

**ECONOMIST
IMPACT**

Rethinking mental health care

Harnessing new approaches



Commissioned by



**Boehringer
Ingelheim**

Contents

- 4** About this report
- 8** Key findings
- 10** What is the current state of mental health globally?
 - 10** The impact of mental health conditions is extensive in size and spread
 - 10** Global plans are strong, but action is lacking
 - 11** National plans are generally not backed up with sufficient funding to make plans a reality
- 14** Innovating to improve care
 - 14** The role that innovation through greater personalisation could play
 - 15** The common reasons innovation doesn't translate into practice
- 17** Global findings
 - 17** It starts with changing attitudes to mental health
 - 18** Improve training and retention to address workforce challenges
 - 19** Change mindsets in the workforce to encourage innovation and collaboration
 - 20** Improve access across basic and innovative services
 - 21** Create an enabling environment for innovation
 - 22** Address the clinical challenges affecting everyday practice

23 Country findings

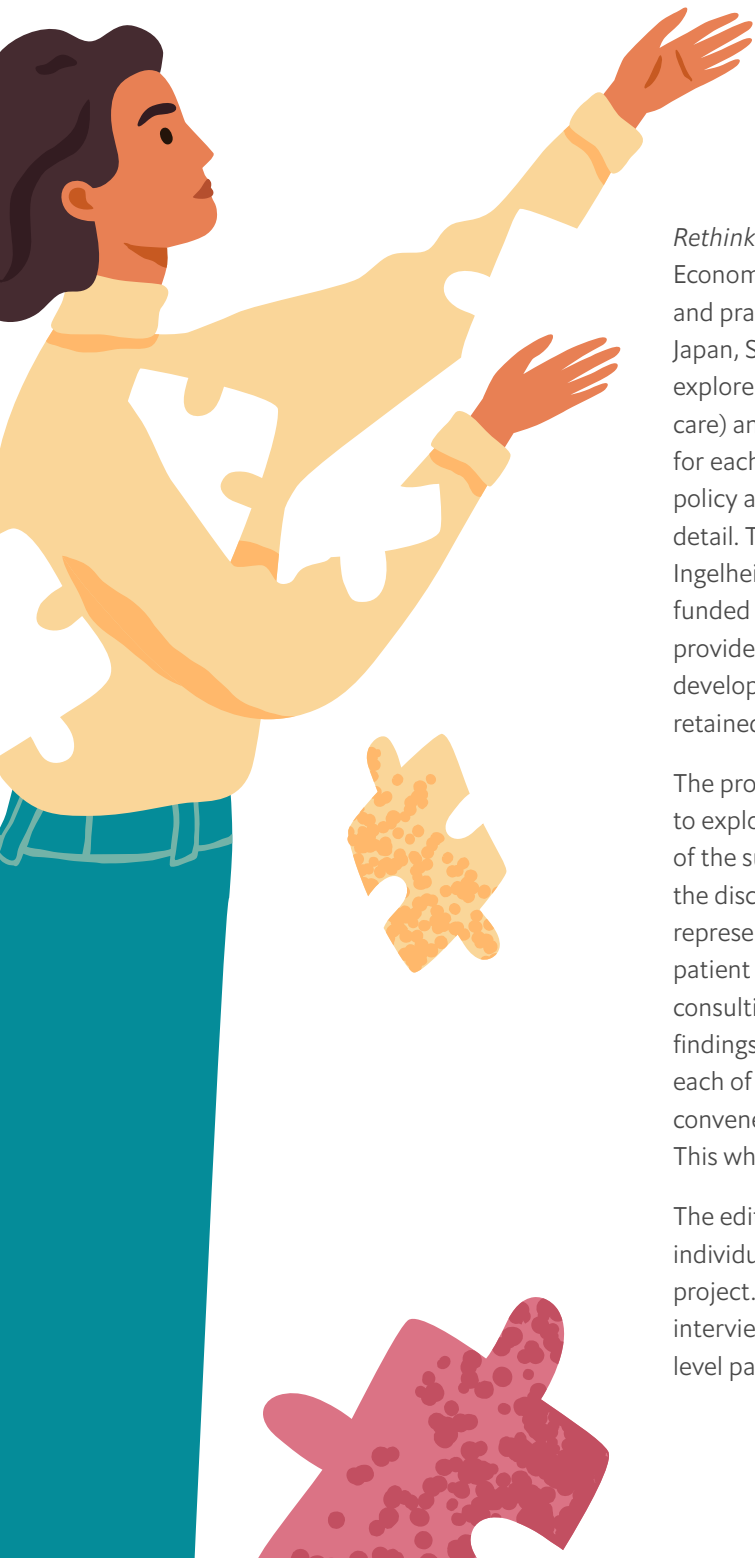
- 24** Country profile: China
- 27** Country profile: France
- 30** Country profile: Germany
- 32** Country profile: Italy
- 35** Country profile: Japan
- 37** Country profile: Spain
- 40** Country profile: UK
- 42** Country profile: US

45 Appendices

- 45** Appendix 1: Methodology
- 47** Appendix 2: References



About this report



Rethinking mental health care: harnessing new approaches is a report by Economist Impact. It explores the current state of mental health policy and practice, focusing on eight countries (China, France, Germany, Italy, Japan, Spain, the UK and the US), then looks to the future to further explore potential innovations (in particular, personalised and precision care) and innovation readiness in each of these countries. Country profiles for each country offer a snapshot of the current state of mental health policy and practice, then describe our primary research findings in more detail. This research and report has been commissioned by Boehringer Ingelheim, meaning that Boehringer Ingelheim initiated the topic and funded the research and writing of the report. Boehringer Ingelheim provided guidance throughout the project including providing input to its development and reviewing the final report, however, Economist Impact retained full editorial control throughout.

The project consisted of an initial literature review to identify key themes to explore in a survey across the eight included countries. The findings of the survey informed interviews with key international experts and the discussion with a Global Steering Committee, both groups that represented our key stakeholders: mental health workers, patients and patient representatives, and policymakers. Country research involved consulting experts in workshops and individual interviews to discuss the findings and develop a more nuanced, specific view of the context in each of the included countries. Finally, the Global Steering Committee convened again to discuss the findings of all of the streams of research. This white paper presents the totality of these research efforts.

The editorial team at Economist Impact would like to thank the following individuals who generously gave their time and insights to support this project. This includes the 175 respondents to our survey, ten global interviewees, eight Global Steering Committee members and 41 country-level participants.

Global Steering Committee:**Dr Antonella Santucciono Chadha**

Co-founder and pro bono CEO, Women's Brain Project; Chief Medical Officer, Vice President Pro bono, Euresearch

John Saunders

Executive Director, European Federation of Associations of Families of People with Mental Illness (EUFAMI)

Péter Kéri

President, GAMIAN-Europe

Professor Thomas G Schulze

Professor, University Hospital, LMU Munich, NY; President-Elect, World Psychiatric Association (WPA)

Dr Neda Milevska-Kostova

President of IAPO Patients for Patient Safety Observatory

Ms Doron Wijker

Policy Researcher, OECD

Professor Dainius Pūras

Professor of Child Psychiatry and Public Mental Health, Vilnius University

Professor Giampaolo Robert Perna

Full Professor in Psychiatry, Humanitas University, Chief of the Personalized Medicine Center for Anxiety and Panic Disorders, Humanitas San Pio X Hospital

Global-level interviewees:**Professor Andrea Cipriani**

Professor of Psychiatry, University of Oxford; Director, Oxford Precision Psychiatry Lab (NIHR Oxford Health Biomedical Research Centre)

Péter Kéri

President, GAMIAN-Europe.

Anna Dé

Head of Stakeholder Engagement, Women's Brain Project

Professor John Krystal

Professor of Translational Research, Psychiatry, Neuroscience and Psychology, Yale School of Medicine

Professor Brisa S Fernandez

Honorary Associate Professor at the Institute for Mental and Physical Health and Clinical Translation

Professor Chee Ng

Healthscope Chair of Psychiatry, University of Melbourne

Caren Howard

Senior Director, Policy and Advocacy at Mental Health America

Professor Shekhar Saxena

Professor of Practice of Global Mental Health, Department of Global Health and Population, Harvard TH Chan School of Public Health

Dr Thomas R. Insel

Psychiatrist-Neuroscientist and Co-founder and Executive Chair at Vanna Health

Dr Alexander Schubert

Executive Director of the European College of Neuropsychopharmacology

Country workshop participants and interviewees (I = interview)			
China	<p>Dr Hao Yao Resident Psychiatrist, Adult Psychiatry Fellowship Training Program, Shanghai Mental Health Center</p>	Italy	<p>Professor Alessandro Serretti Professor of Psychiatry, Kore University of Enna</p>
	<p>Professor Huiwen Xu School of Public and Population Health, and Sealy Center on Aging, University of Texas Medical Branch</p>		<p>Professor Fabrizio Starace Director, Department of Mental Health and Drug Abuse in Modena</p>
	<p>Dr Jiang Long Psychiatrist, Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine</p>		<p>Professor Gianluca Serafini Full Professor and Director, Psychiatric Unit, IRCCS Ospedale Policlinico, San Martino, Genoa.</p>
	<p>Dr Ruby Wang Managing Director at LINTRIS Consulting</p>		<p>Professor Michele Sanza Director of Mental Health and Addiction Disorders Department of AUSL Romagna; Adjunct Professor of Psychiatry, University of Bologna</p>
	<p>Dr Xiaoping Wang Psychiatrist, Central South University</p>		<p>Professor Mirko Manchia Section of Psychiatry, Department of Medical Science and Public Health, University of Cagliari, Cagliari, Italy; Department of Pharmacology, Dalhousie University, Halifax, Nova Scotia, Canada; Chair, ECNP Bipolar Disorders Network</p>
	<p>Dr Yu Peitong(I) Psychiatrist, Yingkou 4th Renmin Hospital</p>		<p>Dr Yunus Emre (I) Università degli Studi di Bergamo</p>
France	<p>Dr Elias Abdel Sater (I) Psychiatrist, Centre Hospitalier Le Vinatier</p>	Japan	<p>Dr Yuhei Chiba (I) Psychiatrist, Yokohama Maioka Hospital</p>
	<p>Dr Célia Belrose (I) Clinical psychologist, Self-employed</p>		<p>Dr Hironobu Matsuoka (I) Director of Liaison and Psychiatry, Nogata-Nakamura Hospital</p>
	<p>Dr Romain Denis (I) Psychiatrist, Centre Hospitalier Annecy Genevois</p>		<p>Dr Rika Tanaka (I) Psychiatrist, Studio Rika clinic</p>
	<p>Dr Sarah Tebeka (I) Associate Professor, Hospital Practitioner (MCU-PH), Université Paris Cité</p>	Spain	<p>Professor Eduard Vieta Chair of Psychiatry and Psychology, University of Barcelona Hospital Clinic</p>
	<p>Dr Jean-Marie Batail (I) Psychiatrist, Centre Hospitalier Guillaume Regnier, Rennes</p>		<p>Dr Gonzalo Salazar de Pablo Senior Clinical Lecturer, Institute of Psychiatry, Psychology & Neuroscience at King's College London</p>
Germany	<p>Professor Dr Andreas Meyer-Lindenberg CEO, Central Institute of Mental Health, Mannheim, Chair of Psychiatry and Psychotherapy, Heidelberg University/Medical Faculty Mannheim</p>	<p>Professor Joan Costa-i-Font Professor, Department of Health Policy, London School of Economics and Political Sciences</p>	
	<p>Professor Jürgen Margraf Alexander von Humboldt-Professor of Clinical Psychology and Psychotherapy, Mental Health Research and Treatment Center (FBZ), Ruhr University Bochum, Germany; German Center for Mental Health (DZPG), partner site Bochum/Marburg</p>	<p>Dr Oscar Pino López Hospital Benito Menni CAMS. Associate Medical Professor, University of Barcelona</p>	
	<p>Paul Bomke CEO, Pfalzlinikum, Service Provider of Mental Health and Neurology Service</p>	<p>Dr Maria J Portella Senior Researcher and Head of Mental Health Research Group, Institut de Recerca Sant Pau—Campus Salut Barcelona</p>	
	<p>Professor and Chair Rene Hurlemann Professor, Department of Psychiatry, School of Medicine & Life Sciences, University of Oldenburg</p>	UK	<p>Professor Gunter Schumann Centre for Population neuroscience and Stratified Medicine, Fudan University Shanghai and Charité University Medicine Berlin</p>

Country workshop participants and interviewees (I = interview)			
UK (cont.)	<p>Dr Katharine A Smith Honorary Consultant Psychiatrist, Department of Psychiatry, University of Oxford, and Clinical Lead, NIHR Oxford Health Clinical Research Facility. KAS is supported by the National Institute for Health Research (NIHR) Oxford Health Clinical Research Facility</p>	US	<p>Professor Anil K Malhotra Co-Director and Professor, Institute of Behavioral Science, Feinstein Institutes for Medical Research Northwell Health</p>
	<p>Dr Martina Di Simpicio Division of Psychiatry, Department of Brain Sciences, Imperial College London</p>		<p>George Eleftheriou Co-Founder and CEO, Feel Therapeutics</p>
	<p>Professor Sir Simon Wessely Regius Professor of Psychiatry, Institute of Psychiatry, Psychology & Neuroscience of King's College London</p>		<p>Professor Gerard Sanacora Professor of Psychiatry, Yale School of Medicine</p>
	<p>Professor Richard Bentall Professor, Department of Psychology, University of Sheffield</p>		<p>Nathaniel Z Counts Senior Policy Advisor for Mental Health to the Commissioner of Health for the City of New York</p>
			<p>Dr Thomas R. Insel Psychiatrist-Neuroscientist and Co-founder and Executive Chair, Vanna Health</p>

Economist Impact bears sole responsibility for the content of this report. The findings and views expressed in this report do not necessarily reflect the views of the interviewees or sponsors. The research was led by Aanisah Khanzada and Rory Meryon, with support from Rabani Kapoor. Elly Vaughan was project director. Sarah Greenley performed literature searching and sifting.

Anna Sayburn wrote the literature review. The report was written and edited by Aanisah Khanzada and Elly Vaughan. Although every effort has been taken to verify the accuracy of this information, Economist Impact cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

Key findings



This research project aimed to explore the current state of mental health policy and practice, where improvements are needed, key innovation areas (focusing on personalised and precision care), and innovation readiness. The research included the following countries: China, France, Germany, Italy, Japan, Spain, the UK and the US. This research project draws upon a scoping literature review; a survey of healthcare workers, patient groups and policymakers; a series of expert interviews; a

Global Steering Committee; and in-country workshops and interviews.

Across the streams of research and the different countries included in this research, we identified a number of common themes. Here we present the key findings, including the challenges that emerged in all countries and were highlighted as priorities by the experts Economist Impact consulted during this research.



Key findings



Changing public perceptions

Policymakers and **civil society** can address stigma through campaigns to educate the general public and normalise mental health treatment-seeking in common mental health conditions (such as anxiety) and serious mental health conditions (like schizophrenia) where stigma remains a persistent issue.



Ensuring the quality of care

To improve the consistency of care, **clinical guideline groups** and **professional societies** can encourage mental health professionals to follow guidelines and best practice based on best available evidence.

Professional societies representing the different professions in mental health can encourage and facilitate greater collaboration through shared conferences, promoting multi-disciplinary teams and creating inter-disciplinary guidelines.

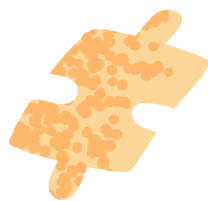
Guideline developers and **professional societies** emphasise the importance and value of incorporating the perspectives of patients and care-givers in their guidelines. Individual mental health professionals can also ensure that they are practising person-centred care.



Enhancing the workforce

Policymakers can address workforce retention through audits designed to understand the make-up of the workforce, satisfaction and why people leave, to inform strategic workforce planning.

Universities, teaching hospitals and **professional societies** play a pivotal role in ensuring that members of the workforce are well trained when they enter the profession and maintain up-to-date knowledge throughout their career.



What is the current state of mental health globally?



The impact of mental health conditions is extensive in size and spread

Having good mental health is paramount for individuals to lead healthy, productive lives and is also the basis for strong economies.^{1,2} Almost 1bn people are currently living with a mental health condition globally.¹ Despite this, **an estimated 70% of those who need it lack access to mental health services.**³

The most common mental health conditions (such as anxiety) cost the global economy an estimated US\$1trn each year. These costs, mainly driven by lost productivity, are set to rise to US\$6trn by 2030.¹ The Organisation for Economic Co-operation and Development (OECD) has highlighted that **the economic cost of mental ill health can amount to up to 4% of GDP.**² This economic impact is compounded by the burden on informal caregivers (for example, family and friends).

Mental health conditions can affect all areas of life and are a leading cause of disability and comorbidity.^{4,5} On average, **people affected by serious mental health conditions die 10-20 years earlier** than the general population.⁶

Mental health risks have been made worse by ongoing and emerging crises such as the covid-19 pandemic, the climate crisis, wars and political instability, and the cost of living crisis. A recent 2023 OECD report found that the share of the population reporting symptoms of depression in 2022 across OECD countries was at least 20% higher than pre-pandemic levels.² While the demand for mental health services is increasing, the response is insufficient and limited, further widening the mental health treatment gap.³

Global plans are strong, but action is lacking

Governments around the world have committed to the UN 2015 Sustainable Development Goals (SDGs) to improve mental wellbeing and reduce suicide rates by 10% by 2030 (Goal 3.4).⁷ These goals are complemented by the Comprehensive Mental Health Action Plan 2013-2030 developed by the World Health Organisation (WHO; Box 1). Yet these international commitments are not translating into national mental health plans. In 2020 only 75% of WHO Member States had standalone mental health plans and **only 46% had updated their mental health plans since 2017.**⁸

BOX 1**Four key objectives of the WHO Comprehensive Mental Health Action Plan 2013-2030:⁵**

1. More effective leadership and governance for mental health
2. Provision of comprehensive, integrated mental health and social care services in community-based settings
3. Implementation of strategies for promotion and prevention
4. Strengthened information systems, evidence and research

National plans are generally not backed up with sufficient funding to make plans a reality

There is a disconnect between the words of commitment to mental health care and action through policy. Change is needed; this is where we see the potential for innovation in mental health care—specifically more personalised care—to contribute to improving access to treatment, quality of care and outcomes in mental health care.

On average, countries dedicate less than 2% of healthcare budgets to mental health.⁶ There is a

great deal of variation globally, with low-income countries spending around 0.5% of health budgets on mental health services and high-income countries around 5%.⁹ The countries included in this study vary widely in terms of their reported spend on mental health as a percentage of overall health expenditure, **from 4% in Italy to 15% in France, with an average of 10%** (Table 1).

All of the included countries have mental health plans in place, but these vary in how up to date they are (Table 1), which is especially important given the mental health impact of the covid-19 pandemic.

“Mental illness is highly stigmatised, and as a consequence it’s politically so much more complicated.”

An expert consulted during this research.

Table 1: Status of key national mental health plans in the included countries

Study country	Standalone plan for mental health in place	Publication year	Government expenditure on mental health as % of total government health expenditure	Psychiatrists per 100,000 population
China	National Mental Health Work Plan ¹⁰	2015-2020	Data unavailable	3 ¹¹
France	Mental Health and Psychiatry Roadmap ^{12,13}	2018 (updated in 2023)	15% ⁸	23 ¹⁴
Germany	Dare to make more progress: alliance for freedom, justice and sustainability (Coalition agreement 2021-25) ¹⁵	2021-2025	13% ⁸	27 ¹⁴
Italy	National Action Plan for Mental Health ¹⁶	2013	4% ⁸	17 ¹⁴
Japan	Act on Mental Health and Welfare of People with Mental Disorders ¹⁷	2013	6% ⁸	12 ¹⁸
Spain	The 2022-2026 Mental Health Strategy of the National Health System ¹⁹	2022	Data unavailable	11 ¹⁴
UK	NHS Mental Health Implementation Plan 2019/20-2023/24 ²⁰	2019	14% ²¹	8 ²²
US	National Mental Health Strategy (document not available online) ²³	2022	6% ²⁴	13 ²⁵

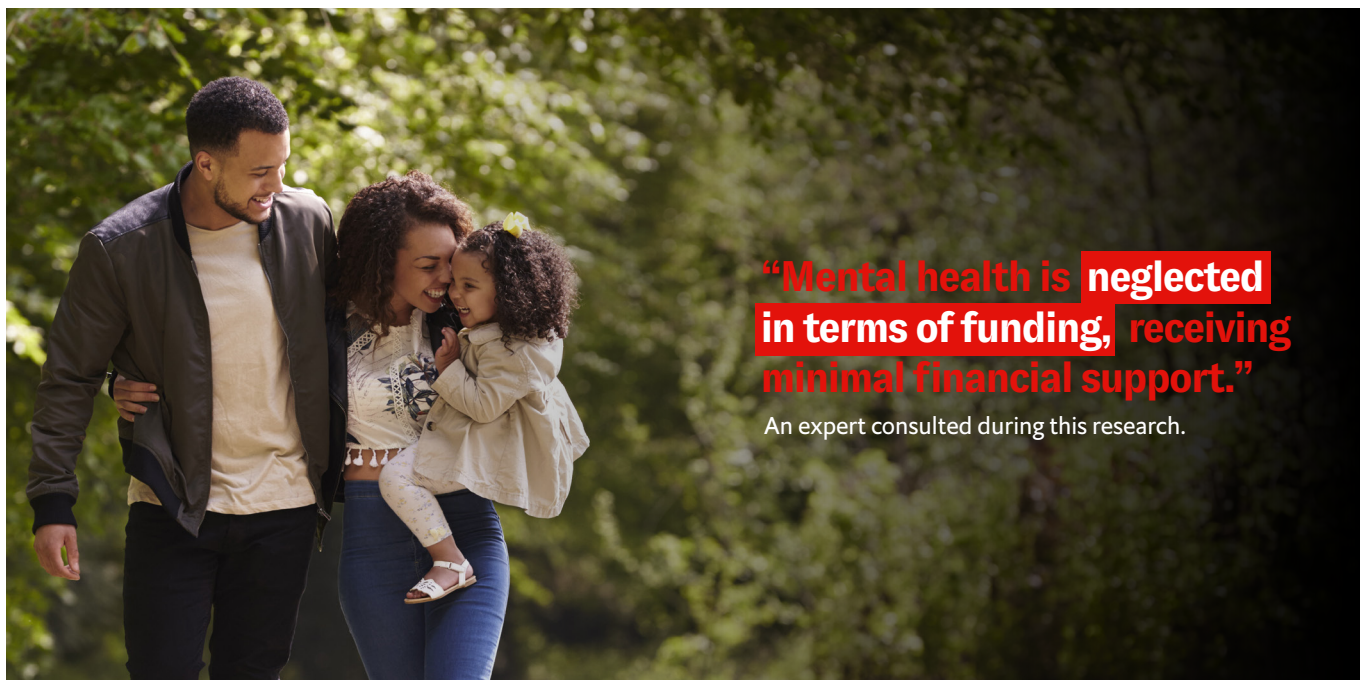
Note: This table gives an overview of key national mental health plans. In some countries there are multiple plans that relate to mental health; in these cases we have picked the plan that we judge to be the most comprehensive. We have also not included subnational mental health plans.

A consequence of this lack of investment is seen in a lack of access to mental health care. Two-thirds of people report difficulties accessing mental health care and half the world's population lives in countries where there is just one psychiatrist to serve 200,000 or more people.^{3,26} Although there is not a recommended ratio of psychiatrists to population,

the countries included in this research again varied, with around 3 psychiatrists per 100,000 people in China compared to 27 per 100,000 in Germany.^{11,14} We found variation in the geographical distribution within the included countries—across all countries where data were available, psychiatrists were clustered in urban centres. In China, around 80% of psychiatrists are located in urban areas, whereas 80% of the population live in rural areas.²⁷ There is similar uneven distribution between more and less densely populated regions in both the US and France, indicating that this is not an isolated issue. In the US the number of psychiatrists per 100,000 ranges from 50.1 in the District of Columbia (the state containing the capital city,

“The resources made available to mental health care are extremely small—much less than what the burden of disease statistics should dictate.”

An expert consulted during this research.



“Mental health is neglected in terms of funding, receiving minimal financial support.”

An expert consulted during this research.

Washington DC) to just 5.3 in Idaho (a large, sparsely populated state).²⁵ Although in France the range is smaller, it is still noticeable, with around 36 psychiatrists per 100,000 inhabitants in Île-de-France (the region containing the capital city, Paris) and 15 in Brittany (a region in North-West France).²⁸

Two key contributing factors to these low numbers of psychiatrists are the low numbers of people entering the profession and poor retention. In the UK, for example, there is an 11.2% current vacancy rate in the mental health workforce and a 19% turnover rate.²⁹ This translates into difficulties initially accessing mental health and people in-patient wards have

reported difficulties accessing staff and delays in receiving medications.²⁹ However, simply recruiting more mental health professionals may not be the solution if there is inadequate workforce planning to ensure an appropriate skills mix and levels of experience. The same report in the UK found that the proportion of “junior”-level psychiatrists increased from 15% in 2010 to 27% in 2022.²⁹ From a safety and quality perspective, it is critical that there are enough experienced members of staff within individual teams and the workforce overall. This figure is also indicative of retention issues, as people continue to leave the profession, leaving a skills and experience gap.

Innovating to improve care



Mental health care needs more resources, but simply asking for bigger budgets it is not necessarily feasible at a time of tightened spending, despite the rising global social and economic impacts of mental health conditions.

There is a role for innovation of all types to enable health systems to make more of current budgets. Such innovation can take the form of, for example, reducing administration or making procurement processes more efficient. Savings generated can then be distributed across others areas in need of more investment, such as mental health care.

The role that innovation through greater personalisation could play

Personalised and precision medicine has transformed care in other areas of medicine.

“Precision medicine is an inevitability—it feels like an inevitable evolution. We need to start preparing now. We should not be daunted by the limited immediate opportunities for adopting precision medicine, because we know they’re coming.”

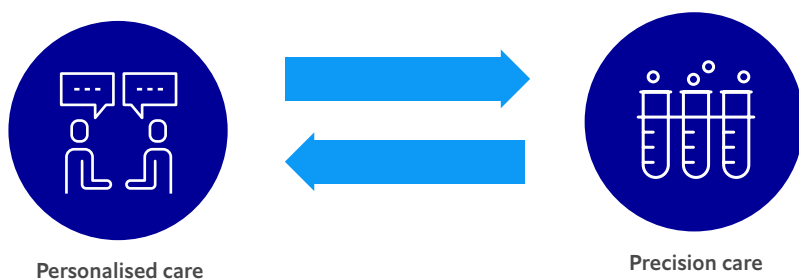
An expert consulted during this research.

There are differences between different areas of medicine and the tools used under the banner of personalised and precision medicine. Given the impact these approaches have had, it is worth exploring their potential in mental health care.³⁰ Greater personalisation of mental health care could support improved diagnosis and prognosis, as well as potentially predicting treatment response and drug metabolism, which could alleviate issues around lack of treatment response and side effects.³¹

To date, the application of personalised and precision medicine approaches in mental health care has been relatively limited. To understand why, we explored the broader innovation readiness of health systems and mental health professionals.

Our working definition of precision psychiatry has been refined throughout the course of this project in response to our findings at the different stages of research. The concepts of personalisation and precision care in mental health have an interconnected, interdependent relationship (see Figure 1).

Broadly, personalisation tailors care to the individual’s life and context, taking into account their life history, preferences, family history, past treatment response and other individual factors.

Figure 1: The continuum of personalised and precision care

This level of personalisation can be achieved through talking to patients and compiling a thorough medical history. Precision care is biologically tailored to the individual patient. This level of precision care can be achieved through, for example, blood tests to understand how an individual metabolises certain drugs. The two feed into each other—personalisation provides the information to support precision care, which in turn provides care that is even more personalised.

The key approaches currently being explored to make care more personalised and precise

are: AI and machine learning, functional brain imaging, clinical decision support systems, clinical prediction models and risk stratification, pharmacogenomics, genetic testing, patient and caregiver reported outcomes, pathophysiological biomarkers, and person centred-care.^{30, 32-34} Some of these are already being used fairly widely, such as decision support tools; others, such as genetic testing, are generally confined to research settings.

The common reasons innovation doesn't translate into practice

It is often challenging to translate innovative ideas into practice. The challenges faced are often not specific to the innovation at hand, but are common when introducing anything new that will change people's practice. In the case of precision mental health care and psychiatry, estimates suggest that as few as 1% of ideas are making the transition from research to practice.³³

The most commonly identified barriers to the implementation of personalised and precision mental health care approaches are:^{33,35}

- patient resistance—for example, fatalistic thinking (a belief that outcomes are externally determined and that we have no control over them) or not wanting to risk the worsening of symptoms by using a different treatment;
- cost and time investments—the additional time burden on clinicians, costs of tests and systems;
- poor accuracy and utility of models—reflecting small effect sizes and perceived low accuracy;
- potential economic and occupational harm—such as worries about the impact of genetic information on employment and health insurance;



- poor perceived competence—few clinicians feel competent and sufficiently trained to provide genetic testing and counselling; and
- incompatibility with established symptom-based systems like the Diagnostic and Statistical Manual of Mental Disorders (DSM).

Policy, regulation and reimbursement are key components of an innovation enabling environment. Without action from governments to create this enabling environment, the transformative promise of personalised and precision mental health care—alongside many other innovations—will remain unfulfilled.

“There is enough progress and advancement in mental health care that would allow us to practice personalised medicine. But again, those are only mainly provided at limited tertiary centres and in a very limited way. It’s not really available across the whole population.”

An expert consulted during this research.

Global findings



The combined findings of the scoping literature review, the survey of healthcare workers, patient groups and policymakers, a series of expert interviews, the Global Steering Committee, in-country workshops and interviews are presented here.

It starts with changing attitudes to mental health

Stigma and public perception. Stigma—in various forms—is an issue in all of the included countries in this study. It impacts on political commitment to mental health, in terms of individual politicians and policymakers, with public attitudes also affecting the level of

pressure from the population to act on mental health. Stigma leads to hesitancy in seeking support and therefore delays in treatment, which can contribute to worse outcomes.

- **What can we do about it?** Policymakers and organisations such as mental health charities can address stigma through campaigns to educate the general public and normalise mental health treatment-seeking. This applies to common mental health conditions (such as anxiety) and should be particularly focused on serious mental health conditions (like schizophrenia) where stigma remains a persistent issue.



Where has this worked?

In Denmark, a 2015 survey found that around 9 in 10 people with mental health conditions reported having experienced discrimination; worryingly, 1 in 3 of those reported discrimination in healthcare settings.³⁶ The ONE OF US national anti-stigma programme trains volunteers who have experienced mental health conditions to act as Ambassadors who can share their lived experiences to address the misconceptions about mental health that fuel stigma.³⁶ In 2021 the programme was incorporated into the Danish Health Authority, which makes it the first anti-stigma programme in the world to be an integrated part of a country's national health service.³⁷

Improve training and retention to address workforce challenges

Training and retaining mental health professionals. Experts we consulted in all eight countries included in this research reported a lack of psychiatrists—in terms of insufficient new trainees entering the profession to balance those leaving it. There is also a lack of personnel across other mental health professions, such as mental health nursing and psychology, although this can vary by country. In general, psychiatry has an image problem—it is perceived as a dangerous field of medicine to enter, and its relatively low pay makes it an unattractive specialism to trainee doctors in the included countries.

- **What can we do about it?** Policymakers can take the first steps to address retention issues within the mental health workforce using audits. Such audits can support an understanding of the distribution and make-up of the workforce to inform strategic workforce planning. Also, understanding workforce satisfaction, why people leave the workforce and where they go could inform targeted initiatives to address retention. The underlying issue of the relatively low pay of mental health specialists is more challenging to address within constricted budgets but should not be ruled out where possible. Changes to medical curricula can address misconceptions among medical trainees about psychiatry being a “dangerous” area to work in.

Ensure initial training keeps pace with clinical practice, creates an innovative mindset and is maintained through ongoing training. Initial mental health training should reflect the latest understanding of neurobiology and neuroscience. It is also critical that practising psychiatrists and other mental health professionals keep up to date with the latest evidence-based research and practice.

- **What can we do about it?** Universities, teaching hospitals and professional societies can ensure that initial training aligns with the latest evidence and practice. To keep existing mental health professionals up to date, professional societies and regulatory bodies can audit the enforcement of training requirements (for example, medical licence renewal), to inform targeted incentives for keeping up to date with evidence and practice.

Where has this worked?

China has successfully almost doubled the number of psychiatrists in recent years.³⁸⁻⁴¹ This has been achieved by introducing different pathways into the profession.³⁸ Although this is a laudable achievement, there are reported variations in the standard of training.³⁸ A 2023 survey found that almost half of psychiatrists in China said that they now would not choose to enter the profession and reported a negative professional identity.⁴² This highlights the need for workforce strategies that cover recruitment and retention.



Change mindsets in the workforce to encourage innovation and collaboration

Improve mental health professionals' awareness of and attitudes towards innovative practices. The uptake of innovative practice is often reliant on an innovative organisational culture or committed individuals. In most of the included countries, there is a noted reluctance among mental health workers (particularly those of an older generation and those who are generally overworked) to take on new approaches, especially where they do not see a clear clinical, cost or practical benefit, or are not confident owing to their lack of awareness. All of the experts we consulted during this research specified the need for evidence generated within their own population. Implementing innovation must be led by evidence of superiority to current practice, not just excitement about novelty.

- **What can we do about it?** Organisations implementing changes in practice—such as payors and clinical guideline groups—need data on the clinical and cost effectiveness of the innovation to make a convincing case for change. Including data that demonstrate a positive impact on mental health professionals' practice and addresses systemic issues, such as time-saving potential, is most likely to motivate professionals to change the way that they work.

Lack of collaboration across different mental health professions. Different types of mental health professionals (mainly psychiatrists and psychologists) often work in silos, when a more integrated, holistic approach could benefit patients. In the included countries the majority of prescribing of psychiatric medication takes place in general practice, which is also poorly integrated with mental health professionals. The different roles of

mental health professionals are not always clear to the general public, leading to uncertainty about where to seek support, which can lead to delayed treatment or care.

- **What can we do about it?** Professional societies representing the different professions in mental health care can encourage and facilitate greater collaboration through shared conferences, promoting multi-disciplinary teams and creating inter-disciplinary guidelines. For example, mental health service providers can inform the public about the different roles of mental health professionals to enable them to make informed decisions about where to seek support.

Where has this worked?

The American Psychiatric Association hosts an annual Mental Health Services Conference, bringing together mental health professionals including psychiatrists, nurses and psychologists.⁴³ It provides the opportunity for mental health professionals to learn about new research and network with professionals working outside of their discipline.

The American Psychiatric Association has firmly integrated this collaborative mentality by gaining accreditation for its conferences and training programmes from relevant bodies across medicine, nursing, psychology and social work.⁴⁴ This means that those professionals attending its conferences and training receive appropriate professional recognition.



Improve access across basic and innovative services

Improve the affordability of and access to mental health services. Long waiting lists, especially in publicly-funded healthcare, create a barrier to accessing mental health services in all of the included countries. Innovative approaches, specifically some pharmacogenetic testing, are generally not covered by insurance and require out-of-pocket expenditure. This creates another barrier to access and means that such approaches are often only used in research settings or as a last resort.

- **What can we do about it?** Innovative practices must go through the necessary, rigorous processes to determine their clinical and cost-effectiveness. Regulators and payors can implement approaches to broaden access to innovative practices—with public- and private-sector innovators—while balancing patient need, safety and public budgets. Providers can explore telehealth and digital services to enhance access to mental health services.

Where has this worked?

In the UK, the Increasing Access to Psychological Therapies (IAPT) programme enables people to self-refer to access therapies for common mental health conditions, such as anxiety.⁴⁶ One region introduced an online therapy platform to improve access by effectively eliminating waiting times.⁴⁶ The platform delivers self-guided therapy, with therapists checking progress and support available via telephone or face-to-face. The programme is a cost-effective way to extend access to online therapies—it has reduced the number of “did not attend” by 3%, reduced travel costs for staff, and reduced demand for community, inpatient and physical health services.⁴⁶ Patients report increased flexibility to access therapy at their own pace, in settings of their own choice, and uptake has increased in some hard to reach groups who find therapy harder to access owing to stigma or work patterns that prevent their attendance at appointments.⁴⁶

Differences in the accessibility of services and the quality of care provided.

In several of the included countries there is geographical variation in the availability of services—for example, people’s access to mental health personnel—as well as variation in the quality of care provided and overall patient outcomes. This is partly driven by either a lack of clinical guidelines or a lack of adherence to them. There are also variations depending on geographical location—primarily between urban and rural populations—creating inequity within countries. Across the included countries there is a lack of adequate mechanisms in place to measure quality and outcomes of care that could help to avoid variations in quality care.

- **What can we do about it?** Clinical guideline groups and professional societies can encourage mental health professionals to follow guidelines and practice based on best available evidence to reduce unwarranted variation in practice. Payors and commissioners can consider incentives to encourage adherence to guidelines or evidence-based best practice, while respecting clinical judgement, personalisation and equity.

Where has this worked?

A survey of US state mental health directors found that almost three-quarters use financial measures to incentivise uptake of innovation—particularly paying for training and technical assistance.⁴⁵ Although enhanced rates linked to following procedure and outcome-based payments are perceived as most effective, these are less commonly used, suggesting that these directors prefer the simplicity of paying for training or technical support.⁴⁵

Create an enabling environment for innovation

Recognise that personalised care is person-centred care. Often, patient and caregiver voices are not at the centre of decision-making in mental health care. Representatives from these groups bring a unique and valuable perspective that can improve the quality of mental health care.

- **What can we do about it?** Guideline developers and professional societies can emphasise the importance and value of incorporating the perspectives of patients and caregivers during guideline development. Individual mental health professionals can also ensure that they are practising person-centred care by exploring individual patient preferences and goals during consultations.

Facilitate incremental innovation. Although some innovations that are being explored in research are a long way off being routine practice, there are incremental steps towards improving mental health care that can be taken today—for example, using risk stratification and clinical decision support tools to support more personalised care.

- **What can we do about it?** Embracing a stepwise approach can support the implementation of innovation in a way that is less of a shock to professionals and can incorporate elements of innovative practice, rather than waiting until systems are ready to incorporate everything. This approach could be helpful for all stakeholders wanting to explore and implement innovative practice.

Introduce innovative partnerships and collaboration. Experts we consulted during this research reported that in many countries the public sector cannot afford to implement the most cutting-edge, innovative approaches (with the exception of France, where the public sector is considered the seat of innovation).

This confines innovation to the private sector, exacerbating the inequalities that broader access issues are already creating.

- **What can we do about it?** Regulators, payors and innovators in the public and private sector can explore models for developing, testing and implementing innovative practice, such as risk-sharing to reduce the risk for each individual stakeholder and reduce hesitancy.

Knowledge sharing between countries. There is a need for communication between mental health professionals within and between countries to understand how things are done elsewhere, improve practice and enable the adoption of innovation in a way that capitalises on others' practical experience.

- **What can we do about it?** National professional societies for mental health professionals can facilitate communication between different types of mental health professionals within the same country and knowledge sharing across countries.

Where has this worked?

The Programme for Improving Mental Health Care (PRIME) aimed to improve mental healthcare in five low- and middle-income countries (Ethiopia, India, Nepal, South Africa and Uganda).⁴⁷ At all stages the programme aligned with national priorities by including stakeholders from the relevant ministries of health, as well as including subnational level stakeholders to ensure that programmes were tailored to local context.⁴⁷ The programme supported the revision and creation of national mental health policy in the included countries to enable strategic decision making.⁴⁷ There were also increased budgets for mental health services and increased training for mental health professionals in some participating countries.⁴⁷

Address the clinical challenges affecting everyday practice

The imperfection of symptom-based diagnosis. Mental health diagnoses are based on the subjective assessment by mental health professionals of clusters of symptoms that are reported by individuals. This can bring about many challenges in accurately diagnosing patients or choosing the best approach to treatment.

- **What can we do about it?** Professional societies and organisations responsible for diagnostic manuals and guidelines can ensure that these keep pace with scientific knowledge as understanding of the biological mechanisms of the brain develops.

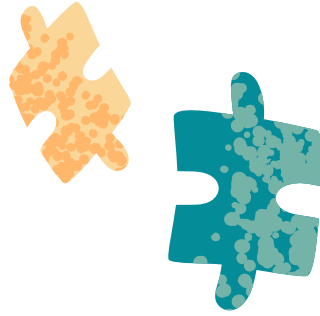
Give sufficient time during consultations for truly person-centred care.

Time constraints and heavy clinical workloads limit the extent to which general practitioners and mental health professionals can personalise care, especially for those with serious mental health conditions, where longer sessions may be required.

- **What can we do about it?** Individual mental health professionals can ensure that they assess patients—particularly those with serious mental health conditions—as unique individuals to provide them with person-centred care. The underlying cause of short appointment durations is the workforce shortage.



Country findings



To explore the themes identified in the literature review and interviews further, we carried out a combination of individual interviews and focus groups with a total of 41 experts in the included countries. The aim of these discussions was to gain a better understanding of the mental health landscape and innovation context in each country.

For each country we include a mental health policy snapshot that summarises the contents of the country's key national mental health plan. Where countries have multiple plans that relate to mental health, we have picked the plan that we judge to be the most comprehensive. Subnational mental health plans are not included in these policy snapshots.





This country profile is based on a focus group discussion with a group of experts and a number of interviews that took place in December 2023 and January 2024.

Mental health policy snapshot

■ Yes ■ Partly ■ No ■ Unavailable

A national mental health plan is in place	Yes
The national mental health plan was last updated in:	2015
The national mental health plan covers:	
Prevention/mental health promotion	Yes
Diagnosis	Yes
Treatment	Yes
The national mental health plan specifies that care should be personalised to the individual	No
The priorities identified in the national mental health plan are linked to research and development	Partly

Key emerging themes

- Innovation in mental health care in China is held back by **data challenges** and a lack of a strong evidence base, particularly data from studies in China. This feeds into a **reluctance** among overworked mental health workers to take on new approaches where they do not see a clear benefit.
- **Stigma towards mental health is a challenge across stakeholders.** For example, among the public it creates a barrier to seeking treatment. **Attitudes** towards common mental health

conditions (such as anxiety) may be improving, but those around serious mental health conditions (such as schizophrenia) may be worsening.

- Overworked mental health staff are not able to deliver highly personalised care, as too few are entering and staying in the mental health workforce, which also impacts access to care.
- **Challenges around affordability and access** to innovative approaches, such as genetic testing, are barriers to their mainstream use.

The current state of mental health care

There has been an improvement in the amount of resources allocated to mental health care in China. In the last ten years the number of beds in psychiatric wards has risen from 250,000 to 750,000 and the number of psychiatrists almost doubled—from 33,000 to 66,000—between 2017 and 2021.³⁸⁻⁴¹ Despite this, the experts Economist Impact consulted during this research told us that resources are imbalanced across different regions within the country, and between urban and rural settings. These experts also emphasised a need to better integrate hospital and community care (and data).

Mental health care in China currently takes into account some individual and social factors to personalise care, and in some areas AI is being used to support care plans. According to the experts we consulted, this is not a universal or systematic approach, and lags behind other

specialties such as oncology. Indeed, there is often no time for psychiatrists to offer highly personalised care, and some patients are more focused on symptom relief and less on addressing underlying issues.

The future of mental health care

Too few entering and staying in the mental health workforce

There are not enough psychiatrists, with heavy workloads and short appointment times precluding the delivery of fully personalised care. Stigma surrounding psychiatric patients and relatively low pay makes psychiatry an unappealing specialism for trainee doctors in China.

Attitudes, knowledge and training of the mental health workforce

Psychiatrists can be reluctant to take on new approaches where there is a perceived lack of evidence. Time constraints are a challenge for all mental health workers. This can make it difficult to incorporate innovative approaches into workflows, with mental health workers feeling that there is not enough time to talk patients through what the new approaches are, the evidence base and why it is being recommended, which is essential for informed consent. The experts we consulted stressed that psychiatrists are willing to take on new approaches where they can see a clear benefit to their patients, so it is not simply resistance to change.

In addition, it is vital that medical education curricula are updated in line with research and practice. The experts we consulted also said that holding more conferences, meetings and programmes on innovative practices could improve knowledge and awareness among trainees and established psychiatrists.



Stigma towards mental health is a challenge across stakeholders

Stigma around mental health remains a significant issue in China, leading to reluctance to seek psychiatric help and delayed treatment. People with a history of serious mental health conditions (such as schizophrenia) can experience employment discrimination, highlighting why people may be reluctant to speak openly about mental health for fear of losing their job or being denied employment.

Rural and urban disparities are stark, with rural areas lacking access to basic mental health and psychiatric care. In addition, there is also a generational divide within society. Older generations tend not to recognise mental health issues as a legitimate problem, whereas the younger generation is more informed. This creates challenges in delivering care to members of an already ageing population who are either unaware of their mental health needs or unwilling to confront them, preferring instead to treat only the symptoms rather than underlying causes.

There have been efforts to improve mental health literacy and progress in changing attitudes to common mental health conditions such as anxiety. However, the experts we consulted suggested that perceptions of serious mental health conditions such as schizophrenia may even be worsening.

Data challenges

Challenges around data quality and interoperability, which hamper innovation, are not unique to China. The government is undertaking efforts to regulate data use and management to ensure that databases are underpinned by a strong ethical and regulatory framework. Chinese-specific longitudinal epidemiological data, genetic information, lifestyle and symptom data would generate real-world data on the cost and clinical effectiveness of these innovative approaches, while also enabling their continuous improvement and optimisation.

Access to innovation

There are ambitions to utilise gene testing for people with treatment-resistant mental health conditions. Machine learning and data mining that incorporate family history and genetic data could be used in the future to predict medication response. Currently, gene-testing generally involves an out-of-pocket cost, which is a major barrier to its use. Insurance scheme coverage would support greater uptake by both mental health professionals and patients, but data on the clinical and cost effectiveness of these tests and technologies are needed to support coverage and reimbursement.



Country profile: France

This country profile is based on interviews that took place in November 2023 to January 2024.

Mental health policy snapshot

■ Yes ■ Partly ■ No ■ Unavailable

A national mental health plan is in place	Yes
The national mental health plan was last updated in:	2023
The national mental health plan covers:	
Prevention/mental health promotion	Unavailable
Diagnosis	Yes
Treatment	No
The national mental health plan specifies that care should be personalised to the individual	Yes
The priorities identified in the national mental health plan are linked to research and development	Partly

Key emerging themes

- **Innovation** in mental health care in France is held back by **data challenges, community engagement** and **logistical barriers**.
- **Better collaboration** between psychiatrists and other health professionals is essential for knowledge and tool sharing to enhance patient outcomes.
- **Improvements across attitudes, knowledge and training** to keep professionals up to date with guidelines and research and development, but this is not currently enforced in France,

leading to inconsistencies in awareness and practice among mental health professionals.

- **Using evidence** to highlight the clinical and cost benefit of innovation is a key mechanism to change **attitudes** of psychiatrists and their practice. This evidence can also feed into **policy change**.
- Unwarranted variation in care is an issue across France. Psychiatric services vary in the resources and services offered, and a lack of national guidelines make clinical variation common.

The current state of mental health care

The experts Economist Impact consulted during this research painted a pretty dire picture of the state of mental health care in France, but they remained optimistic about the future. They reported that mental health is not given the political attention and therefore resources needed to address it. Although desk research indicates that the policy environment in France is good, our primary research suggests that policy is not translating into changes on the ground.

There are longstanding issues with a lack of personnel owing to an image problem faced by the specialty that makes it unappealing to trainees. There is also a lack of a unified voice and vision for mental health in France, spanning mental health professionals themselves, the public and policymakers, making it difficult to get a sense of what the future could look like.

The process of personalised care is well embedded into French mental health training and practice, with care tailored to the life experiences, past traumas and lived environment of individuals. However, the provision of precision care is limited, as it is conducted only by certain research-focused facilities and is not yet included in mainstream practice.

The future of mental health

Mental health screening

As with many health conditions, early intervention is preferable in mental health care. An expert pointed out opportunities for mental health screening during all consultations with patients. Lack of time is a well-known challenge in general practice. The experts we consulted suggested that technology could support this work—for example, mental health apps could allow patients to indicate their mood in real-

time, rather than relying on memory to recall their mood over a period of time during an appointment.

Data challenges

In France there is a lack of data. When new methods are being developed, work is often based on old datasets or information. In addition, funding is needed for larger, multi-site trials that include French populations. In particular, larger numbers are needed in order for differences between subgroups to be detected for personalisation. Although data interoperability is good within general practice, this does not extend across the whole health system.

Attitudes, knowledge and training of the mental health workforce

The experts we consulted indicated that psychologists are more open to changing practice in comparison to psychiatrists. However, newer generations of practitioners are generally open to innovation. All of this adds up to a highly variable and inconsistent model of care in France, where care varies according to the mental health professional you visit and where you live.

To overcome reluctance to change practice, there is a need for awareness raising in the first instance—in the case of precision psychiatry, a lot of psychiatrists have not heard of, let alone used, these approaches. Evidence that demonstrates the clinical and cost benefits of innovations is also essential to convince psychiatrists and psychologists to change their clinical practice. Such information can also assist with influencing policy.

Lack of collaboration within the mental health workforce

According to the experts we consulted, precision psychiatry is not well covered in most

curricula, which is a missed opportunity for educating the next generation of psychiatrists. These experts also highlighted that mandates around psychiatrists keeping up to date with research and developments are not enforced. Therefore, only those who are interested in innovative approaches and the latest research, or are working with others who are, will be kept up to date after receiving their qualification, explaining why awareness and uptake of innovative approaches remains low.

The bulk of research and innovation happens in the public sector, whereas private-sector practitioners and clinics can become disconnected from research and new concepts. Therefore, the setting where a mental health professional practices can impact the care that they deliver, highlighting the need for national coordination of practice (through guidelines and continuing medical education) to improve everyday practice and encourage innovation.

Healthcare workers who do not specialise in mental health may not feel comfortable asking patients about their mental health, either perceiving it as outside their role or feeling that they lack sufficient expertise. Experts highlighted that better collaboration between psychiatrists and other medical professionals is needed. Psychiatrists could work together with general practitioners who are less confident in managing people living with mental health conditions by providing them with the necessary tools and knowledge. Collaboration within the mental health space is also lacking—psychiatrists and psychologists are not well connected, despite their practice being interlinked.

Too few people entering and staying in the mental health workforce

There are not enough psychiatrists in France, and they are unevenly distributed across the country, leading to long waiting times and

variations in access to care depending on where people live. Consequently, patients receive short appointments, limiting what mental health professionals can discuss during their allotted time.

Psychiatry is not seen as a desirable field of medicine, worsening the workforce shortfall with each year, as not enough people enter the profession and people continue to leave it. Mental health is one of the worst paid medical specialties and is viewed as dangerous owing to the perceived risk of violence from patients. Although stigma among the general public is sadly not surprising, its impact amongst health professionals is.

Psychologist appointments are not reimbursed in the country, limiting access and creating inequality, with those able to pay out of pocket accessing different treatments to those reliant on reimbursed services only. Similarly, precision psychiatry and associated tests are not reimbursed, which again acts as a significant barrier to use and access.

There is variation in people's experience of care depending on where they live and what services they can access. For example, there is variation in the level of resources and personnel available within each mental health service. The lack of national guidelines leads to differences in clinical practice, exacerbating the variation in care and services nationwide.

Logistical barriers to innovation

The experts we consulted are interested in innovative practice and acknowledge that they are fortunate to work in settings where they can implement different approaches to diagnosing and managing their patients. Logistics remain a challenge—for example, having to send blood tests to be processed elsewhere can take a long time and involves creating partnerships with other organisations.



Country profile: Germany

This country profile is based on a focus group discussion with a group of experts that took place in December 2023.

Mental health policy snapshot

■ Yes
 ■ Partly
 ■ No
 ■ Unavailable

A national mental health plan is in place	
The national mental health plan was last updated in:	2006
The national mental health plan covers:	
Prevention/mental health promotion	
Diagnosis	
Treatment	
The national mental health plan specifies that care should be personalised to the individual	
The priorities identified in the national mental health plan are linked to research and development	

Key emerging themes

- Increasing investment in mental health care is not a priority for Germany. Rather, **appropriate budget allocation** is required to ensure a good return on investment in terms of patient outcomes.
- **Reimbursement models** can be linked to patient outcomes rather than the numbers of patients treated.
- **Lack of feedback mechanisms and systematic evaluations** of mental health

interventions highlight the **short-sightedness** of the mental health system in the country and often hinder innovation.

- **Patient and caregiver involvement** should be central to discussions around the design and governance of mental health services, making sure that treatment and care models across both common mental health conditions (like anxiety) and serious mental health conditions (like schizophrenia) are aligned with their experiences and needs.

- **Mental health literacy** is low among the general population. As a result, many people do not know when and where to seek mental health care, often delaying care and treatment.

The current state of mental health care

The experts Economist Impact consulted during this research highlighted concerns that current governance models fail to adequately treat the most seriously ill people. Therefore, they said, there needs to be a fundamental rethink of the governance structure for mental health service providers before considering radical innovation. In addition to this, mental health plans should extend beyond medication to include community support as well as having a greater focus on social aspects.

There are many challenges present in the current understanding and application of personalised and precision medicine across mental health in Germany. It is overly focused on biological aspects and lacks clear guidelines. A more balanced approach is needed that considers the dynamic interactions between psychological, social and biological factors, and emphasises the need for practical, evidence-based interventions.

The future of mental health

How resources are allocated across mental health care

Despite adequate funding overall, the experts we consulted felt that Germany is not seeing outcomes in mental health that are proportionate to investment, owing to the misallocation of resources. These experts highlighted inefficiencies in in-patient care and a lack of incentives to encourage the management of serious mental health conditions in outpatient services. In addition, more emphasis should be placed on preventive measures and early intervention

in mild cases in an attempt to prevent their escalation into more serious conditions. However, as a result of the misallocation of funds, this is very much overlooked.

The experts we consulted highlighted the need to review how mental health care is reimbursed in Germany. There is a cultural shift towards outcomes-based medicine in the country, where reimbursement is linked to patient outcomes (outcomes-based payments) rather than the number of patients treated (capitation/fee for service). Such a change in reimbursement structure could support prevention, early intervention and stepped care.

The cost-effectiveness of prevention and the short-sightedness of the mental health care system

Long-term success and sustainability are often overlooked in the mental health care system, especially in the regulatory processes of pharmacological and non-pharmacological treatments. The experts we consulted felt that a lack of systematic evaluations and follow-up to assess the effectiveness of mental health interventions was a contributing factor. These experts also voiced caution regarding preventive services, emphasising that these require the same careful, evidence-based evaluation as all diagnostics and treatments.

Need for greater patient and caregiver involvement

The experts we consulted recommended that health services should be located closer to communities and mental health literacy should be improved to foster better self-management and community support. In addition to this, patients and caregivers should be included across the design and governance of mental health services, ensuring that treatment and care models are more aligned with patient needs and experiences.



Country profile: Italy

This country profile is based on a focus group discussion with a group of experts that took place in December 2023.

Mental health policy snapshot

■ Yes
 ■ Partly
 ■ No
 ■ Unavailable

A national mental health plan is in place	
The national mental health plan was last updated in:	2013
The national mental health plan covers:	
Prevention/mental health promotion	
Diagnosis	
Treatment	
The national mental health plan specifies that care should be personalised to the individual	
The priorities identified in the national mental health plan are linked to research and development	

Key emerging themes

- Resistance towards guidelines** has the potential to reduce the quality of care and in some cases leads to psychiatrists prescribing medications without conducting examinations or blood tests, highlighting the lack of personalisation. **Improvement of attitudes, knowledge and training of the mental health workforce is critical in reducing this resistance.**
- Innovation across mental healthcare is being held back by **data challenges** and **interoperability** between different systems across hospitals.
- The need for greater patient and caregiver involvement** is crucial for the development of mental health models and as a way to ensure that people with serious mental health conditions (such as schizophrenia) are not excluded.

- **Stigma towards mental illness is a challenge** both among the general population, where treatment-seeking is avoided, but also among policymakers, impacting the implementation of mental health plans.

The current state of mental health care

Although mental health care is accessible to everyone in Italy regardless of economic status, the experts that Economist Impact consulted during this research described the quality of mental health care as poor. Each region in the country has its own mental health plan and services. For example, in southern Italy there is limited funding and resources, meaning that different care is available compared to the north of the country.

In general, the experts we consulted highlighted that Italy is quite far from having precision approaches implemented into mental health services, largely owing to a lack of convincing results from research conducted in the country. The mental health system also faces similar systemic issues to other included countries, such as a lack of training for mental health professionals and a workforce shortage.

The future of mental health

Attitudes, knowledge and training of the mental health workforce

Psychologists and psychiatrists work in collaboration with each other in Italy, which can make it easier for patients to navigate and access care from both specialisms. However, the experts we consulted did raise concerns over variations in the quality of care delivered. For example, some psychiatrists base treatment decisions on their own experience of using a limited number of drugs and psychotherapy, rather than all available treatments. There is some resistance to guidelines among professionals who value their autonomy in decision-making. The experts we consulted emphasised the importance of personalisation in mental health care. These experts pointed out that younger and older people with the same diagnosis may have very different symptoms and require different care that is personalised to the needs of that group, as well as the individual.

Data challenges

The experts we consulted reported that short appointment times and little time between patients makes it difficult for mental health



professionals to collect extensive clinical information to inform personalised care. Although electronic health records could help, the lack of interoperability across different systems limits their utility where information is not visible to all healthcare providers and cannot be used to inform care.

Need for greater patient and caregiver involvement

People with serious mental health conditions could be excluded from innovations in mental health because they can face general social exclusion. To avoid this, research and the development of mental health models of care (such as clinical guidelines) should involve patients. In addition, it is also important to engage actively with communities to raise awareness about new models of care and their implementation among the general population.

Stigma towards mental health is a challenge across stakeholders

Stigma remains a significant issue in Italy and leads people to avoid seeking treatment. There is geographical variation in attitudes towards mental health, particularly between the north and south of the country. The experts we consulted emphasised that tackling stigma requires a multidisciplinary approach to identify and correct misconceptions. Prejudice and stigma are also prevalent among policymakers, impacting the design and implementation of mental health plans. According to the experts we consulted, leveraging the power of the voice and experiences of patients could help, as patients could share positive outcomes of mental health interventions to combat stigma around seeking treatment and care.



Country profile: Japan

This country profile is based on interviews that took place in November and December 2023.

Mental health policy snapshot

■ Yes
 ■ Partly
 ■ No
 ■ Unavailable

A national mental health plan is in place	
The national mental health plan was last updated in:	2013
The national mental health plan covers:	
Prevention/mental health promotion	
Diagnosis	
Treatment	
The national mental health plan specifies that care should be personalised to the individual	
The priorities identified in the national mental health plan are linked to research and development	

Key emerging themes

- **Stigma towards mental health** is a significant issue across the country, especially in rural areas, where people are more reluctant to seek help, resulting in delayed treatment and care.
- **Financial barriers** are an obstacle to accessing mental health care, limiting people’s choice of treatment options to what they can afford. Some innovative treatments and approaches are only available in private clinics, with a lack of reimbursement limiting their use in the public sector.
- **Data challenges** are created by time constraints that severely limit how thoroughly healthcare professionals can understand a patient and personalise their care.
- **Attitudes, knowledge and training of the mental health workforce differ greatly.** Established mental health professionals may be less open to adopting new practices, which could create variation in the care provided and slow down the integration of innovation.

The current state of mental health care

The experts Economist Impact consulted during the research told us that the covid-19 pandemic had led many people in Japan to recognise that mental health is important. This has resulted in increased visits to mental health clinics. At the same time, the government has recognised that mental health is a critical issue; however, psychiatric care can be expensive.

The experts we consulted also described mental health care in Japan as not being highly personalised and precision care is likely years away, with only limited application in clinical practice currently.

The future of mental health care

Financial barriers to accessing mental health care

Financial constraints could pose barriers to accessing mental health care, as medication costs are a significant factor, and treatments like psychoanalysis and cognitive behavioural therapy are paid out of pocket for many. The experts we consulted estimated that many patients lack sufficient income to afford such fees, limiting their choice of treatment.

Stigma towards mental health is a challenge across stakeholders

Awareness around mental health issues has generally improved, with some becoming more aware about medication and therapy. However, awareness varies based on geographic location. For example, people in rural areas may have more misconceptions about mental health and feel reluctant to seek help compared to those living in urban areas. The experts we consulted reported that people with serious mental health conditions often lack insight into their condition, leading to more hospitalisations.

Data challenges

Interactions with patients in clinical settings are very short. The experts we consulted indicated that some psychiatrists treat 30-40 patients a day with only 3-5 minutes allotted to each patient, meaning that psychiatrists cannot gather a comprehensive patient history to inform the best care. In particular, the experts we consulted highlighted the need for longer appointments with people with complex and serious mental health conditions in order to truly understand and personalise care.

Attitudes, knowledge and training of the mental health workforce

The experts we consulted described psychiatrists who are more recently qualified as being more open to learning and working with new information and technologies than established psychiatrists. Other psychiatrists may be less open to adopting new practices as a result of being busy and well established in their careers.

The experts we consulted told us that many psychiatrists do not use tests, scores or assessments. Far from offering personalised care, this can lead to variations in care and even inappropriate care such as incorrect medication dosages.

Mandatory continuing medical education for licence renewal is an approach suggested by the experts we consulted to ensure that all psychiatrists stay update to date with new practices and innovations.

Innovation in psychiatry is lacking

Although Japan often embraces innovation across the healthcare system, this openness is lacking in mental health care. Treatments like transcranial magnetic stimulation are generally only in use in private clinics, as they are not reimbursed. AI is being used, but mainly in clinical research settings.



Country profile: Spain

This country profile is based on a focus group discussion with a group of experts that took place in December 2023..

Mental health policy snapshot

■ Yes
 ■ Partly
 ■ No
 ■ Unavailable

A national mental health plan is in place	
The national mental health plan was last updated in:	2022
The national mental health plan covers:	
Prevention/mental health promotion	
Diagnosis	
Treatment	
The national mental health plan specifies that care should be personalised to the individual	
The priorities identified in the national mental health plan are linked to research and development	

Key emerging themes

- Stigma towards mental health across stakeholders is a challenge** and anti-stigma measures are lacking. There is a significant issue around people avoiding mental health services, resulting in delayed care and treatment.
- Improvement across attitudes, knowledge and training of psychiatrists is crucial, as are guidelines and protocols**, to ensure that psychiatrists are aware of updates and to reinforce adherence.
- The need for greater patient and caregiver involvement** across decision making is key for improving patient outcomes.
- There is a need to embrace all options for making care more personalised and precise.** Rather than focusing solely on biomarkers and expensive tests, there are a host of approaches that are currently available to make care more precise (for example, clinical data and patient stratification).

- Use of **pharmacogenetics** is on the rise in Spain, contributing to understanding of **drug interactions** and **treatment response**. Despite this, the experts Economist Impact consulted during this research felt that biomarkers and biological data are under-used in the diagnosis and treatment of mental health conditions.

The current state of mental health care

The experts Economist Impact consulted during this research described how mental health care has traditionally been seen in Spain as serving to prevent crime and suicide, as opposed to improving overall wellbeing. Although this is changing, mental health does not get the same level of prioritisation as other areas across health, and more focus is placed on common mental health conditions, such as anxiety, than serious mental health conditions such as schizophrenia. Change is therefore needed at a societal level with engagement and assistance from the general population.



The future of mental health care

Stigma towards mental health is a challenge across stakeholders

The experts we consulted told us that stigma surrounds the use of mental health services, as many people see having a mental health condition as a sign of weakness. For example, people may not want co-workers to know that they are using mental health care services. The experts we consulted also noted that if individuals see others using mental health services, they are more likely to use them. In particular, these experts stressed the need for anti-stigma measures related to serious mental health conditions and a need to actively tackle misinformation about mental health conditions.

Early intervention and promoting mental wellbeing

The experts we consulted flagged a need for societal-level change to recognise that mental health requires greater attention and funding. These experts suggested promoting investment in early interventions and broadening focus from treating the outcomes of mental illness to promoting mental wellbeing as ways to improve the state of mental health in Spain.

Need for greater patient and caregiver involvement

The experts we consulted told us that involving the patient in decision making has been the greatest innovation in mental health globally. A significant shift has taken place in involving patients more actively in their treatment decisions, particularly in discussing the pros and cons of potential medications. In addition to this, a growing emphasis is being placed on the importance of involving families in the decision-making process, acknowledging the role that they play in the treatment and wellbeing of patients.

Attitudes, knowledge and training of the mental health workforce

There are low numbers of psychiatrists, psychologists and mental health nurses in Spain, with the majority of psychiatrists and psychologists working in the private sector. The experts we consulted told us that more emphasis needs to be placed on retaining mental health professionals in the public sector. In addition, these experts highlighted that training and continued medical education are key tools to keep knowledge up to date.

The experts we consulted highlighted that reluctance to use new technologies or approaches may not be due to a lack of awareness, rather it could reflect uncertainty

about how to incorporate them into current workflows. These experts offered adopting behaviour-change strategies as a potential approach to encourage psychiatrists to implement innovative tools and approaches.

Expanding the role of pharmacogenetics and the underutilisation of biomarkers

The use of pharmacogenetics is on the rise in Spain, with varying degrees of adoption in different regions.

In addition, despite the availability of advanced diagnostic tools like magnetic resonance imaging (MRI), there remains significant underutilisation of biomarkers and biological data in both diagnosing and treating mental health conditions.



Country profile: UK

This country profile is based on a focus group discussion with a group of experts that took place in December 2023.

Mental health policy snapshot

■ Yes
 ■ Partly
 ■ No
 ■ Unavailable

A national mental health plan is in place	
The national mental health plan was last updated in:	2019
The national mental health plan covers:	
Prevention/mental health promotion	
Diagnosis	
Treatment	
The national mental health plan specifies that care should be personalised to the individual	
The priorities identified in the national mental health plan are linked to research and development	

Key emerging themes

- **Older generations do not consider mental health a serious issue**, highlighting the need to change attitudes.
- **Common mental health conditions are rising**. There is a **need for more targeted treatment**, as well as ensuring that **patients are at the centre of discussions** around their care and treatment for enhanced outcomes.
- **Cautiousness towards new drugs** in the field is important; overexcitement regarding

new treatments can create credibility issues that can hinder progress, funding and overall prioritisation.

- **The perceived lack of a solid evidence base** is hindering the broad implementation of precision psychiatry.
- There is a need for **comprehensive and varied types of data** to improve understanding of the complicated relationship between **biology, psychology and environmental factors** on mental health.

The current state of mental health care

The experts Economist Impact consulted during this research felt that mental health is not as high a policy priority as it was a decade ago. These experts also highlighted that the workforce is reduced in terms of psychiatrists and mental health nurses, and felt that mental health is not considered as high tech as other branches of medicine. Although a lot of money is spent across mental health, there has been a challenge in demonstrating outcomes. As a result of this, the experts we consulted revealed that it could be difficult to obtain more increased funding or to prioritise this issue without such evidence of impact.

The future of mental health care

Lack of personalisation

Although psychological interventions have always been somewhat personalised, the experts we consulted described a notable lack of understanding about the biological effects of the treatments being administered. These experts noted that the field is facing a replication crisis (not being able to reproduce others' results to validate research) and lacks a solid evidence base for the broad implementation of precision mental health care in particular. Despite this, there has been focus on developing a workforce and strategies to support the future of precision mental health care.

The credibility issue

The experts we consulted pointed out that there is a reputational risk to mental health professionals if they unintentionally promote new treatments that do not prove to be highly effective at population level. There can be a misconception that new technology and approaches will result in improved outcomes and cost savings. Financial outcomes in mental health services are complex, with cost savings

often spread across various services beyond healthcare. There is a need for better tracking of how clinical outcomes and cost savings are realised, to inform the investment case for new treatments and approaches.

Levels of awareness

Although awareness of mental health has increased, including as a result of the covid-19 pandemic, this does not always translate into people actively seeking help for mental health conditions. The experts we consulted said that older people generally do not consider mental health as seriously as younger people, an imbalance that needs addressing.

Lack of collaboration within the mental health workforce

The experts we consulted described the need for a more integrated approach that combines psychological therapies with pharmacological treatments, as well as a broader collaborative culture among mental health professionals. These experts also noted that there is a need to guide clinicians in choosing medication-based treatment, with patients at the centre of a collaborative, evidence-driven approach.

Digitalisation in mental health care

The experts we consulted emphasised that it is important not to overly focus on AI and deep learning techniques in mental health. The foundation is data that are comprehensive and varied in type (multimodal), enabling an understanding of the complex interplay between biology, psychology and environmental factors.

Currently, AI and machine learning can identify patterns and anomalies but often cannot explain the reasons behind these findings. There is much to learn about the underlying mechanisms of mental health conditions. For example, in trauma the psychological factors are well understood, but its underlying biology is not.



This country profile is based on a focus group discussion with a group of experts that took place in December 2023.

Mental health policy snapshot

■ Yes ■ Partly ■ No ■ Unavailable

A national mental health plan is in place	Yes
The national mental health plan was last updated in:	2022
The national mental health plan covers:	
Prevention/mental health promotion	Yes
Diagnosis	Unavailable
Treatment	Yes
The national mental health plan specifies that care should be personalised to the individual	Unavailable
The priorities identified in the national mental health plan are linked to research and development	Yes

Key emerging themes

- **Engaging with all stakeholders from the research phase to development is key** to ensuring that all **gaps are addressed** and that the solutions developed are implementable across the healthcare system.
- Opportunities for **coordinated effort** between the public and private sectors can facilitate **increased investment** and **innovation** in

the mental health field, but there is a need for supporting regulation to ensure appropriate risk-sharing across collaborators.

- **Better collaboration within the mental health workforce** is required, especially as mental health care is delivered mostly by primary care physicians.
- **Data challenges** must be addressed by **prioritising data collection** across **biology**,

behavioural and **cognitive factors**. This would be key in assisting with the subdivision of diagnostic groups as well as assisting with treatment responses.

- **Digital solutions offer great potential to engage people with treatment** and potentially **improve adherence**. In the case of mobile applications, there is a need to ensure that the general public is aware of which of these has been through a regulatory assessment and those that are untested.

The current state of mental health care

The experts Economist Impact consulted during this research told us that the public insurer, Medicaid, lacks resources and capacity and as a result the demand for mental health services is very high. This particularly impacts people with serious mental health conditions (such as schizophrenia), who may be otherwise vulnerable and unable to access services requiring out-of-pocket expenditure. The experts we consulted also noted that mental health and social work services are often paid out of pocket, leaving many people without access to services.

According to the experts we consulted, although personalisation is currently adequate, precision medicine, especially in understanding psychological factors and personality characteristics, is not well established. Personalising care is challenging in time-limited settings like primary care. Additionally, the experts we consulted described the fundamental issue of broad, symptom-based definitions of mental health conditions that are not linked to treatments and lack any basis in biology.

Although the federal government provides regulatory oversight and minimum criteria that state mental health systems must meet, beyond this states define their individual mental

health funding, priorities and services.⁴⁸ As a result, there is variation in the mental health provision between states.

The future of mental health care

Healthcare system, funding and research

The US is beginning to embark on a federally funded national mental health strategy and objectives for delivery within Medicaid, marking a significant shift from state-level problem-solving to federal involvement. Despite this, there will still be autonomy for states and patients outside of the coverage of these schemes. The experts we consulted felt that this initiative could open opportunities for creating research networks, although it is primarily focused on service provision at this stage. These experts described how venture capital investment into mental health has grown significantly in the past five years, even surpassing government funding by some estimates. This indicates a need to ensure appropriate support for public-private partnerships that protect all stakeholders—for example, enabling risk sharing.

Lack of collaboration within the mental health workforce

According to the experts we consulted, psychiatrists do not make up the majority of the mental health workforce in the US, and most prescriptions for mental health conditions are written by primary care doctors. These experts posed the question of how feasible it is to expect primary care physicians to personalise care, given the time constraints that they face and the huge variety in their clinical workload. This highlights that better collaboration is paramount between mental health professionals and primary care practitioners to share knowledge and practice.

Data challenges

The experts we consulted told us that there is a need for larger, more comprehensive trials to assist with the identification and confirmation of biomarkers. The lack of large-scale, longitudinal studies that collect data across biology, behavioural and cognitive factors make personalised and precision mental health care hard to practice. The experts we consulted suggested that incentivising providers to collect data could help to plug this knowledge gap by enabling the subdivision of diagnostic groups for stratified care and support treatment response prediction.

Digitalisation in mental health care

According to the experts we consulted, the highest degree of personalisation in mental health care is seen across well-funded Medicaid programmes, often involving digital apps. Despite this, there is a need to explore the potential of digital tools, AI and biomarkers in improving mental health care and treatment response prediction. Existing workflows and reimbursement systems can create barriers to testing such approaches, as well as requiring consistency and collaboration among various providers and third parties.

The experts we consulted noted that mental health care faces unique challenges in ensuring patient engagement and adherence to treatments. These experts described how such challenges could be overcome through the integration of digital solutions in clinical care and practice such as ecological momentary assessments—for example, an app prompting an individual to rate their mood regularly over a period of time rather than a psychiatrist retrospectively asking what the patient's mood has been like over, for example, the preceding fortnight. Such interventions can help people to feel more engaged with their care. In the US, the Food and Drug Administration (FDA) has a procedure for assessing prescription digital therapeutics such as mobile applications in a similar way to how it assesses medical devices. However, the rate of production of mobile apps makes it unfeasible to assess all apps, meaning most are untested, including many in the mental health space.

In the EU the General Data Protection Regulation (GDPR) is often cited as a barrier to data-sharing, whereas the US appears to have a regulatory set-up that better facilitates data-sharing. The experts we consulted felt an improved data-sharing technical and regulatory system could contribute to greater progress on digitalisation in mental health.

Appendix

Appendix 1: Methodology

Literature review

We reviewed the literature in March 2023 by searching a range of bibliographic databases (such as Medline and PsycINFO), grey literature sources and key websites (such as that of the World Psychiatric Association). The literature review was pragmatic and rapid. Its purpose was to gain an overview of key concepts, outlining the current state of understanding, where research has been focused, and how research in precision psychiatry has made use of different methods to estimate effectiveness. A literature search found 958 papers, of which 225 were selected for title/abstract review. Thirty-five full-text papers were then retrieved and considered for the review.

The findings of the literature review informed the development of the survey questionnaire and interview questions and provides broader context for this briefing paper.

Survey

We conducted an online survey of 175 mental health professionals (psychiatrists, psychologists, mental health nurses), senior policymakers and senior managers of patient groups in the included countries.

Breakdown of survey respondents by location:

- 50 in the US
- 20 each in China, Germany, Japan and the UK
- 15 each in France, Italy and Spain

Breakdown of survey respondents by role:

- 100 psychiatrists
- 50 senior health policymakers
- 50 patient groups (senior managers)

For questions with multiple-choice answers, the order these appeared in was randomised for each participant to minimise the likelihood of responses skewing towards the options at the top of the list.

Survey findings were analysed at a global level, then broken down into subgroups by stakeholder type (mental health workers, policymakers and patients) and by country. The country-level subgroups were not sufficiently powered to report in the final white paper, but these findings were used to inform the country workshop discussions..

Global expert interviews

We interviewed ten psychiatrists, academics, policymakers and patients. The interview questions covered the same broad topic areas as the survey: the current state of mental health policy/the mental health landscape, innovation/change readiness, and attitudes towards personalised/precision care in mental health and psychiatry. The interview guide was personalised to each interviewee.

Interviews gave the opportunity to go into more depth than the survey, and the semi-structured format gave our researchers scope to explore emergent themes.

Global steering committee

The global steering committee consisted of six experts with a global remit who brought the perspectives of mental health workers, policymakers and patients. The committee met twice virtually, once to discuss the findings of the literature review, survey and interviews at a global level, then a second time to reflect on the discussions from the country workshops.

Country workshops

In-country virtual focus groups and individual-level interviews discussed the findings of

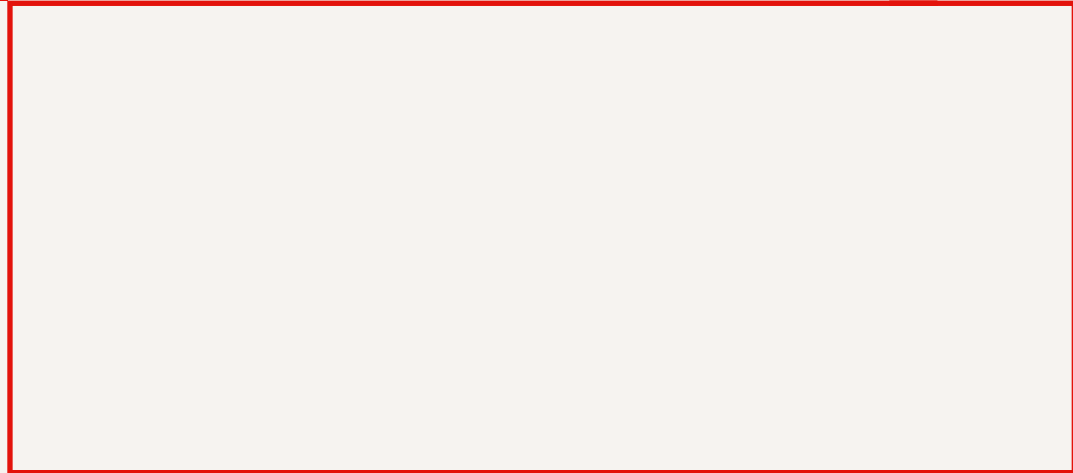
the survey at a global and country level, as well as the interview and literature review findings. The purpose of the country research was to identify country-specific barriers and enablers. In some countries we conducted a small number of interviews where scheduling meant that individuals could not attend the workshop. In Japan, experts preferred individual interviews, so we used this approach for our expert engagement rather than a workshop. In other cases we interviewed experts—instead of conducting country workshops—owing to scheduling conflicts. We included 41 experts in the country primary research.

Appendix 2: References

- ¹ The Lancet Global Health. Mental health matters. *The Lancet Global Health*. 2020;8(11):e1352.
- ² OECD. Mental Health [Internet]. Europe: Organisation for Economic Co-operation and Development (OECD). Available from: <https://www.oecd.org/els/mental-health.htm>.
- ³ Wainberg ML, Scorza P, Shultz JM, et al. Challenges and Opportunities in Global Mental Health: a Research-to-Practice Perspective. *Curr Psychiatry Rep*. 2017;19(5):28.
- ⁴ PAHO. Mental health problems are the leading cause of disability worldwide, say experts at PAHO directing council side event Washington (DC): Pan American Health Organization, 2019. Available from: https://www3.paho.org/hq/index.php?option=com_content&view=article&id=15481:mental-health-problems-are-the-leading-cause-of-disability-worldwide-say-experts-at-paho-directing-council-side-event&Itemid=0&lang=en#gsc.tab=0.
- ⁵ WHO. Comprehensive mental health action plan 2013-2030. World Health Organization, 2021. Available from: <https://iris.who.int/bitstream/handle/10665/345301/9789240031029-eng.pdf?sequence=1>.
- ⁶ WHO. World mental health report: transforming mental health for all. Geneva: World Health Organization, 2022. Available from: <https://iris.who.int/bitstream/handle/10665/356119/9789240049338-eng.pdf?sequence=1>.
- ⁷ WHO. SDG Target 3.4 Non-communicable diseases and mental health. Geneva: World Health Organization. Available from: [https://www.who.int/data/gho/data/themes/topics/sdg-target-3_4-noncommunicable-diseases-and-mental-health#:~:text=SDG%20Target%203.4%20Reduce%20by,mental%20health%20and%20well%2Dbeing&text=Noncommunicable%20diseases%20\(NCDs\)%20kill%2041,74%25%20of%20all%20deaths%20globally](https://www.who.int/data/gho/data/themes/topics/sdg-target-3_4-noncommunicable-diseases-and-mental-health#:~:text=SDG%20Target%203.4%20Reduce%20by,mental%20health%20and%20well%2Dbeing&text=Noncommunicable%20diseases%20(NCDs)%20kill%2041,74%25%20of%20all%20deaths%20globally).
- ⁸ WHO. Mental health atlas 2020. World Health Organization, 2021. Available from: <https://iris.who.int/bitstream/handle/10665/345946/9789240036703-eng.pdf?sequence=1>.
- ⁹ PAHO. Mental health. Washington (DC): Pan American Health Organization. Available from: <https://www.paho.org/en/topics/mental-health>.
- ¹⁰ Xiong W, Phillips MR. Translated and annotated version of the 2015-2020 National Mental Health Work Plan of the People's Republic of China. *Shanghai Arch Psychiatry*. 2016;28(1):4-17.
- ¹¹ Sun M, Zhou H, Li Y, et al. Professional characteristics, numbers, distribution and training of China's mental health workforce from 2000 to 2020: a scoping review. *The Lancet REgional Health Western Pacific*. 2024:100992.
- ¹² Mental health and psychiatry roadmap [Feuille de route de la santé mentale et de la psychiatrie]. Paris: Ministère des solidarités et de la santé, 2018. Available from: https://sante.gouv.fr/IMG/pdf/180628_-_dossier_de_presse_-_comite_strategie_sante_mentale.pdf.
- ¹³ Mental health and psychiatry implementation of the roadmap [Santé mentale et psychiatrie mise en oeuvre de la feuille de route]. Paris: Ministère de la santé et de la prévention, 2023. Available from: https://sante.gouv.fr/IMG/pdf/dp_cssmp_bilan_fdr_01.03_2023_-_dmsmp.pdf.
- ¹⁴ Number of psychiatrists: how do countries compare? Brussels: Eurostat. Available from: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20200506-1>.
- ¹⁵ Dare to make more progress: alliance for freedom, justice and sustainability (Coalition agreement 2021-25) [Mehr fortschritt wagen: Bündnis für freiheit, gerechtigkeit und nachhaltigkeit (Koalitionsvertrag 2021-2025)]. Berlin: Zwischen der sozialdemokratischen partei deutschlands (spd), Bündnis 90 / Die grünen und den freien demokraten (fdp), 2021. Available from: https://www.spd.de/fileadmin/Dokumente/Koalitionsvertrag/Koalitionsvertrag_2021-2025.pdf.
- ¹⁶ Ministry of Health. National action plan for mental health (Piano di azioni nazionale per la salute mentale). Rome: Ministry of Health, 2013. Available from: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1905_allegato.pdf.
- ¹⁷ Japanese Law Translation. Act on Mental Health and Welfare for Persons with Mental Disorders or Disabilities Act No. 123 of 1950 [Internet]. Japanese Law Translation. Available from: <https://www.japaneselawtranslation.go.jp/en/laws/view/4235/en>.
- ¹⁸ WHO. Psychiatrists working in mental health sector (per 100,000). Geneva: World Health Organization. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/psychiatrists-working-in-mental-health-sector-\(per-100-000\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/psychiatrists-working-in-mental-health-sector-(per-100-000)).
- ¹⁹ Ministry of Health. Mental Health Strategy of the National Health System (2022-2026) [Internet]. Spain: Ministry of Health, General Technical Secretary, Publications Centre, Madrid. Available from: https://www.sanidad.gob.es/areas/calidadAsistencial/estrategias/saludMental/docs/EstrategiaSaludMental_ingles.pdf.
- ²⁰ NHS. NHS Mental Health Implementation Plan 2019/20 – 2023/24 [Internet]. National Health System. Available from: <https://www.england.nhs.uk/wp-content/uploads/2022/07/nhs-mental-health-implementation-plan-2019-20-2023-24.pdf>.
- ²¹ Baker C, Kirk-Wade E. Mental health statistics: prevalence, services and funding in England [Internet]. United Kingdom: UK Parliament. Available from: <https://commonslibrary.parliament.uk/research-briefings/sn06988/#:~:text=NHS%20England's%20Mental%20Health%20Dashboard,to%20CCGs%20for%20health%20services>.
- ²² Postcode lottery for psychiatric care. London: Royal College of Psychiatrists, 2017. Available from: <https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2017/09/11/postcode-lottery-for-psychiatric-care>.
- ²³ Fact sheet: President Biden to announce strategy to address our national mental health crisis, as part of unity agenda in his first state of the union. Washington (DC): The White House. Available from: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/01/fact-sheet-president-biden-to-announce-strategy-to-address-our-national-mental-health-crisis-as-part-of-unity-agenda-in-his-first-state-of-the-union/>.
- ²⁴ Figueroa JF, Phelan J, Orav EJ, et al. Association of Mental Health Disorders With Health Care Spending in the Medicare Population. *JAMA Netw Open*. 2020;3(3):e201210.
- ²⁵ Estimating the distribution of the U.S. psychiatric subspecialist workforce. Ann Arbor (MI): University of Michigan Behavioral Health Workforce Research Center, 2018. Available from: https://behavioralhealthworkforce.org/wp-content/uploads/2019/02/Y3-FA2-P2-Psych-Sub_Full-Report-FINAL2.19.2019.pdf.

- ²⁶ World Bank. As demand for mental health services soar, countries in Latin America and the Caribbean strengthen their response. Washington (DC): The World Bank, 2022. Available from: https://blogs.worldbank.org/en/health/demand-mental-health-services-soar-countries-latin-america-and-caribbean-strengthen-their?cid=hnp_tt_health_en_ext
- ²⁷ Too few psychiatrists for too many. *Psychiatric Times*, 2015. Available from: <https://www.psychiatristimes.com/view/too-few-psychiatrists-too-many>.
- ²⁸ Mental health in France- statistics & facts. Hamburg: Statista, 2024. Available from: <https://www.statista.com/topics/9074/mental-health-in-france/#topicOverview>.
- ²⁹ Gilbert H, Mallorie S. Mental health 360: workforce. London: The King's Fund, 2024. Available from: <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/mental-health-360-workforce>.
- ³⁰ Fernandes BS, Williams LM, Steiner J, et al. The new field of 'precision psychiatry'. *BMC Medicine*. 2017;15(1):80.
- ³¹ Salazar de Pablo G, Studerus E, Vaquerizo-Serrano J, et al. Implementing Precision Psychiatry: A Systematic Review of Individualized Prediction Models for Clinical Practice. *Schizophrenia Bulletin*. 2021;47(2):284-97.
- ³² Ermers NJ, Hagoort K, Scheepers FE. The Predictive Validity of Machine Learning Models in the Classification and Treatment of Major Depressive Disorder: State of the Art and Future Directions. *Front Psychiatry*. 2020;11:472.
- ³³ Baldwin H, Loebel-Davidsohn L, Oliver D, et al. Real-World Implementation of Precision Psychiatry: A Systematic Review of Barriers and Facilitators. *Brain Sciences*. 2022;12(7).
- ³⁴ Purgato M, Singh R, Acarturk C, et al. Moving beyond a 'one-size-fits-all' rationale in global mental health: prospects of a precision psychology paradigm. *Epidemiology & Psychiatric Science*. 2021;30:e63.
- ³⁵ Maes M. Precision nomothetic medicine in depression research: new depression models, endophenotype classes, pathway phenotypes, and a digital self. *J Pers Med*; 2021.
- ³⁶ WHO. Denmark's ONE OF US programme: eradicating mental health stigma and rebuilding people's trust in health systems. Geneva: World Health Organization, 2023. Available from: <https://www.who.int/europe/news/item/28-11-2023-denmark-s-one-of-us-programme--eradicating-mental-health-stigma-and-rebuilding-people-s-trust-in-health-systems>.
- ³⁷ The Danish approach to mental health. Odense: Healthcare Denmark, 2021. Available from: <https://healthcaredenmark.dk/media/mcockmni/3i-mental-health-pdf-uk.pdf>.
- ³⁸ Li W, Ng RMK, Li L. Psychiatric education in Greater China. *Int Rev Psychiatry*. 2020;32(2):167-71.
- ³⁹ Number of psychiatric ward beds in China from 2010 to 2021. Hamburg: Statista. Available from: <https://www.statista.com/statistics/1300592/china-psychiatric-ward-bed-numbers/>.
- ⁴⁰ NHC. The national health commission held a press conference on August 25, 2022 to introduce the progress and achievements of health science and technology innovation and medical education since the 18th National Congress of the Communist Party of China. Beijing: National Health Commission of the People's Republic of China, 2022. Available from: <http://www.nhc.gov.cn/xwzb/webcontroller.do?titleSeq=11471&gecstype=1>.
- ⁴¹ Zhejiang: Mental health institutions are saturated with beds and grassroots service capabilities need to be improved. Beijing: Chinese Central Government, 2018. Available from: <http://www.nhc.gov.cn/xwzb/webcontroller.do?titleSeq=11471&gecstype=1>.
- ⁴² Gu M, Zheng L, Gu J, et al. Would you choose to be a psychiatrist again? A large-sample nationwide survey of psychiatrists and psychiatry residents in China. *Int J Ment Health Syst*. 2023;17(1):43.
- ⁴³ Education. Washington (DC): American Psychiatric Association. Available from: <https://www.psychiatry.org/psychiatrists/education>.
- ⁴⁴ Accreditation. Washington (DC): American Psychiatric Association. Available from: https://www.psychiatry.org/psychiatrists/meetings/the-mental-health-services-conference/why-attend/continuing-medical-education#section_1.
- ⁴⁵ Stewart RE, Marcus SC, Hadley TR, et al. State adoption of incentives to promote evidence-based practices in behavioral health systems. *Psychiatric Services*. 2018;69(6):685-8.
- ⁴⁶ Improving access to psychological therapies through online therapies and consultations. London: NHS England. Available from: <https://transform.england.nhs.uk/key-tools-and-info/digital-playbooks/mental-health-digital-playbook/improving-access-to-psychological-therapies-through-online-therapies-and-consultations/>.
- ⁴⁷ Breuer E, Hanlon C, Bhana A, et al. Partnerships in a Global Mental Health Research Programme-the Example of PRIME. *Glob Soc Welf*. 2019;6(3):159-75.
- ⁴⁸ The federal and state role in mental health. Alexandria (VA): Mental Health America. Available from: <https://www.mhanational.org/issues/federal-and-state-role-mental-health>.

While every effort has been taken to verify the accuracy of this information, Economist Impact cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report. The findings and views expressed in the report do not necessarily reflect the views of the sponsor.



LONDON

The Adelphi
1-11 John Adam Street
London WC2N 6HT
United Kingdom
Tel: (44) 20 7830 7000
Email: london@eiu.com

GENEVA

Rue de l'Athénée 32
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
Email: geneva@economist.com

SÃO PAULO

Rua Joaquim Floriano,
1052, Conjunto 81
Itaim Bibi, São Paulo,
SP, 04534-004, Brasil
Tel: +5511 3073-1186
Email: americas@economist.com

NEW YORK

900 Third Avenue
16th Floor
New York, NY 10022
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
Email: americas@economist.com

DUBAI

Office 1301a
Aurora Tower
Dubai Media City
Dubai
Tel: (971) 4 433 4202
Fax: (971) 4 438 0224
Email: dubai@economist.com

WASHINGTON DC

1920 L street NW Suite 500
Washington DC
20002
United States
Email: americas@economist.com

HONG KONG

1301
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
Email: asia@economist.com

SINGAPORE

8 Cross Street
#23-01 Manulife Tower
Singapore
048424
Tel: (65) 6534 5177
Fax: (65) 6534 5077
Email: asia@economist.com