



 **OUT OF THE SHADOWS:**
Making Mental Health a Global Development Priority



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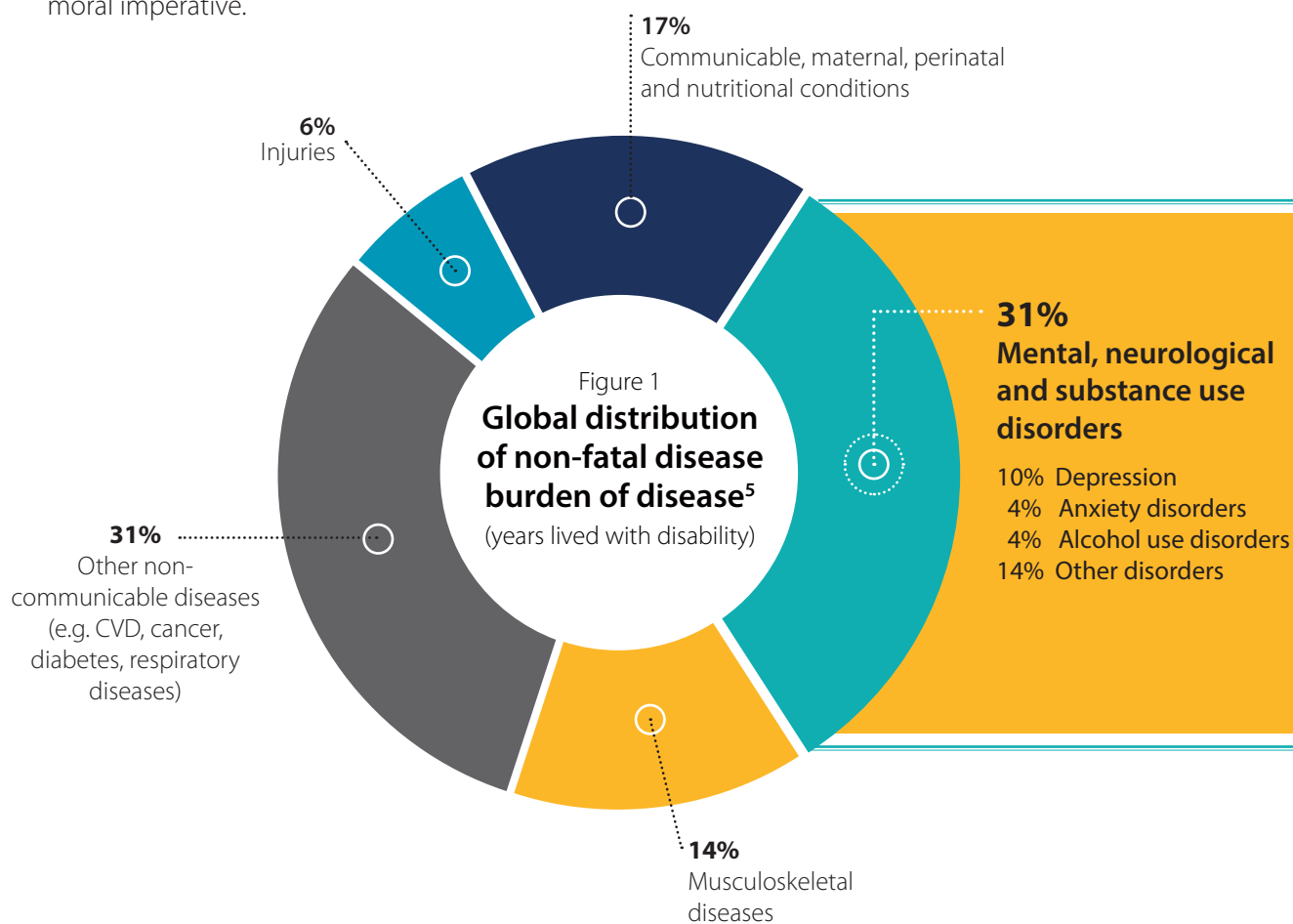
Executive Summary

- Mental disorders impose an enormous burden on society, accounting for almost one in three years lived with disability globally.
- In addition to their health impact, mental disorders cause a significant economic burden due to lost economic output and the link between mental disorders and costly, potentially fatal conditions including cancer, cardiovascular disease, diabetes, HIV, and obesity.
- 80% of the people likely to experience an episode of a mental disorder in their lifetime come from low- and middle-income countries.
- Two of the most common forms of mental disorders, anxiety and depression, are prevalent, disabling, and respond to a range of treatments that are safe and effective. Yet, owing to stigma and inadequate funding, these disorders are not being treated in most primary care and community settings.
- Confronting mental disorders will require new sources of funding to bridge current resource gaps. Investment from a combination of national governments and international development partners could bridge these gaps and result in cost-effective mental health interventions.
- This funding will provide a strong return on investment, with scale-up leading to good returns in restored productivity as well as improved health.

Introduction

It is no secret that mental disorders cause untold human misery: Studies estimate that at least 10% of the world’s population is affected¹ and that 20% of children and adolescents suffer from some type of mental disorder.² In fact, mental disorders account for 30% of non-fatal disease burden worldwide (Figure 1) and 10% of overall disease burden, including death and disability.³ Suicide, which is frequently caused by mental disorders, also exacts an enormous toll on society: In India, it has overtaken complications from pregnancy and childbirth as the leading cause of death among women aged 15 to 49.⁴ It is also well known that anxiety and depression, two of the most common mental disorders, respond well to a variety of treatments. If we accept that we have an obligation to alleviate death and suffering when it is within our power to do so, a strong argument can be made that adequate mental health treatment should be considered a fundamental human right and a moral imperative.

Unfortunately, the realities of the world mean that there is not adequate funding for every intervention that would improve our health and happiness. As a result, when looked at within a framework of resource allocation, the case for robust investment in mental health treatment may initially seem tenuous. This is only true, however, if one ignores the many ripple effects created by mental disorders. This discussion will show that, in addition to the moral case for treating mental disorders, there is also a strong economic argument to be made. Indeed, careful analysis shows that treating anxiety and depression is an affordable and cost effective way to promote well-being and prosperity in a given population – and that failure to treat them can be a significant contributor to impoverishment at the household level and to diminished economic growth and social well-being at the national level.



There are two main reasons for this. The first is the lost economic output caused by untreated mental disorders as a result of diminished productivity at work, reduced rates of labor participation, foregone tax receipts, and increased welfare payments. Based on an investment-case analysis prepared for this meeting, it is projected that the global cost of this lost production amounts to more than 10 billion days of lost work annually – the equivalent of US\$1 trillion per year.⁶

The second is the two-way relationship that exists between mental disorders and unhealthy behaviors such as poor diet and physical inactivity. These, in turn, are contributing factors to cancer, cardiovascular disease, obesity and diabetes, and a range of other costly and potentially conditions.⁷ Mental disorders also increase the likelihood of drug and alcohol abuse, which can lead to risky sexual behaviors that increase the risk of HIV infections and other injuries. Finally, and most tragically, they are a significant factor in suicides. Because of these relationships, improvement in a population's mental health will lead to improvement in its physical health – and will help enhance overall social and economic welfare. It will also help achieve one of the targets in the Sustainable Development Goals endorsed at the United Nations General Assembly in September 2015: Promoting mental health and well-being and reducing mortality from non-communicable diseases by one third by 2030.⁸

The combination of overall lack of resources devoted to mental health and budgetary constraints in the world's poorest regions means that the countries that can least afford lost economic output and increased health care costs are the ones affected the most. A recent WHO survey indicates that most low- and middle-income countries spend less than US\$2 – and often less than US\$1 – per person on the

STORIES FROM THE FIELD:

A 52-YEAR-OLD HOUSEWIFE FROM INDIA

Last year, I was having terrible head and body aches due to a cold and was also experiencing heaviness in my head, which meant I couldn't sleep. I did not feel like eating food and I had no interest in completing my daily household chores. I was worried about my daughter, and I had to help her end her marriage because her husband was not treating her properly. This issue caused frequent fights and arguments with my husband and son. I began getting disturbing thoughts and had no interest in doing anything. I thought that my existence is of no worth and wanted to end my life.

I went to the primary health center where a gentleman offered me counseling and helped me immensely. He helped me understand my health problem in an easy manner. After following the suggestions offered by him, my disturbing thoughts have reduced. I don't have thoughts of ending my life. I have started doing household work again and I also go to temple for worshipping and take part in the activities organized by the temple authority. As per the counselor's suggestion, I am also interacting with my neighbors. I feel good these days.

treatment and prevention of mental disorders,⁹ a figure not remotely proportionate to the public health and economic burden these illnesses cause.¹⁰ On average, low-income countries assign only 0.5% of their health budget to mental health. High-income countries, on the other hand, devote 5.1% – an amount sufficient to implement a series of highly cost-effective interventions, but still disproportionately small given the prevalence and impact of mental disorders.¹¹ Indeed, the proportion of development assistance provided for poor countries for mental health is under 1%.

It is not hard to understand why this gap exists: The poorer the country, the greater the urgency of the competing priorities for scarce resources. Existing policies and funding priorities, combined with the stigma associated with mental disorders, have the effect of calcifying the problem: It is always easier to continue upon the path one is already on, especially if changing course would require addressing neglected problems or facing uncomfortable truths. But the strong correlation of mental disorders with poverty and poor physical health illustrates that interventions can and should be viewed as an integral part of anti-poverty policies and programs. That is, mental health assistance is central to development. There is also evidence showing that refugees from war and terror, as well as people affected by natural disasters and epidemics, suffer from significantly higher rates of depression and anxiety than the general population.¹² Because of this, mental health treatment should be considered a major component of resettlement and recovery efforts in war-torn regions and an integral component of national disaster risk management initiatives.

The good news is that for a problem with such wide-reaching effects, there are feasible solutions currently available across sectors. For depression and anxiety disorders, self-care, psychological

and social interventions, and antidepressant medication are all among the low-cost, cost-effective forms of treatment that will lead to significant economic, social, and health gains.

The question, then, becomes: Are these sufficient to justify the political will and financial capital achieving them will require? Our investment-case analysis, which measured the costs and benefits associated with a scaled-up response to depression and anxiety over the period 2016-2030, makes abundantly clear that they are.¹³ This paper will explicate effective options and settings for treating common mental disorders, analyze potential impediments to incorporating these treatments into new mental health initiatives, and identify potential sources of funding for implementing new mental health strategies.

I. The case for investing in mental health

Health relevance and impact

Recent analyses have indicated that the burdens of mental disorders are significantly underestimated.¹⁴ Even so, as mentioned above, conservative estimates are that at least 10% of the world's population is affected by one or more mental disorders.¹⁵ Through a combination of its health effects, injuries, and suicide, mental disorders are also a major killer. Even using the most conservative figures available, mental disorders are the leading cause of years lived with disability globally.¹⁶ Evidence also indicates that they are on the rise: A 2015 Lancet study found that the prevalence of anxiety disorders increased by 42 percent and depressive disorders by 54 percent between 1990 and 2013.¹⁷ Because mental disorders greatly increase the risk of a person developing another chronic disease, and vice versa,¹⁸ it is clear that mental disorders affect both a significant portion of the population and disproportionate numbers of the vulnerable and the underserved.

Economic impact

In 2010, the global cost of mental disorders was estimated to be approximately US\$2.5 trillion; by 2030, that figure is projected to go up by 240%, to US\$6.0 trillion. In 2010, 54% of that burden was borne by low- and middle-income countries (LMICs); by 2030, that is projected to reach 58%.¹⁹ The overwhelming majority — roughly two-thirds — of those costs are indirect ones associated with the loss of productivity and income due to disability or death. There is also significant evidence showing that social conditions associated with poverty create stress and trigger mental disorders, and that the labor insecurity and the health care costs associated with mental disorders in turn move many into poverty.²⁰ This circular relationship between mental disorders and poverty creates a cycle that leads to ever-rising rates for both. Several recent studies in high-income countries have found that the total costs associated with mental disorders total between 2.3% and 4.4% of GDP (Table 1).

Costs and benefits of investing in mental health

There is intrinsic value in increased mental health treatment in the form of patients' improved well-being. There is also instrumental value that results

when those receiving treatment are better able to form and maintain relationships; to study, work or pursue leisure interests; and to make decisions in everyday life. Assessment of these benefits — and relating them back to investment costs to establish the rate of return — can be achieved by estimating current and future levels of mental disorders, the costs associated with effective treatment coverage, and the social and economic impacts of improved mental health outcomes. Just as mental disorders generate large economic and social costs, treating or preventing them can generate substantial health and economic gains. Earlier work has assessed the cost-effectiveness of many of the evidence-based interventions discussed below.

A 2005 paper, for instance, looked at low- and middle-income regions around the world and found that each year of healthy life gained cost less than average annual per capita income,²¹ while a 2007 paper focused on Nigeria found that a package of selected mental health interventions generated an additional year of healthy life at a cost below that country's average per capita income.²² These studies mirror research conducted in high-income countries: In the UK,

Table 1

Direct and indirect costs of mental disorders: Results from selected studies²³

Country	Year	Direct Costs (Billions)	Indirect Costs (Billions)	Total Costs (Billions)	% of GDP
CANADA	2011	CAD 42.3	CAD 6.3	CAD 48.6	4.40
ENGLAND	2009/10	GBP 21.3	GBP 30.3	GBP 51.6	4.10
FRANCE	2007	EUR 22.8	EUR 21.3	EUR 44.1	2.30
GLOBAL	2010	USD 823	USD 1,670	USD 2,493	4.00

for instance, the returns on investment in 10 out of 15 interventions that prevent mental disorders are greater than five-to-one.²⁴ In short, available evidence strongly points to the cost-effectiveness of scaling up mental health interventions in LMICs.²⁵

As well as the direct impact of interventions on health, effective treatment also leads to increased participation in the workforce, reduced rates of absenteeism, and substantially improved functioning while at work. Findings from a new analysis indicate a favorable economic return will follow from efforts to scale-up services for depression and anxiety (Box 1).

Box 1:

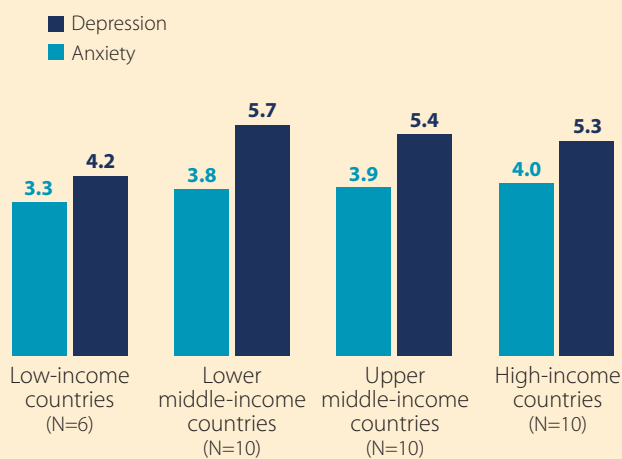
Scaling-up the care of depression and anxiety: returns on investment

Using the estimated prevalence of depression and anxiety in different regions of the world,²⁶ a new analysis of treatment costs and outcomes over the period of 2016-2030 has been carried out for 36 low-, middle-, and high-income countries that between them account for 80% of the global burden of common mental disorders. A modest improvement of 5% in both the ability to work and productivity at work was factored in as a result of treatment and was subsequently mapped to the prevailing rates of labor participation and GDP per worker in each of the 36 countries analyzed.²⁷ The key outputs of the analysis were year-by-year estimates of the total costs of treatment (the investment), increased healthy life years gained as a result of treatment (health return), enhanced levels of productivity (economic return) and the intrinsic value associated with better health. The stream of costs incurred and benefits obtained over the period 2016-2030 were discounted at a rate of 3%, to give a Net Present Value (NPV).

Results show that the investment needed to scale up effective treatment coverage for common mental disorders is substantial: The NPV of all investments in the 36 large countries examined over the period 2016-2030 amounts to US\$141 billion, with US\$91 billion going towards treatment of depression and US\$50 billion going toward treatment of anxiety disorders.

While these costs are sizable, the returns on this investment are also substantial. A 5% improvement in labor participation and productivity produces an estimated global return with an NPV of more than US\$399 billion, US\$230 billion of which is the result of scaled-up depression treatment and US\$169 billion of which comes from treatment of anxiety disorders. The economic value of improved health is also significant (an NPV of US\$250 billion for scaled up depression treatment alone). The end result is a favorable benefit-to-cost ratio, ranging between 2.3-3.0 to 1 when economic benefits only are considered and 3.3-5.7 to 1 when social returns are also included (Figure 2).²⁸

Figure 2
Ratio of (economic and social) benefit to cost for scaled-up treatment



II. Dealing with common mental disorders

Perhaps the single most important intervention by a health care practitioner is encouraging patient expectation of improvement with self-care and support from family and social networks. Self-care (paying careful attention to diet, exercise, sleep, etc.) enables people living with mental disorders to take the first step at effective management of their conditions. Because of this, a shift towards acknowledging depression and anxiety as legitimate health concerns, and not the result of individual shortcomings, will pay almost immediate dividends. In the majority of cases, however, self-care will not be sufficient for a full or sustained recovery.

Treatment of moderate to severe conditions

The primary treatments for moderate to severe depression and anxiety disorders are antidepressant drugs and structured, time-limited psychological treatments.

Psychological treatments

Numerous randomized trials support the efficacy of depression-specific psychotherapies, especially in the form of brief treatments based on cognitive, behavioral, and inter-personal mechanisms. Examples of these are cognitive behavioral therapy, problem solving therapy, behavioral activation, and interpersonal therapy for mood and anxiety disorders.²⁹ There appears to be relatively small differences between these types of treatment; as a group, they were shown to be consistently superior to unstructured psychosocial support.³⁰ These treatments share many strategies in common; what's more, 'trans-diagnostic' treatments (viz. those that are designed to address mood, anxiety, and some other disorders) have been shown to be scalable and effective.³¹ There is also a growing body of

evidence demonstrating that non-specialist workers in primary care and community settings can deliver these treatments with great effectiveness to a variety of populations.³²

Drug therapies

There are several major groups of antidepressants in common use today, including tricyclic antidepressants, selective serotonin reuptake inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors (SNRIs). Studies have found strong evidence for the efficacy of antidepressant pharmacotherapy and no evidence of an advantage for any specific drug over another.³³ Antidepressants generally,³⁴ and SSRIs in particular,³⁵ have well-documented efficacy in the treatment of anxiety disorders and other disorders related to depression.

Treatment of severe and refractory conditions

The combination of structured psychological treatments with antidepressants enhances the recovery rates in people with medication-resistant depression. Patients with severe or treatment-resistant depression and older patients with depression have been shown to respond to electroconvulsive therapy (ECT).³⁶ This is, however, typically the last line of treatment, as it must be administered in specialized settings because it requires the use of anesthesia and muscle relaxants. One side effect of continued ECT is memory loss; therefore, it is used as a maintenance therapy only for those patients who were unable to sustain improvements after switching from ECT to available antidepressants.

III. Treatment settings and integration

Mental health system

Effective care of depression and anxiety requires a comprehensive mental health system encompassing governance, healthcare institutions, and community settings. This involves building a multi-sectorial consensus backed by strong political will to enact holistic mental health plans. Mental health planners and policy makers need to develop, through public awareness and community engagement, care delivery systems that are sensitive to local social, economic, and cultural contexts; this will ensure that services are appropriately sought out and utilized. There is published evidence that national-level health system reforms, such as those in Brazil,³⁷ Chile,³⁸ Italy,³⁹ and the UK,⁴⁰ have transformed the lives of people with mental disorders, and there is anecdotal evidence reporting similar effects in places as varied as Afghanistan, Jamaica,⁴¹ India,⁴² and Peru.⁴³

Integrated care for depression in primary, maternal, and pediatric care

In addition to its impact on overall physical health, depression can negatively affect management of common co-occurring diseases, such as diabetes, hypertension, cardiovascular disease, and cancer. Collaborative care—an evidence-based approach to care for chronic illness applied in primary care settings—guides the effective use of resources for delivery of quality mental health care. It emphasizes systematic identification of patients, self-care, and active care management by clinical providers, blended with other medical, mental health, and community supports. Collaborative care emerges as an effective way to address co-morbid conditions and commonly co-occurring risk factors while improving overall health outcomes.⁴⁴ The approach has proven effective in general population samples and vulnerable sub-populations in high-income countries, and increasingly in LMICs.⁴⁵ Evidence from low-income countries demonstrates the effectiveness of care delivery by community or lay health workers,

STORIES FROM THE FIELD: A 59-YEAR-OLD PAINTER AND FARMER FROM INDIA

Recently I was bed-ridden due to kidney stones. I lost almost a month's salary due to this problem. I was not able to go to our farm; all the work in the field was piled up. The pain was so unbearable and I didn't feel like talking to anyone. I was constantly getting disturbing thoughts about my life, my children's future, and my family situation. I had no money and felt embarrassed to ask for money from my kids.

After surgery to remove the kidney stones, I met with a counselor during one of my visits to the health center. He understood my situation and explained to me that I needed to reduce worrying. He visited me four times at home and gave me a booklet about depression and explained it to me. He also suggested I talk to family members, watch television, and read books. These things helped me to divert my bad thoughts. With the support of the counselor and my family members, I started doing household work and then started going to work on the farm as well.

working alongside primary care providers (e.g. nurses, clinical officers, doctors) in community settings, in reducing symptoms of depression.⁴⁶

Anxiety and depression also play large roles in the health of expectant and new mothers and their progeny: A 2007 review and meta-analysis found that more than one-half (54%) of pregnant women suffered from symptoms of anxiety and more than one-third (37%) suffered from symptoms of depression.⁴⁷ Antenatal depression has been shown to increase the likelihood of preterm birth, low birth weight, and

cognitive disturbances.⁴⁸ In addition, 10-15% of new mothers suffer from perinatal depression. Substantial investments in maternal and newborn health render maternal care settings a viable and desirable platform for delivery of depression care, where early and effective intervention for maternal depression can be implemented. Studies in both low- and high-income countries have shown that antenatal and postnatal interventions are effective in reducing depressive symptoms and improving infant outcomes.⁴⁹

Depression and anxiety disorders also have a negative effect on the ability of students to learn and study. This has been shown to be true for children in elementary school⁵⁰ all the way up to young adults in college.⁵¹ What's more, 75% of lifetime mental disorders have first onset by ages 18-24.⁵² Integrating mental health treatment into standard pediatric and adolescent health care would not only improve students' learning outcomes, it would also present an opportunity to establish a treatment regimen that could allow children and young adults to get what could be a lifelong affliction under control.

HIV care services

The frequent co-occurrence of depression with HIV infection warrants integrated approaches to management of both disorders.⁵³ Depression is associated with poor adherence to HIV care, as well as greater morbidity and mortality due to HIV-related disease.⁵⁴ On the flip side, psychological and psychotropic interventions for depression have shown to be effective for people with HIV. What's more, non-specialists with adequate support can deliver effective psychological interventions in low-resource contexts, as demonstrated in Zimbabwe and Uganda.⁵⁵

Information and communications technology (ICT)-based platforms

ICT offers alternative modes of mental health care delivery when resources are scarce, while also addressing long-standing obstacles in mental health delivery, such as transportation barriers, stigma associated with visiting mental health clinics, clinician shortages, and high costs.⁵⁶ These platforms, especially mobile mental health interventions, can offer remote screening, diagnosis, monitoring, and treatment; remote training for non-specialist healthcare workers; and can be used to develop and deliver highly specific, contextualized interventions.⁵⁷ Cognitive behavioral therapy has been successfully implemented through information technology platforms, demonstrating improvement in depressive symptoms, reduced costs, patient acceptance, and enhanced primary care workflow.⁵⁸ In addition, patient participation is rapidly expanding in peer-to-peer social networks where patients can access around the clock support with demonstrable improvements in depression symptoms.⁵⁹

Platforms outside the health sector

Anti-stigma campaigns

Stigma associated with mental disorders can result in social isolation, low self-esteem, and more limited chances in areas such as employment, education and housing. It can also hinder patients seeking help, thereby increasing the treatment gap for mental disorders.⁶⁰ What's more, stigma can result in a general reluctance to invest resources in mental health care⁶¹ and discrimination among medical professionals, with negative consequences on the quality of mental health services delivered.⁶² For all of these reasons, anti-stigma campaigns can be powerful tools in confronting mental disorders.

School-based interventions

Primary and secondary schools are well-established platforms for community-based health surveillance and health interventions across virtually all clinical domains, including infectious diseases, non-communicable diseases and risk behaviors,⁶³ and mental health.⁶⁴ Key strengths of school-based health screening and care delivery include a decentralized infrastructure that can be utilized to achieve high coverage for school age children and adolescents. Potential benefits of school-based programs include broad positive impact on healthy development and resilience, improved academic performance, and opportunities to integrate school and clinic-based services.⁶⁵ School-based life skills programs have also been shown to improve students' learning outcomes and help establish effective treatment regimens.⁶⁶

Workplace interventions

There is a robust body of evidence showing that investment in workplace wellness programs is not only good for employees but also for the bottom line of companies.⁶⁷ In addition to obesity and smoking cessation programs, workplace interventions commonly focus on stress management, nutrition, alcohol abuse, and blood pressure, and on preventive care such as the administration of the flu vaccine.

Workplace mental health interventions focused on individuals can be centered on either treatment or mental health promotion such as cognitive-behavioral approaches targeting stress reduction.⁶⁸ Organizational-level workplace interventions can include policies that address prevention and early intervention. There is some evidence that an integrated approach to workplace mental health, involving harm prevention through reducing workplace risks, mental health promotion, and treatment of existing illness, provides the most comprehensive management of mental health needs.⁶⁹

Interventions related to conflicts and natural disasters

Conflict exposes civilian populations and refugees to violence and high levels of stress,⁷⁰ resulting in dramatic rises in mental illness⁷¹ that can continue for decades after armed conflict has ceased. Cambodians, for example, continue to suffer widespread mental illness and poor health almost four decades after the Khmer Rouge-led genocide of the late 1970s.⁷²

Part of the rebuilding efforts in post-conflict and post-disaster societies, therefore, should be on building out mental health services that are well integrated into primary care and public health efforts. A series of catastrophic earthquakes in Japan, including the 1995 Hanshin-Awaji Earthquake, the 2006 Niigata Chuetsu Earthquake, and the 2011 Great East Japan Earthquake, has provided evidence that mental health and psychosocial support can be effectively integrated as part of humanitarian response and disaster risk management.⁷³

At present, sectoral projects funded by the World Bank Group (WBG) and other organizations utilize a bottom-up, multidisciplinary approach to re-integrate displaced population groups after conflicts and natural disasters. Incorporating treatment for mental illness into these existing projects would help overcome barriers to securing employment among the poor and vulnerable. Further investment in education, social protection, and employment training would help prevent social exclusion and build social resilience by serving the unique needs of vulnerable groups.

IV. Resource gaps, funding options, and proposals for the future

Resource gaps

Just because a given intervention represents good value does not mean that there is money available to fund it. In order to be relevant from a public policy perspective, an intervention has to be both cost-effective and affordable.

The annual cost of a scaled up, basic package of cost-effective mental health care interventions is estimated at US\$2 per capita for low-income countries; US\$3–US\$4 for lower-middle-income countries; and US\$7–US\$9 for Latin America and the Caribbean.⁷⁴ For low- and lower-middle-income countries, this corresponds, on average, to between 10% and 14% of public expenditures on health and between 4% and 6% of total health expenditures; in Latin America and the Caribbean, it translates to between 3% and 4% of public expenditures on health and roughly 2% of total health expenditures. A key reason why these costs are low is the relatively low price of essential psychotropic medications, many of which are now off patent. As noted previously, current public spending on mental disorders in LMICs is well below what would be required to fund a cost-effective package of interventions. The already discussed health and welfare consequences of mental disorders provide ample evidence as to why governments and government resources should play a major role in the funding of mental health.⁷⁵

Between 2007 and 2013, less than 1% of international health aid went to mental health; as a result, total spending on mental health—domestic public spending plus external aid—came to only US\$0.25 per person in low-income countries and to \$US0.61 in lower-middle-income countries.⁷⁶ This means that funding for mental health would have to increase from five to eight times its current value in order to support a basic package of cost-effective interventions in low-income countries.

Those figures allow us to estimate the magnitude of the resource gap for mental health: US\$1.6 billion for low-income countries and US\$6.6–US\$9.3 billion for lower-middle-income countries.⁷⁷ Tackling this problem will require ambitious and strategic financing policies, which will need to take into account not only how resources are mobilized and pooled but also how they are channeled, allocated, and implemented.⁷⁸

Potential funding options

Create a dedicated pool of funding based on sin taxes

A potential source of dedicated funding may come from the taxes raised from alcohol or other addictive substances, such as tobacco, that are disproportionately used by the mentally ill. Data from the World Health Organization for the 77 countries from which information is available indicate that the annual tax revenue from excise taxes on alcohol could be substantial. Price and tax measures on tobacco and alcohol can be an effective and important means to reduce tobacco consumption, alcohol abuse and health care costs, and represent a revenue stream for financing for development in many countries.⁷⁹ Besides the potential health benefits of this fiscal measure, it could help broaden the tax base and generate additional revenue to support budgetary capacity to finance universal health coverage (UHC) and mental health scale-up.

A potentially innovative financing model could combine the resource-pooling experience of UNITAID, which receives resources from a small tax on airfare tickets in nine countries, with some combination of the strategies implemented by Gavi: The Vaccine Alliance and The Global Fund to Fight AIDS, Tuberculosis, and Malaria. These last two funding sources allow for the channeling of resources to a country's health system, and have introduced performance-based mechanisms to generate incentives aimed at improving

implementation. Accordingly, a portion of the revenues generated from specific sources, such as alcohol taxes, could be pooled into a fund aimed at financing context-specific packages of cost-effective mental health interventions channeled to primary or community care services. This financing instrument could potentially adopt multi-stakeholder participation for resource allocation and performance-based incentives to improve service delivery.

Resources from mineral wealth

Many developing countries are rich in mineral resources. Unfortunately, those resources are not typically used to promote equitable growth and social development. The experiences from countries like Botswana, Chile, and Malaysia demonstrate that the combination of sound economic policies, strong institutions, and a commitment to social development can reduce poverty and build human capital. A similar approach could be used in other developing countries to finance UHC and mental health programs.

It should be stressed, however, that while innovative financing mechanisms may contribute to the promotion of mental health and interventions in the short term, they are not a substitute for the role of governments and development assistance. Consistent with the Financing for Development Action Document that was adopted at the Third International Conference on Financing for Development in Addis Ababa in July 2015, and endorsed as part of the United Nation's recent Sustainable Development Goals initiative, it should be recognized that for all countries, public policies and the mobilization and effective use of domestic resources are central to the common pursuit of sustainable development. Building on the considerable achievements in many countries since the adoption of the Monterrey Consensus in 2002 and the Doha Declaration in 2008, countries need to strengthen the mobilization and effective use of domestic resources.

Scaling up mental health coverage

The challenge to financing mental health lies in the fact that interventions should not be seen as being isolated from one another; rather, they should be incorporated into different delivery platforms, such as primary care and community health.⁸⁰ This means that if these platforms do not function well, or are not appropriately structured and funded, mental health interventions will also be ineffective. In the long term, earmarking or creating funding mechanisms dedicated exclusively to funding mental health interventions without also ensuring other aspects of patient care and health coverage are unlikely to be successful. In the short term, however, dedicated sources of financing are necessary to break the cycle of neglect that affects mental health policies and programs, alongside efforts to improve service delivery, platforms, and quality of care. The emergence in recent years of a strong Global Mental Health movement provides a base of evidence-based knowledge and capacity to promote and support these efforts, but funding is needed to expand its reach in LMICs where mental health capacities have been chronically limited.⁸¹

Include mental health in universal health coverage packages

Mechanisms used to prioritize interventions for financing and payment within UHC policies, such as national health benefits plans or essential medicines lists, are an opportunity to focus LMICs' domestic public spending on cost-effective mental health interventions, and to structure development donor support in this direction. Including the treatment of common mental disorders within primary care has been one of the most accessible means of achieving progress, and can be reflected in UHC benefits plans. (Successful efforts in Chile, Colombia, Cuba, and Ghana provide lessons on how to integrate, scale up, and sustain service provision.) This is particularly important as some countries are explicitly

excluding some mental health conditions from their plans. The UHC package is the opportunity to bring policy and funding together.

Build on results-based funding initiatives

Results-based funding between donors and health systems in developing countries may offer innovative ways to fund mental health programs and pay providers within health systems, existing as an alternative and complement to traditional development assistance for global health.

There are a number of ways this could occur: For example, natural synergies exist between mental health and other non-communicable diseases, and there is a growing awareness of the importance of mental health in the fields of maternal and child health. Cooperation across sectors also provides an opportunity for funders, including multilateral finance institutions such as WBG; regional development banks such as the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank; regional bodies such as the European Commission; bilateral agencies such as the Department for International Development, the Japan International Cooperation Agency, and the United States Agency for International Development; and philanthropies such as the Bill & Melinda Gates Foundation, Bloomberg Philanthropies, the Nippon Foundation, and the Rockefeller Foundation, to use existing service platforms to support the scaling up of mental health treatment and care. For example, a bilateral donor or philanthropy could contribute to the WBG's Global Financing Facility's support of Every Woman Every Child with funding earmarked for mental health prevention and treatment. Investment in other areas, including education, social protection, and labor and employment, could also be utilized to respond to the unique needs of vulnerable groups. Multi-sector packages of services used for the reintegration of displaced populations in post-conflict and post-disaster

societies could help mainstream mental health services. Another opportunity for scaling up global mental health in the near future could be found in social impact bonds and development impact bonds, which would provide upfront funding from private investors who would earn a return if evidence showed that programs achieve pre-agreed outcomes.⁸²

Key Policy Actions

- **Mental health matters:** Visibly increase the attention given to mental disorders at the national and international levels (including migration and humanitarian aid; social inclusion and poverty reduction; and human rights protection and universal health coverage). Strong leadership is needed to make mental health a priority, to commit to innovative and quality services, to channel resources toward mental health systems, and to strengthen community services.
- **Mental health works:** Introduce or strengthen programs that promote and protect mental well-being into general health services (integrated care), school curricula (life skills), and occupational health schemes (wellness at work); and promote better coordination across these platforms and sectors.
- **Mental health needs:** Devote additional resources from development assistance donors and domestic health budgets towards implementing community-based mental-health programs and strengthening the overall treatment of mental disorders as part of the progressive realization of universal health coverage.

Endnotes

- ¹ Patel, V. and S. Saxena (2014). "Transforming lives, enhancing communities — innovations in global mental health." *New England Journal of Medicine* 370, no. 6:498-501; Helliwell, J.F., et al. (2013). *World Happiness Report*. Available at http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013_online.pdf
- ² World Health Organization (n.d.). "10 Facts on Mental Health." Available at http://www.who.int/features/factfiles/mental_health/mental_health_facts/en/; De Silva, M. and J. Roland, on behalf of the Global Health and Mental Health All-Party Parliamentary Groups (2014). *Mental health for sustainable development*. London, UK.
- ³ World Health Organization (n.d.) "Health Statistics and Information Systems: Estimates for 2000–2012." Available at http://www.who.int/healthinfo/global_burden_disease/estimates/en/index2.html.
- ⁴ Patel, V., et al. (2012). "Suicide mortality in India: a nationally representative survey." *Lancet* 2012;379:2343-51.
- ⁵ World Health Organization (n.d.) "Health Statistics and Information Systems: Estimates for 2000–2012."
- ⁶ Chisholm, D., et al. (in press). "Scaling up treatment of depression and anxiety: a global return on investment analysis." *The Lancet Psychiatry*.
- ⁷ Bloom, D.E., et al. (2011). *The global economic burden of noncommunicable diseases*. Geneva: World Economic Forum; Marquez, P. and J. Farrington (2013). "The challenge of non-communicable diseases and road traffic injuries in Sub-Saharan Africa: an overview." Washington DC: World Bank. Available at <http://documents.worldbank.org/curated/en/2013/06/17997739/challenge-non-communicable-diseases-road-traffic-injuries-sub-saharan-africa-overview>.
- ⁸ United Nations (n.d.). "Sustainable Development Goals: 17 Goals to Transform Our World." Available at <http://www.un.org/sustainabledevelopment/health/>.
- ⁹ WHO (2015). *Mental Health Atlas 2014*. Geneva: World Health Organization.
- ¹⁰ Gilbert, B.J., et al. (2015). "Assessing development assistance for mental health in developing countries: 2007–2013." *PLOS Medicine* 12, no. 6:e1001834; World Health Organization (2011). *Mental Health Atlas 2011*. Geneva: World Health Organization.
- ¹¹ Ibid.
- ¹² Murthy, R.S., and R. Lakshminarayana (2006). "Mental health consequences of war: a brief review of research findings." *World Psychiatry* 5, no. 1:25-30; Pine, D.S. et al. (2005). "Trauma, proximity, and developmental psychopathology: the effects of war and terrorism on children." *Neuropsychopharmacology* 30, no. 10 (2005):1781-1792
- ¹³ Chisholm, D., et al. (in press).
- ¹⁴ Vigo, D., et al. (2016). "Estimating the true burden of mental illness." *The Lancet Psychiatry* 3, no. 2:171-178.
- ¹⁵ Patel, V. and S. Saxena (2014); Helliwell, J.F., et al. (2013).
- ¹⁶ Whiteford, H.A., et al. (2015). "The global burden of mental, neurological and substance use disorders: An analysis from the Global Burden of Disease Study 2010." *PLOS ONE* 10, no. 2:e0116820.
- ¹⁷ de Menil, V. and A. Glassman (2015). *Missed opportunities in global health: Identifying new strategies to improve mental health in LMICs*. CGD Policy Paper 068. Washington DC: Center for Global Development.
- ¹⁸ Bloom, D.E., et al. (2011). Marquez and Farrington, (2013).
- ¹⁹ Bloom, D.E., et al. (2011).
- ²⁰ de Menil, V. and A. Glassman (2015). Patel, V. and A. Kleinman (2003). "Poverty and common mental disorders in developing countries." *Bulletin of the World Health Organization* 81, no. 8:609-615; Saraceno, B., et al. (2005). "The public mental health significance of research on socio-economic factors in schizophrenia and major depression." *World Psychiatry* 4, no.3:181-185; Lund C., et al. (2010). "Poverty and common mental disorders in low and middle income countries: A systematic review." *Social Science & Medicine* 71, no. 3:517-528.
- ²¹ Chisholm, D., on behalf of WHO-Choice (2005). "Choosing cost-effective interventions in psychiatry: results from the CHOICE programme of the World Health Organization." *World Psychiatry* 4, no. 1:37-44.
- ²² Gureje O., et al. (2007). "Cost-effectiveness of an essential mental health intervention package in Nigeria." *World Psychiatry* 6, no. 1:42-48.
- ²³ Adapted from Hewlett, Emily, and Valerie Moran (2014). *Making Mental Health Count: The Social and Economic Costs of Neglecting Mental Health Care*. OECD Health Policy Studies, OECD Publishing.
- ²⁴ Knapp, M., et al. (editors) (2011). *Mental health promotion and mental illness prevention: The economic case*. Personal Social Services Research Unit, London School of Economics and Political Science. London: Department of Health.
- ²⁵ de Menil, V., and A. Glassman (2015).
- ²⁶ Whiteford, H., et al. (2013). "Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010." *Lancet* 382: 1575-86.
- ²⁷ Chisholm, D., et al. (in press).
- ²⁸ Ibid.

- ²⁹ Dobson, K.S. (1989). "A meta-analysis of the efficacy of cognitive therapy for depression." *Journal of Consulting and Clinical Psychology* 57, no. 3:414; Gloaguen, V., et al. (1998); "A meta-analysis of the effects of cognitive therapy in depressed patients." *Journal of Affective Disorders* 49, no. 1:59-72; de Mello, M., et al. (2005); "A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders." *European Archives of Psychiatry and Clinical Neuroscience* 255, no. 2: 75-82; Gould R., et al. (1997) "Cognitive behavioural and pharmacological treatment of generalized anxiety disorder: A preliminary meta-analysis." *Behavioral Therapy* 28, no. 2: 285-305; Norton, P.J. and E.C. Price (2007) "A meta-analytic review of adult cognitive-behavioral treatment outcome across the anxiety disorders." *The Journal of Nervous and Mental Disease* 195, no. 6:521-531; Kroenke K. (2007). "Efficacy of Treatment for Somatoform Disorders: A Review of Randomized Controlled Trials." *Psychosomatic Medicine* 69:881-88.
- ³⁰ Cuijpers, P., et al. (2007). "Problem solving therapies for depression: a meta-analysis." *European Psychiatry* 22, no. 1:9-15; Cuijpers, P., et al. (2008). "Psychotherapy for depression in adults: a meta-analysis of comparative outcome studies." *Journal of consulting and clinical psychology* 76, no. 6:909; Barth J., et al. (2013). "Comparative efficacy of seven psychotherapeutic interventions for depressed patients: A network meta-analysis." *PLOS Medicine* 10, no.5: e1001454.
- ³¹ Cuijpers, P., et al. (2007); Cuijpers, P., et al. (2008); Barth, J., et al. (2013); Bolton, P., et al. (2007). "Interventions for depression symptoms among adolescent survivors of war and displacement in northern Uganda: a randomized controlled trial." *JAMA* 298, no. 5:519-27.
- ³² Van Ginneken, N., et al. (2011). "Non-specialist health worker interventions for mental health care in low- and middle-income countries." *The Cochrane Database of Systematic Reviews* no. 5.
- ³³ Depression Guidelines Panel (1993). *Depression in Primary Care*, Clinical Practice Guideline Number 5. Agency for Health Policy and Research Publication No, 93-0550. Rockville, MD: U.S. Department of Health and Human Services.
- ³⁴ Bereza B.G., et al. (2012). "Evidence-based review of clinical outcomes of guideline-recommended pharmacotherapies for generalized anxiety disorder." *Canadian Journal of Psychiatry* 57:470-478; Sumathipala, A. (2007). "What is the evidence for the efficacy of treatments for somatoform disorders? A critical review of previous intervention studies." *Psychosomatic Medicine* 69:889-900.
- ³⁵ Baldwin D., et al. (2011). "Efficacy of drug treatments for generalised anxiety disorder: systematic review and meta-analysis." *British Medical Journal* 342: d1199.
- ³⁶ Lisanby, S.H. (2007). "Electroconvulsive therapy for depression." *New England Journal of Medicine* 357:1939; Dierckx B., et al. (2012). "Efficacy of electroconvulsive therapy in bipolar versus unipolar major depression: a meta-analysis." *Bipolar Disorder* 14, no. 2:146-50.
- ³⁷ Mateus, M., et al. (2008). "The mental health system in Brazil: Policies and future challenges." *International Journal of Mental Health Systems* 2, no. 1:1; Pitta, A.M.F. (2011). "Um balanço da reforma psiquiátrica brasileira: instituições, atores e políticas." *Ciência & Saúde Coletiva* 16, no.12:4579-89; Berlinck M.T., et al. (2008). "A Reforma Psiquiátrica Brasileira: perspectivas e problemas." *Revista Latinoamericana de Psicopatologia Fundamental* 11, no.1:21-28.
- ³⁸ Araya, R., et al. (2012) "Lessons from scaling up a depression treatment program in primary care in Chile." *Revista Panamericana de Salud Pública* 32, no. 3:234-240.
- ³⁹ De Girolamo, G., et al. (2007). "The current state of mental health care in Italy: problems, perspectives, and lessons to learn." *European Archives of Psychiatry and Clinical Neuroscience* 257, no. 2:83-91; Mezzina, R. (2014). "Community Mental Health in Trieste and Beyond." *The Journal of Nervous and Mental Disease* 202, no. 6:440-445.
- ⁴⁰ Clark, D.M. (2011). "Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: the IAPT experience." *International Review of Psychiatry* 23, no. 4:318-327.
- ⁴¹ Bayona, personal communication, 2015.
- ⁴² Government of India, Ministry of Health and Family Welfare (2014). *National Mental Health Policy*. Available at <http://www.mohfw.nic.in/index1.php?lang=1&level=2&sublinkid=4723&lid=2964>.
- ⁴³ Bayona, personal communication, 2015.
- ⁴⁴ Druss, B., and E. Reisinger (2011). *Mental disorders and medical comorbidity*. The Synthesis Project: Research Synthesis Report No. 21; Katon, W., et al. (2006). "Cost- effectiveness and net benefit of enhanced treatment of depression for older adults with diabetes and depression." *Diabetes Care* 29, no. 2, 265-270; O'Neil, A., et al. (2015). "A shared framework for the common mental disorders and Non-Communicable Disease: key considerations for disease prevention and control." *BioMed Central Psychiatry* 15; Patel, V., et al. (2013). "Grand challenges: integrating mental health services into priority health care platforms." *PLOS Med* 10, no. 5: e1001448; Jamison, D. (in press). "Disease Control Priorities, 3rd edition: improving health and reducing poverty." *Lancet*.
- ⁴⁵ UK Department of Health (2012). "IAPT three-year report: The first million patients." Available at <http://www.iapt.nhs.uk/silo/files/iapt-3-year-report.pdf>; Layard, R., et al. (2007). "Cost-Benefit Analysis of Psychological Therapy." *National Institute Economic Review* 202, no. 1:90-98; Ngo V., et al. (in press). "Grand challenges: integrating mental health care into the non- communicable disease agenda." *PLOS Medicine*; Pemjean, A. (2010). "Mental health in primary healthcare in Chile." *International Psychiatry* 7:7-8.
- ⁴⁶ Van Ginneken, N., et al. (2013). "Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low and middle-income countries." *Cochrane Database of Systematic Reviews* 11.

- ⁴⁷ Lee, A.M., et al. (2007). "Prevalence, course, and risk factors for antenatal anxiety and depression." *Obstetrics & Gynecology* 110, no. 5:1102-1112.
- ⁴⁸ Surkan, P.J., et al. (2011). "Maternal depression and early childhood growth in developing countries: systematic review and meta-analysis." *Bulletin of the World Health Organization* 287:607-615D.
- ⁴⁹ Rahman, A., et al. (2008). "Cognitive computer therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomized controlled trial." *Lancet* 372, no. 9642: 902-909; Katon W., et al. (2015). "A randomized trial of collaborative depression care in obstetrics and gynecology clinics: socioeconomic disadvantage and treatment response." *American Journal of Psychiatry* 172, no. 1:32-40.
- ⁵⁰ Lundy, S.M., et al. (2010). "Cognitive functioning and academic performance in elementary school children with anxious/depressed and withdrawn symptoms." *The Open Pediatric Medicine Journal* 4:1.
- ⁵¹ Eisenberg, D., et al. (2009). "Mental health and academic success in college." *The B.E. Journal of Economic Analysis & Policy* 9, no. 1.
- ⁵² Kessler, R.C., et al. (2005). "Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication." *Archives of General Psychiatry* 62, no. 6:593-602.
- ⁵³ Antelman, G., et al. (2007). "Depressive symptoms increase risk of HIV disease progression and mortality among women in Tanzania." *Journal of Acquired Immune Deficiency Syndromes* 44, no. 4:470-477; Kaaya, S., et al. (2013). "Grand challenges: improving HIV treatment outcomes by integrating interventions for co-morbid mental illness." *PLOS Medicine* 10:e1001447.
- ⁵⁴ Chibanda, D., et al. (2014). "Mental, neurological, and substance use disorders in people living with HIV/AIDS in low- and middle-income countries." *Journal of the Acquired Immune Deficiency Syndrome* 67:S54-S67; Mayston R., et al. (2012). "Mental disorder and the outcome of HIV/AIDS in low-income and middle-income countries: a systematic review." *AIDS* 26, Suppl 2:S117-S135.
- ⁵⁵ Wagner, G.J., et al. (2014). "Integration of Depression Treatment into HIV Care in Uganda (INDEPTH-Uganda): study protocol for a randomized controlled trial." *Trials*, 15, no. 1:248
- ⁵⁶ Farrington, C., et al. (2014). "mHealth and global mental health: still waiting for the mH2 wedding?" *Globalization and Health* 10:17; Renton, T., et al. (2014). "Web-Based Intervention Programs for Depression: A Scoping Review and Evaluation." *Journal of Medical Internet Research* 16, no.9:e209; Sarasohn-Kahn, J. (2012). "The Online Couch: Mental Health Care on the Web." California Healthcare Foundation. Available at <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/O/PDF%20OnlineCouchMentalHealthWeb.pdf>.
- ⁵⁷ Aboujaoude, E. et al. (2015). "Telemental health: A status update." *World Psychiatry* 14, no. 2:223-30; BinDhim, N.F., et al. (2015) "Depression screening via a smartphone app: cross-country user characteristics and feasibility." *Journal of the American Medical Informatics Association* 22, no. 1:29-34; Agyapong, V., et al. (2012). "Supportive text messaging for depression and comorbid alcohol use disorder: single-blind randomised trial." *Journal of Affective Disorders* 141, no. 2:168-176; Kauer, S.D., et al. (2012). "Self-monitoring using mobile phones in the early stages of adolescent depression: randomized controlled trial." *Journal of Medical Internet Research* 14(3):e67; Reid, S.C., et al (2009) "A mobile phone program to track young people's experiences of mood, stress and coping." *Social Psychiatry and Psychiatric Epidemiology* 44, no. 6: 501-507
- ⁵⁸ Spek, V., et al. (2007). "Internet- based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis." *Psychological Medicine* 37, no. 3:319-28; Hedman, E., et al. (2012). "Cognitive behavior therapy via the Internet: a systematic review of applications, clinical efficacy and cost-effectiveness." *Expert Review of Pharmacoeconomics and Outcomes Research* 12:745-64; Andrews, G., et al. (2010). "Computer therapy for the anxiety and depressive disorders is effective, acceptable and practical health care: a meta-analysis." *PLOS ONE* 5, no. 10:e13196; So, M., et al. (2013). "Is computerised CBT really helpful for adult depression?: A meta-analytic re-evaluation of CCBT for adult depression in terms of clinical implementation and methodological validity." *BioMed Central Psychiatry* 13:113; Stubbings, D.R., et al. (2013). "Comparing in-person to videoconference-based cognitive behavioral therapy for mood and anxiety disorders: randomized controlled trial." *Journal of Medical Internet Research* 15:e258; Williams, A.D. and G. Andrews (2013). "The Effectiveness of Internet Cognitive Behavioural Therapy (iCBT) for Depression in Primary Care: A Quality Assurance Study." *PLOS ONE* 8, no. 2:e57447; Proudfoot, J., et al. (2003). "The Development and Beta-Test of a Computer-Therapy Program for Anxiety and Depression: Hurdles and Preliminary Outcomes." *Computers in Human Behavior* 19:277-289; Gureje, O., et al. (2015). "A cluster randomized clinical trial of a stepped care intervention for depression in primary care (STPCARE) - study protocol." *BioMed Central Psychiatry* 15:148.
- ⁵⁹ Morris, R., et al. (2015). "Efficacy of a Web-Based, Crowdsourced Peer-To-Peer Cognitive Reappraisal Platform for Depression: Randomized Controlled Trial." *Journal of Medical Internet Research* 17, no. 3.
- ⁶⁰ Quinn, N., et al. (2013). "Nature and impact of European anti-stigma depression programmes." *Health Promotion International*: das076.
- ⁶¹ Sartorius, N. (2007). "Stigma and mental health." *Lancet* 370, no. 9590:810-811.
- ⁶² Ibid.; Sartorius, N., (2002). "Iatrogenic stigma of mental illness." *British Medical Journal* 324, no. 7352:1470-1471; Magliano, L., et al. (2004). "Perception of patients' unpredictability and beliefs on the causes and consequences of schizophrenia." *Social Psychiatry and Psychiatric Epidemiology* 39, no. 5:410-416; Magliano, L., et al. (2011). "The influence of causal explanations and diagnostic labeling on medical students' views of schizophrenia." *Academic Medicine* 86, no. 9:1155-1162.

- ⁶³ Vandongen, R., et al. (1995). "A controlled evaluation of a fitness and nutrition intervention program on cardiovascular health in 10-year-old to 12-year-old children." *Preventive medicine* 24, no. 1:9-22; Mitchell, B., et al. (2013). "Improvement of fundamental movement skills through support and mentorship of classroom teachers." *Obesity Research & Clinical Practice*, 7, no.2, e230-e234.
- ⁶⁴ Fazel, M., et al. (2014a). "Mental health interventions in schools in low-income and middle-income countries." *The Lancet Psychiatry* 1, no. 5:388-398; Fazel, M., et al. (2014b). "Mental health interventions in schools in high-income countries." *The Lancet Psychiatry* 1, no. 5:377-387.
- ⁶⁵ Owens, J.S., et al. (2005). "School-based mental health programming for children with inattentive and disruptive behavior problems: First-year treatment outcome." *Journal of Attention Disorders*, 9, no. 1:261-274; Langford, R., et al. (2011). "The WHO Health Promoting School framework for improving the health and well-being of students and staff." *The Cochrane Library*; Murphy, J.M., et al. (2014). "Mental Health Predicts Better Academic Outcomes: A Longitudinal Study of Elementary School Students in Chile." *Child Psychiatry & Human Development* 1-12.
- ⁶⁶ Patel, V., et al. (2015). "Addressing the burden of mental, neurological, and substance use disorders: Key messages from Disease Control Priorities, 3rd edition." *Lancet*, Published Online October 8, 2015 at [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)00390-6/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)00390-6/abstract).
- ⁶⁷ Marquez, P.V. (2013). "Healthier Workplaces = Healthy Profits." Available at <http://blogs.worldbank.org/health/healthier-workplaces-healthy-profits>.
- ⁶⁸ Tan, L. et al. (2014) "Preventing the development of depression at work: a systematic review and meta-analysis of universal interventions in the workplace." *BioMed Central Medicine* 12:74; Czabala, C., et al. (2011). "Psychosocial interventions in workplace mental health promotion: an overview." *Health Promotion International* 26, no. S1.
- ⁶⁹ LaMontagne, A.D., et al. (2014). "Workplace mental health: developing an integrated intervention approach." *BioMed Central Psychiatry* 14:131.
- ⁷⁰ Sorel, E.R., et al. (2005) "Populations' mental health in postconflict contexts." *Advances in Psychiatry Second Volume* (2005): 163
- ⁷¹ Bolton, P., et al. (2002): "Prevalence of depression in rural Rwanda based on symptom and functional criteria." *The Journal of Nervous and Mental Disease* 190, no. 9:631-637; Chung, R. and M. Kagawa-Singer (1993). "Predictors of psychological distress among Southeast Asian refugees." *Social Science & Medicine* 36, no. 5: 631-639; De Jong, J., et al. (2001). "Lifetime events and posttraumatic stress disorder in 4 postconflict settings." *JAMA* 286, no. 5:555-562; De Jong, J., et al. (2003) "Common mental disorders in postconflict settings." *Lancet* 361, no. 9375:2128-2130; Dubois, V., et al. (2004). "Household survey of psychiatric morbidity in Cambodia." *International Journal of Social Psychiatry* 50, no. 2: 174-185; Karam, E.G., et al. (2008). "Lifetime prevalence of mental disorders in Lebanon: first onset, treatment, and exposure to war." *PLOS Medicine* 5, no. 4:e61; Mollica, R.F., et al. (1997) "Effects of war trauma on Cambodian refugee adolescents' functional health and mental health status." *Journal of the American Academy of Child & Adolescent Psychiatry* 36, no. 8:1098-1106; Mollica, R.F., et al. (2004). "Mental health in complex emergencies." *Lancet* 364, no. 9450:2058-2067; Pham, P.N, et al. (2004). "Trauma and PTSD symptoms in Rwanda: implications for attitudes toward justice and reconciliation." *JAMA* 292, no. 5: 602-612; Silove, D., et al. (2008) "Estimating clinically relevant mental disorders in a rural and an urban setting in postconflict Timor Leste." *Archives of General Psychiatry* 65, no. 10:1205-1212.
- ⁷² Mollica, R.F., et al. (2014) "The enduring mental health impact of mass violence: A community comparison study of Cambodian civilians living in Cambodia and Thailand." *International Journal of Social Psychiatry* 60, no. 1:6-20.
- ⁷³ Kim, I. (2015). "Beyond Trauma: Post-resettlement Factors and Mental Health Outcomes Among Latino and Asian Refugees in the United States." *Journal of Immigrant and Minority Health*:1-9.
- ⁷⁴ Gilbert, B.J., et al. (2015); Hyman, S., et al. (2006) "Mental disorders." In *Disease Control Priorities Related to Mental, Neurological, Developmental and Substance Abuse Disorders*. New York: The World Bank and Oxford University Press; Patel et al. (2015).
- ⁷⁵ Patel et al. (2015).
- ⁷⁶ Gilbert, B.J., et al. (2015).
- ⁷⁷ Ibid.
- ⁷⁸ See for instance, Atun, R., et al. (2012). "Innovative financing for health: What is truly innovative?" *Lancet* 380:2044-49; Roberts, M.J, et al. (2008). *Getting Health Reform Right: A Guide to Improving Performance and Equity*. New York: Oxford University Press.
- ⁷⁹ See, for instance, the Philippines' 2015 report on its sin tax and added revenue for health. Republic of the Philippines Official Gazette (2015). "Report: 2015 Sin Tax revenue." Available at <http://www.gov.ph/2015/10/05/report-sin-tax-revenue-2015/>.
- ⁸⁰ Patel, V., et al. (2015).
- ⁸¹ "Global Mental Health 2011," *The Lancet*, October 18, 2011. Available at <http://www.thelancet.com/series/global-mental-health-2011>.
- ⁸² Center for Global Development and Social Finance (2013). *Investing in Social Outcomes: Development Impact Bonds. The Report of the Development Impact Bond Working Group*. Available at <http://www.cgdev.org/sites/default/files/investing-in-social-outcomes-development-impact-bonds.pdf>

References

- Aboujaoude, E., W. Salame, and L. Naim (2015). "Telemental health: A status update." *World Psychiatry* 14, no. 2:223-30.
- Agyapong, V.I.O., S. Ahern, D.M. McLoughlin, and C.K. Farren (2012). "Supportive text messaging for depression and comorbid alcohol use disorder: single-blind randomised trial." *Journal of Affective Disorders* 141, no. 2:168-176.
- Andrews, G., P. Cuijpers, M. Craske, P. McEvoy, and N. Titov (2010). "Computer therapy for the anxiety and depressive disorders is effective, acceptable and practical health care: a meta-analysis." *PLOS ONE* 5, no. 10:e13196.
- Antelman, G., S. Kaaya, R. Wei, J. Mbwambo, G.I. Msamanga, W.W. Fawzi, and M.C.S. Fawzi (2007). "Depressive symptoms increase risk of HIV disease progression and mortality among women in Tanzania." *Journal of Acquired Immune Deficiency Syndromes* 44, no. 4:470 – 477.
- Araya, R., R. Alvarado, R. Sepúlveda, and G. Rojas (2012). "Lessons from scaling up a depression treatment program in primary care in Chile." *Revista Panamericana de Salud Pública* 32, no. 3 :234-240.
- Atun, R., F.M. Knaul, Y. Akachi, and J. Frenk (2012). "Innovative financing for health: What is truly innovative?" *Lancet* 380:2044-49.
- Baldwin, D., R. Woods, R. Lawson, D. Taylor (2011). "Efficacy of drug treatments for generalised anxiety disorder: systematic review and meta-analysis." *British Medical Journal* 342: d1199
- Barth, J., T. Munder, H. Gerger, E. Nuesch, S. Trelle, H. Znoj, P. Juni, and P. Cuijpers (2013). "Comparative efficacy of seven psychotherapeutic interventions for depressed patients: A network meta-analysis." *PLOS Medicine* 10, no. 5:e1001454.
- Bereza, B.G., M. Machado, A.V. Ravindran, and T.R. Einarson (2012). "Evidence-based review of clinical outcomes of guideline-recommended pharmacotherapies for generalized anxiety disorder." *Canadian Journal of Psychiatry* no. 57:470-478.
- Berlinck, M.T., A.C. Magtaz, M. Teixeira (2008). "A Reforma Psiquiátrica Brasileira: perspectivas e problemas." *Revista Latinoamericana de Psicopatologia Fundamental* 11, no. 1:21-28.
- BinDhim, N.F., A.M. Shaman, L. Trevena, M.H. Basyouni, L.G. Pont, and T.M. Alhawassi (2015). "Depression screening via a smartphone app: cross-country user characteristics and feasibility." *Journal of the American Medical Informatics Association* 22, no. 1:29-34.
- Bloom, D.E., E.T. Cafiero, E. Jané-Llopis, S. Abrahams-Gessel, L.R. Bloom, S. Fathima, A.B. Feigl, T. Gaziano, M. Mowafi, A. Pandya, K. Prettner, L. Rosenberg, B. Seligman, A.Z. Stein, and C. Weinstein (2011). *The Global Economic Burden of Noncommunicable diseases*. Geneva: World Economic Forum.
- Bolton, P., R. Neugebauer, and L. Ndogoni (2002). "Prevalence of depression in rural Rwanda based on symptom and functional criteria." *The Journal of Nervous and Mental Disease* 190, no. 9:631-637.

- Bolton, P., J. Bass, R. Neugebauer, H. Verdeli, K.F. Clougherty, P. Wickramaratne, L. Speelman, L. Ndogoni, and M. Weissman (2003). "Group Interpersonal Psychotherapy for Depression in Rural Uganda: A Randomized Controlled Trial." *JAMA* 289, no. 23:3117-3124.
- Bolton, P., J. Bass, T. Betancourt, L. Speelman, G. Onyango, K.F. Clougherty, R. Neugebauer, L. Murray, and H. Verdeli (2007). "Interventions for depression symptoms among adolescent survivors of war and displacement in northern Uganda: a randomized controlled trial." *JAMA* 298, no. 5:519-27.
- Center for Global Development and Social Finance (2013). *Investing in Social Outcomes: Development Impact Bonds. The Report of the Development Impact Bond Working Group*. Available at <http://www.cgdev.org/sites/default/files/investing-in-social-outcomes-development-impact-bonds.pdf>.
- Chibanda, D., L. Benjamin, H.A. Weiss, and M. Abas (2014). "Mental, neurological, and substance use disorders in people living with HIV/AIDS in low- and middle-income countries." *Journal of the Acquired Immune Deficiency Syndrome* 67:S54 – S67.
- Chisholm, D., K. Sweeny, P. Sheehan, B. Rasmussen, F. Smit, P. Cuijpers, S. Saxena (in press). "Scaling up treatment of depression and anxiety: a global return on investment analysis." *The Lancet Psychiatry*.
- Chisholm, D., on behalf of WHO-Choice (2005). "Choosing cost-effective interventions in psychiatry: results from the CHOICE programme of the World Health Organization." *World Psychiatry* 4, no. 1:37-44.
- Chung, R.C., and M. Kagawa-Singer (1993). "Predictors of psychological distress among Southeast Asian refugees." *Social Science & Medicine* 36, no. 5:631-639.
- Clark, D.M. "Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: the IAPT experience." *International Review of Psychiatry* 23, no. 4 (2011):318-327.
- Cuijpers, P., A. van Straten, and L. Warmerdam (2007). "Problem solving therapies for depression: a meta-analysis." *European Psychiatry* 22, no. 1:9-15.
- Cuijpers, P., A. van Straten, G. Andersson, and P. van Oppen (2008). "Psychotherapy for depression in adults: a meta-analysis of comparative outcome studies." *Journal of Consulting and Clinical Psychology* 76, no. 6:909.
- Czabala, C., K. Charzyńska, and B. Mroziak (2011). "Psychosocial interventions in workplace mental health promotion: an overview." *Health Promotion International* 26, no. S1.
- de Mello, M.F., J. de Jesus Mari, J. Bacaltchuk, H. Verdeli, and R. Neugebauer (2005). "A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders." *European Archives of Psychiatry and Clinical Neuroscience* 255, no. 2:75-82.
- de Girolamo, G., M. Bassi, G. Neri, M. Ruggeri, G. Santone, and A. Picardi (2007). "The current state of mental health care in Italy: problems, perspectives, and lessons to learn." *European Archives of Psychiatry and Clinical Neuroscience* 257, no. 2:83-91.
- de Jong, J.T.V.M., I.H. Komproe, M. Van Ommeren, M. El Masri, M. Araya, N. Khaled, W. van De Put, and D. Somasundaram (2001). "Lifetime events and posttraumatic stress disorder in 4 postconflict settings." *JAMA* 286, no. 5:555-562.
- de Jong, J.T.V.M., I.H. Komproe, and M. Van Ommeren (2003). "Common mental disorders in postconflict settings." *Lancet* 361, no. 9375:2128-2130.
- de Menil, V. (2015). *Missed opportunities in global health: Identifying new strategies to improve mental health in LMICs*. CGD Policy Paper 068. Washington DC: Center for Global Development.
- De Silva, M., and J. Roland, on behalf of the Global Health and Mental Health All-Party Parliamentary Groups (2014). *Mental Health for Sustainable Development*.
- Depression Guidelines Panel (1993). *Depression in Primary Care, Clinical Practice Guideline Number 5*. Agency for Health Policy and Research Publication No, 93-0550. Rockville, MD: U.S. Department of Health and Human Services.
- Dierckx, B., W.T. Heijnen, W.W. van den Broek, and T.K. Birkenhäger (2012). "Efficacy of electroconvulsive therapy in bipolar versus unipolar major depression: a meta-analysis." *Bipolar Disorder* 14, no. 2:146-50.
- Dobson, K.S. (1989). "A meta-analysis of the efficacy of cognitive therapy for depression." *Journal of Consulting and Clinical Psychology* 57, no. 3:414.
- Druss, B., and E. Reisinger (2011). *Mental Disorders and Medical Comorbidity*. The Synthesis Project: Research Synthesis Report No. 21.
- Dubois, V., R. Tonglet, P. Hoyois, K. Sunbaunat, J.P. Roussaux, and E. Hauff (2004). "Household survey of psychiatric morbidity in Cambodia." *International Journal of Social Psychiatry* 50, no. 2:174-185.
- Eisenberg, D., E. Golberstein, and J.B. Hunt (2009). "Mental health and academic success in college." *The B.E. Journal of Economic Analysis & Policy* 9, no. 1.
- Farrington, C., A. Aristidou, and K. Ruggeri (2014). "mHealth and global mental health: still waiting for the mH2 wedding?" *Globalization and Health* 10:17.
- Fazel, M., V. Patel, S. Thomas, and W. Tol (2014a). "Mental health interventions in schools in low-income and middle-income countries." *The Lancet Psychiatry* 1, no. 5:388-398.
- Fazel, M., K. Hoagwood, S. Stephan, and T. Ford (2014b). "Mental health interventions in schools in high-income countries." *The Lancet Psychiatry* 1, no. 5:377-387.
- Gilbert, B.J., V. Patel, P.E. Farmer, and C. Lu (2015). "Assessing development assistance for mental health in developing countries: 2007–2013." *PLOS Medicine* 12, no. 6:e1001834
- Government of India, Ministry of Health and Family Welfare (2014). *National Mental Health Policy*. Available at <http://www.mohfw.nic.in/index1.php?lang=1&level=2&sublink-id=4723&lid=2964>.

- Gloaguen, V., J. Cottraux, M. Cucherat, and I.M. Blackburn (1998). "A meta-analysis of the effects of cognitive therapy in depressed patients." *Journal of Affective Disorders* 49, no. 1:59-72.
- "Global Mental Health 2011," *Lancet*, October 18, 2011. Available at <http://www.thelancet.com/series/global-mental-health-2011>.
- Gould, R., M.W. Otto, M.H. Pollack, and Y. Liang (1997). "Cognitive behavioural and pharmacological treatment of generalized anxiety disorder: A preliminary meta-analysis." *Behavioral Therapy* 28, no. 2:285-305.
- Gureje, O., D. Chisholm, L. Kola, V. Lasebikan, and S. Saxena (2007). "Cost-effectiveness of an essential mental health intervention package in Nigeria." *World Psychiatry* 6, no. 1:42-48.
- Hedman, E., B. Ljotsson, and N. Lindfors (2012). "Cognitive behavior therapy via the Internet: a systematic review of applications, clinical efficacy and cost-effectiveness." *Expert Review of Pharmacoeconomics and Outcomes Research* 12:745-64.
- Helliwell, J.F., R. Layard, and J. Sachs (2013). *World Happiness Report*. Available at http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013_online.pdf.
- Hewlett, E., and V. Moran (2014). *Making Mental Health Count: The Social and Economic Costs of Neglecting Mental Health Care*. OECD Health Policy Studies, OECD Publishing.
- Hyman, S., D. Chisholm, R. Kessler, V. Patel, and H. Whiteford (2007). "Mental disorders." In: D. Jamison, J. Breman, A. Measham, G. Alleyne, M. Claeson, D.B. Evans, P. Jha, A. Mills, and P. Musgrove (eds.) *Disease Control Priorities Related to Mental, Neurological, Developmental and Substance Abuse Disorders*. New York: The World Bank and Oxford University Press.
- Jamison, D. (in press). "Disease Control Priorities, 3rd edition: improving health and reducing poverty." *Lancet*.
- Kauer, S.D., S.C. Reid, A.H.D. Crooke, A. Khor, S.J.C. Hearps, A.F. Jorm, L. Sancj, and G. Patton (2012). "Self-monitoring using mobile phones in the early stages of adolescent depression: randomized controlled trial." *Journal of Medical Internet Research* 14, no. 3:e67.
- Kaaya, S., E. Eustache, I. Lapidus-Salaiz, S. Musisi, C. Psaros, and L. Wissow (2013). "Grand challenges: improving HIV treatment outcomes by integrating interventions for co-morbid mental illness." *PLOS Medicine* 10:e1001447.
- Karam, Elie G., Zeina N. Mneimneh, Hani Dimassi, John A. Fayyad, Aimee N. Karam, Soumana C. Nasser, Somnath Chatterji, and Ronald C. Kessler (2008). "Lifetime prevalence of mental disorders in Lebanon: first onset, treatment, and exposure to war." *PLOS Medicine* 5, no. 4:e61.
- Katon, W., J. Russo, S.D. Reed, C.A. Croicu, E. Ludman, A. LaRocco, and J.L. Melville (2015). "A randomized trial of collaborative depression care in obstetrics and gynecology clinics: socioeconomic disadvantage and treatment response." *American Journal of Psychiatry* 172, no. 1:32-40.
- Katon, W., J. Unützer, M.Y. Fan, J.W. Williams, M. Schoenbaum, E.H.B. Lin, and E.M. Hunkeler (2006). "Cost-effectiveness and net benefit of enhanced treatment of depression for older adults with diabetes and depression." *Diabetes Care* 29, no. 2:265-270.
- Kessler, R.C., P. Berglund, O. Demler, R. Jin, K.R. Merikangas, and E.E. Walters (2005). "Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication." *Archives of General Psychiatry* 62, no. 6:593-602.
- Kim, I. (2015). "Beyond Trauma: Post-resettlement Factors and Mental Health Outcomes Among Latino and Asian Refugees in the United States." *Journal of Immigrant and Minority Health*: 1-9.
- Knapp, M., D. McDaid, and M. Parsonage (editors) (2011). *Mental Health Promotion and Mental Illness Prevention: The Economic Case*. Personal Social Services Research Unit, London School of Economics and Political Science. London: Department of Health.
- Kroenke K. (2007). "Efficacy of Treatment for Somatoform Disorders: A Review of Randomized Controlled Trials." *Psychosomatic Medicine* 69:881-88.
- LaMontagne, A.D., A. Martin, K.M. Page, N.J. Reavley, A.J. Noblet, A.J. Milner, T. Keegel, P.M. Smith (2014). "Workplace mental health: developing an integrated intervention approach." *BioMed Central Psychiatry* 14:131.
- Langford, R., R. Campbell, D. Magnus, C.P. Bonell, S.M. Murphy, E. Waters, K.A. Komro, and L.F. Gibbs (2011). "The WHO Health Promoting School framework for improving the health and well-being of students and staff." *The Cochrane Library*.
- Layard, R., D. Clark, M. Knapp, and G. Mavraz (2007). "Cost-Benefit Analysis of Psychological Therapy." *National Institute Economic Review* 202, no. 1:90-98.
- Lee, A.M., S.K. Lam, S.M. Sze Mun Lau, C.S. Chong, H.W. Chui, and D.Y. Tak Fong (2007). "Prevalence, course, and risk factors for antenatal anxiety and depression." *Obstetrics & Gynecology* 110, no. 5:1102-1112.
- Lisanby, S.H. (2007). "Electroconvulsive therapy for depression." *New England Journal of Medicine* 357:1939.
- Lundy, S.M., G.E. Silva, K.L. Kaemingk, J.L. Goodwin, and S.F. Quan (2010). "Cognitive functioning and academic performance in elementary school children with anxious/depressed and withdrawn symptoms." *The Open Pediatric Medicine Journal* 4:1.
- Lund, C., A. Breen, A.J. Flisher, R. Kakuma, J. Corrigan, J.A. Joska, L. Swartz, and V. Patel (2010). "Poverty and common mental disorders in low and middle income countries: A systematic review." *Social Science & Medicine* 71, no. 3:517-528.
- Magliano, L., C. De Rosa, A. Fiorillo, C. Malangone, M. Maj, and the National Mental Health Project Working Group (2004). "Perception of patients' unpredictability and beliefs on the causes and consequences of schizophrenia." *Social Psychiatry and Psychiatric Epidemiology* 39, no. 5:410-416.

- Magliano, L., J. Read, S. Rega, N. Oliviero, A. Sagliocchi, M. Patalano, and A. D'Ambrosio (2011). "The influence of causal explanations and diagnostic labeling on medical students' views of schizophrenia." *Academic Medicine* 86, no. 9:1155-1162.
- Marquez, P. and J. Farrington (2013). "The challenge of non-communicable diseases and road traffic injuries in Sub-Saharan Africa: an overview." Washington DC: World Bank. Available at <http://documents.worldbank.org/curated/en/2013/06/17997739/challenge-non-communicable-diseases-road-traffic-injuries-sub-saharan-africa-overview>.
- Marquez, P.V. (2013). "Healthier Workplaces = Healthy Profits." Available at <http://blogs.worldbank.org/health/healthier-workplaces-healthy-profits>.
- Mateus, M.D., J.J. Mari, P.G.G. Delgado, N. Almeida-Filho, T. Barrett, J. Gerolin, S. Gohman, D. Razzouk, J. Rodriguez, R. Weber, S. B. Andreoli, and S. Saxena (2008) "The mental health system in Brazil: Policies and future challenges." *International Journal of Mental Health Systems* 2, no. 1:1.
- Mayston, R., E. Kinyanda, N. Chishinga, M. Prince, and V. Patel (2012). "Mental disorder and the outcome of HIV/AIDS in low-income and middle-income countries: a systematic review." *AIDS* 26, Suppl 2:S117-S135.
- Mezzina, R. (2014). "Community Mental Health in Trieste and Beyond." *The Journal of Nervous and Mental Disease* 202, no. 6:440-445.
- Mitchell, B., S. McLennan, K. Latimer, D. Graham, J. Gilmore, and E. Rush (2013). "Improvement of fundamental movement skills through support and mentorship of class room teachers." *Obesity Research & Clinical Practice*, 7, no. 3:e230-e234.
- Mollica, R.F., C. Poole, L. Son, C.C. Murray, and S. Tor (1997) "Effects of war trauma on Cambodian refugee adolescents' functional health and mental health status." *Journal of the American Academy of Child & Adolescent Psychiatry* 36, no. 8:1098-1106.
- Mollica, R.F., B. Lopes-Cardozo, H.J. Osofsky, B. Raphael, A. Ager, and P. Salama (2004). "Mental health in complex emergencies." *Lancet* 364, no. 9450: 2058-2067.
- Mollica, R.F., R. Brooks, S. Tor, B. Lopes-Cardozo, and D. Silove (2014). "The enduring mental health impact of mass violence: A community comparison study of Cambodian civilians living in Cambodia and Thailand." *International Journal of Social Psychiatry* 60, no. 1: 6-20.
- Morris, R., S. Schueller, and R. Picard (2015). "Efficacy of a Web-Based, Crowdsourced Peer-To-Peer Cognitive Reappraisal Platform for Depression: Randomized Controlled Trial." *Journal of Medical Internet Research* 17, no. 3.
- Murphy, J. M., J. Guzmán, A.E. McCarthy, A.M. Squicciarini, M. George, K.M. Canenguez, E.C. Dunn, L. Baer, A. Simonsohn, J.W. Smoller, and M.S. Jellinek (2014). "Mental Health Predicts Better Academic Outcomes: A Longitudinal Study of Elementary School Students in Chile." *Child Psychiatry & Human Development* 1-12.
- Murthy, R.S., and R. Lakshminarayana (2006). "Mental health consequences of war: a brief review of research findings." *World Psychiatry* 5, no. 1:25-30.
- Owens, J. S., L. Richerson, E.A. Beilstein, A. Crane, C.E. Murphy, and J.B. Vancouver (2005). "School-based mental health programming for children with inattentive and disruptive behavior problems: First-year treatment outcome." *Journal of Attention Disorders* 9, no. 1:261-274.
- Ngo, V.K., A. Rubinstein, V. Ganju, P. Kanellis, N. Loza, C. Rabadan-Diehl, and A.S. Daar (2013). "Grand challenges: integrating mental health care into the non-communicable disease agenda." *PLOS Medicine* 10, no. 5:e1001443.
- Norton, P.J., and E.C. Price (2007) "A meta-analytic review of adult cognitive-behavioral treatment outcome across the anxiety disorders." *The Journal of Nervous and Mental Disease* 195, no. 6:521-531.
- O'Neil, A., F.N. Jacka, S.E. Quirk, F. Cocker, C.B. Taylor, B. Oldenburg, and M. Berk (2015). "A shared framework for the common mental disorders and Non-Communicable Disease: key considerations for disease prevention and control." *BioMed Central Psychiatry* 15.
- Patel, V. and A. Kleinman (2003). "Poverty and common mental disorders in developing countries." *Bulletin of the World Health Organization* 81, no. 8:609-615.
- Patel, V., G.S. Belkin, A. Chockalingam, J. Cooper, S. Saxena, and J. Unützer (2013). "Grand challenges: integrating mental health services into priority health care platforms." *PLOS Medicine* 10, no. 5:e1001448.
- Patel, V., D. Chisholm, R. Parikh, F.J. Charlson, L. Degenhardt, T. Dua, A.J. Ferrari, S. Hyman, R. Laxminarayan, C. Levin, C. Lund, M.E. Medina Mora, I. Petersen, J. Scott, R. Shidhaye, L. Vijayakumar, G. Thornicroft, and H. Whiteford, on behalf of the DCP MNS Author Group (2015). "Addressing the burden of mental, neurological, and substance use disorders: Key messages from Disease Control Priorities, 3rd edition." *Lancet*, Published Online October 8, 2015.
- Patel, V. and S. Saxena (2014). "Transforming lives, enhancing communities — innovations in global mental health." *New England Journal of Medicine* 370, no. 6:498-501
- Pemjean, A. (2010). "Mental health in primary healthcare in Chile." *International Psychiatry* 7:7-8.
- Pham, P.N., H.M. Weinstein, and T. Longman (2004). "Trauma and PTSD symptoms in Rwanda: implications for attitudes toward justice and reconciliation." *JAMA* 292, no. 5: 602-612.
- Pine, D.S., J. Costello, and A. Masten (2005). "Trauma, proximity, and developmental psychopathology: the effects of war and terrorism on children." *Neuropsychopharmacology* 30, no. 10:1781-1792.
- Pitta, A.M.F. (2011). "Um balanço da reforma psiquiátrica brasileira: instituições, atores e políticas." *Ciência & Saúde Coletiva* 16, no.12:4579-89
- Proudfoot, J., S. Swain, S. Widmer, E. Watkins, D. Goldberg, I. Marks, A. Mann, and J.A. Gray (2003). "The Development and Beta-Test of a Computer-Therapy Program for Anxiety and Depression: Hurdles and Preliminary Outcomes." *Computers in Human Behavior*, 19, 277-289.

- Quinn, N., L. Knifton, I. Goldie, T. Van Bortel, J. Dowds, J., A. Lasalvia, G. Scheerder, J. Boumans, V. Svab, M. Lanfredi, and K. Wahlbeck (2013). "Nature and impact of European anti-stigma depression programmes." *Health Promotion International*: das076.
- Rahman, A., A. Malik, S. Sikander, C. Roberts, and F. Creed (2008). "Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomized controlled trial." *Lancet* 372, no. 9642:902-909.
- Reid, S.C., S.D. Kauer, P. Dudgeon, L.A. Sanci, L.A. Shrier, and G.C. Patton (2009). "A mobile phone program to track young people's experiences of mood, stress and coping." *Social Psychiatry and Psychiatric Epidemiology* 44, no. 6:501-507.
- Renton, T., H. Tang, N. Ennis, M.D. Cusimano, S. Bhalerao, T.A. Schweizer, and J. Topolovec-Vranic (2014). "Web-Based Intervention Programs for Depression: A Scoping Review and Evaluation." *Journal of Medical Internet Research* 16, no. 9:e209.
- Republic of the Philippines Official Gazette (2015). "Report: 2015 Sin Tax revenue." Available at <http://www.gov.ph/2015/10/05/report-sin-tax-revenue-2015/>.
- Roberts, M.J., W. Hsiao, P. Berman, and M. Reich (2008). *Getting Health Reform Right: A Guide to Improving Performance and Equity*. New York: Oxford University Press.
- Saraceno, B., I. Levav, and R. Kohn (2005). "The public mental health significance of research on socio-economic factors in schizophrenia and major depression." *World Psychiatry* 4, no. 3:181-185.
- Sarasohn-Kahn, J. (2012). "The Online Couch: Mental Health Care on the Web." California Healthcare Foundation. Available at <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/O/PDF%20OnlineCouchMentalHealthWeb.pdf>.
- Sartorius, N. (2007). "Stigma and mental health." *Lancet* 370, no. 9590:810-811.
- Sartorius, N. (2002). "Iatrogenic stigma of mental illness." *British Medical Journal* 324, no. 7352:1470-1471.
- Silove, D., C.R. Bateman, R.T. Brooks, C.A. Fonseca, Z. Steel, J. Rodger, I. Soosay, G. Fox, V. Patel, and A. Bauman (2008). "Estimating clinically relevant mental disorders in a rural and an urban setting in postconflict Timor Leste." *Archives of General Psychiatry* 65, no. 10:1205-1212.
- So M, S. Yamaguchi, S. Hashimoto, M. Sado, T.A. Furukawa, and P. McCrone (2013). "Is computerised CBT really helpful for adult depression?: A meta-analytic re-evaluation of CCBT for adult depression in terms of clinical implementation and methodological validity." *BioMed Central Psychiatry* no. 13:113.
- Sorel, E., R.S. Murthy, A. Mohit, F. Baingana, and R. Thomas (2005). "Populations' mental health in postconflict contexts." *Advances in Psychiatry Second Volume*: 163.
- Spek, V., P. Cuijpers, I. Nyklicek, H. Riper, J. Keyzer, and V. Pop (2007). "Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis." *Psychological Medicine* 37, no. 3:319-28.
- Stubbings, D.R., C.S. Rees, L.D. Roberts, and R.T. Kane (2013). "Comparing in-person to videoconference-based cognitive behavioral therapy for mood and anxiety disorders: randomized controlled trial." *Journal of Medical Internet Research* 15:e258.
- Sumathipala A. (2007). "What is the evidence for the efficacy of treatments for somatoform disorders? A critical review of previous intervention studies." *Psychosomatic Medicine*, 69:889-900.
- Surkan, P.J., C.E. Kennedy, K.M. Hurley, and M.M. Black (2011). "Maternal depression and early childhood growth in developing countries: systematic review and meta-analysis." *Bulletin of the World Health Organization* 287: 607-615D.
- Tan, L., M.J. Wang, M. Modini, S. Joyce, A. Mykletun, H. Christensen and S.B. Harvey (2014). "Preventing the development of depression at work: a systematic review and meta-analysis of universal interventions in the workplace." *BioMed Central Medicine* 12:74.
- UK Department of Health (2012). "IAPT three-year report: The first million patients." Available at <http://www.iapt.nhs.uk/silo/files/iapt-3-year-report.pdf>.
- United Nations (n.d.). "Sustainable Development Goals: 17 Goals to Transform Our World." Available at <http://www.un.org/sustainabledevelopment/health/>.
- Vandongen, R., D.A. Jenner, C. Thompson, A.C. Taggart, E.E. Spickett, V. Burke, L.J. Beilin, R.A. Milligan, and D.L. Dunbar (1995). "A controlled evaluation of a fitness and nutrition intervention program on cardiovascular health in 10-year-old to 12-year-old children." *Preventive Medicine* 24, no. 1: 9-22.
- Van Ginneken, N., P. Tharyan, S. Lewin, G.N. Rao, S.M. Meera, J. Pian, S. Chandrashekar, and V. Patel (2013). "Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low and middle-income countries." *Cochrane Database of Systematic Reviews* 11.
- Van Ginneken, N., P. Tharyan, S. Lewin, G.N. Rao, Renee Romeo, and Vikram Patel (2011). "Non-specialist health worker interventions for mental health care in low-and middle-income countries." *Cochrane Database of Systematic Reviews* 5.
- Vigo, D., G. Thornicroft, and R. Atun (2016). "Estimating the true global burden of mental illness." *The Lancet Psychiatry* 3, no. 2:171-178.
- Wagner, G. J., V. Ngo, P. Glick, E.A. Obuku, S. Musisi, and D. Akena (2014). "INtegration of DEpression Treatment into HIV Care in Uganda (INDEPTH-Uganda): study protocol for a randomized controlled trial." *Trials* 15, no. 1:248.
- Weisz, J.R., B.F. Chorpita, L.A. Palinkas, S.K. Schoenwald, J. Miranda, S.K. Bearman, E.L. Daleiden, A.M. Ugueto, A. Ho, J. Martin, J. Gray, A. Alleyne, D.A. Langer, M.A. Southam-Gerow, and R.D. Gibbons (2012). "Testing standard and modular designs for psychotherapy treating depression, anxiety, and conduct problems in youth: a randomized effectiveness trial." *Archives of General Psychiatry* 69, no. 3:274-82.

Whiteford, H., L. Degenhardt, J. Rehm, A. Baxter, A. Ferrari, H.E. Erskine, F.J. Charlson, R.E. Norman, A.D. Flaxman, N. Johns, R. Burstein, C.J. Murray, and T. Vos (2013). "Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010." *Lancet* 382:1575-86.

Whiteford, H.A., A.J. Ferrari, L. Degenhardt, V. Feigin, and T. Vos (2015). "The global burden of mental, neurological and substance use disorders: An analysis from the Global Burden of Disease Study 2010." *PLOS ONE* 10, no. 2:e0116820.

Williams, A.D. and G. Andrews (2013). "The Effectiveness of Internet Cognitive Behavioural Therapy (iCBT) for Depression in Primary Care: A Quality Assurance Study." *PLOS ONE* 8, no. 2:e57447.

World Health Organization (2011). *Mental Health Atlas 2011*. Geneva.

World Health Organization (2015). *Mental Health Atlas 2014*. Geneva.

World Health Organization (n.d.). "10 Facts on Mental Health." Available at http://www.who.int/features/factfiles/mental_health/mental_health_facts/en/.

World Health Organization (n.d.) "Health Statistics and Information Systems: Estimates for 2000–2012." Available at http://www.who.int/healthinfo/global_burden_disease/estimates/en/index2.html.

