

## REVIEW ARTICLE

## GLOBAL HEALTH

## Mental Health and the Global Agenda

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WHEN THE WORLD HEALTH ORGANIZATION (WHO) EUROPEAN MINISTERIAL Conference on Mental Health endorsed the statement “No health without mental health” in 2005,<sup>1</sup> it spoke to the intrinsic — and indispensable — role of mental health care in health care writ large. Yet mental health has long been treated in ways that reflect the opposite of that sentiment. This historical divide — in practice and in policy — between physical health and mental health has in turn perpetuated large gaps in resources across economic, social, and scientific domains. The upshot is a global tragedy: a legacy of the neglect and marginalization of mental health.<sup>2</sup> The scale of the global impact of mental illness is substantial, with mental illness constituting an estimated 7.4% of the world’s measurable burden of disease.<sup>3</sup> The lack of access to mental health services of good quality is profound in populations with limited resources, for whom numerous social hazards exacerbate vulnerability to poor health. The human toll of mental disorders is further compounded by collateral adverse effects on health and social well-being, including exposure to stigma and human rights abuses, forestallment of educational and social opportunities, and entry into a pernicious cycle of social disenfranchisement and poverty.<sup>4,5</sup> Advances in efforts to alleviate the human and social costs of mental disorders have been both too slow and too few.

## RECOGNIZING THE MENTAL HEALTH BURDEN

The cumbersome and outsized global dimensions of mental illness remained largely unrecognized until the 1990s, when the population health metric disability-adjusted life years (DALYs), which encompassed both years of life lost from premature death and years lived with disability (YLDs), was introduced. The publication of these population health data in *Global Burden of Disease*,<sup>6</sup> which was regarded as a public health tour de force at the time, also catalyzed a transformative narrative for global mental health. The DALY rubric, along with standardized diagnostic criteria for mental disorders, allowed comparability across disorders and nations and yielded estimates of the composite burden of mental disorders that were much higher than those recognized previously. In 1995, *World Mental Health*<sup>7</sup> outlined an agenda to redress the global crisis in mental health. These and other publications debunked lingering questions about the universality of mental disorders and illuminated the enormous suffering associated with these disorders in low- and middle-income countries, where health care resources devoted to neuropsychiatric illnesses were disproportionately low relative to the corresponding disease burden.<sup>8</sup> The scientific discourse, which had been largely theoretical and descriptive in nature, became one that encompassed an applied agenda with translational relevance.<sup>9</sup>

In 2013, further documentation renders an increasingly clear and troubling picture of the enormous global burden imposed by mental disorders. The economic burdens associated with mental disorders exceed those associated with each of four other major categories of noncommunicable disease: diabetes, cardiovas-

cular diseases, chronic respiratory diseases, and cancer.<sup>10</sup> Major depressive disorder is the second leading cause of YLDs globally and ranks among the four largest contributors to YLDs in each of the socially diverse regions spanning the six continents assessed in the Global Burden of Disease Study 2010.<sup>11</sup> Anxiety disorders, drug-use disorders, alcohol-use disorders, schizophrenia, bipolar disorder, and dysthymia also rank among the 20 conditions contributing the largest global share of YLDs. The aggregate burden of YLDs resulting from mental and behavioral disorders (22.7%) continues to be higher than that resulting from any other disease category, with an estimated contribution to the proportion of burden in 2010 that was similar to that in 1990 (Fig. 1).<sup>11</sup> Yet the game-changing potential of these empirical data to increase global investments in mental health care in proportion to the size of the problem has not been realized. Instead, vast gaps in resources persist and seriously compromise access to care.

#### CLOSING GAPS IN TREATMENT

More than 75% of persons with serious mental illness in less-developed countries do not receive treatment for it.<sup>12</sup> For the minority who do have access to mental health treatment in low- and middle-income countries, there are few data available to aid in the evaluation of the quality or effectiveness of the treatment. Major deficits in the provision of care include the size of the health care workforce and the training it receives; rigorous empirical evaluation of innovative, scalable models of care delivery; and the political will to support policy, research, training, and infrastructure as explicit priorities at the national, regional, and multinational levels. None of these deficits can be properly remedied without corresponding advances in the others, creating a Gordian knot familiar to global health advocates and practitioners.

#### BUILDING CLINICAL CAPACITY

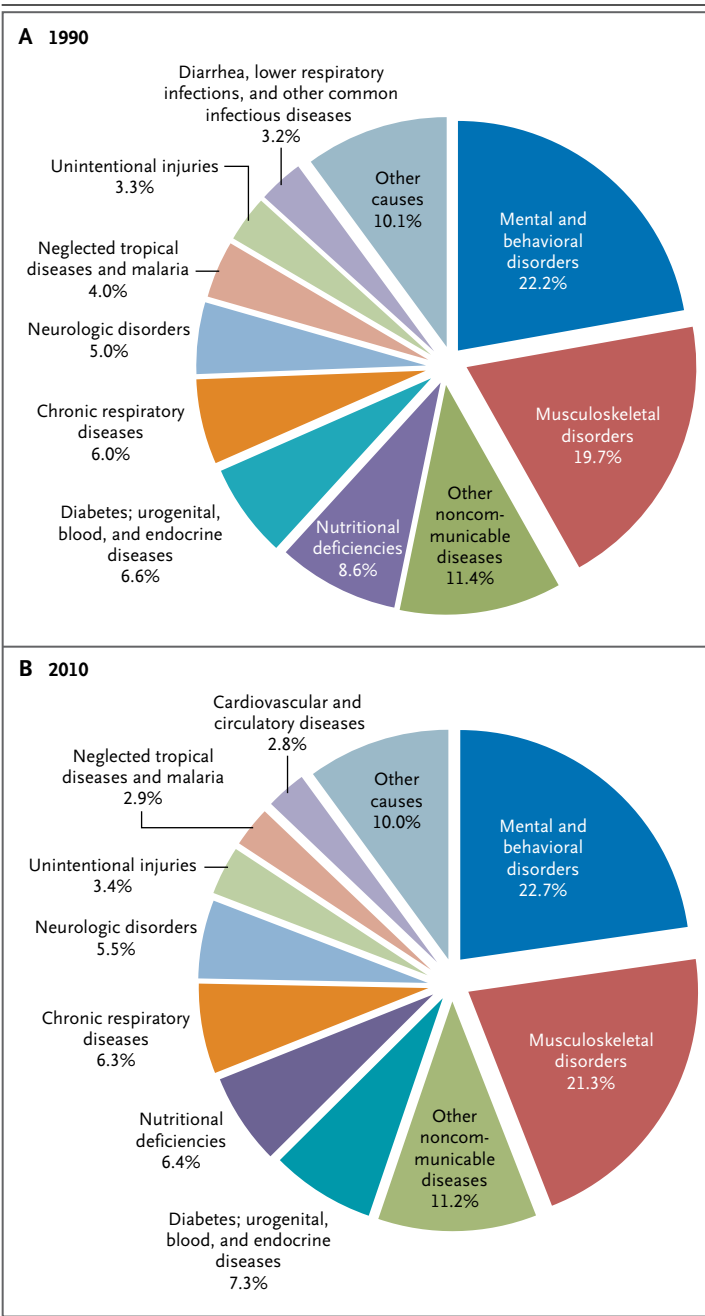
The shortage of clinicians with specialized training in assessing and managing the treatment of patients with mental disorders is a major barrier to providing adequate services in low- and middle-income countries.<sup>2,8,13</sup> Building the necessary mental health workforce will require political commitments to elevate mental health to the highest tier of the global health agenda and to

develop corresponding national policies that will support the kind of multisectoral planning needed to align educational objectives and resource allocation with local priorities.<sup>14,15</sup> Partnerships among governments, nongovernmental organizations, multilateral agencies, and academia can also help to increase the capacity of the mental health workforce<sup>16</sup> — for instance, by developing institutional relationships, sometimes referred to as twinning, mirroring, or accompaniment, that would successfully integrate global expertise with local knowledge.<sup>17</sup>

Nonetheless, mere incremental augmentation of the workforce alone is unlikely to close the human resource gap — which is estimated to exceed 1 million mental health workers in low- and middle-income countries<sup>13</sup> — given the present capacities to recruit and train mental health professionals (Fig. 2)<sup>15,18</sup> and the prevailing models of mental health care delivery. In addition to training more mental health specialists, it is essential to make better use of their expertise by instituting enhancements and innovations that will increase the quality, relevance, and reach of clinical training.<sup>14</sup> Resolving the gaps in human resources, for example, will probably entail the use of nonspecialists to deliver mental health interventions.<sup>19</sup> This change will call for fresh approaches to training that anticipate the evolution of more prominent supervisory and consultative roles that can leverage the scarce supply of expertise in mental health specialties. The contribution of these specialists must go beyond that of direct service delivery alone. Specialists would be prepared to train and supervise peer nonspecialist professionals to deliver mental health treatment in primary care settings, and nonprofessional health workers would be trained in the tasks of basic case identification, monitoring, and treatment delivery. Novel pedagogic models are called for, as are rigorous evaluations of their effectiveness. The implementation of policy that supports the training, deployment, and decentralization of professionals who are qualified for assessing and delivering care for patients with mental illness — and are enabled to do so — will help to achieve meaningful, sustained progress.<sup>20</sup>

#### DEVELOPING NEW MODELS OF TREATMENT

The evidence base supporting the efficacy of various treatments for mental health is founded pri-



**Figure 1. Global Burden of Years Lived with Disability, 1990 and 2010.**

Shown is the global burden of years lived with disability due to mental and behavioral disorders, as compared with disability due to other highest-ranked categories of disorders and conditions. For the year 1990, other causes include cardiovascular and circulatory diseases; transport injuries; neonatal disorders; HIV–AIDS and tuberculosis; other communicable, maternal, neonatal, and nutritional disorders; digestive diseases; cancer; intentional injuries; war and disaster; maternal disorders; and cirrhosis of the liver. For 2010, other causes include diarrhea, lower respiratory infections, and other common infectious diseases; transport injuries; HIV–AIDS and tuberculosis; neonatal disorders; digestive diseases; other communicable, maternal, neonatal, and nutritional disorders; cancer; war and disaster; intentional injuries; maternal disorders; and cirrhosis of the liver. The percentages corresponding to the individual sectors do not sum to 100% because of rounding. Categories and data are from Vos et al.<sup>11</sup>

would require radical adaptation if applied within the constraints of local health care resources. Critics have pointed out that current models that rely on mental health professionals to deliver care to patients are not only unsuitable for low- and middle-income countries<sup>15</sup> but are also impractical in high-income countries, where adequate numbers of mental health professionals are lacking.<sup>21,22</sup> In this respect, a shift to a collaborative model of care delivery has been proposed. This model reconfigures the role of the mental health specialist to emphasize training, supervision, and tertiary care while transferring the bulk of direct service delivery to community health workers or primary care professionals who would receive specific training and supervision in mental health.<sup>22</sup>

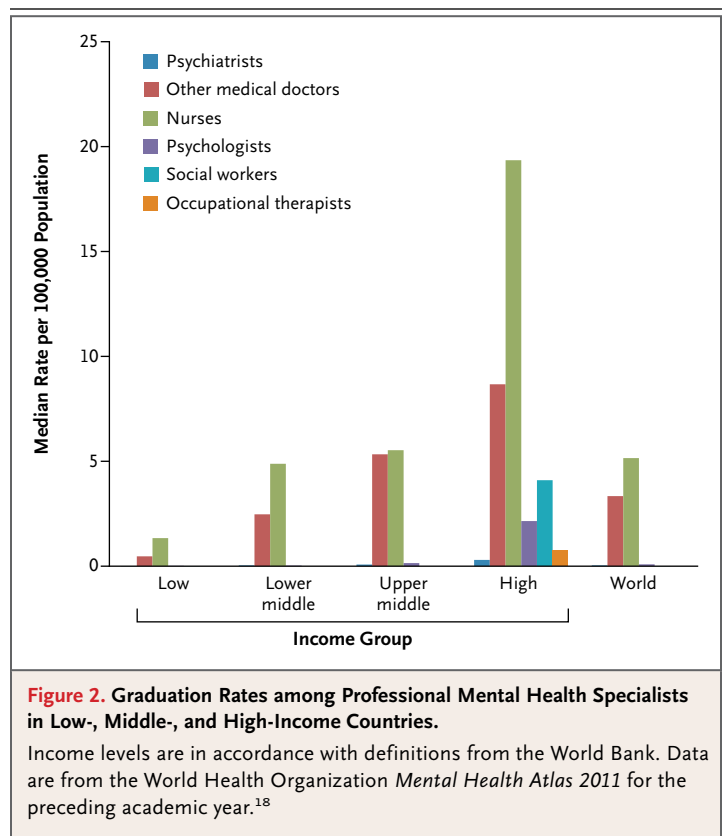
The success of this model of collaborative care is premised in part on the feasibility and effectiveness of shifting aspects of case identification and delivery of care from mental health professionals to community health workers who receive specialized training, periodic refresher training, and ongoing supervision by professionals. Similar models of “task shifting” in the delivery of health care (e.g., using community health workers in other clinical domains in low-income settings) have been successful, including in populations that are considered to be especially difficult to treat.<sup>23,24</sup> Several landmark studies provide conceptual support for this model for the treatment of mental illness in resource-constrained settings, including trials evaluating

marily on trials that were conducted in high-income countries. Because only a tiny fraction of published clinical trials have been conducted in low-income countries, the effectiveness of treatments across culturally diverse, low-income settings is largely unknown. In addition, the shortfall of health professionals with training to deliver mental health care in regions with limited resources diminishes the feasibility and relevance of these therapeutic approaches, many of which

the effectiveness of interpersonal psychotherapy and cognitive behavioral therapy.<sup>25-29</sup> These approaches hold undeniable promise for broadening access to effective treatments, but their potential to be scaled up and delivered in a sustained way remains untested and uncertain.

Several milestones mark substantive advances in the integration of mental health care into primary care in resource-constrained settings. Among these are the publication of the World Health Report in 2001,<sup>30</sup> which was devoted to mental health; the introduction in 2002 of the Mental Health Global Action Programme (mhGAP), a WHO-led multilateral initiative that encompassed a plan to equip primary care clinicians with training and skills in the care of patients with mental illness<sup>31</sup>; and a series of reviews published in 2009 that provided recommendations on incorporating primary and specialist health professionals as well as trained community health workers into a model of collaborative care that included case identification and management.<sup>32,33</sup> In 2010, the mhGAP Intervention Guide aimed to develop clinical capacities in mental health assessment and treatment among nonspecialists.<sup>34</sup> In 2012, the WHO released a training package designed to complement the guide and also encouraged field testing.<sup>35</sup>

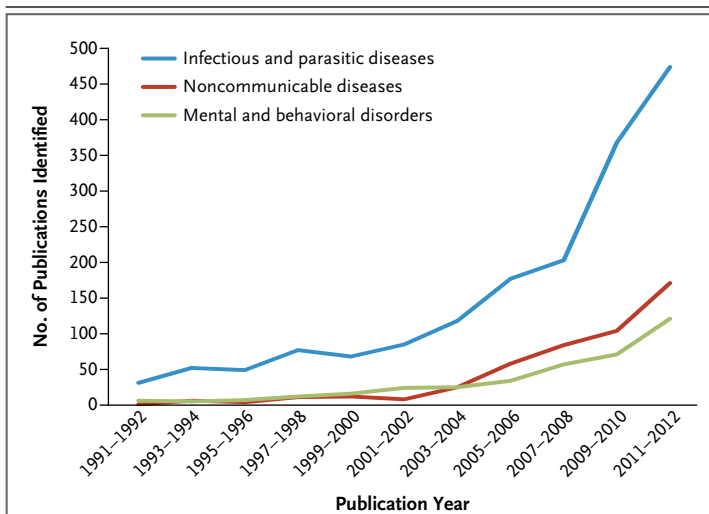
These important achievements notwithstanding, there are scant data to allow evaluation of the large-scale feasibility and effectiveness of task shifting or its applicability across diverse settings<sup>19,36</sup>; the suite of recommendations in mhGAP likewise awaits rigorous empirical evaluation of implementation in low- and middle-income countries that can inform future iterations. Available data are also insufficient to evaluate and refine models for training lay health workers to deliver effective mental health care.<sup>37</sup> Serious efforts to incorporate local knowledge, moreover, can ensure that guidance regarding case identification and treatment continues to be refined and adjusted to the structure of a country's health system and the specific needs of its population. The perspectives of cultural psychiatrists, psychiatric epidemiologists, and medical anthropologists on the biosocial complexity of mental disorders and their presentation and course in specific cultural and social contexts will be invaluable in helping to create appropriate approaches to surveillance, diagnostic assessment, and therapeutic innovation. Although some men-



tal health programs are noteworthy for their measure of early success (including those in Kenya<sup>38</sup> and Egypt<sup>39</sup>), other programs have failed as a result of daunting problems: attrition or reassignment of personnel with mental health training, disinclination to care for the mentally ill, and interruptions in supplies of essential psychotropic medicines.<sup>40,41</sup>

#### CREATING A FOCUSED AND RELEVANT RESEARCH AGENDA

Deficits in the global delivery of mental health services reflect, in part, substantial gaps in scientific knowledge about virtually all aspects of the delivery of such care in resource-poor settings.<sup>42</sup> Scientific publications relevant to global mental health lag behind those in other relatively well-researched and well-funded clinical domains, such as the human immunodeficiency virus–acquired immune deficiency syndrome (HIV–AIDS), malaria, and tuberculosis (Fig. 3, and the Supplementary Appendix, available with the full text of this article at NEJM.org). At the same time, studies of mental health in populations living in regions outside high-income countries are underrepresented



**Figure 3. Number of Scientific Publications Addressing Global or International Health, According to Broad Disease Category, 1991–2012.**

The numbers of publications in the categories of infectious and parasitic diseases, noncommunicable diseases, and mental and behavioral disorders were determined by means of a customized search in the PubMed database for the terms international health, global health, or tropical medicine in combination with one of the three broad disease categories and selected diseases or conditions within them. The latter included terms — and selected common variants or closely related terms — referencing the top five causes of “All ages DALYs” (disability-adjusted life years among persons of all ages) reported for 2010 by Murray et al.<sup>3</sup> within each respective category, excluding birth complications, road injury, and self-harm. The noncommunicable diseases search included the top five categories, excluding mental and behavioral disorders. For more information on search procedures, see the Supplementary Appendix.

in the psychiatric literature,<sup>43</sup> a problem that both perpetuates global health inequities<sup>44,45</sup> and entails missed opportunities for important scientific research. A platform for scientific sharing and a research agenda honed to remediate deficits in the delivery of care are urgently required.<sup>46</sup> Finally, the augmentation of research capacity on mental health in low- and middle-income countries is vital to generating an evidence base that will guide strategic planning and implementation.<sup>47</sup>

Research is needed to refine diagnostic tools and algorithms for deployment in community and primary care settings, to identify mediators and modifiers of risk and resilience, and to measure the effectiveness of conventional and novel treatment-delivery strategies in a variety of health systems. Implementation and health outcomes research are particularly exigent.<sup>48</sup> Analyses of the collateral, economic, and social effects of mental disorders may inform policymakers who

are interested in understanding the relative cost-effectiveness of various mental health interventions as well as the costs of withholding them. Child and adolescent mental health is a neglected area that is of great concern given the strong evidence that mental disorders are predictors of adverse economic, social, and health outcomes in adulthood,<sup>4</sup> resulting in costs that are difficult to measure but easy to appreciate. Because adolescents with mental illness typically have difficulty accessing mental health care, interventions that effectively address the formidable barriers confronting them — and other vulnerable sectors of the population — are essential.<sup>40</sup> Another highly ranked research goal is the integration, to the greatest extent possible, of culturally informed screening for mental illness into primary care services.<sup>46,48</sup>

#### OVERCOMING BARRIERS TO EQUITABLE CARE

Even in regions in which mental health services are widely available, a sizable proportion of the population with mental illness does not receive care that is specific to the illness.<sup>1,12</sup> Cultural practices affect the ways in which people cope with social adversity, manifest emotional distress and mental disorders, and seek care. Economic and social vulnerabilities may make medicines, appointments with health care professionals, and transportation to a clinic unaffordable and time lost from work too costly. For example, even though most low-income countries include psychotropic agents on their list of essential medicines, in 85% of those countries these medications are not available at all primary health care facilities. Moreover, the high median cost of psychotropic medicines in these countries is often prohibitive (e.g., the cost of treatment with antipsychotic agents would equal 9% of the daily minimum wage, and antidepressants 7%) and together with the expenses of other necessary care may impose economically catastrophic costs on patients.<sup>49</sup> Social adversity is both a risk factor and an outcome of poor mental health, and it compounds the disenfranchisement that exacerbates social structural barriers to health care.

The most basic cultural and moral barrier to the amelioration of global mental health problems continues to be the enormously negative, destructive, and almost universal stigma that is attached to mental illnesses, to patients with a mental illness and their families, and to mental



health caregivers. At its worst, this stigma nullifies personhood and constitutes an abuse of human rights. But other forms of discrimination are more subtle and more structural. Psychiatrists, psychologists, psychiatric nurses, and psychiatric social workers are not the only professionals who are targets of discrimination; it is our experience that health policy experts are also adversely affected by stigma, with the result that many shy away from making mental health care a priority. This situation may at last be undergoing positive change. The Ministry of Health in China has begun to advocate for patients with mental illness and to advance their interests, and similar agencies in other countries have begun to do so as well. There is other evidence that the deeply institutionalized stigma surrounding the field of mental health is being challenged and overcome. This may be the most difficult barrier to quantify and yet the most important to address.

An example of how far we still have to go is the exclusion of the topic of mental health from a recent series of papers, policies, and actions advocating priority for four major noncommunicable diseases on the global health agenda. The very sound rationale for urgent and focused global attention to noncommunicable diseases includes the fact that they contribute to a high burden of disease and to poverty, that they impede economic development and the attainment of other Millennium Development Goals, and that there are evidence-based and cost-effective interventions available to address them<sup>50</sup>; these same arguments make an equally convincing case for the inclusion of mental health as a priority on the global agenda.<sup>51-54</sup>

The collective global investment in the HIV-AIDS pandemic led to the recognition that building clinical capacity, pursuing technological advances, providing training for health professionals and paraprofessionals, and engaging in other means of enhancing the health infrastructure in the service of a particular health intervention have the potential to strengthen health systems and accrue benefits across many clinical domains.<sup>55</sup> The distinct clinical and cultural challenges characterizing mental health care delivery notwithstanding, this sort of investment would also seem to be the preferred direction for mental health.

## CONCLUSIONS

According to virtually any metric, grave concern is warranted with regard to the high global burden of mental disorders, the associated intransigent, unmet needs, and the unacceptable toll of human suffering. Compelling arguments have been made that investment in mental health services is a matter of cost-effectiveness, social justice, and even a smart development strategy.<sup>5,56</sup> Despite the dispiriting near-term forecast regarding improved quality and accessibility of mental health services in poor countries, important advances have been made in the requisite scientific knowledge base and political will to develop and implement policies that can upend these inequities and reset expectations for both the quality of global mental health care and the access to it. Closer alignment with the overarching agenda for global health is evident in the strengthened political commitment to mental health care and in the multilateral partnerships marshaling the resources to improve mental health in countries with limited resources. Several major initiatives have directed funding and attention toward addressing global mental health needs. These include the Mental Health and Poverty Project and the Programme for Improving Mental Health Care, both supported by the Department for International Development in the United Kingdom; the Grand Challenges Canada program; and Grand Challenges in Global Mental Health, led by the National Institute of Mental Health and the Global Alliance for Chronic Disease, in partnership with others. In 2012, the report from the Sixty-fifth World Health Assembly urged member states and the WHO director-general to take bold corrective actions.<sup>57</sup> Mental health has arrived on the global health agenda; establishing it as a priority at the highest level is essential to match aspiration to need.

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Disclosure forms provided by the authors are available with the full text of this article at [NEJM.org](http://NEJM.org).

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