacerbates geographical disparities in care access as individuals residing in remote areas who may be tech-savvy face ongoing logistical barriers, such as long travel times. Without health system digitalization, fragmented care may persist as mental health treatment and rehabilitative services often require coordination among multiple providers. This increases the likelihood of missed appointments or treatment discontinuation.

Disparities in digital savviness within the healthcare workforce could hinder the efficiency of care delivery. Staff who have difficulty updating electronic medical records may make errors when entering or retrieving patient records which delay care and cause adverse patient outcomes.

Evidence and examples:

- **Japan:** As of April 2021, 15.2 percent of all medical institutions were reported to provide telephone or online consultations,[120] but the adoption of online consultations in psychiatry was lower compared to other medical specialties. A 2023 survey found that the implementation rate of online consultations in psychiatric clinics was about 13.7 percent.[121]
- **Chinese mainland:** According to stakeholder interviews with psychiatrists, digital therapy products used for diagnosing and treating mental health conditions are still in the early stages of development. The National Medical Products Administration is establishing criteria to assess product effectiveness and safety before granting approval. Self-service digital products, including wearables, VR/AR technologies and AI companion robots are not yet widely adopted in clinical practice.[122]

Health system design considerations

C.1 Reduce operational complexity and improve efficiency in care delivery by integrating online and offline community-based care models

Why is it important: There are several cases in which patients remain in hospitals despite being medically fit for discharge, thus contributing to hospital overcrowding. Community-based care models offer a solution by moving care services away from institutional or hospital settings towards community ones, such as home-based care, primary care-centric integrated care and community mental health centers, among others.

What is it: Integrating offline community-based care models with online services such as telehealth, online peer support platforms, mobile applications and virtual support groups makes care more convenient, flexible and accessible to patients and carers. This hybrid model is breaking down geographical barriers, particularly in remote and underserved areas, while also facilitating more seamless care delivery as patients transition from hospital back into their communities. Patients benefit from more care continuity, which is important for those who are medically fit enough to stay in their communities but still require temporary hospital visits..

How to address: The design and implementation of online and offline community-based care models require whole-of-ecosystem collaboration between policymakers and primary and tertiary care providers. Building an online model of care should include an evaluation of the digital literacy level and existing infrastructure (such as internet connectivity, mobile device coverage) of each APAC market. It also requires fostering partnerships between government, mental healthcare professionals and technology providers to build a fit-for-purpose digital health platform that can support digital therapeutics and telemedicine. Additionally, digital and treatment innovation in mental health, such as symptom management and monitoring of medication adherence, should be integrated across the entire care continuum, from prevention, diagnosis and treatment through to monitoring, to support the transition to community-based care and reduce the risk of re-hospitalization.

Evidence and examples:

- **Australia:** The MindSpot Clinic, a government-led initiative, provides individuals with a range of digital health services, such as online psychological assessment of an individual's mental health, teletherapy and evidence-based, clinically guided courses to help individuals with depression to manage their symptoms. Patients can access mental healthcare professionals through a helpline.[123]
- **Chinese mainland:** The Internet Plus Care (IPC) services send registered nurses on in-home visits to provide care for mental health patients with mobility impairments after being discharged from the hospital. Services are delivered through a combination of online and offline methods, facilitated by a digital platform. Launched in 2019, IPC services are currently being piloted across various provinces and municipalities.[124]
- **United Kingdom:** The Home Treatment Model offers an alternative step-down option from psychiatric hospitals that reduces hospital stays by facilitating early discharge and minimizing re-admission. A multidisciplinary team, comprising psychiatrists, nurses, social workers and therapists, provides in-home support, such as home visits and access to a night practitioner for telephony service.[125] [126]
- **Japan:** Community mental health centers in Japan offer mental health recovery and rehabilitation services in local communities through the provision of outpatient care and support services to prevent hospitalization. This includes providing psychiatric home visits, assertive community treatment and comprehensive in-home support to help individuals with severe mental health conditions lead independent lives within their communities.[127]
- **Chinese mainland:** In Beijing, a growing number of individuals with severe mental health conditions are receiving treatment in the community, where free LAIs are available. A study revealed that 80 percent of community psychiatric management physicians were inclined to prioritize recommending LAIs, with greater willingness observed among those working in areas with free LAI policies.[128]

C.2 Explore integrative care models to provide holistic prevention and care that cuts across mental and physical health

Why is it important: An integrative care model plays a crucial role in the prevention and treatment of mental health conditions by recognizing the interconnectedness of mental health, physical health and social well-being. This model ensures a seamless patient experience across the entire care continuum, facilitating early prevention and continuous monitoring. Furthermore, addressing physical and mental health as a collective normalizes discussions about mental health, therebye reducing the cultural stigma around it.

What is it: An integrative care model offers a holistic approach to mental healthcare, tailored to the individual's needs and preferences. It ensures effective care coordination through collaboration among multiple providers across the healthcare continuum, including psychiatrists, social workers, psychologists and general practitioners. This model emphasizes prevention and the early detection of mental health conditions, as well as continuous monitoring for long-term mental health maintenance and well-being.

How to address: Assemble multidisciplinary teams consisting of healthcare professionals from primary care, secondary care and social services. These teams can provide holistic care that addresses individuals' physical, emotional, social and spiritual well-being. To enhance the effectiveness of this integrative model, consider factors such as funding structures, cross-training of team members, integration of physical and mental health records into a unified electronic database and the adoption of case management practices.

Evidence and examples:

- **Singapore:** Singapore adopts an integrated healthcare model that combines primary and secondary care and social services to enable care continuity. General practitioners (GPs) who are part of the Mental Health GP Partnership Program can manage walk-in cases, provide treatment and refer severe cases to partner hospitals. GPs are also supported by the Community Intervention Team, which provides services to complement GPs' pharmacological treatments and social services to patients.[129]
- **United Kingdom:** NHS Talking Therapies, funded by the NHS, utilizes evidence-based interventions endorsed by the National Institute for Health and Care Excellence to treat common mental health conditions.[130] It follows a stepped care model, assessing individuals and directing them to appropriate care based on the severity of their condition.[131]

C.3 Design a digital health platform that can integrate digital products and services to better coordinate care for patients and caregivers across the care continuum

Why is it important: A digital health platform that can integrate applications and digital products and allows seamless data exchange. These digital tools can help coordinate clinical care and supplementary social services, improving communication between patients and providers and simplifying administrative tasks such as appointment scheduling, medication management and treatment plan adherence tracking to free up physicians' time to focus more on patient care.

What is it: A digital health platform that allows existing and emerging applications and digital tools to be plugged into the same ecosystem. The platform can coordinate care for individuals and facilitate communication between health providers to enable seamless service delivery across the care continuum.

How to address: The development of a digital health platform requires industry consultation with patients, technology companies, healthcare providers, mental health organizations and community groups to understand their needs and challenges with the existing products, such as the lack of data interoperability.

When developing a central digital platform, systems can consider (but are not limited to) the following factors:

- The mental health service needs of the local communities.
- Formation of local partnerships with local healthcare providers and mental health organizations to design culturally tailored services to meet the identified mental health needs.
- Integration of existing health systems (e.g. EHR) to the new digital health platform and ensuring healthcare providers and patients can access their medical history.
- Inclusion of mental health tools (e.g. telemedicine, evidence-based mental health screening assessment tool, medication management) and resources (e.g. wellness content, information on 24/7 helplines and crisis support, information on peer support networks).
- Data privacy and security safeguards for personal, sensitive health data. (e.g. following HIPAA and GDPR compliance standards, use of end-to-end encryption of secure messaging).

The platform's development could also benefit from public-private partnerships with technology companies in order to tap into their expertise, however, public agencies should retain ownership and management of the platform and its data to safeguard personal privacy. Additionally, effective organizational change management and the upskilling of healthcare professionals, patients and caregivers on how to use the digital platform are essential for ensuring successful adoption.

Evidence and examples:

- **Singapore:** The Digital Mental Health Connect (DHMC) platform is being developed by the government to facilitate seamless referrals between clinicians and counselors across health and social care settings. The platform enables individuals to receive services according to their needs, preferences and risk levels. The government also collaborates with key partners to integrate the DHMC platform with existing social and health case management systems.[132]
- **Taiwan:** Established in 2018, Taiwan's Mental Care Information Management System is set to be rebuilt and enhanced as part of the 2025–2030 National Resilience Plan. This plan aims to strengthen community psychiatric case management and improve cross-network data integration.[133]

D. Education and workforce strengthening

Keeping healthcare professionals up to date with industry practices and evidence-based treatments is essential to delivering quality care, making it important to provide access to formal education and ongoing training. Doing so is especially key amid an observed shortage in the mental health workforce and incidences of misdiagnosis due to insufficient formalized training.

Education and workforce strengthening barriers

Shortage of mental healthcare professionals

What is it: Across many APAC markets, there is a shortage of mental healthcare professionals stemming from rising demand for mental health services coupled with a limited talent supply due to staff burnout and lower-than-expected salaries.[134]

What is the impact: As a result, mental health patients are forced to grapple with limited access to care options, long wait times and insufficient treatment. These resource constraints can worsen mental health conditions, given that timely intervention and ongoing support are essential for recovery. Additionally, the strain on existing professionals may lead to burnout, further diminishing the quality of care and potentially exacerbating staff attrition. Populations in rural or low-income areas may be more impacted as they already face difficulties accessing mental health services.

Evidence and examples:

- **Chinese mainland:** In 2021, there were 64,000 psychiatrists, accounting for only 1.49 percent of physicians in the market.[135] This may be attributed to the fact that less than 1 percent of Chinese mainland's medical students chose to become psychiatrists and practice in Chinese mainland, compared to around 5 percent or more of medical students choosing to become psychiatrists post-graduation in other developed markets such as the United States.[136] [137]
- **South Korea:** There are only nine mental healthcare professionals per 100,000 people, which is significantly lower than the OECD average of 17.5 per 100,000 people.[138]

Limited ongoing training and development opportunities for mental healthcare professionals to stay updated on the latest innovations

What is it: Innovations such as new treatments, digital mental health products and telepsychiatry services have emerged in recent years. These have the potential to significantly enhance outcomes by improving patient adherence and compliance, reducing side effects or expanding access to care. Integrating digital and treatment innovations such as digital health, digital therapeutics, medical devices and pharmaceuticals across the care continuum from prevention, diagnosis and treatment through to monitoring can help reduce re-hospitalization.

Despite these well-understood positives, mental healthcare professionals may not have received sufficient training to adopt them in clinical practice. There may be several reasons for this, including a limited focus on in medical school curricula, or low exposure to related techniques or safety protocol (e.g. digital psychiatry and remote consultation techniques).

What is the impact: As a result, there is a significant lack of both theoretical and practical knowledge, hindering the adoption of treatment innovations.[139] The slow adoption of these innovations may inhibit progress in the field, thus delaying improvements in patient outcomes and the broader healthcare landscape.[140]

Evidence and examples:

- **Chinese mainland:** While psychiatric nurses receive extensive training, “psychiatric new technology and new business” is one of the three least taught topics despite higher demand for this domain.[141]
- **Japan:** A study found that 92.3 percent of Japanese respondents reported a lack of telepsychiatry theoretical training.[142]
- **Taiwan:** A study on barriers faced by psychiatric nurses in administering LAI highlighted the need for improved clinical training and experience. Research finds that, currently, nurses in Taiwan lack confidence and proper training in using the ventrogluteal injection site or intramuscular injections, preferred techniques for LAI administration. This skill gap was due to limited hands-on clinical practice opportunities, despite nurses having theoretical knowledge.[143]

Education and workforce strengthening considerations

D.1 Design and implement wellness programs that improve the well-being of mental healthcare professionals

Why is it important: Mental healthcare professionals are particularly vulnerable to mental health challenges as they face high stress, job dissatisfaction and burnout.[144] A survey revealed that 42 percent of mental healthcare professionals reported significant burnout, with many reluctant to seek treatment for their own mental health issues. Furthermore, mental healthcare professionals are reluctant to admit mental health conditions due to the associated stigma, shame and fear of professional repercussions, such as having their condition documented on a permanent record.[145]

What is it: To mitigate the impacts of these, workforce development programs should contain strategies, activities and resources that are designed to enhance the skills, knowledge and overall well-being of mental healthcare professionals. These programs should integrate professional growth with personal support, enabling healthcare professionals to develop more holistically.

How to address: Organizations can invest in wellness programs that support the mental, physical and spiritual well-being of the medical workforce. Wellness programs can focus on providing evidence-based practices, advanced therapeutic techniques and emerging services like digital psychiatry. These programs can be offered through workshops and specialized courses to support continuous professional development. Wellness initiatives may even include time management strategies to help healthcare professionals balance personal well-being, clinical duties and administrative tasks (such as by using digital tools to automate administrative work). Workplaces can also create platforms for peer support networks and offer access to confidential counseling services to promote mental well-being and foster a healthy work environment.

Evidence and examples:

- **Australia:** Doctors and medical students have access to free, confidential mental health services through the Drs4Drs Support Service, established by Doctors’ Health Services. This service provides up to three free confidential telehealth counseling sessions with mental healthcare professionals.[146] The Royal Melbourne Hospital has a multidisciplinary workforce well-being team that delivers well-being skills sessions and provides an employee assistance program that offers free, confidential short-term counseling services 24/7.[147]
- **Japan:** The Japanese Society of Psychiatry and Neurology (JSPN) organizes study groups and educational sessions to support lifelong learning for young physicians. The JSPN provides educational initiatives in highly demanded, specialized fields with limited experts, offering training in areas such as child psychiatry, forensic psychiatry and the appropriate use of physical treatments like rTMS and ECT.[148]
- **Singapore:** The Academy of Medicine in Singapore offers education and training programs for psychiatrists, delivered either in-person or through an online portal for flexible access. These courses include training on advancements in mental health, treatment techniques and even clinical case discussions and peer learning.[149]
- **Europe:** The European Psychiatric Association has a dedicated committee for digital psychiatry, which includes a strategy focused on educating and training mental healthcare professionals in this area. In partnership with the Early Career Psychiatrists Committee, it organized a talk on “Telepsychiatry and Digital Psychiatry Tools: How to Apply Them in Clinical Practice”. During the event, participants had the opportunity to ask questions about the impact of digital psychiatry on the daily work of mental healthcare professionals and the evolution of digital mental healthcare.[150]
- **United States:** Palo Alto University offers a Digital Mental Health Certificate program with a curriculum that covers ways to select, implement and integrate appropriate digital tools into practice, conduct virtual interventions and assess risk remotely.[151] The American Psychiatric Association has a dedicated page on key considerations for mental healthcare professionals when engaging with digital health solutions.[152]

D.2 Design a future workforce strategy to increase the mental health talent supply and diversify community-based roles

Why is it important: While demand for mental healthcare is increasing across APAC, a shortage of mental healthcare professionals remains. Implementing an effective, future workforce strategy can improve talent retention, attract new professionals and expand the capacity for care in rural and underserved areas, thus enabling access to the right care at the right time.

What is it: An effective future workforce strategy should include the following elements:

- **Talent retention:** Create staff wellness programs (e.g. resilience training), career development initiatives (e.g. continuous professional development pathways, clear progression pathways) and attractive compensation and benefits to incentivize talent to practice in underserved, remote areas.
- **Recognition of overseas trained professionals:** Recognizing overseas qualifications enables international talent to practice in APAC. This can also include offering work visas with a guaranteed minimum duration, options for contract renewal and sponsorship by healthcare organizations.
- **Ongoing professional development:** Professional development programs help mental healthcare professionals stay current with the latest evidence-based practices and industry trends, including advancements in digital mental health. Allied health professionals can also obtain the required knowledge and skills through micro-credentials in mental health.

How to address: A future mental health workforce strategy that could sustainably deliver treatment and care that suit the needs of APAC populations should consider:[153]

- **Defining the priorities of future workforce talent attraction:** Priorities should be aligned to specific markets. Example priorities could include promoting mental healthcare as a rewarding career choice; improving training pathways and access to ongoing industry mentorship; and building capabilities and capacity to meet evolving population needs.
- **Mental health workforce distribution and connection to enable care coordination:** Focus on building multi-disciplinary teams that include not just mental healthcare professionals but also those from the broader health and social services sector, in order to coordinate care. Monitor and manage the fair distribution of mental healthcare professionals practicing in the private and public sectors and in metropolitan and rural, remote areas. Develop guidelines on future workforce planning and management of evolving demand and supply of services.
- **Ongoing support and workforce retention:** Develop and implement strategies to prevent staff burnout and initiatives that create healthy workplaces and culture. Explore and introduce innovative funding models that support staff retention.

Evidence and examples:

- **Australia:** The National Mental Health Workforce Strategy 2022–2032 provides guidance on developing a skilled, well-distributed and supported workforce to deliver treatment and care that meets the needs of Australians. The Strategy outlines the principles of practice and focuses on four strategic pillars of action aimed at building a coordinated mental health workforce.[154]
- **United Kingdom:** The National Health Service (NHS) recruits nurses internationally. The Nursing International Recruitment Programme assists NHS organizations in creating effective recruitment plans, such as the Global Learners Programme which helps overseas nurses in their transition to work in the United Kingdom. Additionally, the NHS organization provides guidance and training to prepare nurses for the Objective Structured Clinical Examination (OSCE), as well as coverage for sponsorship, visas, OSCE exam fees and accommodation during their preparation period.[155] [156]

D.3 Support workforce upskilling in emerging technologies and incorporate medical product innovations to provide care

Why is it important: Upskilling the mental health workforce will be key to enabling physicians to stay current with the latest advancements in medications and treatments and ensuring they can provide effective and safe care to their patients. Training also helps staff effectively use digital solutions while safeguarding patient privacy, such as understanding data-sharing and safety protocols. Implementing change management and training strategies can also help reduce resistance to the adoption of new technologies in clinical settings.

What is it: Digital technologies are increasingly being integrated into clinical operations owing to their ability to enhance operational efficiency by automating repetitive and labor-intensive tasks, allowing staff to focus more on patient care. These include:[157]

- **Automation technologies:** Technologies like Natural Language Processing (NLP) and Machine Learning (ML) can automate or semi-automate screening, diagnosis, treatment recommendations and psychosocial therapy. For example, platforms using NLP and ML can provide chatbot-based screenings. Digital surveys can collect and analyze data before, during and after treatment sessions.
- **Clinical support technologies:** Machine Learning (ML) algorithms can analyze and integrate insights from various sources, such as research papers and electronic mental health records, for predictive modeling. AI-powered chatbots can leverage deep learning to triage patients to the right type of care.[158] [159]

Support mental healthcare professionals in staying current with the latest medications and treatment advancements through global and APAC regional conferences and training opportunities.

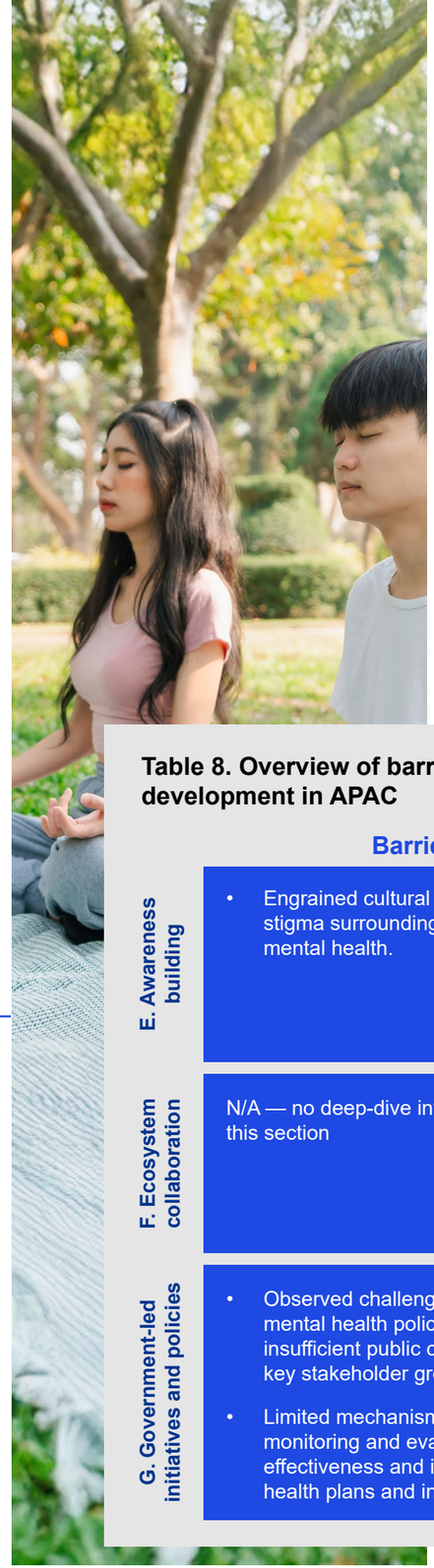
How to address: New technology adoption often involves organizational change, considerations include:[160]

- **Establish a governance committee** to oversee the risk assessment of new innovations, identify opportunities for innovation implementation and manage and govern technology implementation.
- **Define clear frameworks and policies for data governance, privacy and security for new digital product adoption.** Well-defined data policies are crucial for governing data ownership and establishing protocols for the collection, storage and handling of personal health data (e.g. data anonymization). The data collected should be standardized to ensure interoperability across various platforms within the healthcare ecosystem.[161] The General Data Protection Regulation in the EU and the Health Insurance Portability and Accountability Act in the United States offer models for consideration.
- **Establish a commercial excellence committee** to oversee the financing, commercial viability and sustainability of emerging technology adoption, including reimbursement pathways and return on investment for the adoption of emerging digital technologies.
- **Establish a digital product development team.** Digital products need collaboration among clinicians, payors and technology developers to ensure they are user-friendly, seamlessly integrated into the existing digital ecosystem and product portfolio and can provide both clinical and operational benefits.
- **Train and upskill the mental healthcare workforce** on how to use new technologies and help them understand the limitations and risks in clinical application. Digital innovation can be integrated into medical school curricula, pairing theoretical learning with opportunities to apply these technologies in clinical settings during hospital placements.
- **Mental healthcare professionals can also be kept abreast of the latest medications** and treatment advancements through global and APAC regional conferences and training opportunities.

Evidence and examples:

- **AI-powered chatbot in the United Kingdom:** Limbic is an AI-driven clinical assessment chatbot used in over 25 percent of NHS Talking Therapies programs. It connects patients to NHS psychological therapies by streamlining referrals, collecting data and identifying high-risk cases with deep learning technology. Studies show the chatbot has decreased assessment time by 23.5 percent, saving 12.7 minutes per referral.[162]
- **Digital health innovation and data strategy in Australia:** A study conducted by Orygen, a non-profit focused on youth mental health, revealed that 40 percent of surveyed mental healthcare professionals use AI in their practice, primarily for streamlining administrative tasks like note-taking, report writing and research. Over 90 percent of these professionals found AI to be beneficial, though there are reports of encountering risks or harms associated with AI, including concerns about data privacy, ethical use and potential misdiagnoses.[163] Australia's National Digital Health Strategy provides guidance on ensuring data availability to support clinical decision-making and to enable a digitally connected health system.[164]
- **Product innovation in the United States:** The University of Connecticut conducted a live, web-based workshop on LAIs as part of a continuing medical education course for pharmacists. The program offered eight hours of Continuing Pharmacy Education, as well as three hours of hands-on LAI training.[165]
- **World Congress of Psychiatry:** Organized by the World Psychiatric Association, this event provides a platform for a diverse range of professionals including mental healthcare professionals, researchers and device makers to collaborate, share and discuss scientific and technological advancements in mental healthcare.[166]

> *For too long mental health has been the 'silent' and 'stigmatised' killer in Asia Pacific; with mental, neurological, and substance use disorders and self-harm (MNSS) accounting for a quarter of non-fatal disease burden in Asia Pacific (OECD 2021). As we jump on the hype cycle of AI in Healthcare, there is an unprecedented opportunity to 'wipeout' past preconceptions and ride into an era of intelligent mental healthcare that is digitally-enabled, person-centric and equitable. It's time to make 'the invisible', visible."*
>
> **Anastasia Miros**
> *Director – Healthcare and Life Sciences, KPMG Asia Pacific*



Mental health policy development in Asia Pacific

Well-developed policies can enhance mental health outcomes by focusing on prevention, early intervention and treatment, enabling health systems to adapt to the changing health needs of the population and tackle challenges on a large scale to improve regional outcomes. Effective policies can also address underlying social issues such as homelessness, substance abuse, crime and domestic violence, key determinants of health. However, the strong development of mental health policies necessitates collaboration across the entire healthcare ecosystem, with input from policymakers, physicians, patient representatives and healthcare providers.

The key barriers and considerations discussed in this section highlight the importance of future policy-shaping activities that can tackle macro challenges in resource and talent constraints and the slower-than-expected pace of mental healthcare innovation. Table 8 below outlines the barriers and considerations to be explored in this chapter.

Table 8. Overview of barriers and considerations for mental health policy development in APAC

	Barriers	Considerations
E. Awareness building	• Engrained cultural and social stigma surrounding the topic of mental health.	**E.1** Improve awareness campaign effectiveness to de-stigmatize mental health by using varied channels to disseminate messages. **E.2** Adopt a life-course approach to mental health education.
F. Ecosystem collaboration	N/A — no deep-dive into barriers in this section	**F.1** Assemble an inter-agency, regional consortium that includes representatives from different sectors and government agencies to advise mental health policy development and care system design.
G. Government-led initiatives and policies	• Observed challenges in implementing mental health policies due to insufficient public consultation with key stakeholder groups. • Limited mechanisms for quantifying, monitoring and evaluating the effectiveness and impact of mental health plans and initiatives.	**G.1** Establish a national mental health task force to oversee and manage mental health policy development. **G.2** Develop policies that incentivize employers to provide support services and wellness programs for all employees.

E. Awareness building

Raising awareness about mental health and enhancing health literacy is key to reducing lingering stigma surrounding mental health, which hinders early detection and intervention. Greater awareness can translate into more public support and government funding for prevention programs, care delivery and research.

Awareness building barriers

Engrained cultural and social stigma surrounding the topic of mental health

What is it: In communities across APAC, stigma around mental health conditions persists, stemming from beliefs that they signify personal weakness, failure or moral shortcomings. Within collectivist cultures, mental health conditions are sometimes viewed as a source of shame that can damage a family's reputation, resulting in misunderstandings and perpetuating stigma across generations.

What is the impact: Due to cultural and social stigma, many individuals may avoid seeking help and choose to suffer in silence, ultimately leading to delayed treatment. Individuals with mental health conditions may also find themselves socially excluded by families, friends and communities and face discrimination when trying to access to education and employment opportunities. Engrained stigma also hinders mental health policy development as policymakers may be reluctant to discuss the topic, resulting in limited funding allocation to mental health.

Evidence and examples:

- **South Korea:** A 2024 Korean National Mental Health Survey revealed that 64.6 percent of respondents felt that individuals with mental health conditions were perceived to be more dangerous than neurotypical individuals.[167]
- **Taiwan:** Approximately 2 million people have depression, but less than 30 percent seek medical treatment due to limited awareness of their conditions and cultural prejudices surrounding mental health.[168]

> *Mental health awareness and education should extend beyond classroom walls and work settings; it should be integrated in everyday conversations to make this topic less of a taboo subject. Then individuals in need of support can get help without the fear of judgment."*
>
> **Guillaume Sachet**
> *Partner – KPMG in Singapore*

Awareness building considerations

E.1 Improve awareness campaign effectiveness to de-stigmatize mental health

Why is it important: Mental health awareness campaigns are not just about providing access to education and resources — they are crucial in transforming long-held cultural attitudes towards mental health. By normalizing discussions on mental health, effective campaigns can lead to improved health outcomes, as individuals become more open to seeking early intervention upon recognizing early symptoms.

How to address: Actions that can improve the effectiveness of mental health awareness campaigns include:

- Customizing campaigns to reach specific audiences (e.g. under-represented communities, youth, families, employers and Indigenous populations) by adapting the messaging to account for cultural and language nuances, as well as social and age-related factors through a range of media platforms (e.g. social media, television, radio and community outreach).
- Partnering with KOLs, PAG representatives, mental healthcare professionals, healthcare providers, people with lived experiences, caregivers, employers, insurers and community leaders to ensure accurate messaging in campaigns, while also providing access to relevant resources.
- Defining campaign success measures (e.g. surveys to gauge changing attitudes towards mental health discussions, evidence on early intervention).
- Facilitating direct engagement with individuals with lived experiences, through face-to-face interactions or personal storytelling through a video.[169]
- Providing up-to-date and accurate information about mental health to reduce misconceptions.[170]

Evidence and examples:

- **"Beyond the Label" campaign in Singapore:** The campaign included multiple initiatives to normalize mental health. For instance, individuals with lived experiences shared their personal stories through videos, while targeted outreach in schools provided students with information on emotional management and seeking support.[171] The campaign successfully reached a wider audience from different age groups and social backgrounds, leading to a reported 31 percent increase in awareness of mental health conditions among participants.[172]
- **"Lets Face It Together" campaign in South Korea:** The national "Let's Face It Together" campaign, facilitated by MOHW, aims to reduce stigma and enhance mental health awareness nationwide.[173]
- **United Kingdom:** A study conducted in United Kingdom secondary schools found that educational campaigns can reduce stigma. After engaging with video presentations and individuals with personal experience of mental health conditions, students exhibited less fear and avoidance and they began to view individuals with mental health conditions in a more holistic way.[174]

E.2 Adopt a life-course approach to mental health education

Why is it important: A life-course approach to mental health education involves tailoring mental health messaging and identifying effective channels to reach different audiences at a particular life stage. While most people experience stress and anxiety at some point in their lives, these experiences will change over time. A life-course approach to mental health education is crucial for helping individuals understand and manage emotions in healthy ways at every stage of life.

What is it: A life-course approach to mental health education involves tailoring mental health messaging and identifying effective channels to reach different audiences at a particular life stage (e.g. integrate mental health in school curricula, mental health campaigns and support at the workplace to support staff mental wellness).

How to address:

- **Early education for children:** Normalize open conversations about mental health and provide them with the tools and strategies to manage emotions and recognize when to seek help. Embed mental health as a topic in primary and secondary school curricula in the form of formal lessons or interactive activities on mental health topics such as stress management and emotional regulation.
- **Workplace policies and support for mental wellness:** Deliver workshops and webinars on mental health topics such as stress management techniques, psychosocial interventions and available mental health support within the company. Deliver classroom training for management teams on how to recognize and address emotional distress in teams and create a supportive work environment.[175]
- **Support for the elderly:** Campaigns and mental health education can engage the elderly by utilizing outreach teams for home visits or calls and organizing workshops in local community settings.
- **Awareness campaigns:** World Mental Health Day, for example, is a dedicated annual occasion that can be impactful in advocating the importance of mental health. Government agencies can establish media guidelines around the development and dissemination of culturally appropriate information about mental health.
- **Education on integrating mental health as part of the standard of care:** Raise awareness and offer support for mental health within physical health campaigns, as physical illnesses like cancer often come with mental health comorbidities.[176]

Evidence and examples:

- **Singapore:** Silver Generation Ambassadors engage seniors including those who are socially isolated, through home visits and phone calls. The Health Promotion Board also organizes community workshops focused on mental well-being, offering tips for staying mentally healthy and resources for seeking help.[177]
- **Chinese mainland:** Chinese mainland's action plan on mental health will make the topic mandatory in primary, secondary and tertiary curricula, while also strongly encouraging its inclusion in vocational schools.[178]
- **Hong Kong SAR:** The Mental Health Workplace Charter incentivizes workplaces to deliver mental health-related activities, such as talks or workshops on mental health to promote positive thinking and stress management techniques.[179]
- **"Talk to Someone: Anxiety and Distress" simulation in the United States:** Funded by the Centers for Disease Control and Prevention, this simulation provides mental healthcare education for cancer survivors. It addresses common stresses and concerns that cancer patients face and provides access to support resources[180].

F. Ecosystem collaboration

Whole-of-ecosystem collaboration between healthcare providers, payers and policymakers, among others, enables coordinated actions in shaping the development and implementation of mental health policies and strategies, as well as knowledge sharing (of the latest research progress, digital and treatment innovation and industry practices) and the standardization of care within APAC.

Ecosystem collaboration considerations

F.1 Assemble an inter-agency, regional consortium that includes representatives from different sectors and government agencies to advise mental health policy development and care system design

Why is it important: A regional, inter-agency consortium, comprising representatives from healthcare providers, government agencies, patients, caregivers, industry and payors (e.g. private insurers), can play a crucial role in shaping the mental health policy and health system design.

What is it: The consortium can act as a platform for various stakeholders to speak in a unified voice on mental health for patients, caregivers and healthcare providers across APAC and facilitate collaboration between APAC markets. The consortium can also be a key resource for information gathering on mental health challenges in APAC, co-creating solutions for healthcare system design and resource sharing between members.

How to address: Establishing a regional, inter-agency consortium for mental health requires:

- **Diverse stakeholder representation** from different APAC markets and the healthcare industry. Membership can include government agencies (e.g. ministries of health, social services, education), non-profit organizations, patient advocacy groups, key opinion leaders, caregivers and mental health associations.
- **A strategic plan with clear purpose and objectives** that outlines priority areas for mental health funding and resource allocation. These priority areas should be regularly reviewed to ensure alignment with market trends, including updates on the latest advancements in treatment methods, such as medications and therapeutics.
- **Monitoring and evaluation mechanisms** that can track and assess the impact of mental health policies and initiatives to enable continuous improvement.

Evidence and examples:

- **Asia-Pacific Economic Cooperation (APEC):** The APEC Digital Hub for Mental Health brings governments (mostly ministries of health) and the private sector to collaborate on sharing, developing, scaling and evaluating innovative programs based on evidence and best practices.[181] The consortium's membership extends beyond APAC to include Canada, Chile and Mexico, with the host institution located in Canada.[182] The organization has published papers across its seven focus areas, which include workplace wellness, primary care integration and community settings.[183]
- **Mental Health Europe:** An independent, non-governmental network organization in Europe that protects the rights of individuals with psychosocial disabilities, promotes positive mental health, prevents mental distress and enhances mental healthcare and social inclusion. Its initiatives include sharing best practices, collecting data on mental health and related social, economic and environmental factors and providing evidence-based recommendations for policy development.[184]

G. Government-led initiatives and policies

The government plays an important role in developing new policies and delivering initiatives that set standards for care delivery, improve equitable distribution of resources, reduce access inequity and bolster training and education for the health workforce.

Government-led initiatives and policies barriers

Observed challenges in implementing mental health policies due to insufficient public consultation with key stakeholder groups

What is it: Insufficient public consultation with key stakeholder groups during the mental health policy development stage usually results in challenges in implementation. Key stakeholder groups to consult may include:

- **KOLs public figures in local markets** — Mental health KOLs provide market insights to ensure new policies are culturally appropriate and tailored to meet the needs of local populations.
- **Mental healthcare providers (HCPs)** — HCPs have a deep understanding of the challenges in care delivery. They can offer solutions that policies could address, such as staffing shortages and resource gaps, as well as provide recommendations on the latest medical innovations (e.g. medications and digital solutions) to inform updates to care protocols.
- **Patient advocacy groups and caregivers** — They are the target audience of policies. They offer insights into the challenges and service gaps between their needs and the services provided by existing policies.
- **Payors (e.g. insurance companies)** — Payors can offer insights on the financial and operational feasibility of the scope of the policies and coverage involved.
- **Industry (e.g. medtech, pharmaceutical companies)** — Industry players can provide insights on the support (e.g. reimbursement) required to bring digital and medical innovations to market.
- **Marginalized groups** — These groups offer insights into the mental health challenges and service needs that policies could address.

What is the impact: Without adequate industry consultation, new policies may fail to address the needs of target populations effectively. For example, without input from socioeconomically disadvantaged groups, health equity considerations may be overlooked, potentially worsening existing inequities. Insufficient public consultation could also lead to policies that are not suitable for local contexts or are culturally insensitive, both resulting in lower utilization of mental health services and increased reluctance among patients to seek help.

Evidence and examples:

- **Japan:** Patients are seeking greater autonomy and involvement in treatment decisions and want community-based mental healthcare services. New policy development is taking into consideration patients' perspectives, lived experiences and challenges faced.[185]
- **Hong Kong SAR:** There was considerable resistance to the establishment of community mental health facilities due to the lack of a standardized protocol for public consultation and limited engagement from key stakeholder groups. Ensuring transparency in the consultation process is crucial for collecting public input and demonstrating the policy's openness and accountability.[186]

Limited mechanisms for quantifying, monitoring and evaluating the effectiveness and impact of mental health plans and initiatives

What is it: There are few mechanisms and tools available to measure and evaluate the effectiveness and progress of mental health programs and initiatives in relation to their intended goals. Challenges in establishing measurement mechanisms may include unclear definitions of success metrics, issues with data collection methods,[187] limited availability and poor quality of data and documentation and delays in reporting and feedback.[188]

What is the impact: Without reliable and accurate data to quantify the impact and effectiveness of mental health policies and initiatives, policymakers have limited ability to evaluate the impact of new policies, allocate funding and resources and innovate new financing models.[189]

Evidence and examples:

- **Chinese mainland:** There are few performance indicators to evaluate the psychological health policy systems in Chinese primary and secondary schools against their objectives. Whilst initiatives such as the Healthy China Action - Children and Adolescents Mental Health Action Plan (2019–2022), the 14th Five-Year National Health Plan and the National Mental Health Work Plan (2015–2020) have promoted mental health, there are no established benchmarks specifically for adolescent mental health.[190]
- **Under-reporting on mental health in APAC:** Statistics on the prevalence of mental health conditions in APAC may be under-reported owing to inconsistency in data availability in the region.[191]

Government-led initiatives and policies considerations

G.1 Establish a national mental health task force to oversee and manage mental health policy development

Why is it important: A government-operated mental health task force can act as a crucial lynchpin to promote, support and manage mental health policy development. The task force can oversee the gathering of industry inputs on mental health and also facilitate public consultations during the policy development process to ensure that the perspectives of diverse stakeholder groups are considered. Additionally, the task force can offer guidance on the equitable allocation of resources and funding for mental health, ensuring efficiency and minimizing duplicated efforts across government agencies.

What is it: (e.g. individuals with lived experience), caregivers, healthcare providers, health technology companies (e.g. MedTech companies), mental health associations and financiers. Member markets would collaboratively develop and deliver mental health projects that drive economic and social impact by providing expert advice, funding and resources, whilst also providing inputs to mental health policy development and health system design.

How to address: The task force will operate at the national level, overseeing the entire policy development lifecycle, from initial public consultation, drafting, service planning, policy implementation and ongoing monitoring and evaluation. The task force should feature representation from government ministries, patient representatives, caregivers, healthcare providers, health technology companies, mental health associations and financiers.

The key activities performed by this task force may include:

- Formulating new mental health policies and revising existing policies.
- Coordinating consultation with key stakeholder groups and other government ministries to gather data, ensuring voices of diverse groups are included in the policy-making process.
- Providing ongoing supervision and assistance to realize the objectives of the policy and plan.
- Overseeing the implementation of mental health policies and projects.
- Collecting and analyzing data to monitor and evaluate mental health policies, track progress, evaluate impact and make adjustments to improve outcomes.

Evidence and examples:

- **Australia:** The Fifth National Mental Health and Suicide Prevention Plan provided a baseline for 24 performance indicators, which serve as benchmarks for measuring the Plan's progress in subsequent reports. Each progress report provides updates on the performance indicators, supported with analyses and commentaries on trends and progress towards the intended outcomes.[192]
- **EU-Compass for Action on Mental Health and Wellbeing:** A web-based mechanism, overseen by the European Commission and the Group of Governmental Experts on Mental Health and Well-being, was designed to gather, share and analyze information on mental health-related policies. The mechanism tracked mental health and well-being policies and initiatives across EU markets using various methods, including annual surveys to collect data on national and stakeholder activities in mental health. It also evaluated policies against quality criteria defined by EU markets and the European Commission and disseminated examples of good practices.[193]

G.2 Develop policies that incentivize employers to provide support services and wellness programs for all employees

Why is it important: Mental health conditions can have detrimental effects on the economy, with depression and anxiety leading to decreased productivity, higher absenteeism and increased healthcare costs. A workplace that prioritizes mental health can boost employee well-being, improve performance and enhance organizational resilience.[194] Workplace policies can help raise awareness about mental health issues, encourage open dialogue and create an environment that supports mental well-being.[195]

What is it: The government has a role to play in fostering more mental health-friendly workplaces by developing policies that encourage employers to implement and maintain support services or wellness programs for employees.

How to address: The government can develop employer guidelines and policies that:

- Embed mental health awareness in organizational culture (e.g. provide psychological first aid training for employees to equip staff in recognizing stress in others and offer support).
- Offer financial incentives, such as tax benefits, grants or subsidies to employers who invest in workplace mental health programs, such as Employee Assistance Programs.
- Prohibit discrimination or unfair dismissal of individuals with mental health conditions.
- Provide reasonable accommodations, such as flexible working hours and reduced complexity of job responsibilities and support to re-integrate individuals into the workforce.
- Provide employers with access to free or subsidized training programs to equip managers and HR personnel with skills to support individuals with mental health conditions at the workplace.
- Establish recognition awards or certifications to recognize mental health-friendly workplaces.
- Encourage data collection on mental health to support organizations in shaping future workplace policies.

Evidence and examples:

- **Australia:** The “Heads Up” Campaign provides employers with resources to raise awareness and support mental wellness at the workplace.[196] Employee Assistance Programs are made fully tax-deductible.[197]
- **Japan:** Japanese law mandates certain employers to offer employees a “stress check” mechanism to detect work-related mental health conditions early. If a doctor recommends improvement measures based on results, employers are obligated to implement reasonable adjustments, such as reduced workload and hours and limited overtime and business trips.[198]
- **Singapore:** The Workplace Fairness Legislation prohibits discrimination against individuals with mental health conditions at all stages of employment, including recruitment, promotion and other employment processes.[199] Additionally, the Singapore Red Cross mandated the Psychological First Aid program to equip their employees to cope with mental health challenges and support their peers when in need.[200]
- **United Kingdom:** The United Kingdom’s Equality Act protects employees with mental health conditions that qualify as disabilities. Employers are required to provide reasonable accommodations for disabled employees.[201] Additionally, a workplace health needs assessment tool assists employers in data gathering to monitor workforce health and identify areas for improvement.[202]

Conclusion and call-to-action

Noteworthy progress for mental health has been achieved in APAC over the past five years, such as:

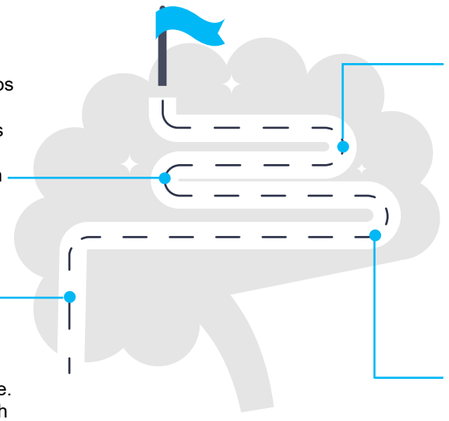
- Growing awareness of the importance of mental wellness, which has translated into increased government health expenditure in mental health treatment and infrastructure.
- Digital solutions from telehealth to smart wearables are increasingly being integrated into care settings as administrators aim to relieve care professionals' burdens and enhance their capacity for care delivery.
- Mental health education is being integrated into school curricula, workplaces and the media.

While these achievements have been critical in moving the needle on mental health discourse in APAC, the consensus view gathered through research for this whitepaper, including consultations with KOLs and PAGs, is that mental healthcare remains a whole-of-society responsibility. Collaboration across the healthcare ecosystem will continue to be key to improving health outcomes in the APAC region.

Accordingly, as policymakers make plans to further improve access to and the supply of mental healthcare, there are several short- to medium-term policy changes that they can focus on:

Improving availability of resources by increasing the psychiatrist-to-population and bed-to-population ratios to meet international benchmarks, while also creating policies to address current access disparities, expand infrastructure capacity and strengthen future workforce's capacity and capability.

De-stigmatizing mental health through a life-course approach to education, where communication channels and messaging are tailored to the specific needs of each life stage. For instance, integrating mental health education into primary and secondary school curricula to normalize discussions about mental health and challenge the engrained social and cultural stigma.



Innovating the standard of care to develop comprehensive care pathways that integrate digital health, digital therapeutics and medical devices across prevention, diagnosis, treatment and monitoring. Future policies focus on fostering multi-stakeholder collaboration, encouraging investment in innovation and promoting the adoption of innovation within the healthcare system.

Tackling under-investment by allocating at least 10 percent of the total health budget to mental healthcare, exploring alternative financing mechanisms to incentivize ongoing innovation and updating mental health strategies to address the evolving needs of local populations.

To be clear — advancing the mental health landscape in APAC will be a whole-of-ecosystem endeavor in which each key stakeholder group, across public and private sectors, has its own critical roles and actions, which is why it's vital that governments' future policies include efforts to foster multi-stakeholder collaboration (see recommendations outlined in Table 9 below). These suggested actions serve as a foundation for further ongoing conversations about mental health and they should be customized to each APAC market, based on local context, to ensure their effectiveness and relevance to the populations in need.

We encourage you to digest, share and reach out to discuss these findings so we can continue moving the dialogue forward. We must ask ourselves: What do we hope for five years from now?

Table 9. Summary of future considerations and calls-to-action for the mental healthcare ecosystem in APAC

Stakeholder groups	Considerations
Policymakers/ government	• Collaborate with the private sector to develop financing mechanisms to make mental healthcare accessible (see **A.1**). • Review and update the essential mental health medication list that can be funded by public health insurance (see **B.1**). • Review and update clinical guidelines for mental health to improve health inequity (see **B.2**). • Assess and right-size the government health expenditure on mental health (e.g. GDP spend, infrastructure for capacity expansion and capability add, new models of care) (see **D.2**, **F.1** and **G.1**). • Establish a national task force unit that manages the development and monitoring of mental health policies and initiatives, in partnership with industry (see **G.1**).
Healthcare professionals (HCPs)	• Provide advice on novel mental health medications that could be considered in the essential medications list (see **B.1**). • Participate and provide inputs to inform the design and development of digital health platforms (see **C.3** and **D.3**). • Provide advice on health system reform and new models of care development (see **C.1** and **C.2**).
Key opinion leaders (KOLs) and influencers	• Co-develop awareness campaigns and facilitate conversations to de-stigmatize mental health (see **E.1**). • Provide insights on local mental health context and challenges to adapt mental health campaigns to suit local market preferences (see **B.2**). • Participate in regional and national forums to provide advice on mental health policy-shaping initiatives (see **F.1** and **G.1**).
Mental health industry associations	• Provide advice on future mental health workforce planning and strategy (see **D.2** and **G.1**). • Provide insights on population needs and challenges experienced by individuals with mental health conditions and caregivers to inform policy development and government-led initiatives (see **C.1** and **C.2**).
Public hospitals and community-based clinics	• Integrate digital tools to improve operational efficiency and augment workforce capacity (see **B.3**). • Amplify mental health de-stigma messaging and distribute mental health resources in communities (see **E.1**). • Implement support services and wellness programs for healthcare professionals (see **D.1**).
Private sector (private insurers, technology companies, pharmaceutical companies)	• Partner with the government to provide essential medications at a funding value that matches the impact delivered by novel medical interventions (see **B.1**). • Share knowledge on the latest mental health medication, diagnostics and treatments (see **B.1**). • Invest in research and development to develop digital innovations that serve to augment staff capacity and improve efficiency in mental healthcare provision (see **B.3**, **C.1** and **C.3**).
Employers and workplaces	• Provide support services and wellness programs (see **E.3**). • Provide ongoing training and upskilling in adopting new mental health digital solutions (see **D.3**).
Educators	• Create tailored messaging for mental health awareness campaigns aimed at students (see **E.1**). • Incorporate mental health education into primary and secondary school curricula to normalize conversations about mental health (see **E.2**).

Appendix

Focus Asia Pacific market snapshot

Australia

Summary

Mental healthcare-related policies are focusing on areas like workforce development, prevention and research as part of the broader effort to strengthen the mental health system.

Australia is meeting the internationally recommended standard of psychiatrists per 100,000 population.

Ongoing efforts could focus on increasing investment in mental healthcare to at least 10 percent of total health expenditure (currently at 6.8 percent).

42.9%
of people aged 16-85 years old experienced mental health conditions at some point in their life

47.1%
of diagnosed cases seek treatment

2,865.4
per 100,000 DALYs* lost due to mental health conditions

11.0%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

Total healthcare expenditure	6.8%
United for Global Mental Health's goal (International benchmark)	10%

Patients receiving subsidized treatment

2.7 million

Average out of pocket costs

52% of private psychiatric treatment cost

Human resources**

No. of psychiatrists per 100,000

Total no. of psychiatrists	16.0
World Psychiatric Association (International benchmark)	10.0

No. of psychologists

126.9 per 100,000 population

** Figures below reflect both urban and rural areas. However, access remains a challenge in rural regions where human resources are not distributed equitably

Service level

No. of mental health beds***

37.6 per 100,000 population		
National Library of Medicine (International benchmark)	60 Optimal	30 Minimal

Median waiting time

>16 weeks for individuals to see a psychiatrist

12–24 weeks for most individuals to see a psychologist

Resources and support available for caregivers

- 24/7 carer helpline
- Subsidized mental healthcare services under revised Better Access Initiative
- Financial incentive
- Flexible workplace arrangement

*** Mental health beds as per OECD figures include mental health beds in general hospitals, mental health hospitals, and in community residential facilities

Government policy and initiatives

National Mental Health and Suicide Prevention Plan (2021)
This plan outlines the Australian Government's commitment to mental health and suicide prevention. Backed by a US$2.3 billion investment in the 2021–2022 Budget, the plan focuses on five areas: Prevention and early intervention, suicide prevention, treatment, supporting the vulnerable, and workforce and governance.

National Mental Health Research Strategy (2022)
This strategy guides funding decisions, fosters collaboration among researchers and those with lived experience and informs future government policy through five guiding principles: Strengthening mental health research, driving impact, supporting lived experience, adopting a whole-of-community approach and growing the research workforce.

National Mental Health Workforce Strategy (2022–2032)
This strategy aims to address the challenges in attracting, training and retaining practitioners to meet Australia's mental health service needs in the coming decade.

Current barriers

Barrier 1: Populations in rural and remote areas are disproportionately affected by mental health inequity

There is a significant resource inequity between metropolitan, rural and remote areas. Most major cities have an average of 16 psychiatrists per 100,000 population, but in regional and remote areas, there are considerably fewer with certain remote areas having fewer than 1 psychiatrist per 100,000 population.[203] Service provision is 2.7 times lower in remote areas and 5.6 times lower in very remote areas, despite the prevalence of mental health conditions remaining similar to that in metropolitan areas.[204] Health inequity disproportionately impacts the First Nations people, especially populations that reside in remote areas. The First Nations people may also perceive mental health and well-being differently due to cultural and linguistic differences, while the lack of culturally appropriate care discourages individuals from seeking help.[205]

Barrier 2: Public mental health expenditure primarily focuses on treatment rather than prevention

Government funding in mental health is primarily invested in treatment rather than prevention. However, the burden of mental health conditions continues to deteriorate despite the continued nominal increase in budget allocation for mental health treatments.[206] This has resulted in poor mental health outcomes manifesting in reduced productivity and rising social costs in aged care, public housing and education.[207] Prevention programs are effective in improving mental health outcomes across all age groups,[208] however, it's estimated that only one percent of the total mental health budget is allocated to prevention efforts.[209]

Barrier 3: Ongoing mental health workforce shortage prevents access to timely care and current working conditions discourage new professionals from entering the field

The current capacity of the mental health workforce is inadequate to meet the growing demand for services. In 2024, psychiatrists met only 56 percent of demand.[210] As a result, there is a delay in accessing timely care where two out of three patients face wait times of over 12 weeks to access treatment.[211] Talent retention and attraction continue to be a challenge. In New South Wales, 30 percent of psychiatrists are considering leaving the profession within the next five years and 43 percent plan to retire within the next decade. These challenges are likely to intensify as mental health conditions continue to rise.[212] Attracting new talent is difficult due to the stigma associated with the field, as well as limited career progression and training opportunities, staff burnout and low salaries.[213] [214] [215]

In Australia, most of the funding for mental health goes towards treatment for people who are unwell … even with so much funding allocated, the root cause will not be addressed … as society will constantly be exposed to people becoming unwell because of the lack of prevention and early intervention. Already, there is a lack of resources available, therefore when more people get sick, access to mental health will become under even more pressure."

Patient Advocacy Group Representative
Mental health non-profit organization in Australia

Future opportunities

Opportunity 1: Enhance culturally appropriate care by increasing First Nations representation in the workforce serving the remote and rural communities

Providing culturally appropriate care is a crucial factor in improving access for the rural population, including the First Nations community. The National Mental Health Workforce Strategy 2022–2032 includes initiatives such as training programs and placement opportunities in regional and rural areas to encourage students, particularly those of First Nations identity, to pursue education and practice within these communities. Furthermore, telehealth is being introduced in remote areas including through Aboriginal Community Controlled Health facilities. Early success is seen in using digital treatment applications to support Indigenous Australians with anxiety and depression.[216]

Opportunity 2: Increase public sector health expenditure on preventative efforts to improve mental health and economic outcomes

Increasing government health expenditure on mental health preventive measures can significantly improve the mental well-being of the population. The Australian Psychological Society recommends allocating 5 percent of the mental health budget to prevention initiatives and appointing a National Preventive Mental Health Office to lead these efforts.[217] The Federal Government has also been providing school-based mental health promotion and preventive parenting programs.[218] School teachers are being trained to effectively support the mental health and well-being of Australian students.[219] Preventative efforts can yield cost savings. In a study conducted by the National Mental Health Commission, the cost-effectiveness of universal school-based psychological interventions for students in Years 6 to 12 was assessed. The study revealed economic and health benefits with a return of US$1.19 for every US$1 invested over 10 years, along with 10,604 fewer depression cases and 3.8 million additional depression-free days.[220]

Opportunity 3: Expand the number of trained mental healthcare professionals and upskill the workforce in using digital tools to augment their capacity and efficiency in the provision of care

Future workforce planning can be informed by mental health demand projections in both metropolitan and remote areas. The National Mental Health Workforce Strategy[221] aims to offer clearer career progression and advancement opportunities, training options and mentorship at all career stages to support talent attraction and retention. US$76.5 million has been invested to create new postgraduate psychology positions, internships and subsidized supervisor training opportunities.[222]

Mental healthcare professionals are being trained to utilize digital tools and telehealth to better serve populations in rural areas. Tools such as digital scheduling systems and automated billing systems can reduce administrative overhead to improve clinical operational efficiency. As part of the National Mental Health Workforce Strategy, the government plans to explore investment opportunities in technology to enhance interoperability. Digital tools are supported by Australia's Medicare Benefits Schedule, which reimburses mental health-related telehealth consultations.[223]

Australia faces significant mental health challenges, particularly in rural and remote areas where resource inequity and workforce shortages are prevalent. Increasing investment in preventive measures and enhancing culturally appropriate care, especially for First Nations communities, are key opportunities to improve mental health outcomes.

Tim Plenderith
Partner – Healthcare and Life Sciences, KPMG in Australia

Chinese mainland

Summary

Chinese mainland's mental health system has been making progress. Recent policies aim to strengthen community rehabilitation services and expand mental health support for students, reflecting the government's commitment to improve mental health outcomes.

Government expenditure on mental health is 1.2 percent, which is significantly below the recommended 10 percent.

An additional 6.4 psychiatrists per 100,000 population are required to meet international standards.

16.6%
of population experienced mental health conditions at some point in their life

9.5%–50%
of diagnosed cases seek treatment

1,631.3
per 100,000 DALYs* lost due to mental health conditions

5.8%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

1.2% Total healthcare expenditure

United for Global Mental Health's goal (International benchmark) **10%**

Patients receiving subsidized treatment

51.2 million in patient visits / year

3.3 million outpatient visits / year

Average out of pocket costs

~30% of total fees for inpatient treatments

>50% of total fees for outpatient treatments

Human resources**

No. of psychiatrists per 100,000

3.6 Total no. of psychiatrists

World Psychiatric Association (International benchmark) **10.0**

No. of psychologists

24.8 per 100,000 population

** Figures below reflect both urban and rural areas. However, access remains a challenge in rural regions where human resources are not distributed equitably

Service level

No. of mental health beds***

54.7 per 100,000 population

National Library of Medicine (International benchmark) **60** Optimal **30** Minimal

Median waiting time

2–24 weeks for a subsidized appointment with psychologist

There is no waiting list to see the psychiatrist - slots to for the following week become available one week in advance. Some patients may not be able to secure an appointment.

Resources and support available for caregivers

- **Grant subsidies** to carers of patients with serious mental health conditions
- **Education for family** including accident prevention, mental health condition knowledge, nursing education

*** Calculated as per psychiatric beds in China's National Statistical Book 2022

Government policy and initiatives

The 14th Five Year Plan for National Economic and Social Development and the Outline of Vision Goals for 2035 (2021)	This plan focuses on strengthening the public health system, including improving the mental health service system, children's mental health education and community-based mechanisms. Key priorities include integrating essential social services such as employment and enhancing psychological assistance and crisis intervention frameworks.
Notice on Carrying out "Jingkang" (mental disorder rehabilitation) Integration Action (2022)	This program aims to develop a community rehabilitation service system over three years. Key initiatives include streamlining the referral mechanism for community rehabilitation and expanding the capacity for community rehabilitation services.
The National Health Plan of the 14th Five Year Plan (2022)	Formulated in accordance with 2021's 14th Five Year Plan policy and Health Chinese mainland 2030 Plan. The plan aims to enhance mental health services by improving interventions for depression, common mental health conditions and psychological and behavioral problems.

Current barriers

Barrier 1: Limited public sector investment to support the adoption of digital mental health innovation

The adoption of innovative, digital mental health treatments is limited in the Chinese market owing to limited support from public sector investment. Innovative therapeutic modalities for mental health, including the use of artificial intelligence and virtual reality, are emerging globally. However, their entry into the Chinese market is often paused at the research stage due to insufficient reimbursement billing codes for clinical applications. Some early efforts are being made to include mental health digital therapies in the reimbursement scope of medical insurance.[224] [225] Reimbursement is a key enabler for digital mental health innovation adoption as it offers revenue certainty which helps to mitigate the risks associated with healthtech innovation, thus accelerating development.[226]

Barrier 2: Geographical disparities in mental health resource distribution

High-quality medical resources and talent are concentrated in metropolitan areas in the eastern part of Chinese mainland, resulting in geographical disparities in resource distribution. There is a noticeable disparity between the number of psychiatric beds per unit of land area in the western region compared to the central and eastern regions. In 2020, 350 counties (12.31 percent) had no mental health facilities and 883 counties (31.05 percent) had no psychiatric beds. These counties are mainly located in the mid-western regions of Chinese mainland. The number of psychiatric beds, psychiatrists and registered nurses per unit of land area in the western region was also four times lower than in the central region and seven to eleven times lower than in the eastern region.[227] Furthermore, the quality of treatment varies across the market. A study in rural Hunan found that primary healthcare providers had limited experience in diagnosing and prescribing psychotropic medications for treating depression.[228]

Barrier 3: Care discontinuity is observed as mental health patients transition from inpatient to outpatient settings after discharge from hospitals

Care discontinuity is evident in mental health patients transitioning from inpatient to outpatient settings, impacting the quality of rehabilitative care and recovery. The current health system design is heavily focused on inpatient care, with limited community-based outpatient facilities for regular follow-up appointments and management of less complex conditions after patients are discharged from hospitals. Insufficient rehabilitative support for mental health patients to manage care in outpatient settings can impact the speed and quality of recovery.

Geographical disparities in mental health resources across Chinese mainland, particularly in western and rural areas, significantly limit access to essential care and treatment. An overreliance on inpatient services, coupled with insufficient community-based follow-up, disrupts the continuity of recovery. To enhance outcomes, it is critical to promote equitable resource allocation and bolster outpatient support systems, ensuring sustainable and effective mental health treatment for all."

Frank Mei
Partner – KPMG in China

Future opportunities

Opportunity 1: Increase public sector investment to support digital mental health adoption

Currently, fewer than 5 percent of healthtech ventures in APAC relate to digital mental health, which represents less than 4 percent of healthtech investment funding. The adoption of digital mental health innovations can be enabled by redesigning public reimbursement pathways (to be complemented by favorable regulatory approval pathways) and by elevating the benefits of a strong technology footprint in digital mental health to attract local and overseas investment. Moreover, the health ministry has mandated internet-based medical services to be given “full pay” to diagnose and treat patients and telemedicine platforms, such as Ping An Good Doctor and Tencent Trusted Doctors, are being partially or wholly subsidized by the public sector to provide consultations.[229]

Opportunity 2: Improve equity in medical resource distribution amongst regions by re-shaping the healthcare ecosystem and building partnerships between medical institutions to share resources

Assess the mental health system to allocate resources equitably across treatment, diagnosis, rehabilitation and mental health promotion, instead of concentrating on specific areas. The National Health Plan of the 14th Five Year Plan encourages top mental health institutions to expand their outreach and deliver mental health services to remote counties, towns and districts through digital platforms. Promote the use of internet-based health services and online training conducted through live streams, including the WeChat official account, Tencent Meeting and MOOCs.[230] Additionally, partnerships between national mental health centers in major cities like Shanghai, Changsha, Beijing, Jiangsu and Gansu facilitate the pooling and sharing of high-quality resources jointly funded by local and state governments to enhance technical capabilities and deliver training. Regional psychiatric centers also help advocate for patients’ needs within their local jurisdictions.

Opportunity 3: Implement a hospital day center model to help patients manage mental health conditions and receive care in outpatient settings

A hospital day center model can facilitate a smoother transition for individuals with mental health conditions from inpatient to community settings. This model involves setting up local medical stations that individuals can visit regularly to receive support in developing self-care skills and monitor their rehabilitation progress. While establishing and operating a hospital day center in Chinese mainland will require significant investment — each center would need a level of psychiatrist, nursing, social workers and psychotherapist staffing — this could become feasible if hospitals collaborate and pool resources. Furthermore, innovation (such as in digital health, digital therapeutics, medical devices, pharmaceuticals) could be integrated across the care continuum from prevention, diagnosis and treatment through to monitoring in order to reduce re-hospitalization rates. At the same time, education about these digital and treatment innovations should be provided to both patients and healthcare providers to support treatment adherence as patients transition into community care.

Hong Kong SAR

Summary

Mental health is a focus in the government's annual policy address, which includes health system improvements, better access to care, early intervention initiatives and promotion efforts in education and workplace settings.

Government expenditure on mental health (3.5 percent of total health expenditure) is below the international standard at 10 percent.

The number of psychiatrists also falls short of the international benchmark of 10 psychiatrists per 100,000

Additional 20 percent increase in the number of mental health beds per 100,000 population can meet the optimal ratio.

14.3%
of population experienced mental health conditions at some point in their life

<30%
of diagnosed common mental health conditions seek treatment

Financing and health expenditure

Government mental health expenditure

3.5% Total healthcare expenditure

United for Global Mental Health's goal (International benchmark) **10%**

Patients receiving subsidized treatment (visits/year)

305,700
inpatient and outpatient patients /year for services provided by the Hospital Authority

Average out of pocket costs

4%
for inpatient psychiatric care

11%
for specialist outpatient attendance

Human resources

No. of psychiatrists per 100,000

Total no. of psychiatrists **7.6**

World Psychiatric Association (International benchmark) **10.0**

No. of psychologists

8.2
per 100,000 population

Service level

No. of mental health beds*

50.1 per 100,000 population

National Library of Medicine (International benchmark) **60** Optimal **30** Minimal

Median waiting time

<1 week for urgent cases

2–4 weeks for semi-urgent cases

21–77 weeks for stable cases

Resources and support available for caregivers

- 24/7 designated hotline for carer support
- Information gateway for carers (www.carers.hk)
- Community support for patients allowing caregivers to take a break (e.g. respite services)

* Calculated using "mentally ill beds" statistics available

Government policy and initiatives

The Chief Executive's 2022 Policy Address
This policy address aims to improve community mental wellness through initiatives such as strengthening mental health support for students, promoting mental health, improving services at Integrated Community Centres for Mental Wellness, expanding community psychiatric services and establishing a mental health hotline for assistance and referrals.

The Chief Executive's 2023 Policy Address
This policy address focuses on prevention, early detection and timely access to treatment and rehabilitation. It includes initiatives that increase the ratio of case managers to patients to reduce waiting time, encourage early mental health assessments in the community and launch a "Mental Health Literacy" resource kit for primary and secondary schools.

The Chief Executive's 2024 Policy Address
This policy address improves mental health services and promotion by adopting a coordinated medical, educational and social approach. Some of the initiatives include the development of a stepped-care model, ongoing promotion of mental health awareness at the workplace and in schools and establishing of transition support service teams for individuals recovering from mental health conditions.

Current barriers

Barrier 1: Workforce shortage results in long wait times and inadequate care for complex cases

Hong Kong SAR grapples with mental health workforce shortage, with only 7.6 psychiatrists and 8.2 clinical psychologists per 100,000 people, falling well below the OECD averages of 17.5 and 53, respectively.[231] At the same time, the attrition rate for psychiatrists is rising, reaching 6.4 percent in 2022–23, up from 4.1 percent in 2020–21, owing to factors such as low salaries, a growing backlog of cases and the heavy administrative burden.[232]

Mental health workforce shortage results in long wait times for care, with the Hospital Authority reporting average waiting times of 14 to 64 weeks for stable cases, but areas like the New Territories East Hospital have wait times of up to 100 weeks. A government-funded psychiatric appointment for a psychosis patient was on average 5.6 minutes in duration which is insufficient to thoroughly assess and address complex mental health cases.[233]

Barrier 2: Limited information on where and how to access mental healthcare and services

Information on how to access mental healthcare is limited. A 2022 survey conducted by Mind HK showed that 49.4 percent of respondents expressed "uncertainty about where to seek help" as a main barrier to care access.[234] An interview with a patient advocacy group revealed that many people were not using available community-based services as they did not know these services existed. For example, the ICCMW offers free counseling, but usage remains low due to limited public awareness and challenges in finding relevant information on government websites.

Barrier 3: Caregivers receive limited social and financial support for their caregiving duties

Reports indicate that caregivers are not receiving sufficient support,[235] which could exacerbate the financial and physical strain they experience as the number of mental health cases in Hong Kong SAR continues to rise. There is a lack of community services, such as respite care, that offer caregivers temporary relief from their caregiving duties. The Mental Health Initiatives Funding Scheme[236] supports mental health-related projects run by the private sector, but these are one-time grants rather than ongoing funding for projects focused on caregiver support. Additionally, an interview with a key opinion leader revealed that although caregivers may receive some financial assistance from social welfare, the associated stigma discourages them from advocating for themselves.

> *It depends on whether caregivers and patients can overcome the stigma. In the case of rare diseases, parents are often willing to speak out to secure necessary resources. However, for mental health, a significant barrier exists, as individuals are hesitant to voice their needs for additional support due to the stigma surrounding mental health."*
>
> **Dr. Chung Wai Sau, Dicky**
> Honorary Consultant in Psychiatry, Gleneagles Hospital Hong Kong

Future opportunities

Opportunity 1: Expand mental health workforce capacity by adopting digital and treatment innovation

To increase manpower availability, the government is recruiting more overseas-trained and foreign physicians while expanding local graduate clinical psychology programs. In 2023, the government expedited work permit approvals for foreign professionals to practice in mental health professions.[237] The University of Hong Kong SAR is enrolling two cohorts of clinical psychology students annually, rather than just one.

The government is also implementing a "stepped-care" model within the healthcare system to enhance resource allocation. The model enables allied professionals like teachers, social workers and healthcare workers to manage less severe cases, leaving medical specialists to focus on more intense mental health needs.[238] The current workforce can also be supported with digital tools like AI assistants and telehealth integration. Public insurance can also cover telehealth mental health services, as evidenced by examples such as BetterHelp[239] and Talkspace[240] in the United States which have demonstrated early success in augmenting the capacity of health professionals. AI-powered chatbots, such as Woebot Health[241] could automate simple, process-based initial assessments, freeing up time for physicians to focus on complex cases.

Additionally, integrating digital and treatment innovation (such as digital health, digital therapeutics, medical devices, pharmaceuticals) across the care continuum from prevention, diagnosis and treatment through to monitoring can help lower hospitalization rates. For instance, The Hong Kong Association of Psychosocial Rehabilitation convened an expert panel to examine challenges in schizophrenia management. Among its recommendations was a shift toward second-generation LAI antipsychotics over first-generation antipsychotic treatment that may enhance clinical outcomes by lowering relapse and hospitalization rates, ultimately easing pressure on healthcare workforce capacity.[242]

Opportunity 2: Improve access to and awareness of mental health resources by centralizing information on a single platform and engaging the community through proactive outreach

Creating a centralized platform for information sharing can enhance resource accessibility and utilization. Ideally designed as a government-owned and managed platform, the service would consolidate available mental health resources and provide clear guidance on services that can greatly benefit residents. One example is the "Shall We Talk" initiative, developed by the Advisory Committee on Mental Health and the Department of Health, which promotes mental well-being and improves public mental health literacy. The initiative includes a one-stop website (shallwetalk.hk) with detailed service information.[243] Additionally, a 24-hour Mental Health Support Hotline was launched in 2023, connecting callers to appropriate mental health services based on their needs.[244] Active community outreach can increase the use of these mental health resources. A community outreach team could visit residential centers to connect with individuals. This approach would raise awareness of local mental health services and ensure people receive timely care.

Opportunity 3: Offer more caregiver support in the community and workplace settings

Conducting a caregiver needs assessment would serve to identify focus areas of social and financial support. In 2020, the Labor and Welfare Bureau commissioned a study to assess the needs of caregivers looking after elderly persons and individuals with disabilities in Hong Kong SAR.[245] A similar study is recommended to be conducted to better understand the needs of caregivers supporting individuals with mental health conditions to guide future policies and social support systems development. As mental health education and awareness campaigns in schools and workplaces[246] continue to reduce stigma, they also lay the foundation to foster the development of PAGs, which play a key role in advocating for policy changes that support ongoing investment in mental wellness. Furthermore, the existing Mental Health Workplace Charter, which recognizes employers that implement action items from a designated list, could include carer-friendly policies, such as flexible work schedules, as part of its recognition criteria.

Japan

Summary

Mental health policies in Japan emphasize early detection, community-based care and provision of mental health training.

Japan exceeds the minimum number of psychiatrists as well as the international benchmark for the optimal number of psychiatric beds per 100,000 population.

The government can look to increase its overall mental health expenditure by 1.2 percent to be in line with the recommended benchmark.

24.0%
of population experienced mental health conditions at some point in their life

<30%
of diagnosed cases seek treatment

1,759.1
per 100,000 DALYs[1] lost due to mental health conditions

5.7%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

Total healthcare expenditure	8.8%
United for Global Mental Health's goal (International benchmark)	10%

Patients receiving subsidized treatment

~0.3 million inpatient patients

~5.9 million outpatient patients

Average out of pocket costs

30% of total fees for inpatient treatment

10%–30% of total fees for outpatient treatment

Human resources**

No. of psychiatrists per 100,000

Total no. of psychiatrists	13.3
World Psychiatric Association (International benchmark)	10.0

No. of psychologists

55.8
per 100,000 population

** Figures below reflect both urban and rural areas. However, access remains a challenge in rural regions where human resources are not distributed equitably

Service level

No. of mental health beds***

245.3 per 100,000 population		
National Library of Medicine (International benchmark)	60 Optimal	30 Minimal

Median waiting time

4–8
weeks for a subsidized appointment with psychiatrist

Resources and support available for caregivers

Services providing caregivers a break
- Psychiatric day care
- Home-visit nursing service
- Home help service where patients are provided physical care and living assistance

*** Mental health beds as per OECD figures include mental health beds in general hospitals, mental health hospitals, and in community residential facilities

Government policy and initiatives

Mental Health Supporter Training Project (2021)	This project fosters a culture where individuals with mental health conditions can live without discrimination or prejudice while promoting learning and strategies for the early detection and support of mental health conditions:
Community-based integrated care system for mental disorders (2023)	The integrated care system provides consultation support for community mental health and welfare for persons with disabilities, provision of psychiatric care and support for families of people with mental disorders. The system also fosters collaboration across different medical institutions and nursing homes, social support for patients (housing and employment support).
Revised Mental Health and Welfare Act (2024)	This act revised the maximum duration of hospitalization for medical protection to six months.

Current barriers

Barrier 1: Entrenched stigma surrounding mental health discourages individuals from seeking care

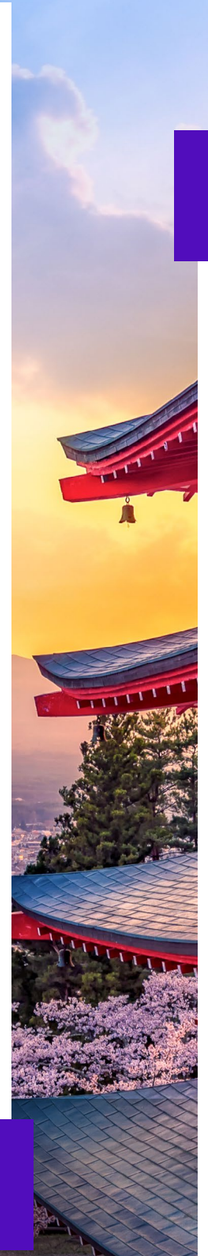
Stigma surrounding mental health remains a barrier to individuals seeking care in Japan. A 2024 survey conducted by My Sherpa, a company providing online counseling services, revealed that more than half of respondents in Japan avoided counseling due to fear of judgment or being labeled with a diagnosis.[247] Stakeholder consultations have similarly noted that stigma towards schizophrenia has not diminished deep-seated prejudices that link the condition to a history of hospitalization. In Japan, the hospitalization rate for schizophrenia remains high and occupied more than half of all psychiatric hospital beds in 2019. This ongoing dependence on hospitalization contributes to the persistent stigma associated with the disorder.

Barrier 2: Limited national insurance coverage prevents individuals from seeking counseling treatment

The lack of national insurance coverage for counselling services creates a financial barrier deterring individuals from accessing care. A 2023 OECD survey conducted in Japan revealed that 55 percent of respondents felt the need for counseling, but only 6 percent pursued it.[248] Around 52.7 percent of respondents expressed cost as the second most significant barrier.[249] Counseling is not covered by Japan's National Health Insurance, so individuals must pay out of pocket and costs can accumulate quickly as psychiatric disorders often require ongoing treatment.

Barrier 3: Slow pace of deinstitutionalization and delayed transition of care strain the health system

Japan has a high reliance on inpatient psychiatric care, with the highest number of mental health beds per 100,000 people (245.3) in the world, significantly higher than the OECD average (153.7).[250] The government is transitioning to a more community-based mental healthcare system but progress has been slow.[251] Around 60 percent of all patients hospitalized have been staying for more than a year. Delayed Transition of Care (DTOC), in which patients who are deemed medically fit for discharge yet remain in hospital beds for non-medical reasons, creates significant financial strain on the healthcare system and community services.



Future opportunities

Opportunity 1: Reduce stigma through continuous education and transitioning care to community-based settings

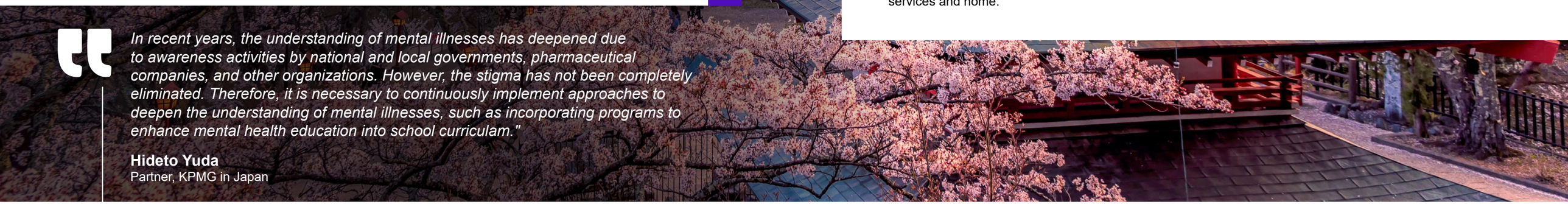
Entrenched cultural and social stigma can be reduced through continuous education and transitioning care provision away from institutional settings. In 2022, Japan introduced the "Prevention and recovery from mental illness" module into the school curriculum for the first time in nearly 40 years. This aims to enhance understanding and awareness of mental health among young people.[252] Additionally, there are ongoing efforts to move mental healthcare to community-based environments that are less stigmatizing. The Mental Health 2020 Proposals for Tomorrow revealed that receiving treatment for mild conditions from a family doctor would make it easier to seek help.[253] As more mental health centers are established in the community, raising public awareness on how to access these services will be crucial.

Opportunity 2: Ease the evaluation criteria to fund more mental health-related services

Stringent reimbursement criteria for mental health treatment in Japan currently limit public health insurance coverage for mental health services. Changing the medical fee reimbursement system to include mental health conditions under the diagnosis-related group scheme would allow more services to be reimbursed by the government. United Kingdom's Mental Health Clustering payment system, for example, provides reimbursement policies for service providers to receive fixed daily payments based on predefined fees for each diagnosis group or cluster.[254] [255] Additionally, Japan can learn from the United Kingdom's "Improving Access to Psychological Therapies" program, which offers free, evidence-based psychological treatments for individuals experiencing anxiety, depression and other common mental health conditions.

Opportunity 3: Reduce delayed transition of care

Future funding could be directed towards hospital-based initiatives and policy and system-level initiatives to reduce DTOC. Hospital-based initiatives such as the nurse-led discharges implemented in the United Kingdom and United States, can enable nurses to facilitate discharges based on a predetermined list of clinical criteria which could result in a significant reduction in the rate of DTOC.[256] Consideration can also be given to system-level initiatives, such as the transitional care programs implemented in Canada, the United Kingdom, the United States and Europe, which focus on having interdisciplinary teams to provide time-bound care that promotes patient recovery, restores independence and acts as the interface between acute care services and home.



In recent years, the understanding of mental illnesses has deepened due to awareness activities by national and local governments, pharmaceutical companies, and other organizations. However, the stigma has not been completely eliminated. Therefore, it is necessary to continuously implement approaches to deepen the understanding of mental illnesses, such as incorporating programs to enhance mental health education into school curriculam."

Hideto Yuda
Partner, KPMG in Japan

Singapore

Summary

Singapore has a mental health office and its mental health-related policies emphasize improving mental health and mental health literacy, and creating a comprehensive system for accessible care.

Singapore is dedicating more than the suggested 10 percent of total health expenditure to mental healthcare. However, the market could benefit from doubling its number of psychiatrists (from 5 to 10) per 100,000 population to meet the international benchmark.

14.3%
of population experienced mental health conditions at some point in their life

21.4%–80.4%
of diagnosed cases seek treatment

1,767.9
per 100,000
DALYs[1] lost due to mental health conditions

9.3%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

3.0% Of total healthcare expenditure here will make more sense. Please do this for every market snapshot.

United for Global Mental Health's goal (International benchmark) **10%**

Patients receiving subsidized treatment

6,900 inpatient patients/year

60,000 outpatient patients/year

Average out of pocket costs

>20% of inpatient treatment bills

>25% of polyclinics and public specialist outpatient clinics bill

Human resources

No. of psychiatrists per 100,000

Total no. of psychiatrists **5.0**

World Psychiatric Association (International benchmark) **10.0**

No. of psychologists

11.8
per 100,000 population

Service level

No. of mental health beds**

41.9 per 100,000 population

National Library of Medicine (International benchmark) **60** Optimal **30** Minimal

Median waiting time

6.7 weeks for an appointment with a psychiatrist in a public hospital

5.1 weeks for a subsidized appointment with psychologist

Resources and support available for caregivers

- Social support from Agency for Integrated Care (outreach teams, online support group)

** Mental health beds as per OECD figures include mental health beds in general hospitals, mental health hospitals, and in community residential facilities. Singapore's figure applies across all three facilities

Government policy and initiatives

"It's OKAY to Reach out" campaign (2021)
This campaign aims to raise awareness and mental health literacy in Singapore by equipping individuals with the right set of skills to manage their own mental health and seek timely support when feeling overwhelmed.

National Mental Health Strategy (2023)
This strategy aims to establish a mental health system that provides accessible, high-quality clinical care and creates a supportive community and society. Priority areas include increasing the mental health service capacity, strengthening capabilities for early detection and intervention and improving the mental health well-being of the workforce.

National Mental Health Office (2024)
The mental health office will facilitate multi-stakeholder consultation and initiatives related to improving mental health wellness. The office will be fully established in 2025, comprising officers from various ministries, including the Ministry of Social and Family Development and the Ministry of Education.

Current barriers

Barrier 1: The high cost of mental health treatment is a barrier to accessing quality care

High cost of mental health treatment continues to be a barrier to care access. A subsidized initial consultation at the Institute of Mental Health ranges from approximately US$22 to US$52 per session,[257] while monthly medication costs for some antidepressants exceed US$74.[258] Medisave covers up to US$370 annually for non-complex conditions and US$518 for complex chronic conditions,[259] but these limits can be quickly used up. Some treatments, like Electroconvulsive Therapy for patients unresponsive to medication or with severe psychiatric conditions are not subsidized and cost patients approximately US$355[260] per session. This results in a total cost of US$2,130 to US$4,260 for treating depression (6 to 12 sessions) and US$3,196 to US$6,391 for schizophrenia (9 to 18 sessions), posing a significant financial burden.[261]

Barrier 2: Rising demand continues to put pressure on the limited availability of mental healthcare professionals and infrastructure

Mental healthcare is often seen as the responsibility of health professionals such as psychiatrists when it could be better addressed as a system-wide issue. However, there are insufficient mental healthcare professionals to meet the increasing demand — 5.0 psychiatrists per 100,000 population.[262] Existing psychiatric beds in specialized mental health facilities are at full capacity. At the Institute of Mental Health, nearly all 2,000 beds are reported to be occupied, with half occupied by long-term patients.[263]

Barrier 3: Entrenched stigma surrounding mental health hinders timely intervention and care

Stigma surrounding mental health continues to be a major barrier to timely intervention and care. A 2023 Channel News Asia survey showed that 66 percent of respondents expressed concern about the stigma surrounding mental health which discouraged them from seeking help.[264] Individuals with mental health conditions may also face structural discrimination which limits access to equal employment opportunities and resources. A recent survey by the Ministry of Manpower found that mental health status is a common basis for discrimination during job searches and the rate of discrimination increased from 2.9 percent in 2021 to 5 percent in 2022.

> *Only when citizens within major markets in APAC have fair and equitable access to treatment, will mental health condition be truly manageable."*
>
> **Peter Liddell**
> Head of Life Sciences, KPMG Asia Pacific

Future opportunities

Opportunity 1: Adopt alternative payment mechanisms to fund mental health treatments

Lowering the cost of mental health services makes them more accessible to the public. In addition to using public health insurance to provide subsidized care, covering up to 80 percent of mental health services at public hospitals and polyclinics, the Ministry of Health Singapore can collaborate with private insurers to expand health coverage. Alternative funding models that pay based on patient needs can be effective too, such as the mental health payment-by-results system in the United Kingdom where doctors assign patients to a treatment cluster based on their condition, with each cluster having a different price or subsidy level.[265]

Opportunity 2: Increase capacity for care and strengthen the mental health workforce

Inpatient psychiatric wards and beds in public hospitals in Singapore are consistently at full capacity. The government can adopt a two-pronged approach — expanding hospital capacity to accommodate more patients while being selective about who qualifies for hospitalization. The government plans to build two psychiatric nursing home facilities and one psychiatric rehabilitation home by 2030. The Ministry of Health Singapore is also conducting industry consultation to develop community-focused care models, such as the Mobile Inpatient Care @ Home.[266] Inspired by Canada's Patient's Medical Home model, the care model could integrate mental health and primary care, thus enabling patients with complex needs to access psychiatric care within their community.[267] Furthermore, integrating digital and treatment innovation (e.g. digital health, digital therapeutics, medical devices, pharmaceuticals) across the continuum from prevention, diagnosis and treatment through to monitoring in community care settings can help reduce hospitalization rates.

Additionally, government initiatives can focus on minimizing delays in the transition of care. For instance, the United Kingdom and the United States have nurse-led discharge programs in which clinical criteria are used to expedite discharges, thus reducing delays in the transition of care.[268] The mental health workforce capacity, moreover, can also be expanded through the use of allied health professionals to provide mental health services.[269] The government should aim for at least 10 psychiatrists per 100,000 population — ideally 15.4 per 100,000 — in order to align with international benchmarks.[270] Plans to increase the number of public psychiatrists from 204 to 260[271] by 2030 will raise the ratio slightly from 5.03 to 5.13, assuming private psychiatrists' numbers remain unchanged and considering population growth. With Singapore's population projected to reach 6.9 million by 2030, 690 psychiatrists will be needed to meet the recommended ratio and 1,062 for the optimal ratio.

Opportunity 3: Reduce stigma by improving health literacy and normalizing the topic in conversations

Stigma can be reduced through ongoing education and initiatives that normalize mental health in conversations. For example, Mental Health Education lessons embedded as part of Character and Citizenship Education are now included in school curricula to help young people recognize signs of mental health issues and support peers in need. Additionally, campaigns like the "Bell Let's Talk" in Canada encouraged conversations about mental health and subsequently funded about seven million people to gain access to mental health services.[272] In 2023, the Inter-agency Task Force on Mental Health and Well-being launched Singapore's new strategy to improve access to care and create a stigma-free environment for seeking help early.[273] Mental health awareness campaigns and education could enable a more balanced focus on different mental health conditions, as schizophrenia is the least recognized.[274]

South Korea

Summary

Mental health policies in South Korea focus on enhancing care access, strengthening emergency response, reducing stigma and promoting social integration.

Areas that fall short of international benchmarks include government expenditure in mental health (3 percent vs recommended 10 percent) and the number of psychiatrists per 100,000 population (9 vs recommended 10, but this has increased from previous years).

33 percent increase in psychiatric beds per 100,000 population (from 45 to 60) can lift it up to optimal per international benchmark.

27.8%
of population experienced mental health conditions at some point in their life

4.5%
of diagnosed cases seek treatment

1,805.9
per 100,000 DALYs[1] lost due to mental health conditions

7.2%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

3.0% Total healthcare expenditure

United for Global Mental Health's goal (International benchmark) **10%**

Patients receiving subsidized treatment

0.1 million inpatient patients at mental health institution/year

2.5 million outpatient patients at mental health institution/year

Average out of pocket costs

~20% for inpatient treatment

5–20% for outpatient treatment

Human resources**

No. of psychiatrists per 100,000

Total no. of psychiatrists **9.0**

World Psychiatric Association (International benchmark) **10.0**

No. of psychologists

16.6
per 100,000 population

** Figures below reflect both urban and rural areas. However, access remains a challenge in rural regions where human resources are not distributed equitably

Service level

No. of mental health beds***

45.4 per 100,000 population

National Library of Medicine (International benchmark) **60** Optimal **30** Minimal

Median waiting time

~4.4 weeks for a subsidized appointment with psychiatrist

<0.1 week for a subsidized appointment with psychologist

Resources and support available for caregivers

- Mental health education for family caregivers
- Weekly rehabilitation programs for patients – art therapy, exercise therapy
- Social adaptation training for patients

*** Mental health beds as per OECD figures include mental health beds in general hospitals, mental health hospitals and in community residential facilities. Korea's figure applies to mental health hospital beds

Government policy and initiatives

Second Comprehensive Mental Health Welfare Plan 2021–2025 (2021)

This plan has six focus areas including mental health promotion, improvement of mental health services and infrastructure and enhancement of community-based social integration. Initiatives include the development of workforce allocation guidelines, securing housing and employment opportunities for individuals with mental health conditions and promoting intergovernmental and public-private collaborations.

Transformative Plan for Mental Health Policy Innovation (2023)

This plan represents a shift of focus from prevention to recovery where psychological counselling can be provided to 1 million individuals by 2027 and reduce suicide rate by 50% within ten years. There are four key focus areas: establishing a system for routine mental care, reorganizing emergency response and treatment systems, innovating recovery-centered welfare services and improving awareness and policy governance for mental health.

Current barriers

Barrier 1: Individuals with mental health conditions experience discrimination due to cultural stigma

Individuals with mental illnesses continue to experience discrimination. If diagnosed with a mental illness, they may be subject to internal procedures that could lead to dismissal or termination, depending on the severity of the condition and its impact on job performance.. Private health insurance disadvantages those with complex, hard-to-diagnose mental health conditions.[275] This discrimination stems from deep-rooted cultural stigma. A 2024 National Mental Health Survey found that many people believe their friends would reject them because of mental health conditions.[276] Additionally, 64.6 percent of respondents view individuals with mental health conditions as more dangerous, which reflects ongoing social stigma.[277] The impact of stigma is evident in South Korea's position as having the highest suicide rate among OECD markets, with 25.2 suicides per 100,000 people in 2022.[278] Mental health plays a major role in this crisis, underscoring the urgent need for focused efforts to improve mental wellness.

Barrier 2: Geographical disparities in mental health resource allocation create health inequity

There are significant geographical disparities in mental health resources between metropolitan and remote areas. Over 70 percent of mental healthcare professionals were reported to practice in metropolitan areas, while certain rural areas have fewer than one psychiatrist per 100,000 people.[279] In addition, 46.8 percent of the rehabilitation centers are concentrated in metropolitan areas such as Seoul and Gyeonggi.[280] This unequal access to resources is concerning in rural areas with large elderly populations, which have higher suicide rates linked to mental health conditions like depression.[281] Despite the increased need, rural areas receive far fewer resources, worsening the inequities in mental healthcare.

Barrier 3: Insufficient social and community-based services to support individuals with mental health conditions as they transition from hospital care to community care

Social and community-based services are needed to help patients with severe mental health conditions transition from hospital care to community care. These patients often still require ongoing follow-up and care under supervision in the community, such as schizophrenic patients receiving LAIs, to reduce the risk of treatment discontinuation. While mental health welfare centers in each district offer case management and daycare programs, these facilities are underfunded and understaffed. Case managers are often handling workloads two to four times the national average which limits their ability to provide rehabilitative care.[282] Additionally, despite the ongoing expansion of mental health rehabilitation facilities — 348 in 2018, 351 in 2022 and 359 in 2023 — there are still limitations to access to services like rehabilitation, education and employment support.[283] [284]

> *The number of inpatient beds has significantly decreased compared to the past … hospitals are shutting down their inpatient wards and transitioning to outpatient-focused operations. As a result, patients with severe mental illnesses, such as schizophrenia, who require long-term hospitalization, are finding it increasingly difficult to access appropriate care. Upon discharge, these individuals often lack access to community housing or group homes. While such systems are more established in other countries, they remain underdeveloped in South Korea."*
>
> **Dr. Woo Ri Moon**
> Psychiatrist, Gwacheon Seongmo Psychiatric Clinic

Future opportunities

Opportunity 1: Reduce discrimination and stigma around mental health by changing media portrayal and introducing laws that promote equal opportunities

Efforts have been made to reduce stigma surrounding mental health in South Korea. In April 2024, the Mental Illness Reporting Guidelines were introduced to minimize the portrayal of a causal link between mental health conditions and crime.[285] In November 2024, the Ministry of Health aired the "Let's Face It' advertisement, which depicted everyday life from the viewpoints of individuals with mental health conditions and those close to them to clarify misunderstandings.[286] South Korea is recommended to further adopt the WHO's key principles for reducing stigma: co-leadership, social contact and inclusive collaboration with individuals who have lived experience in anti-stigma efforts. For example, the motto "nothing about us without us" could advocate for the inclusion of people with mental health conditions in the development of policies and social programs.[287]

Future legislation can aim at making workplaces and communities more socially inclusive — for example, the introduction of employment laws like the United Kingdom's Equality Act to protect employees with mental health conditions by providing reasonable accommodation.[288]

Opportunity 2: Reduce geographical disparities by increasing mental health resources in rural areas

The South Korean government has boosted investment to address the geographical disparities in mental health resources and infrastructure between metropolitan and remote areas. The 2023 Innovation Plan deployed government-funded projects in regions with little to no mental rehabilitation infrastructure to help individuals receive community-based mental healthcare.[289] Plans are underway to mandate the establishment of at least one facility per city or county and to increase capacity at existing facilities to accommodate 1.5 times more patients in rural areas. Additionally, community-based services, such as peer support programs, crisis shelters and outreach initiatives, are being expanded, particularly in regions without mental rehabilitation or welfare facilities.[290]

Investing in digital tools like telemedicine could further help leverage the existing workforce more efficiently to provide care in rural areas. In 2023, a three-month pilot study enabled telemedicine to be provided to selected patient groups, including those in remote regions.[291] Such initiatives could be expanded to include telepsychiatry in order to reach areas with few or no hospitals.

Opportunity 3: Invest in social and community-based services to assist individuals with mental health conditions in transitioning from hospitals to care closer to home

The South Korean government has actively executed mental health policies related to MDD and schizophrenia with multiple advisory processes already in place since 2023. The government should continue investment in expanding community and social services for people with mental health conditions. The 2023 Mental Health Innovation Plan aims to increase the number of rehabilitation facilities and improve recovery support programs at mental health welfare centers. Research is being conducted to determine the minimum number of facilities needed in each region based on local demographics and the prevalence of complex mental health cases, including budgetary requirements. The plan also includes various support services, such as:

- Caregiver support: Family counseling and education and family rest support.
- Employment support: Vocational training at rehabilitation facilities and peer support.
- Social support: Rehabilitation facilities will offer weekly activities, including exercise programs and art therapy, to aid in social reintegration.

Additionally, the Ministry of Health and Welfare will launch a pilot project to provide housing support to promote self-reliance and reintegrate individuals with mental health conditions into their communities.

Taiwan

Summary

Mental health policies in Taiwan focus on mental health promotion, provision of community support, prevention and treatment and legal, judicial and technological advancements.

The number of psychiatrists in Taiwan is close to international standards and the number of psychiatric beds per 100,000 population exceeds international standards.

However, future government investment in mental health should increase to at least 10 percent of total healthcare expenditure (currently at 2.5 percent).

25.0%
of population experienced mental health conditions at some point in their life

<30%
of diagnosed cases seek treatment

1,705.12
per 100,000 DALYs* lost due to mental health conditions

6.1%
Proportion of total DALYs

* Disability-adjusted life years (DALYs) where 1 DALY signifies the loss of one year of full health as per WHO

Financing and health expenditure

Government mental health expenditure

2.5% Total healthcare expenditure

United for Global Mental Health's goal (International benchmark) **10%**

Patients receiving subsidized treatment

~0.1 million inpatient patients/year

~1.7 million outpatient patients/year

Average out of pocket costs

5–30% for inpatient treatment

0–20% for outpatient treatment

Human resources**

No. of psychiatrists per 100,000

Total no. of psychiatrists **9.3**

World Psychiatric Association (International benchmark) **10.0**

No. of psychologists

27.0
per 100,000 population

** Figures below reflect both urban and rural areas. However, access remains a challenge in rural regions where human resources are not distributed equitably

Service level

No. of mental health beds***

86.7 per 100,000 population

National Library of Medicine (International benchmark) **60** Optimal **30** Minimal

Median waiting time

<1 week for a subsidized appointment with psychiatrist

4–6 weeks for a subsidized appointment with psychologist

Resources and support available for caregivers

- Family caregiver care hotline
- Long-term care family caregiver support networks
- Mental care and community rehabilitation resources

*** Figure includes number of beds in both psychiatric hospitals and acute hospitals

Government policy and initiatives

Amendment of the Mental Health Act (2022)

Key amendments are in areas such as mental health promotion and community support, prevention and crisis management and legal safeguards. Initiatives include establishment of community mental health centers, provision of community support resources, improvement in front-line prevention, establishment of crisis management mechanisms and making amendments to compulsory hospitalization to require judicial review.

Mental Health Support Program for young adults aged 15–45 (2024)

This program provides three free counselling sessions for young adults aged 15 to 45 in need of psychological support. This supports early intervention for at-risk individuals.

National Mental Health Resilience Program (2025–2030)

This plan includes six major strategies: Promoting comprehensive mental health initiatives, developing a continuous mental healthcare network, enhancing diverse addiction treatment capacities, improving treatment and counselling for perpetrators of domestic violence and sexual assault, establishing a sound judicial mental health treatment system and strengthening technology and digital mental health infrastructure.

Current barriers

Barrier 1: Current reimbursement policies may not be favorable to bring innovations to market

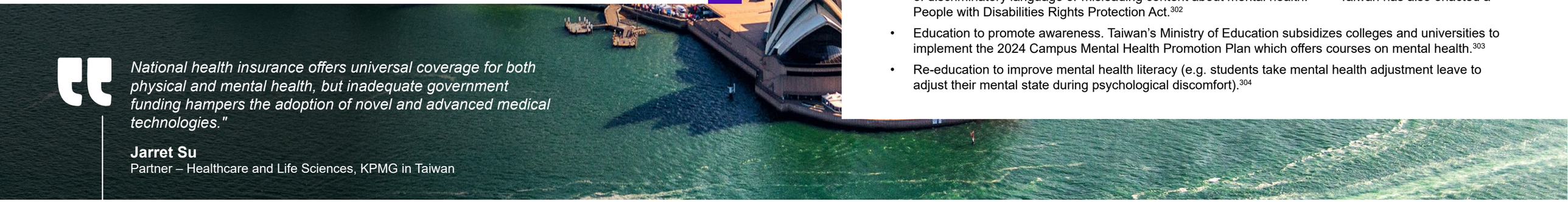
Current reimbursement policies slow down the approval process for bringing innovation to market. As of March 2023, the average time from drug submission to reimbursement was 505 days.[292] While the National Health Insurance introduced a parallel review process in January 2024 to accelerate approvals by allowing simultaneous reimbursement applications and FDA registration, its actual impact on reducing the review timeline from two years to one remains unproven.[293] Delayed reimbursement from the National Health Insurance may deter psychiatrists from adopting the latest treatments, as cost remains a key factor in treatment decisions.[294]

Barrier 2: Caregivers have limited social and financial support, which is worsened by discrimination

Caregivers often face limited social and financial support, with many hesitant to seek help due to fears of discrimination. The responsibility of caring for patients with chronic mental health conditions often falls on family members, who are expected to provide emotional support and assist with daily activities while also managing their work and personal lives. A survey found that the key challenges caregivers face include understanding the illness, helping patients with employment or education, managing stress and financial hardships, as well as navigating available resources. Very few caregivers seek support, as seen in the low number of calls to the Ministry of Health's "Family Caregiver Care Consultation Hotline". Social workers suggest that caregivers may avoid seeking help due to fears of discrimination, which only intensifies their sense of isolation.[295]

Barrier 3: Entrenched stigma exacerbated by lack of education and the media's portrayal of mental health

Media can exacerbate stigma and social exclusion of individuals with mental health conditions. A 2021 study explored the psychological impact of media reporting on celebrity suicides, revealing that both low educational attainment and inappropriate media coverage played a role in discouraging individuals from seeking help.[296] Stigma and social exclusion of people with mental health conditions are exacerbated by media coverage of random murders involving those with unstable mental health, leading to the belief that individuals with mental health conditions are dangerous.[297]



National health insurance offers universal coverage for both physical and mental health, but inadequate government funding hampers the adoption of novel and advanced medical technologies."

Jarret Su
Partner – Healthcare and Life Sciences, KPMG in Taiwan

Future opportunities

Opportunity 1: Re-evaluate policies and approval processes to facilitate the introduction of mental health innovation to market

In addition to introducing a parallel review process, the government can also implement other policies and initiatives such as conditional approval for new drugs. To assess the impact of these policies and initiatives, the American Chamber of Commerce in Taiwan has recommended that the government define clear performance indicators for their implementation and hold biannual reviews and discussions with industry stakeholders and patient groups after new policies take effect.[298]

Opportunity 2: Provide a targeted and broader range of support to caregivers

The government has been revising laws and policies to introduce initiatives aimed at providing more support services for caregivers. The 2022 legal amendments to the Mental Health Law enhanced community support and established mental health centers to:

- Strengthen discharge coordination and community prevention functions
- Provide caregivers with community resources to reduce their burden
- Improve continuity of care for patients.[299]

The government can consider future initiatives to offer tailored support based on each caregiver's needs. In the UK, a carer's assessment identifies the type of support caregivers require, such as help with household chores, training and access to well-being resources like exercise classes.

Opportunity 3: Inspire whole ecosystem collaboration to re-educate about mental health

Reducing the social stigma requires sustained, dedicated effort across the ecosystem and could include:

- Campaigns, such as the example set by UK's Time to Change campaign, which increased mental health knowledge in about 10 percent of people.
- Government intervention and legislation, such as Taiwan's Mental Health Act, which prohibits the use of discriminatory language or misleading content about mental health.[300] [301] Taiwan has also enacted a People with Disabilities Rights Protection Act.[302]
- Education to promote awareness. Taiwan's Ministry of Education subsidizes colleges and universities to implement the 2024 Campus Mental Health Promotion Plan which offers courses on mental health.[303]
- Re-education to improve mental health literacy (e.g. students take mental health adjustment leave to adjust their mental state during psychological discomfort).[304]

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References

1. Calculated using data from Our World in Data | Retrieved from https://ourworldindata.org/grapher/disease-burden-from-ncds?country=~East+Asia+%26+Pacific+%28WB%29
2. World Health Organization | Retrieved from https://www.who.int/data/gho/indicator-metadata-registry/imr-details/158#:~:text=DALYs%20for%20a%20disease%20or,%2C%20Sex%2C%20Cause%2C%20Risk%20factors
3. Translational Psychiatry | Retrieved from https://www.nature.com/articles/s41398-024-02864-5
4. Our World in Data | Retrieved from https://ourworldindata.org/grapher/burden-disease-from-each-mental-illness
5. Our World in Data | Retrieved from https://ourworldindata.org/grapher/burden-disease-from-each-mental-illness
6. Today Online | Retrieved from https://www.todayonline.com/commentary/making-mental-healthcare-more-affordable-singaporeans
7. Community Mental Health Journal | Retrieved from https://link.springer.com/article/10.1007/s10597-018-0244-x
8. National Mental Health and Welfare Commission | Retrieved from https://nmhc.or.kr/sub.php?id=nmhc&mode=view&menukey=17&idx=8271&page=1&menukey=17
9. United for Global Mental Health | Retrieved from https://unitedgmh.org/the-global-advocate/financing-mental-health-current-status-and-future-prospects/
10. Kindly refer to Table 3 for references related to the specific markets
11. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC5269505/
12. Kindly refer to Table 3 for references related to the specific markets
13. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC8780043/#:~:text=Sixty%20psychiatric%20beds%20per%20100,experts%20from%20HICs%20and%20LMICs
14. Kindly refer to Market snapshots for references related to the specific markets
15. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/stf/shingi/2r98520000028siu-att/2r98520000028t0c.pdf
16. Australian Government Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2023-10/national-mental-health-workforce-strategy-2022-2032.pdf
17. Galen Growth | Retrieved from FY 2023 Digital Health Ecosystem Asia Pacific Key Trends
18. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC11028406/
19. Psychopharmacology Institute | Retrieved from https://psychopharmacologyinstitute.com/publication/2024-in-review-new-fda-approvals-in-psychiatry-2901
20. American Association for Cancer Research | Retrieved from https://www.aacr.org/blog/2025/01/03/fda-approvals-in-oncology-october-december-2024/#:~:text=The%20FDA%20had%20a%20busy,first%2Din%2Dclass%20therapeutics.
21. World Health Organization | Retrieved from https://www.who.int/news-room/fact-sheets/detail/mental-disorders#:~:text=In%202019%2C%201%20in%20every,of%20the%20COVID%2D19%20pandemic.
22. The Lancet | Retrieved from https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(21)00395-3/fulltext
23. Our World in Data | Retrieved from https://ourworldindata.org/grapher/burden-disease-from-each-mental-illness
24. World Health Organization | Retrieved from https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/mental-health-in-the-workplace
25. National Alliance on Mental Illness | Retrieved from https://www.nami.org/about-mental-illness/mental-health-by-the-numbers/
26. Forbes | Retrieved from https://www.forbes.com/sites/mariaminor/2021/01/20/mental-health-in-the-workplace-the-high-cost-of-depression/
27. Institute for Health Metrics and Evaluation | Retrieved from https://vizhub.healthdata.org/gbd-compare/
28. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9777672/#:~:text=The%20overall%20pooled%20prevalence%20of,the%20community%20and%20clinic%20settings.
29. World Economic Forum |Retrieved from https://intelligence.weforum.org/topics/a1Gb0000000pTDbEAM
30. United Nations Population Fund | Retrieved from https://asiapacific.unfpa.org/en/topics/population-trends-9#:~:text=The%20Asia%20and%20the%20Pacific,populous%20countries%2C%20China%20and%20India.
31. Calculated using data from Our World in Data | Retrieved from https://ourworldindata.org/grapher/disease-burden-from-ncds?country=~East+Asia+%26+Pacific+%28WB%29
32. World Health Organization | Retrieved from https://www.who.int/data/gho/indicator-metadata-registry/imr-details/158#:~:text=DALYs%20for%20a%20disease%20or,%2C%20Sex%2C%20Cause%2C%20Risk%20factors
33. Translational Psychiatry | Retrieved from https://www.nature.com/articles/s41398-024-02864-5
34. Our World in Data | Retrieved from https://ourworldindata.org/grapher/burden-disease-from-each-mental-illness
35. Our World in Data | Retrieved from https://ourworldindata.org/grapher/burden-disease-from-each-mental-illness
36. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC6277949/#:~:text=The%20EIU%20report%20cited%20similar,treatment%20gap%20was%20above%2050%25.%E2%80%8B
37. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC6981757/
38. OECD | Retrieved from https://doi.org/10.1787/c7467f62-en
39. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/workforce
40. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/workforce
41. Health Literacy | Retrieved from https://www.healthliteracy.jp/kenkou/japan.html
42. Hong Kong Free Press | Retrieved from https://hongkongfp.com/2023/10/11/hkfps-comprehensive-guide-to-mental-health-services-in-hong-kong/#:~:text=For%20free%20one%2Dstop%20mental,Hospital%20Authority's%20Community%20Psychiatric%20Service.
43. Today Online | Retrieved from https://www.todayonline.com/commentary/making-mental-healthcare-more-affordable-singaporeans
44. Mind HK | Retrieved from https://www.mind.org.hk/mental-health-in-hong-kong/
45. Community Mental Health Journal | Retrieved from https://link.springer.com/article/10.1007/s10597-018-0244-x
46. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC11577895/#ack1
47. Archives of Psychiatric Nursing | Retrieved from https://www.sciencedirect.com/science/article/pii/S0883941718301560
48. BMC Psychiatry | Retrieved from https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-022-04289-0
49. United for Global Mental Health | Retrieved from https://unitedgmh.org/app/uploads/2023/10/Financing-of-mental-health-V2.pdf
50. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/expenditure-on-mental-health-promotion-prevention-and-treatment
51. National Mental Health and Welfare Commission | Retrieved from https://nmhc.or.kr/sub.php?id=nmhc&mode=view&menukey=17&idx=8271&page=1&menukey=17
52. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC7537733/
53. City Mental Health Alliance Hong Kong | Retrieved from https://www.cmhahk.org/docs/research/2019-The-cost-of-mental-ill-health-for-employers-in-Hong-Kong_EN_WEB.pdf
54. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC5101346/
55. Australian Government – National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/sites/default/files/2024-03/the-economic-case-for-investing-in-mental-health-prevention---summary.pdf
56. National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/publications/vision-2030
57. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/expenditure
58. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/workforce

59. Department of Health and Aged Care | Retrieved from https://www.health.gov.au/topics/mental-health-and-suicide-prevention/what-were-doing-about-mental-health

60. National Center for Mental Health, China | Retrieved from https://ncmhc.org.cn/channel/newsinfo/6705

61. National Health Commission of the PRC | Retrieved from e034a3f33c1f41a8bfbff35b9c89268c.pdf

62. WanFang Med Online| Retrieved from https://med.wanfangdata.com.cn/Paper/Detail/PeriodicalPaper_zgwsrc202301005

63. National Health Commission of the PRC | Retrieved from http://www.nhc.gov.cn/guihuaxxs/s7788/202303/1a6c05141f9547768ba1f7792c0313d0.shtml

64. The Hong Kong Special Administrative Region of the People's Republic of China | Retrieved from https://www.policyaddress.gov.hk/2023/en/p145.html

65. Calculated from Legislative Council of the Hong Kong Special Administrative Region of The People's Republic of China | Retrieved from https://www.legco.gov.hk/yr2023/english/panels/hs/papers/hs20231117cb4-977-5-e.pdf

66. Calculated from Health Bureau | Retrieved from https://www.healthbureau.gov.hk/statistics/en/dha.htm

67. South China Morning Post | Retrieved from https://www.scmp.com/comment/letters/article/3224683/mental-health-hong-kong-depends-early-intervention-and-treatment

68. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/content/12602000/001263850.pdf

69. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/toukei/saikin/hw/k-iryohi/21/dl/data.pdf

70. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/toukei/saikin/hw/ishi/20/index.html

71. Ministry of Health | Retrieved from https://www.moh.gov.sg/others/resources-and-statistics/national-mental-health-and-well-being-strategy--2023-

72. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/expenditure-on-mental-health-promotion-prevention-and-treatment

73. Singapore Medical Council | Retrieved from https://www.healthprofessionals.gov.sg/smc/publications-newsroom/smc-annual-reports

74. Ministry of Health and Welfare | Retrieved from https://www.mohw.go.kr/board.es?mid=a10503000000&bid=0027&list_no=1479142&act=view

75. National Mental Health and Welfare Commission | Retrieved from https://nmhc.or.kr/sub.php?id=nmhc&mode=view&menukey=17&idx=8271&page=1&menukey=17

76. OECD | Retrieved from https://doi.org/10.1787/c7467f62-en

77. Ministry of Health and Welfare | Retrieved from https://dep.mohw.gov.tw/DOMHAOH/lp-329-107.html

78. Ministry of Health and Welfare | Retrieved from https://dep.mohw.gov.tw/DOA/cp-658-77449-112.html

79. Taiwan Medical Association | Retrieved from https://www.tma.tw/stats/files/2021/%E9%99%84%E9%8C%844.pdf

80. KPMG | Retrieved from https://kpmg.com/vn/en/home/insights/2021/08/the-spectrum-of-major-depressive-disorder-burden-in-southeast-asia.html

81. KPMG | Retrieved from https://kpmg.com/sg/en/home/insights/2021/03/the-rising-social-and-economic-cost-of-major-depression-in-the-asia-pacific.html

82. United for Global Mental Health | Retrieved from https://unitedgmh.org/the-global-advocate/financing-mental-health-current-status-and-future-prospects/

83. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/expenditure

84. National Health Commission of the PRC | Retrieved from e034a3f33c1f41a8bfbff35b9c89268c.pdf

85. Calculated from Legislative Council of the Hong Kong Special Administrative Region of The People's Republic of China | Retrieved from https://www.legco.gov.hk/yr2023/english/panels/hs/papers/hs20231117cb4-977-5-e.pdf

86. Calculated from Health Bureau | Retrieved from https://www.healthbureau.gov.hk/statistics/en/dha.htm

87. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/toukei/saikin/hw/k-iryohi/21/dl/data.pdf

88. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/expenditure-on-mental-health-promotion-prevention-and-treatment

89. National Mental Health and Welfare Commission | Retrieved from https://nmhc.or.kr/sub.php?id=nmhc&mode=view&menukey=17&idx=8271&page=1&menukey=17

90. Ministry of Health and Welfare | Retrieved from https://dep.mohw.gov.tw/DOA/cp-658-77449-112.html

91. Yahoo | Retrieved from https://tw.stock.yahoo.com/news/%E7%A4%BE%E6%9C%83-%E7%B2%BE%E9%9A%9C%E9%95%B7%E6%95%88%E9%87%9D%E5%8A%91%E9%98%B2%E5%81%9C%E8%97%A5-%E5%86%8D%E4%BD%8F%E9%99%A2%E9%A2%A8%E9%9A%AA%E9%99%8D%E9%80%BE1%E6%88%90-035038168.html

92. Health News | Retrieved from https://www.healthnews.com.tw/article/61762

93. Yahoo | Retrieved from https://tw.stock.yahoo.com/news/%E7%A4%BE%E6%9C%83-%E7%B2%BE%E9%9A%9C%E9%95%B7%E6%95%88%E9%87%9D%E5%8A%91%E9%98%B2%E5%81%9C%E8%97%A5-%E5%86%8D%E4%BD%8F%E9%99%A2%E9%A2%A8%E9%9A%AA%E9%99%8D%E9%80%BE1%E6%88%90-035038168.html

94. Income Insurance Singapore | Retrieved from https://www.income.com.sg/kcassets/803649db-8dfd-4f2b-9ec0-eb8e8cb0bfd7/Co-Pay%20Assist_EN_2024%20web.pdf

95. Australian Institute of Health and Welfare | Retrieved from https://www.indigenoushpf.gov.au/getattachment/79e5f9c5-f5b9-4a1f-8df6-187f267f6817/hpf_summary-report-aug-2024.pdf

96. PLOS One | Retrieved from https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0235736&type=printable

97. The Straits Times | Retrieved from https://www.straitstimes.com/singapore/health/how-singapore-is-transforming-the-mental-health-landscape-to-stem-a-crisis

98. Private Space Medical | Retrieved from https://privatespace.com.sg/

99. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC7681156/#:~:text=While%20there%20may%20be%20no,stigma%20%5B21%2C22%5D.

100. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/workforce

101. Ministry of Health, Labour and Welfare | Retrieved from https://www.mhlw.go.jp/stf/shingi/2r98520000028siu-att/2r98520000028t0c.pdf

102. Nong Min | Retrieved from https://www.nongmin.com/article/20241023500596

103. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/getmedia/a530183d-8d16-44bd-8f43-526adfd1385a/mental-health-related-prescriptions.pdf.aspx

104. Johnson & Johnson Innovative Medicine | Retrieved from https://www.linkedin.com/posts/jnjinnovativemedicineanz_we-are-pleased-to-confirm-that-the-pharmaceutical-activity-7291990361680265217-4iRb

105. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9285042/

106. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/mental-health-insurance-coverage

107. Health Hub | Retrieved from https://www.healthhub.sg/a-z/costs-and-financing/medisave_chronic_disease_management

108. CMAJ Group | Retrieved from https://www.cmajopen.ca/content/11/2/E357

109. SA Health | Retrieved from https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/resources/aboriginal+mental+health+clinical+practice+guideline+and+pathways

110. WA Country Health Service | Retrieved from https://www.wacountry.health.wa.gov.au/~/media/WACHS/Documents/About-us/Policies/Aboriginal-Mental-Health-Consultation-Guideline.pdf?thn=0

111. Chief Psychiatrist WA | Retrieved from https://www.chiefpsychiatrist.wa.gov.au/wp-content/uploads/2024/06/Summary___Yarning-Cultural-Gathering-Tool-and-Aboriginal-Governance.pdf

112. Royal College of Psychiatrists | Retrieved from https://www.rcpsych.ac.uk/docs/default-source/improving-care/nccmh/working-well-together/working-well-together---evidence-and-tools-to-enable-co-production-in-mental-health-commissioning.pdf

113. National Health Service | Retrieved from https://www.england.nhs.uk/publication/advancing-mental-health-equalities-strategy/

114. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9301261/

115. Australian Government Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2024-07/better-access-telehealth-frequently-asked-questions.pdf

116. Asian Development Bank | Retrieved from https://blogs.adb.org/blog/key-strategies-improve-mental-health-support-across-asia-and-pacific

117. Our Hong Kong Foundation | Retrieved from https://www.ourhkfoundation.org.hk/en/media/commentaries/hong-kong%E2%80%99s-mental-healthcare-system-must-be-expanded-meet-residents%E2%80%99-growing-needs

118. Frontiers in Psychology | Retrieved from https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2024.1426122/full#B31

119. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10739240/#:~:text=Conclusions,the%20implications%20are%203%2Dfold.

120. Clinics | Retrieved from https://clinics-cloud.com/column/276

121. JAPC | Retrieved from https://japc.or.jp/wp-content/uploads/2023/05/%e7%b2%be%e7%a5%9e%e7%a7%91%e5%a4%96%e6%9d%a5%e3%81%ab%e3%81%8a%e3%81%91%e3%82%8b%e3%82%aa%e3%83%b3%e3%83%a9%e3%82%a4%e3%83%b3%e8%a8%ba%e7%99%82%e3%81%ae%e7%8f%be%e6%b3%81%e3%81%a8%e8%87%a8%e5%ba%8a%e5%8c%bb%e3%81%ae%e8%a6%96%e7%82%b9.pdf

122. KPMG Analysis from KOL interviews

123. Healthdirect | Retrieved from https://www.healthdirect.gov.au/partners/mindspot-clinic

124. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC11251320/

125. NHS Devon Partnership | Retrieved from https://www.dpt.nhs.uk/our-services/adults/urgent-and-inpatient-care/home-treatment-teams

126. NHS Lancashire & South Cumbria | Retrieved from https://www.lscft.nhs.uk/our-services/service-finder-z/home-treatment-teams

127. Ouchi Community Mental Health Centre | Retrieved from https://cmhc.oouchihp.net/

128. Frontiers | Retrieved from https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2021.779563/full

129. Official Journal of The Academy of Medicine Singapore | Retrieved from https://annals.edu.sg/integrating-mental-healthcare-in-primary-care-in-singapore/

130. Nuffield Trust | Retrieved from https://www.nuffieldtrust.org.uk/resource/improving-access-to-psychological-therapies-iapt-programme

131. Greenspace | Retrieved from https://greenspacehealth.com/en-us/nhs-talking-therapies-key-goals-results/

132. Ministry of Health | Retrieved from https://www.moh.gov.sg/others/resources-and-statistics/national-mental-health-and-well-being-strategy--2023-

133. 全民心理健康韌性計畫 (2025 – 2030)

134. RACGP | Retrieved from https://www1.racgp.org.au/newsgp/professional/severe-psychiatrist-shortage-causing-rapid-readmis

135. CYOL | Retrieved from https://zqb.cyol.com/html/2024-03/08/nw.D110000zgqnb_20240308_2-06.htm

136. Psychiatry Online | Retrieved from https://psychiatryonline.org/doi/10.1176/appi.pn.2021.5.27

137. Shanghai Jiemian Finance Technology Co., Ltd. | Retrieved from https://www.jiemian.com/article/8513690.html

138. OECD | Retrieved from https://doi.org/10.1787/c7467f62-en

139. Research Gate | Retrieved from https://www.researchgate.net/publication/356843412_Training_and_education_in_digital_psychiatry_A_perspective_from_Asia-Pacific_region

140. Research Gate | Retrieved from https://www.researchgate.net/publication/356843412_Training_and_education_in_digital_psychiatry_A_perspective_from_Asia-Pacific_region

141. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC11249737/

142. Research Gate | Retrieved from https://www.researchgate.net/publication/356843412_Training_and_education_in_digital_psychiatry_A_perspective_from_Asia-Pacific_region

143. National Library of Medicine| Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10298424/

144. Psychology Today | Retrieved from https://www.psychologytoday.com/sg/blog/happiness-is-state-mind/202204/mental-health-among-mental-health-practitioners

145. Cambridge University Press | Retrieved from https://www.cambridge.org/core/journals/psychiatric-bulletin/article/barriers-to-mental-healthcare-for-psychiatrists/3225567FF60D13E060B87BE5BADE52CA

146. Australian Medical Association | Retrieved from https://www.ama.com.au/gp-network-news/new-free-confidential-mental-health-counselling-service

147. The Royal Melbourne Hospital | Retrieved from https://www.thermh.org.au/health-professionals/careers/working-at-the-rmh/staff-wellbeing

148. Taiwanese Journal of Psychiatry | Retrieved from https://journals.lww.com/tpsy/fulltext/2024/04000/the_making_of_psychiatrists_in_japan.1.aspx

149. College of Psychiatrists | Retrieved from https://www.ams.edu.sg/colleges/psychiatrists/continuing-professional-development

150. European Psychiatric Association | Retrieved from https://www.europsy.net/online-talks-with-experts/2022-sessions/

151. Palo Alto University | Retrieved from https://concept.paloaltou.edu/certificates-foundations-digital-mental-health

152. American Psychiatric Association | Retrieved from https://www.psychiatry.org/psychiatrists/practice/digital-mental-health

153. Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2023-10/national-mental-health-workforce-strategy-2022-2032.pdf

154. Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2023-10/national-mental-health-workforce-strategy-2022-2032.pdf

155. NHS Nottinghamshire Healthcare | Retrieved from https://recruitment.nottshc.nhs.uk/recruitment-international-nurse-recruitment/

156. PubMed Central | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9743101/#CR24

157. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9485594/

158. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10982476/

159. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10337342/

160. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC9485594/

161. Milken Institute | Retrieved from https://milkeninstitute.org/sites/default/files/2021-11/Framing%20the%20Issues%20Digital%20Mental%20Health%20in%20Asia.pdf

162. NHS Accelerator: https://nhsaccelerator.com/innovation/limbic/#:~:text=Limbic%20is%20an%20AI%2Dpowered,enables%20services%20to%20implement%20efficiencies.

163. Orygen | Retrieved from https://www.orygen.org.au/About/News-And-Events/2024/New-study-reveals-Australians-turning-to-AI-for-me

164. Australian Digital Health Agency | Retrieved from https://www.digitalhealth.gov.au/national-digital-health-strategy/outcomes/data-driven

165. The University of Connecticut | Retrieved from https://pharmacy.uconn.edu/course/llaiaworkshop/

166. World Psychiatric Association | Retrieved from https://wcp-congress.com/

167. Ministry of Health and Welfare | Retrieved from https://www.ncmh.go.kr/ncmh/board/boardView.do?no=9742&fno=106&gubun_no=6&menu_cd=04_03_00_02&bn=newsView&search_item=&search_content=&pageIndex=1#

168. Radio Taiwan INTL | Retrieved from https://www.rti.org.tw/news/view/id/2172756

169. American Psychiatric Association | Retrieved from https://www.psychiatry.org/patients-families/stigma-and-discrimination

170. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10220277/#:~:text=Public%20awareness%20campaigns%20can%20dispel,and%20the%20possibilities%20for%20recovery.

171. Beyond the Label SG | Retrieved from https://www.youtube.com/channel/UCVEj1kR2gkIPeIjspHoMkKw/videos

172. Touch Community Services | Retrieved from https://touch.org.sg/content/dam/touchprogram/about-touch/media-centre/media_release_beyond_the_label_collective_reached_out_to_over_39.pdf

173. Ministry of Health and Welfare | Retrieved from https://www.mohw.go.kr/board.es?mid=a10503010100&bid=0027&act=view&list_no=1483558&tag&nPage=1

174. National Library of Medicine| Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10220277/#:~:text=Public%20awareness%20campaigns%20can%20dispel,and%20the%20possibilities%20for%20recovery.

175. World Health Organization | Retrieved from https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work

176. St. Luke's Health | Retrieved from https://www.stlukeshealth.org/resources/mental-health-and-cancer

177. Ministry of Heath | Retrieved from https://www.moh.gov.sg/newsroom/raising-awareness-of-elderly-mental-health-challenges

178. The State Council, The People's Republic of China | Retrieved from https://english.www.gov.cn/news/202305/11/content_WS645cca32c6d03ffcca6ecf59.html

179. Advisory Committee on Mental Health | Retrieved from https://mentalhealthcharter.hk/en/recognition.html

180. CDC | Retrieved from https://www.cdc.gov/cancer-survivors/hcp/mental-health-care/index.html

181. Digital Hub for Mental Health | Retrieved from https://mentalhealth.apec.org/about

182. Digital Hub for Mental Health | Retrieved from https://mentalhealth.apec.org/core-partners

183. Digital Hub for Mental Health | Retrieved from https://mentalhealth.apec.org/research

184. Mental Health Europe | Retrieved from https://www.mentalhealtheurope.org/what-we-do/

185. Cambridge University Press & Assessment | Retrieved from https://www.cambridge.org/core/services/aop-cambridge-core/content/view/76BE3DCE07D0ACD35810A25F0EA4D631/S2056474024000242a.pdf/mental_health_and_psychiatry_in_japan.pdf

186. BMC Health Services Research | Retrieved from https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-022-08868-5

187. World Health Organization | Retrieved from https://www.who.int/teams/mental-health-and-substance-use/world-mental-health-report

188. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC6998623/

189. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC6998623/

190. Frontiers | Retrieved from https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2024.1408991/full

191. RGA | Retrieved from https://www.rgare.com/knowledge-center/article/bridging-the-mental-health-gap-in-asia-challenges-and-opportunities

192. National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/about

193. The Straits Times | Retrieved from https://www.straitstimes.com/singapore/health/help-just-a-call-or-text-away-national-mental-health-helpline-and-textline-by-mid-2025

194. The Government of the Hong Kong Special Administrative Region | Retrieved from https://www.info.gov.hk/gia/general/202410/10/P2024101000316.htm

195. World Economic Forum | Retrieved from https://www.weforum.org/stories/2023/10/mental-health-collaborative-well-being-healthier-workforce/

196. Western Australian Association for Mental Health | Retrieved from https://waamh.org.au/details?id=253

197. EASA Employee Assistance | Retrieved from https://www.easa.net.au/benefits-to-employers/

198. Kojima Law Offices | Retrieved from https://www.kojimalaw.jp/en/articles/0006

199. Tripartite Alliance Limited | Retrieved from https://www.tal.sg/wshc/-/media/tal/wshc/media/pdf/guidelines-on-providing-support-for-employees-with-and-at-risk-of-mental-health-conditions.ashx

200. The Red Cross Singapore | Retrieved from https://redcross.sg/news-and-stories/12-stories/1512-strategies-to-ensure-mental-well-being-at-the-workplace.html

201. Health & Wellbeing @ Work | Retrieved from https://healthwellbeingwork.co.uk/guest-blogs/employers-duty-care-mental-health-uk#:~:text=Under%20the%20Equality%20Act%202010,adjustments%20to%20accommodate%20disabled%20employees.

202. GOV.UK | Retrieved from https://www.gov.uk/government/publications/health-matters-health-and-work/health-matters-health-and-work#:~:text=Employers%20also%20have%20an%20important,and%20wellbeing%20in%20the%20workplace.

203. Australian Institute of Health and Welfare | Retrieved from https://www.aihw.gov.au/mental-health/topic-areas/workforce

204. National Rural Health Alliance | Retrieved from https://www.ruralhealth.org.au/sites/default/files/publications/nrha-mental-health-factsheet-july2021.pdf

205. Springer Nature Link | Retrieved from https://link.springer.com/article/10.1007/s40615-023-01899-6

206. The University of Melbourne | Retrieved from https://findanexpert.unimelb.edu.au/news/16224-a-bigger-budget-for-mental-health-services-won't-necessarily-improve-australia's-mental-health

207. National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/sites/default/files/2024-03/the-economic-case-for-investing-in-mental-health-prevention---summary.pdf

208. National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/sites/default/files/2024-03/the-economic-case-for-investing-in-mental-health-prevention---summary.pdf

209. The Australian Psychological Society Limited | Retrieved from https://psychology.org.au/for-members/publications/inpsych/2022/vol-44-spring-2022/better-than-cure-why-we-should-focus-on-prevention

210. The Royal Australian & New Zealand College of Psychiatrists | Retrieved from https://www.ranzcp.org/news-analysis/crucial-investment-in-mental-health-workforce-missing-in-today-s-budget

211. The Australian Psychological Society Limited | Retrieved from https://psychology.org.au/about-us/news-and-media/aps-in-the-media/2023/analysing-australias-mental-health-crisis

212. National Association of Practicing Psychiatrists | Retrieved from https://napp.org.au/2024/05/response-by-napp-on-the-article-in-the-weekend-australian-4-may-psychiatrists-are-fleeing-the-public-system-in-record-numbers/

213. National Association of Practicing Psychiatrists | Retrieved from https://napp.org.au/2024/09/addressing-the-ailing-state-of-australian-mental-health-care-2024/

214. Australian Government Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2023-10/national-mental-health-workforce-strategy-2022-2032.pdf

215. National Association of Practicing Psychiatrists | Retrieved from https://napp.org.au/2024/05/response-by-napp-on-the-article-in-the-weekend-australian-4-may-psychiatrists-are-fleeing-the-public-system-in-record-numbers/

216. Australian Institute of Health and Welfare | Retrieved from https://www.indigenoushpf.gov.au/measures/3-10-access-to-mental-health-services

217. The Australian Psychological Society Limited | Retrieved from https://psychology.org.au/for-members/publications/inpsych/2022/vol-44-spring-2022/better-than-cure-why-we-should-focus-on-prevention

218. The Australian Psychological Society Limited | Retrieved from https://psychology.org.au/for-members/publications/inpsych/2022/vol-44-spring-2022/better-than-cure-why-we-should-focus-on-prevention

219. Australian Government Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/documents/2022/03/budget-2022-23-mental-health-prevention-and-early-intervention-pillar-1.pdf

220. National Mental Health Commission | Retrieved from https://www.mentalhealthcommission.gov.au/publications/school-based-psychological-interventions-prevent-depression-young-people

221. Australian Government Department of Health and Aged Care | Retrieved from https://www.health.gov.au/sites/default/files/2023-10/national-mental-health-workforce-strategy-2022-2032.pdf

222. Ministers Department of Health and Aged Care | Retrieved from https://www.health.gov.au/ministers/the-hon-mark-butler-mp/media/building-the-workforce-to-make-mental-health-care-more-available-and-equitable

223. Australian Government Department of Health and Aged Care | Retrieved from https://www9.health.gov.au/mbs/fullDisplay.cfm?type=item&q=91862&qt=item&criteria=telehealth

224. Retrieved from https://www.sheitc.sh.gov.cn/dsxxjyzl/20240311/5b9d23bfab5c420fb4a8c5c17d9aa445.html

225. Retrieved from https://www.hainan.gov.cn/hainan/zmghnwj/202210/08fbc2fd68bb4c88835e3e111458b97b.shtml

226. Milken Institute | Retrieved from https://milkeninstitute.org/sites/default/files/2021-11/Framing%20the%20Issues%20Digital%20Mental%20Health%20in%20Asia.pdf

227. The Paper | Retrieved from https://www.thepaper.cn/newsDetail_forward_7687635

228. BMC Medical Education | Retrieved from https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-023-04197-1

229. Milken Institute | Retrieved from https://milkeninstitute.org/sites/default/files/2021-11/Framing%20the%20Issues%20Digital%20Mental%20Health%20in%20Asia.pdf

230. Retrieved from https://m.sohu.com/a/610070319_121118846/?pvid=000115_3w_a&webview_progress_bar=1&show_loading=0

231. South China Morning Post | Retrieved from https://www.scmp.com/comment/letters/article/3224683/mental-health-hong-kong-depends-early-intervention-and-treatment

232. Yahoo | Retrieved from https://hk.news.yahoo.com/%E5%8C%97%E8%A7%92%E9%96%_8B%E6%A7%8D%_E6%A1%88%EF%B8%B1%E7%B2%BE%E7%A5%9E%E7%A7%91%E6%96%B0%E7%97%87%_E6%9C%80%E9%95%B7%E8%BC%AA%E5%80%99%E8%BF%91-2-%E5%B9%B4-%E9%86%AB%E7%94%9F%E6%8C%87%E8%A8%_BA%E7%97%87%E6%99%82%E9%96%93%E5%83%85%E6%95%B8%E5%88%86%E9%90%98-%E6%86%82%E8%B5%B0%E6%BC%8F%E5%8D%B1%E9%9A%AA%E5%80%8B%E6%A1%88-095321911.html?guccounter=1&guce_referrer=aHR0cHM6Ly90cmFuc2xhdGUuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAImkQ9DNRh-IkYmVJ8cRDFtzCQkgjsNsM3I84AQW6XFz0Wnvh3z0zNgWVPIa4WHrwucJP_aj-cgTLD-v5CB-Dggzo88d7E4AKyf4HxNwWLa-k9KAX3ahASckovU5DOdAAvebPKzkNvJwVKM159hLNKSfwIMmHGs3KJ9N_FMJAUgr

233. The Standard | Retrieved from https://www.thestandard.com.hk/breaking-news/section/4/204544/Hopes-gone-and-faith-lost-with-psychiatrist-to-patient-ratio-at-1:761,-say-two-top-docsk9KAX3ahAScko vU5DOdAAvebPKzkNvJwVKM159hLNKSfwIMmHGs3KJ9N_FMJAUgr

234. Mind HK | Retrieved from https://www.mind.org.hk/press-releases/mind-hk-survey-reveals-hong-kong-citizens-worsening-state-of-mental-health-during-the-fifth-wave-of-the-covid-19-pandemic/

235. China Daily | Retrieved from https://www.chinadailyhk.com/hk/article/585095

236. The Government of the Hong Kong Special Administrative Region of the People's Republic of China | Retrieved from https://www.healthbureau.gov.hk/en/fund/210700_mhifs/index.html

237. The Government of the Hong Kong Special Administrative Region | Retrieved from https://www.info.gov.hk/gia/general/202305/16/P2023051600337.htm

238. Mind HK | Retrieved from https://www.mind.org.hk/press-releases/announcement-mind-hks-2024-policy-recommendations-for-hong-kong-2/#:~:text=Further%20Develop%20a%20Stepped%20Care,receive%20the%20most%20appropriate%20support

239. Better Help | Retrieved from https://www.betterhelp.com/

240. Talkspace | Retrieved from https://www.talkspace.com/

241. Woebot Health | Retrieved from https://woebothealth.com/

242. National Library of Medicine | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC7869929/

243. The Government of the Hong Kong Special Administrative Region | Retrieved from https://www.info.gov.hk/gia/general/202007/11/P2020071100548.htm

244. The Government of the Hong Kong Special Administrative Region | Retrieved from https://www.info.gov.hk/gia/general/202312/27/P2023122700238.htm

245. Labour and Welfare Bureau | Retrieved from https://www.lwb.gov.hk/en/other_info/1.%20Carer%20Study-Main%20Report%20(Eng)_2022.05-r.pdf

246. The Hong Kong Special Administrative Region of the People's Republic of China | Retrieved from https://www.policyaddress.gov.hk/2024/en/p192.html

247. PR Times | Retrieved from https://prtimes.jp/main/html/rd/p/000000019.000073210.html

248. PR Times | Retrieved from https://prtimes.jp/main/html/rd/p/000000019.000073210.html

249. PR Times | Retrieved from https://prtimes.jp/main/html/rd/p/000000019.000073210.html

250. OECD | Retrieved from https://www.oecd-ilibrary.org/social-issues-migration-health/mental-health-beds-per-100-000-population-2020-or-latest-year-available_3a4fce05-en

251. SciELO | Retrieved from https://scielo.org.za/scielo.php?script=sci_arttext&pid=S0037-80542016000400002

252. Department of Community Mental Health & Law | Retrieved from https://www.ncnp.go.jp/nimh/chiiki/about/mhl.html

253. Health and Global Policy Institute | Retrieved from https://hgpi.org/research/mh2020pp.html

254. Gov.UK | Retrieved from https://assets.publishing.service.gov.uk/media/5a7b8ec8e5274a7318b8f708/Mental-Health-clustering-support-tool-algorithm.pdf

255. PubMed Central | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC6946607/

256. KPMG analysis

257. Institute of Mental Health | Retrieved from https://www.imh.com.sg/Patients-and-Visitors/Pages/Outpatient-Charges.aspx

258. Channel News Asia | Retrieved from https://www.channelnewsasia.com/commentary/mental-health-long-wait-costly-timely-affordable-insurance-workplace-3296691

259. Institute of Mental Health | Retrieved from https://www.imh.com.sg/Mental-Health-Resources/Prepare%20to%20care/Pages/Financial-Help-for-Mental-Health.aspx#:~:text=For%20patients%20with%20chronic%20conditions,chronic%20conditions)%20covered%20under%20CHAS

260. The Straits Times | Retrieved from https://www.straitstimes.com/singapore/health/new-form-of-magnetic-brain-stimulation-spells-hope-for-treatment-resistant-depression

261. Institute of Mental Health | Retrieved from https://www.imh.com.sg/Documents/publications/service-brochures/for-adults/IMH%20ECT%20Brochure.pdf

262. Calculated from Singapore Medical Council 2023 Report | Retrieved from https://www.healthprofessionals.gov.sg/smc/publications-newsroom/smc-annual-reports

263. The Straits Times | Retrieved from https://www.straitstimes.com/singapore/health/long-staying-imh-patients-who-are-stable-enough-to-live-outside-to-be-moved-into-nursing-homes

264. Channel News Asia | Retrieved from https://www.channelnewsasia.com/singapore/mental-health-week-singaporeans-awareness-misconceptions-2991536

265. Cambridge University Press | Retrieved from https://www.cambridge.org/core/journals/advances-in-psychiatric-treatment/article/clustering-in-mental-health-payment-by-results-a-critical-summary-for-the-clinician/824A8FD412E4D376278A201BF0831290

266. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/delivering-care-beyond-hospitals

267. The College of Family Physicians of Canada | Retrieved from https://www.cfpc.ca/CFPC/media/PDF/IPC-Mental-Health-Report-2020-Final.pdf

268. KPMG analysis

269. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/launch-of-national-mental-health-and-well-being-strategy

270. Pub Med | Retrieved from https://pubmed.ncbi.nlm.nih.gov/1642618/

271. The Straits Times | Retrieved from https://www.straitstimes.com/singapore/politics/not-everyone-with-mental-health-challenges-needs-to-rush-to-imh

272. Bell Canada | Retrieved from https://letstalk.bell.ca/our-impact/

273. Ministry of Health | Retrieved from https://www.moh.gov.sg/newsroom/launch-of-national-mental-health-and-well-being-strategy

274. Institute of Mental Health | Retrieved from https://www.imh.com.sg/Newsroom/News-Releases/Documents/Media%20Release_Mind%20Matters%202%20Study%20Findings_FINAL_Website.pdf

275. BMC Psychiatry | Retrieved from https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-022-03969-1

276. Ministry of Health and Welfare | Retrieved from https://www.ncmh.go.kr/ncmh/board/boardView.do?no=9742&fno=106&gubun_no=6&menu_cd=04_03_00_02&bn=newsView&search_item=&search_content=&pageIndex=1#

277. Ministry of Health and Welfare | Retrieved from https://www.ncmh.go.kr/ncmh/board/boardView.do?no=9742&fno=106&gubun_no=6&menu_cd=04_03_00_02&bn=newsView&search_item=&search_content=&pageIndex=1#

278. Statistics Research Institute | Retrieved from https://kostat.go.kr/board.es?mid=b10104000000&bid=12046&act=view&list_no=432657&tag=&nPage=1&ref_bid=#:~:text=Korea's%20suicide%20rate%20(per%20100%2C000,2018%20and%20decreased%20from%202020

279. Region & Site | Retrieved from https://www.nongmin.com/article/20241023500596

280. Medical Observer | Retrieved from https://www.monews.co.kr/news/articleView.html?idxno=400286

281. Hani | Retrieved from https://www.hani.co.kr/arti/society/health/1161672.html

282. Medical Times | Retrieved from https://www.medicaltimes.com/Main/News/NewsView.html?ID=1155661

283. The National Mental Health and Welfare Commission | Retrieved from https://www.nmhc.or.kr/sub.php?id=news&mode=view&menukey=16&idx=361&page=1

284. Youth Doctor Co., Ltd. | Retrieved from https://www.docdocdoc.co.kr/news/articleView.html?idxno=3008629

285. J Health Media | Retrieved from https://jhealthmedia.joins.com/news/articleView.html?idxno=25881

286. Ministry of Health and Welfare | Retrieved from https://www.mohw.go.kr/board.es?mid=a10503010100&bid=0027&act=view&list_no=1483558&tag&nPage=1

287. World Health Organization | Retrieved from https://iris.who.int/bitstream/handle/10665/379124/9789289061384-eng.pdf?sequence=2

288. Health & Wellbeing @ Work | Retrieved from https://healthwellbeingwork.co.uk/guest-blogs/employers-duty-care-mental- health-uk#:~: text=Under%20the%20Equality%20Act%202010,adjustments%20to%20accommodate%20disabled%20employees

289. Innovation Mental Health Plan: https://www-nmhc-or-kr.translate.goog/sub.php?id=news&mode=view&menukey=16&idx=361&page=1&_x_tr_sl=ko&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc

290. Ministry of Health and Welfare | Retrieved from https://www.mohw.go.kr/board.s?mid=a10503000000&bid=0027&list_no=1479142&act=view

291. Healthcare IT News | Retrieved from https://www.healthcareitnews.com/news/asia/south-korea-begins-nationwide-telemedicine-pilot

292. Center for Asia-Pacific Resilience and Innovation | Retrieved from https://www3.weforum.org/docs/WEF_PHSSR_CAPRI_Taiwan_2024.pdf

293. Center for Asia-Pacific Resilience and Innovation | Retrieved from https://www3.weforum.org/docs/WEF_PHSSR_CAPRI_Taiwan_2024.pdf

294. Dovepress | Retrieved from https://www.dovepress.com/dilemma-of-prescribing-aripiprazole-under-thenbsptaiwan-health-insuran-peer-reviewed-fulltext-article-NDT

295. https://news.ltn.com.tw/news/life/paper/1642035

296. Science Direct | Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0165032721009010

297. PubMed Central | Retrieved from https://pmc.ncbi.nlm.nih.gov/articles/PMC10887859/#:~:text=These%20strategies%20 include%20providing%20community,neighborhood%20connections%2C% 20facilitating%20the%20employment

298. Center for Asia-Pacific Resilience and Innovation | Retrieved from https://www3.weforum.org/docs/WEF_PHSSR_CAPRI_Taiwan_2024.pdf

299. Right Plus | Retrieved from https://rightplus.org/2022/12/08/amend-5/

300. https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=L0020030

301. Taiwanese Journal of Psychiatry | Retrieved from https://www.sop.org.tw/sop_journal/pastIssues/info_PdfFiles.asp?/2429.html

302. Taiwanese Journal of Psychiatry | Retrieved from https://www.sop.org.tw/sop_journal/pastIssues/info_PdfFiles.asp?/2429.html

303. Department of Student Affairs and Special Education | Retrieved from https://depart-moe-edu-tw.translate.goog/ed2800/News_Content.aspx?n=08EE305A766E66EC&sms=EF558BAFBF3AF6AA&s=04AC9E4D0D8B0F76&_x_tr_sl=zh-TW&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc

304. Ministry of Education | Retrieved from https://www.edu.tw/News_Content.spx?n=9E7AC85F1954DDA8&s=AAC5AEDF6182BBB0

kpmg.com/socialmedia