



Founders
Pledge

Mental Health Cause Area Report

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Glossary

CBT	Cognitive Behavioural Therapy	A form of talking psychotherapy
DALY	Disability-Adjusted Life Year	A composite measure of morbidity and mortality caused by a disease
DSM	Diagnostic and Statistical Manual of Mental Disorders	Standard classification of mental disorders used by mental health professionals
IPT-G	Interpersonal Group Therapy	IPT delivered in a group setting
MHF	Mental Health Facilitator	Community members given brief specialised training in delivery of mental health interventions
MNS	Mental health, Neurological and Substance use disorders	A group of disorders which affect the mind
PHQ-9	Patient Health Questionnaire	Questionnaire used to monitor severity of depression and response to treatment
RCT	Randomised Controlled Trial	A study design which includes a randomised control group. Often considered the gold standard of evidence



Executive Summary¹

1. Mental health

Mental illnesses such as depression, anxiety, and dementia are a daily reality of suffering for millions of people across the world. In total, mental health, neurological and substance-abuse (MNS) disorders account for 10.5% of the global disease burden, second only to cardiovascular disease. In addition to their health and wellbeing costs, MNS disorders impose a large economic cost: a 2012 report estimated the annual global cost of mental health conditions at \$2.5 trillion. Lastly, there is still a large stigma on mental health: those suffering from mental health problems often face marginalisation at both the social and institutional level.

2. Our process

Our research produced three key findings, which helped to guide our search for impactful charities:

1. *Mental health is chronically neglected, especially in low- and middle-income countries*

Most low- and middle-income countries spend less than US\$2 per year per person on the treatment and prevention of mental disorders, compared with an average of more than \$50 in high income countries, and international aid has done little to fill the funding gap. As a result of this funding gap, the *treatment gap* – the proportion of mental illness sufferers that go untreated – in low- and middle-income countries is much greater than the treatment gap in high income countries.

2. *There is a strong case for task-shifting in low- and middle-income countries*

There is currently a severe lack of mental health practitioners in most developing countries. This lack of skilled personnel means that resource-intensive mental health interventions in developing countries are often not suitable. In this context, development economists and public health practitioners have called for the increased use of task-shifting in countries without the necessary skilled personnel. Task-shifting refers to specialised tasks being undertaken by people with a lower level of training than physicians or psychiatrists. The existing evidence suggests that task-shifting is effective and lowers costs significantly.

¹ A note on the authors of this report: James Snowden contributed to this report while working for the Centre for Effective Altruism. He now works at GiveWell, a research partner of Founders Pledge. John Halstead is part of the research team at Founders Pledge.



3. Evidence generation is of high priority

There is limited evidence on the effectiveness of mental health treatments in low- and middle-income countries. It is therefore crucial that charities working in the space try to generate new evidence.

Our charity search was guided by these key findings. Other things equal, we preferred charities which work in low-income countries, engage in task-shifting, and seek to generate evidence.

3. Charity recommendation: Strong Minds

Following a search through over one hundred mental health charities, we decided to recommend StrongMinds as the best donation opportunity in the space that we were able to find.

What do they do?

StrongMinds implement Interpersonal Group Psychotherapy (IPT-G), training laypeople to treat women suffering from depression in Uganda.

Does the intervention work?

Evidence for the efficacy of IPT-G in low-resource settings comes from two randomised controlled trials (RCTs) and StrongMinds's own quasi-experimental impact assessment.

Is the intervention cost-effective?

We estimate that StrongMinds prevent the equivalent of one year of severe major depressive disorder for a woman at a cost of \$200–\$299, with a best guess estimate of \$248.

What are the wider benefits?

There are indications of improvements in employment, nutrition, physical health, housing, and children's education.

Are they a strong organisation?

They have a good track record and a strong focus on generating evidence. They are transparent about their mistakes and lessons, and are committed to continuous improvement.



Is there room for funding?

StrongMinds could productively use an extra \$5.1 million in funding through 2020.



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1. Overview of Mental Health Disorders

What are MNS disorders?

Mental Health, Neurological, and Substance Use (MNS) disorders are a diverse group of conditions caused by a range of biological, psychological and social factors. They are attributable to a combination of physical brain dysfunction and social determinants.² MNS disorders frequently co-occur in the same individual and are strongly associated with stigma and discrimination.³ They often observe a chronic or relapsing course.

Mental health disorders comprise a number of adverse health conditions, such as depression, anxiety and schizophrenia. They can affect people at any age and vary in severity. Mental health problems can result in death, either through suicide, or the adoption of unhealthy lifestyles.

Neurological disorders are diseases of the nervous system, particularly of the brain. While some neurological disorders are more prevalent amongst the elderly, others can affect people throughout their life. Some conditions, such as degenerative dementia often result in death. The impact of other chronic conditions, like migraines, is mostly on quality of life.⁴

The Diagnostic and Statistical Manual – the standard classification of mental disorders used by mental health professionals – draws a sharp distinction between mental health and neurological disorders. Mental health disorders are viewed as disorders of the mind (the province of psychiatry), while neurological disorders are viewed as disorders of the brain (the province of neurology).⁵ However, the distinction is not a clean one. Mental health disorders are often rooted in dysfunctions of the brain, while neurological disorders interact strongly with psychological and social factors.⁶

² Allen, Jessica et al. "Social determinants of mental health." *International Review of Psychiatry* 26.4 (2014): 392-407.

³ Clement, S et al. "What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies." *Psychological medicine* 45.01 (2015): 11-27.

⁴ Lim, Stephen S et al. "A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010." *The lancet* 380.9859 (2013): 2224-2260.

⁵ DSM-5 American Psychiatric Association. "Diagnostic and statistical manual of mental disorders." *Arlington: American Psychiatric Publishing* (2013).

⁶ "Time to end the distinction between mental and neurological ... - BMJ." 2014. 6 Jun. 2016 <<http://www.bmj.com/content/344/bmj.e3454/rapid-responses>>



Substance use disorders are a group of conditions characterised by regular and harmful use of substances such as alcohol, opioids, or sedatives. Substance use disorders can cause enormous harm to physical and mental health, as well as placing a strain on social relationships.

How severe are MNS disorders?

Some MNS disorders are much more severe than others. The most common way to measure the health burden of different diseases is the Disability Adjusted Life Year (DALY) metric. DALYs measure the burden of disease by accounting for the premature death (mortality) that it causes and for the years lived with illness (morbidity) it causes: a DALY burden can stem from premature death or from short-term or long-term ill health. The *disability weights* of different diseases range from 0 to 1 (no disability to 100% disabled). One DALY can be thought of as one lost year of healthy life.

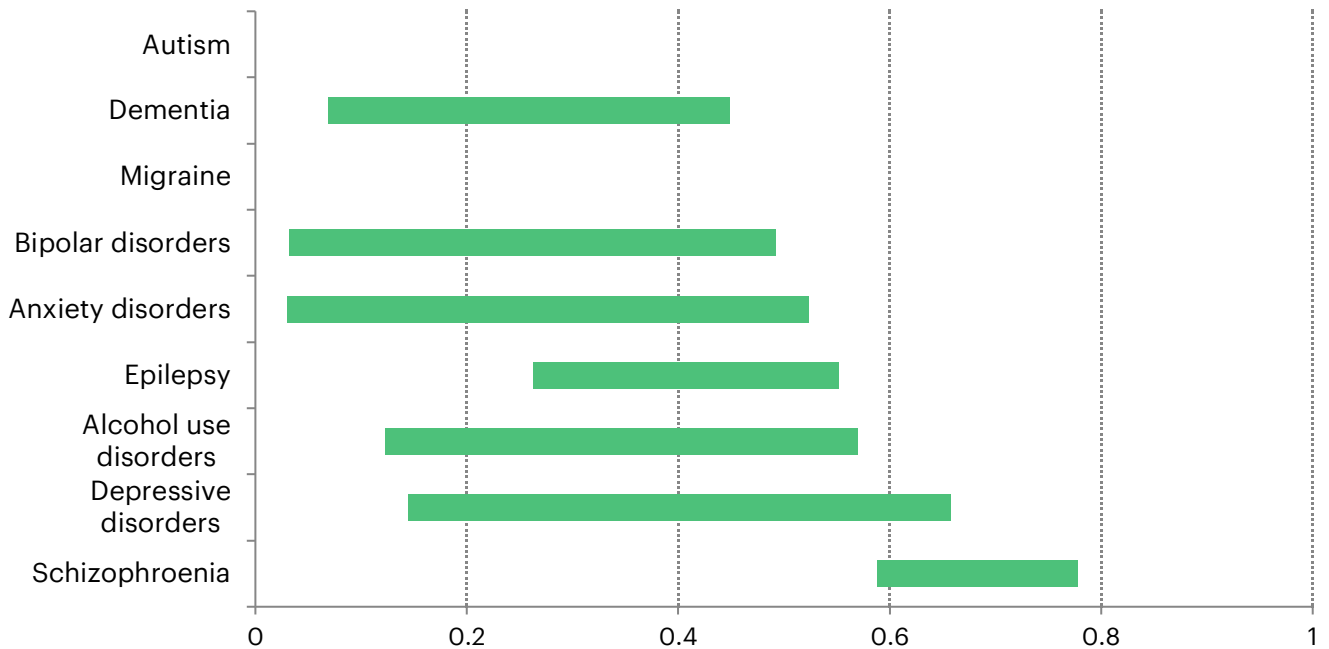
The severity of MNS disorders varies widely. The most serious, such as severe schizophrenia, result in some of the most debilitating health states of any disease (see Figure 1). Severe schizophrenia was given a DALY weighting of 0.78 in the 2013 Global Burden of Disease study. This should be interpreted as a year of life with severe schizophrenia being worth only 0.22 years of completely healthy life. Severe depression has a DALY weighting of 0.66.⁷

⁷ Joshua A Salomon et al., "Disability Weights for the Global Burden of Disease 2013 Study," *The Lancet Global Health* 3, no. 11 (November 1, 2015): e712–23, doi:10.1016/S2214-109X(15)00069-8.



Figure 1.

DALY weightings for different MNS disorders; more severe cases receive a higher DALY weight⁸



In fact, DALY weightings probably underestimate the severity of MNS disorders. This is because DALY weightings are elicited through a preference-based method, by asking people to predict how bad different health states would be if they were to have them.⁹ Preference-based methods are flawed because when we ask people how they would feel in different health states, they are unable to predict how they will adapt to health conditions. In particular, people tend greatly to underestimate how bad mental illness would be relative to other kinds of illness.

If instead people are asked to report how they are feeling when they have the condition (the subjective wellbeing method), mental health disorders tend to be evaluated as more severe. In particular, depression and anxiety are weighted as significantly worse than most physical health problems.¹⁰

⁸ Ibid.

⁹ Ibid.

¹⁰ Fujiwara, Daniel, and Paul Dolan. "Valuing mental health." *Policy* 4 (2014): 2.1.

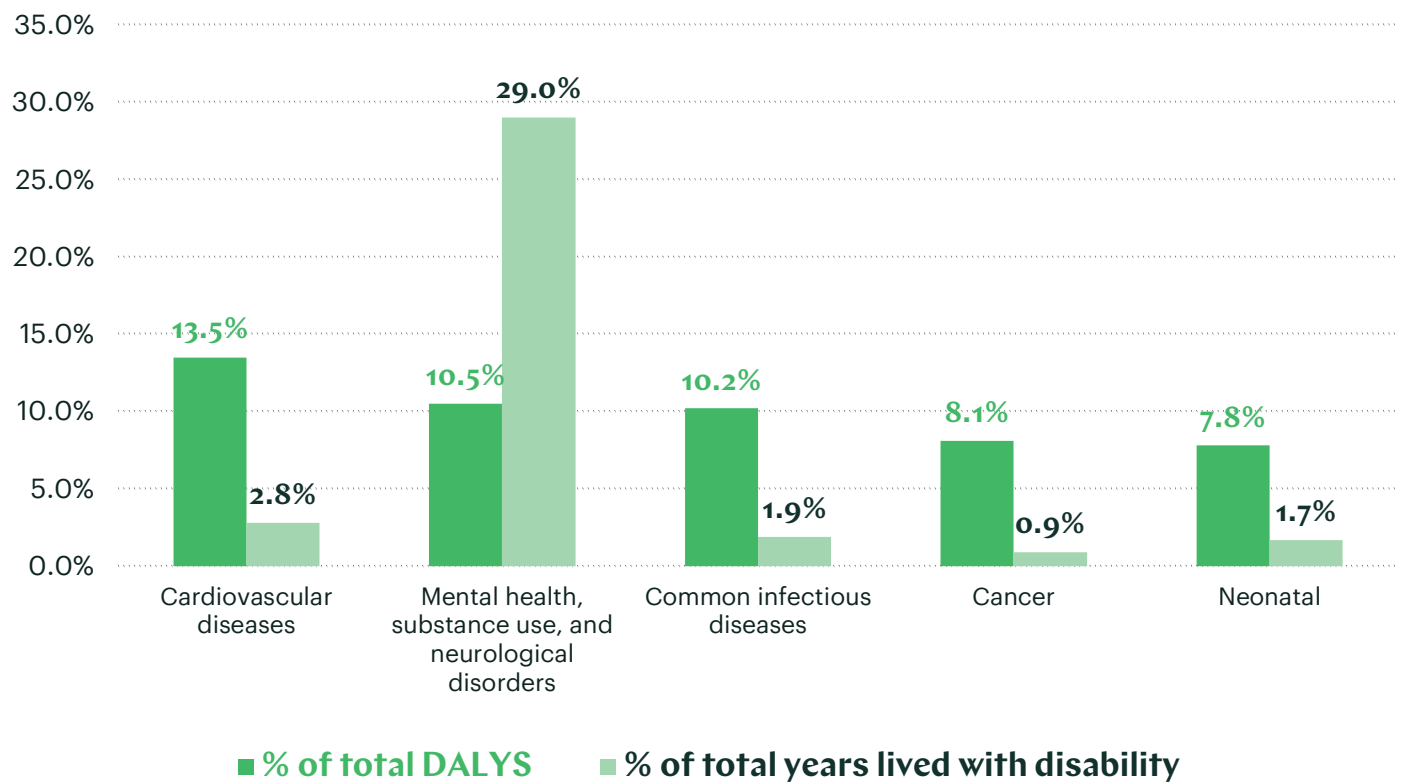


The health burden of mental illness

Combined, MNS disorders account for 10.5% of global DALYs, second only to cardiovascular disease (see Figure 2). MNS disorders have a greater impact on years lived with disability than any other category of disease.

Figure 2.

Top contributors to the disease burden (DALYs and years lived with disability) for 2013¹¹



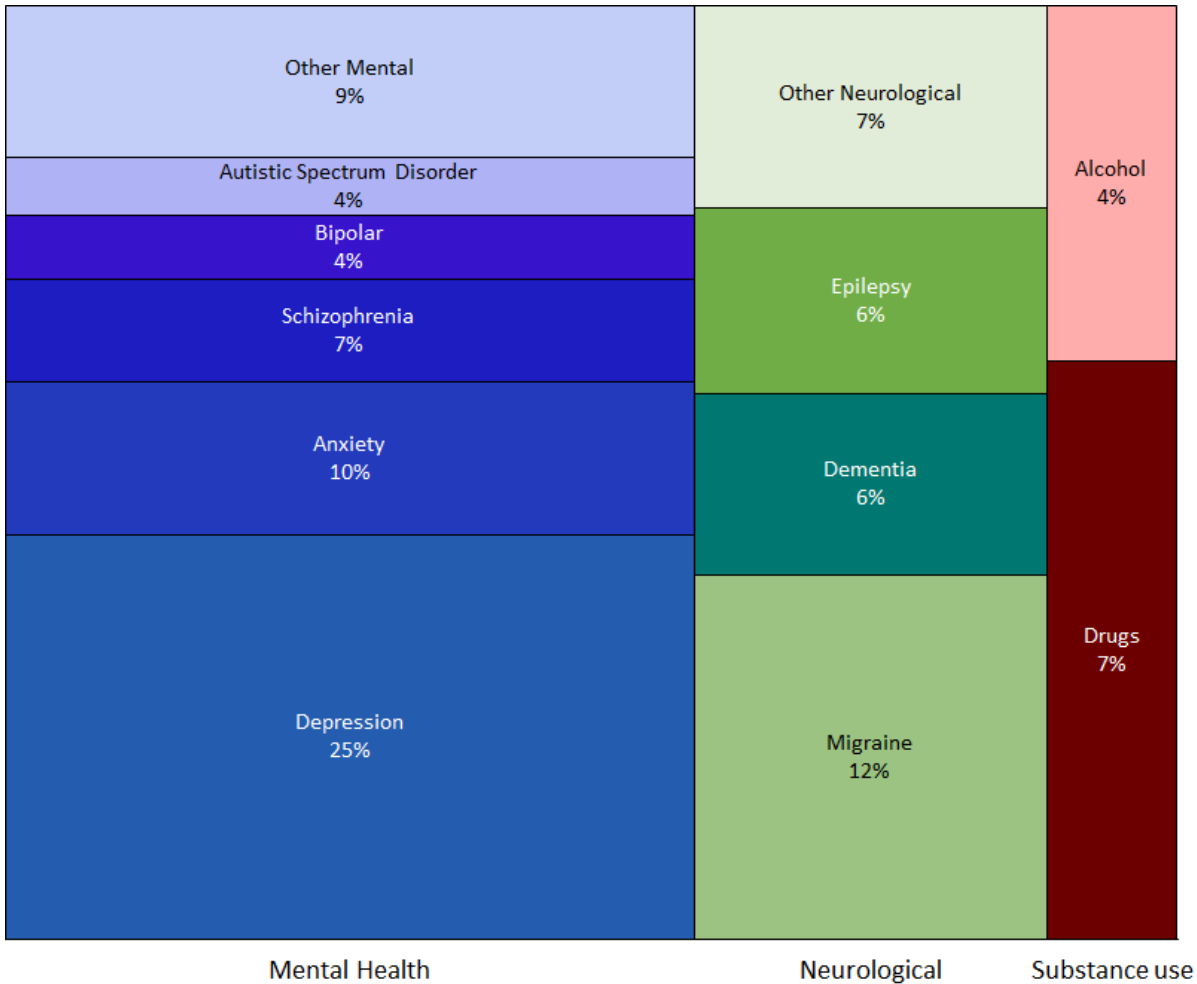
Depression accounts for almost a quarter of the health burden within MNS disorders (see Figure 3). Migraines and Dementia account for a fifth of the burden between them.

¹¹ "Global Burden of Disease (GBD) | Institute for Health Metrics and ..." 2014. 2 Jul. 2016 <<http://www.healthdata.org/gbd>>



Figure 3.

Contributions to MNS disorder disease burden (DALYs, 2013)¹²



The economic burden of mental health illness

MNS disorders impose a large economic burden. A 2012 report estimated that the annual global cost of mental health conditions was \$2.5 trillion in 2010. This is projected to rise to \$6 trillion in 2030.¹³ Reducing the disease burden of mental health is therefore both an economic and humanitarian imperative.

¹² "Institute for Health Metrics and Evaluation." 2014. 4 Jul. 2016 <<http://www.healthdata.org/>>

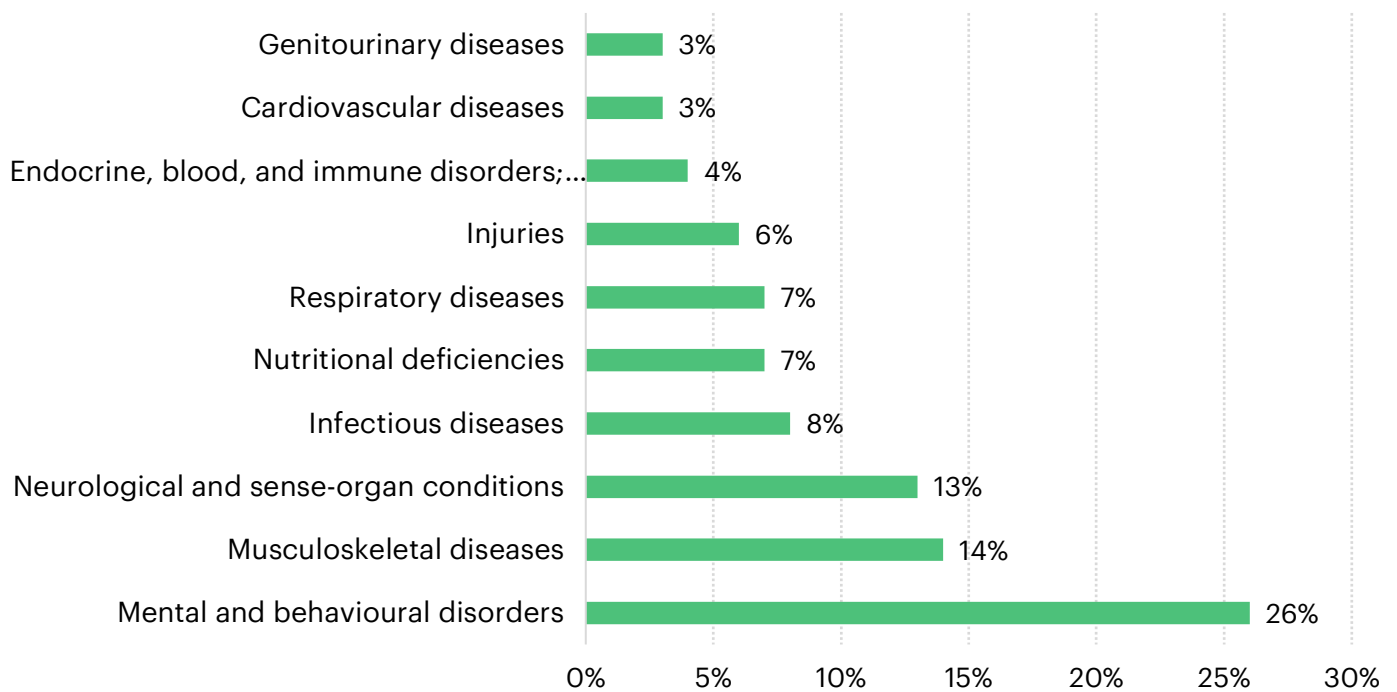
¹³ Bloom, David E et al. "The global economic burden of noncommunicable diseases." *PGDA Working Papers* Jan. 2012.



The economic burden of MNS disorders is a combination of the direct costs of treatment, and the indirect costs of reduced productivity. Those with severe mental health problems are often unable to work or at least are less productive.¹⁴ Mental health disorders alone account for 26% of productive time lost due to disability, more than any other category of disease (see Figure 4). Evidence shows that this productivity loss can be partially mitigated through treatment,¹⁵ and completely mitigated by prevention.

Figure 4.

Top Ten Sources of Time Lost to Disability Globally from all Medical Causes, by percentage¹⁶



The relationship between economic productivity and mental health is complex. Those who suffer from mental health problems are less likely to find productive work, but those out of productive

¹⁴ Wang, Philip S, Gregory Simon, and Ronald C Kessler. "The economic burden of depression and the cost-effectiveness of treatment." *International journal of methods in psychiatric research* 12.1 (2003): 22-33.

¹⁵ Dewa, Carolyn S. "The association of treatment of depressive episodes and work productivity." *Canadian Journal of Psychiatry* 56.12 (2011): 743.

¹⁶ "Darkness Invisible - Foreign Affairs." 2015. 4 Jul. 2016 <<https://www.foreignaffairs.com/articles/africa/darkness-invisible>>



work are also more likely to develop mental health problems.^{17,18} In particular, those living in conditions of extreme poverty are at increased risk of developing stress-related mental health problems.^{19,20,21} Interventions aimed at preventing or mitigating the effects of poverty are therefore likely to reduce the mental health disease burden.

The stigma of mental illness

Those suffering from mental health problems often face marginalisation at both the social and institutional level.

At the social level, mental illness can sometimes be perceived as a sign of weakness, or divine punishment which can result in carers distancing themselves from sufferers.²² The result is that people with MNS disorders are often isolated from their community, which can lead to a further deterioration of their condition.²³ Mental illnesses are sometimes viewed as less credible, due to the lack of physical symptoms, which can result in further stigmatisation.²⁴ People with MNS disorders may also be reluctant to seek treatment, impeding their recovery.²⁵

At the institutional level, sedation and restraint remain common practice in many countries.²⁶ Human Rights Watch report that almost 19,000 mentally ill people in Indonesia are subjected to *pasung*, the practice of shackling people with mental illnesses.²⁷ Scepticism towards mental illnesses may also impact the level of funding apportioned to them by national health systems.²⁸

¹⁷ Dohrenwend, Bruce P et al. "Disorders: The Causation-Selection Issue." (1992).

¹⁸ Bush, Philip W et al. "The long-term impact of employment on mental health service use and costs for persons with severe mental illness." *Psychiatric Services* (2015).

¹⁹ Lund, Crick et al. "Poverty and common mental disorders in low- and middle-income countries: A systematic review." *Social science & medicine* 71.3 (2010): 517-528.

²⁰ Patel, Vikram, and Arthur Kleinman. "Poverty and common mental disorders in developing countries." *Bulletin of the World Health Organization* 81.8 (2003): 609-615.

²¹ Tsai, Alexander C et al. "Food insecurity, depression and the modifying role of social support among people living with HIV/AIDS in rural Uganda." *Social science & medicine* 74.12 (2012).

²² Mfoafo-M'Carthy, Magnus, and Stephanie Huls. "Human Rights Violations and Mental Illness." *SAGE Open* 4.1 (2014): 2158244014526209.

²³ Barke, Antonia, Seth Nyarko, and Dorothee Klecha. "The stigma of mental illness in Southern Ghana: attitudes of the urban population and patients' views." *Social psychiatry and psychiatric epidemiology* 46.11 (2011): 1191-1202.

²⁴ Loo, Colleen et al. "Mental health legislation and psychiatric treatments in NSW: electroconvulsive therapy and deep brain stimulation." *Australasian Psychiatry* 18.5 (2010): 417-425.

²⁵ Shidhaye, Rahul, and Michelle Kermode. "Stigma and discrimination as a barrier to mental health service utilization in India." *International health* 5.1 (2013): 6-8.

²⁶ Mayers, Pat et al. "Mental health service users' perceptions and experiences of sedation, seclusion and restraint." *International Journal of Social Psychiatry* 56.1 (2010): 60-73.

²⁷ "Living in Hell | Human Rights Watch." 2016. 14 Jun. 2016 <<https://www.hrw.org/report/2016/03/21/living-hell/abuses-against-people-psychosocial-disabilities-indonesia>>

²⁸ Lauber, Christoph, and Wulf Rössler. "Stigma towards people with mental illness in developing countries in Asia." *International review of psychiatry* 19.2 (2007): 157-178.



2. Key Themes

From a review of the academic literature, we have identified three key themes to inform the search for effective charities.

1. **Severe neglect of mental illness in low-income countries:** MNS disorders are neglected across the world, but especially so in low-income countries.
2. **Cost-effectiveness of task-shifting:** Use of trained lay-people to deliver treatment cost-effectively.
3. **The importance of evidence-generation:** Charities undertaking direct interventions should be generating evidence for use in prioritisation of future activities.

Other things equal, we prefer charities that work in low-income countries, engage in task-shifting, and seek to generate evidence.

2.1. Severe neglect of mental illness in low-income countries

Mental illness is neglected across the world, but especially so in low- and middle-income countries.

One third of low- and middle-income countries do not have a designated budget for mental health, and those countries with a designated budget allocate only 0.5% of health spending to mental health,²⁹ even though it accounts for around 7% of the global disease burden.³⁰ Most low- and middle-income countries spend less than US\$2 per year per person on the treatment and prevention of mental disorders compared with an average of more than \$50 in high income countries.³¹

International aid has done little to fill the funding gap (see Figures 5 and 6). More is spent on takeaway coffee in a single week in the UK than is spent on development assistance for mental

²⁹ V. de Menil, "Missed Opportunities in Global Health: Identifying New Strategies to Improve Mental Health in LMICs" (Centre for Global Development, October 2015), 8, <https://www.cgdev.org/sites/default/files/PP68-demenil-glassman-GMH-LMIC.pdf>.

³⁰ "GBD Compare | IHME Viz Hub - Data Visualizations - Institute for ..." 2014. 16 Jun. 2016 <<http://vizhub.healthdata.org/gbd-compare/>>

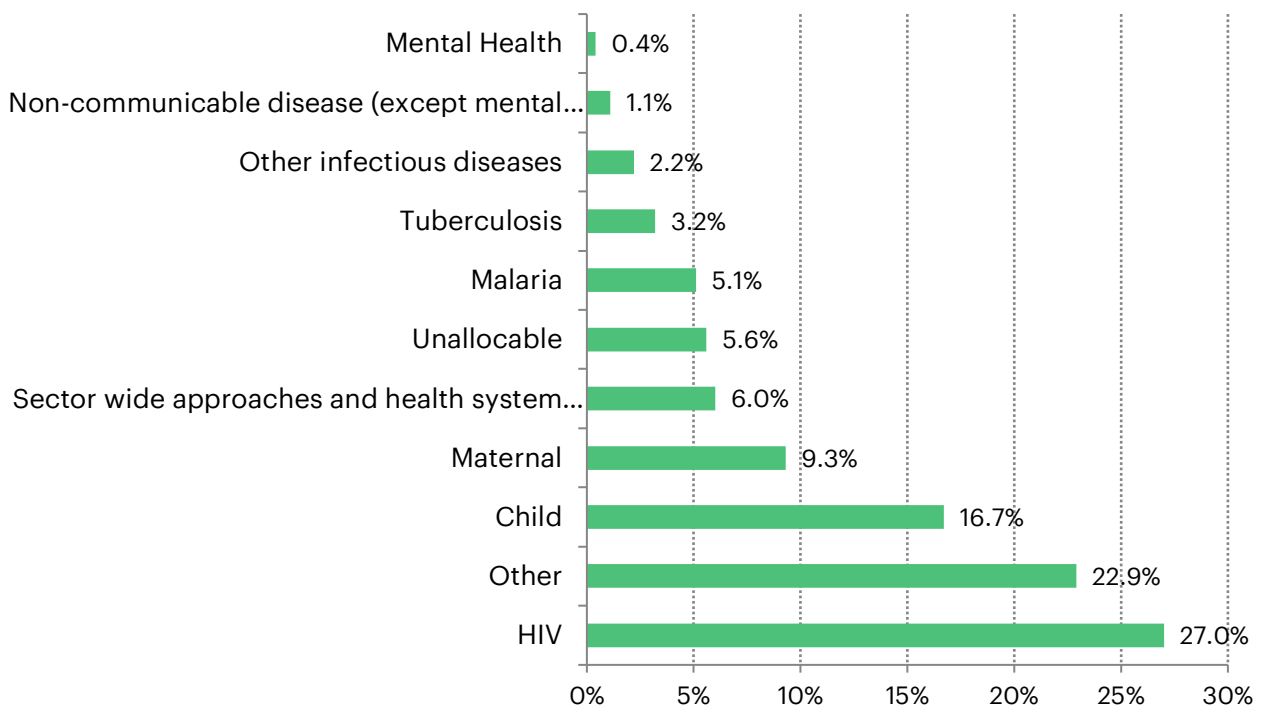
³¹ Chisholm et al., "Scaling-up Treatment of Depression and Anxiety," 415.



health in low- and middle-income countries in a year.³² Only 0.4% of international development assistance for health is devoted to promoting mental health.³³

Figure 5.

Development assistance for health per area as a percentage of total (US\$372.2 billion) from 2000 to 2014³⁴



³² "Mental health funding and the SDGs: what now and who pays?." 2016. 22 Jun. 2016
<<https://www.odi.org/sites/odi.org.uk/files/resource-documents/10573.pdf>>

³³ Daniel Vigo, Graham Thornicroft, and Rifat Atun, "Estimating the True Global Burden of Mental Illness," *The Lancet Psychiatry* 3, no. 2 (February 1, 2016): 171–78, doi:10.1016/S2215-0366(15)00505-2.

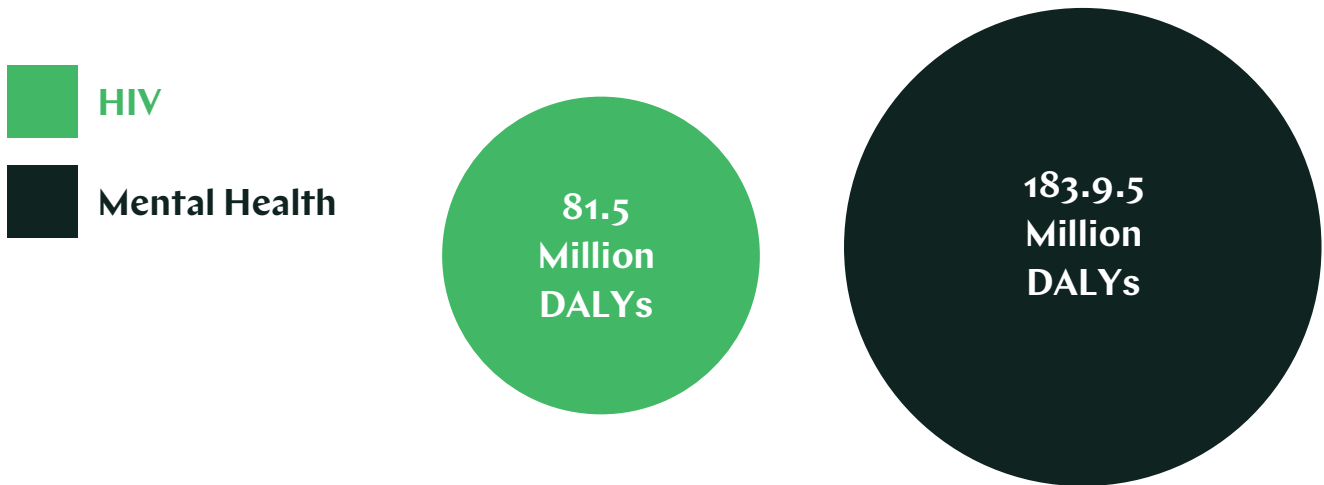
³⁴ *Ibid.*, 176.



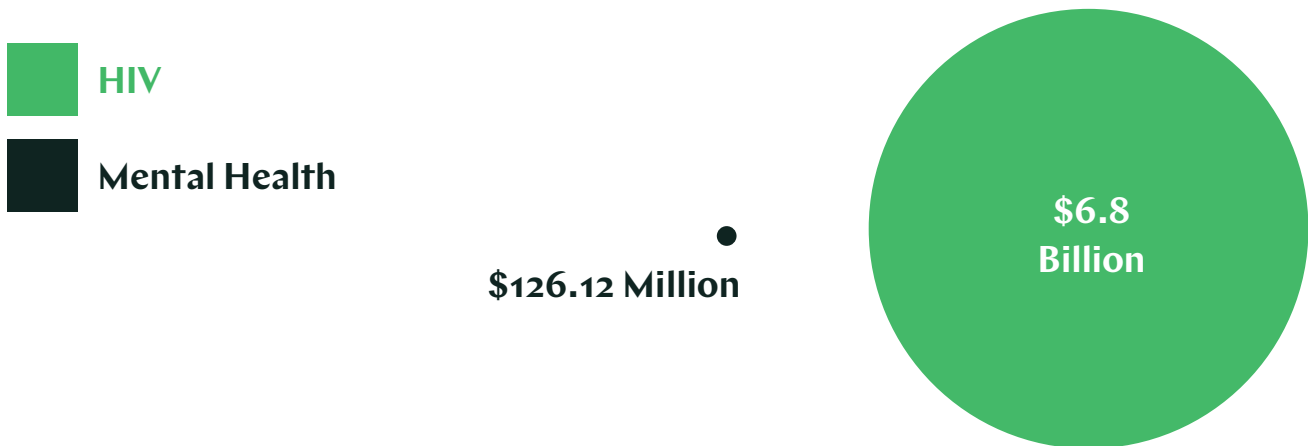
Figure 6.

Global health burden of mental illness vs. development assistance spending in Low-Income Countries in 2010³⁵

Comparative disease burden (2010)



Comparative global development assistance spending (2010)



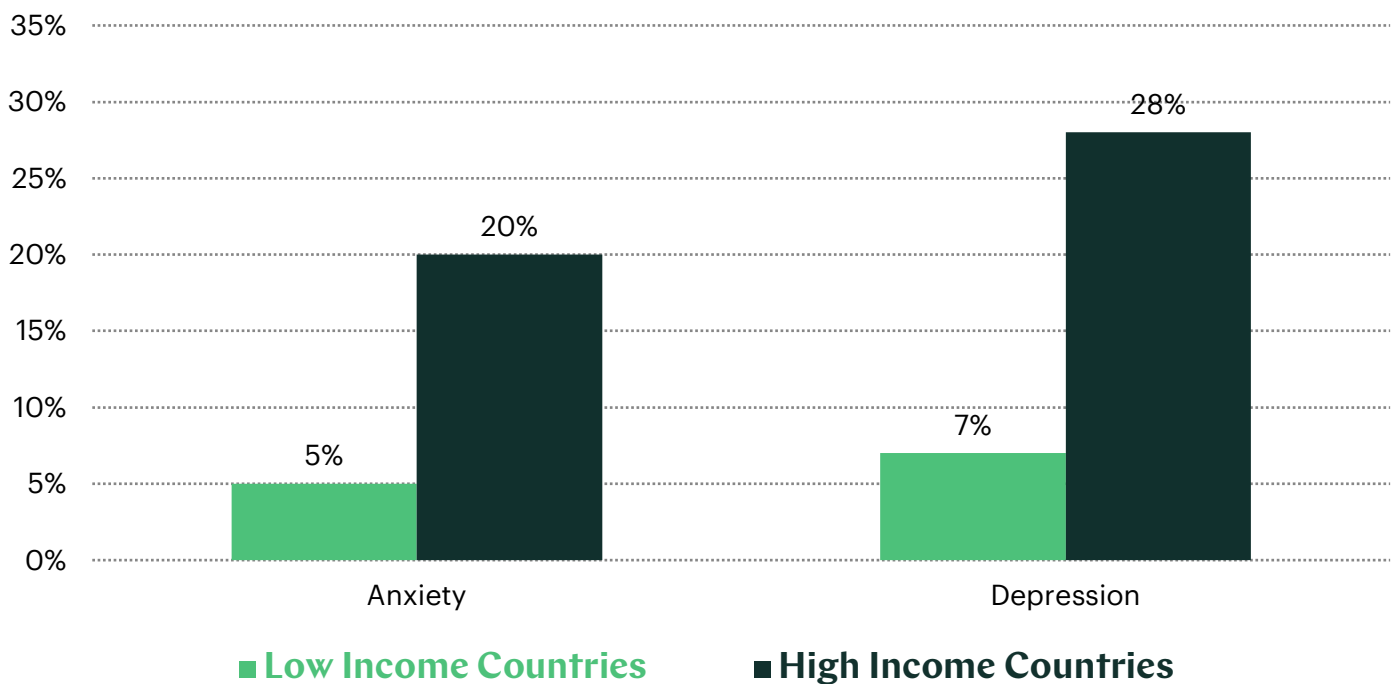
³⁵ Jessica Mackenzie and Christie Kesner, "Mental Health Funding and the SDGs: What Now and Who Pays?" (Overseas Development Institute, May 2016), 17, <https://www.odi.org/sites/odi.org.uk/files/resource-documents/10573.pdf>.



As a result of this funding gap, a large number of people with MNS disorders in low- and middle-income countries are unable to access treatment. The proportion of people with mental disorders who receive treatment is low in both high- and low-income countries but particularly so in low-income countries (see Figure 7).

Figure 7.

Treatment Prevalence for anxiety and depression in Low and High Income Countries (%)³⁶



Because mental health is so relatively neglected in low- and middle-income countries, donations are likely to have much greater impact in those countries. Consequently, we restricted our charity search only to those working in low- and middle-income countries.

³⁶ Chisholm et al., "Scaling-up Treatment of Depression and Anxiety," 418.



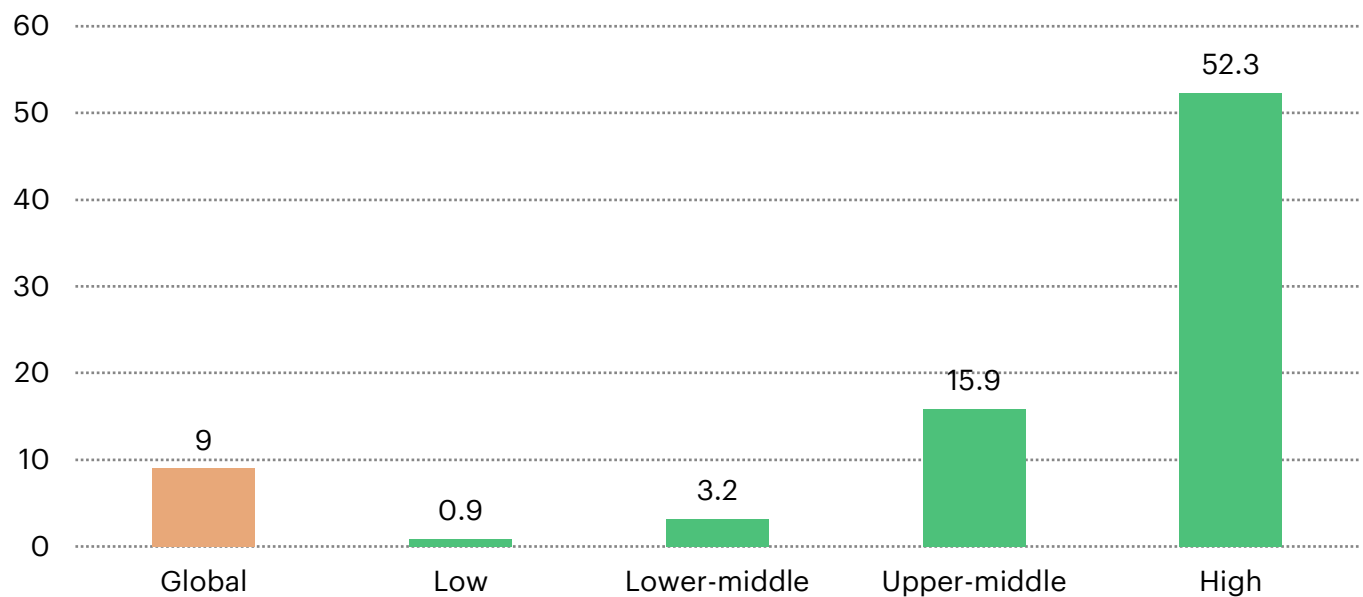
2.2. Cost-effectiveness of task-shifting

There is currently a severe lack of mental health practitioners in most developing countries. On average, the world's poorest countries have less than one mental health worker for every 100,000 people. In contrast, the wealthiest countries averaged 52.3 mental health workers for every 100,000 people (see Figure 8). This lack of skilled personnel means that resource-intensive mental health interventions in developing countries are often not suitable.

Figure 8.

Average number of psychiatrists, occupational therapists and social workers for every 100,000 people, broken down by World Bank Income Groups³⁷

Mental health workers per 100,000 people:



³⁷ "WHO | Mental Health Atlas 2014." 2015. 29 Jun. 2016
<http://www.who.int/mental_health/evidence/atlas/mental_health_atlas_2014/en/>



In this context, development economists and public health practitioners have called for increased use of *task-shifting* in countries without the necessary skilled personnel.^{38,39,40} Task-shifting refers to specialised tasks being undertaken by people with a lower level of training than physicians or psychiatrists. These personnel may have more specialised training, or only undertake certain low-level tasks.

The rationale for the use of task-shifting models is that it reduces the societal costs of undertaking an intervention. Psychiatrists are highly qualified and expensive to train. If some of their tasks can be undertaken by less qualified personnel, this reduces the burden on the health system. An additional effect is that psychiatrists are freed to take on leadership roles, managing programmes and ensuring adequate quality of care.⁴¹

The main risk of task-shifting is that inexperienced practitioners may not provide adequate care. However, psychosocial interventions delivered by lay-people have been shown to be effective in the past, provided there is adequate supervision.⁴² These interventions have also been shown to provide significant cost savings over traditional psychiatric interventions.⁴³ Although the evidence in low- and middle-income settings is somewhat limited, overall it suggests that task-shifting is a valuable approach.

2.3. The importance of evidence-generation

There is relatively little published evidence on the cost-effectiveness of population-based or community-level strategies in or for low-income and middle-income settings.⁴⁴ As discussed below in our review of the charity StrongMinds, there are only a handful of RCTs investigating the intervention implemented by StrongMinds.

³⁸ Joshi, Rohina et al. "Task shifting for non-communicable disease management in low- and middle-income countries—a systematic review." *PloS one* 9.8 (2014): e103754.

³⁹ Fulton, Brent D et al. "Health workforce skill mix and task shifting in low-income countries: a review of recent evidence." *Human resources for health* 9.1 (2011): 1.

⁴⁰ Kakuma, Ritsuko et al. "Human resources for mental health care: current situation and strategies for action." *The Lancet* 378.9803 (2011): 1654-1663.

⁴¹ Patel, Vikram. "The future of psychiatry in low-and middle-income countries." *Psychological medicine* 39.11 (2009): 1759-1762.

⁴² Kaufman, Joan A et al. "Community-based mental health counseling for children orphaned by AIDS in China." *AIDS care* 25.4 (2013): 430-437.

⁴³ Buttorff, Christine et al. "Economic evaluation of a task-shifting intervention for common mental disorders in India." *Bulletin of the World Health Organization* 90.11 (2012): 813-821.

⁴⁴ Patel, Vikram et al. "Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities." *The Lancet* 387.10028 (2016): 1672-1685. p.1681



There is therefore an urgent need to generate further evidence, in order to inform the scaling up of cost-effective strategies for mental health prevention and treatment in developing countries. We therefore favoured charities which have demonstrated a commitment to generating this evidence, through a publicly available impact report, or cost-effectiveness analysis.



3. Charity Recommendation: StrongMinds

Following a search through over one hundred mental health charities, we decided to recommend StrongMinds as the best donation opportunity in the space that we were able to find.⁴⁵ The next best charity we found was BasicNeeds, which we did not recommend because they had very limited room for more funding,⁴⁶ and because we believed StrongMinds to be very roughly three times as cost-effective.

3.1. Summary

What do they do?

StrongMinds implement Interpersonal Group Psychotherapy (IPT-G), training laypeople to treat women suffering from depression in Uganda.

Is there evidence the intervention works?

Evidence for the efficacy of IPT-G in low-resource settings comes from two randomised controlled trials (RCTs) and StrongMinds's own quasi-experimental impact assessment.

Is the intervention cost-effective?

We estimate that StrongMinds prevent the equivalent of one year of severe major depressive disorder for a woman at a cost of \$200–\$299, with a best guess estimate of \$248.

What are the wider benefits?

There are indications of improvements in employment, nutrition, physical health, housing, and children's education.

Is it a strong organisation?

They have a good track record and a strong focus on generating evidence. They are transparent about their mistakes and lessons, and are committed to continuous improvement.

⁴⁵ See [Appendix 1](#) for more on our method.

⁴⁶ Conversation with Basic Needs, August 30th, 2017.



Is there room for funding?

StrongMinds could productively use an extra \$5.1 million in funding through 2020.



3.2. What do they do?

StrongMinds use Interpersonal Group Psychotherapy (IPT-G) to treat women suffering from depression in Uganda. IPT-G is a model of therapy that focuses on the individual's relationships with others. StrongMinds's vision is "for every African woman suffering from depression to have access to mental health treatment, which enables her and her family to lead healthy, productive and satisfying lives."⁴⁷

StrongMinds's programme is implemented by Mental Health Facilitators (MHFs) from the community. MHFs are laypeople with a high-school diploma who have undertaken two weeks of training from a certified IPT-G expert. MHFs are supervised by a professional Mental Health Supervisor. At full capacity, each MHF treats 350–400 patients each year.

Each therapy group has 12 members on average and meets for 90 minutes each week for 12 weeks. Patients with severe depression or suicidal tendencies are referred to a government clinic for further treatment, which may include medication.

To date, the primary target population of the programme has been women older than 15. These women are typically married, have 2–5 children and manage a family income of \$2–5 per day. Starting in 2019, in collaboration with the NGO BRAC-Uganda, StrongMinds will also treat adolescent girls age 12 and over. Around 5% of their patients are men, but they prioritise women due to higher rates of depression⁴⁸ and evidence that they respond better to IPT-G.⁴⁹

As of September 2018, StrongMinds had treated over 30,000 women with depression,⁵⁰ with a target of reaching over 130,000 women by the end of 2020.⁵¹ Total expenditure in 2017 was around \$2 million.⁵²

⁴⁷ "Strongminds History," StrongMinds, accessed December 5, 2018, <https://strongminds.org/strongminds-history/>.

⁴⁸ Kessler, Ronald C. "Epidemiology of women and depression." *Journal of affective disorders* 74.1 (2003): 5-13.

⁴⁹ Bolton, Paul et al. "Interventions for depression symptoms among adolescent survivors of war and displacement in northern Uganda: a randomized controlled trial." *Jama* 298.5 (2007): 519-527.

⁵⁰ StrongMinds, "2017 Quarter 2 Summary," 2017, 1.

⁵¹ StrongMinds, "Strategic Operating Plan 2017-19," 2016. with StrongMinds

⁵² StrongMinds IRS Form 990, 2017



3.3. Is there evidence the intervention works?

Evidence indicates that interpersonal psychotherapy is an effective treatment for depression, with effect sizes comparable to cognitive behavioural therapy.^{53,54} A meta-analysis in 2011 looked at 38 RCTs and concluded that “IPT deserves its place in treatment guidelines as one of the most empirically validated treatments for depression”.⁵⁵ However, the evidence is much stronger in high-resource settings than in low-resource settings. Of the 38 RCTs included in the meta-analysis, only two were conducted in Sub-Saharan Africa. Similarly, a 2017 systematic review found only three RCTs on IPT-G conducted in low- and middle-income countries that met the review’s eligibility criteria.⁵⁶

As the effectiveness of mental-health interventions is likely to depend on the target populations, the indirect evidence we consider for StrongMinds’s intervention largely consists of two RCTs conducted in Uganda. We consider StrongMinds’s own quasi-experimental impact assessment as direct evidence.

Indirect evidence of StrongMinds’s effectiveness

The first study was an RCT in 2003 which examined the impact of a 16-week IPT-G intervention on 284 people in southwest Uganda.⁵⁷ The study found significant reductions in levels of depression in the treatment group ($p < 0.0001$), with mean depression scores on the diagnostic test decreasing by 13.91 in the intervention group compared to the control group, and both groups starting at around 24 (out of a possible 42).⁵⁸

Six months after the intervention ended, 14 of the 15 groups continued to meet without their group leaders. Individuals in these groups remained largely depression-free. Individuals who did not continue to meet partially relapsed, but mean depression scores remained significantly below the

⁵³ Donker, Tara et al. "Internet-delivered interpersonal psychotherapy versus internet-delivered cognitive behavioral therapy for adults with depressive symptoms: randomized controlled noninferiority trial." *Journal of medical Internet research* 15.5 (2013): e82.

⁵⁴ Lemmens, LHJM et al. "Clinical effectiveness of cognitive therapy v. interpersonal psychotherapy for depression: results of a randomized controlled trial." *Psychological medicine* 45.10 (2015): 2095-2110.

⁵⁵ Cuijpers, P. et al., "Interpersonal Psychotherapy for Depression: A Meta-Analysis | American Journal of Psychiatry."

⁵⁶ Daisy R. Singla et al., "Psychological Treatments for the World: Lessons from Low- and Middle-Income Countries," *Annual Review of Clinical Psychology* 13, no. 1 (2017): 149–81, <https://doi.org/10.1146/annurev-clinpsy-032816-045217>.

⁵⁷ Paul Bolton et al., "Group Interpersonal Psychotherapy for Depression in Rural Uganda: A Randomized Controlled Trial," *JAMA* 289, no. 23 (June 18, 2003): 3117–24, <https://doi.org/10.1001/jama.289.23.3117>; Judith Bass et al., "Group Interpersonal Psychotherapy for Depression in Rural Uganda: 6-Month Outcomes: Randomised Controlled Trial," *The British Journal of Psychiatry* 188, no. 6 (June 2006): 567–73, <https://doi.org/10.1192/bjp.188.6.567>.

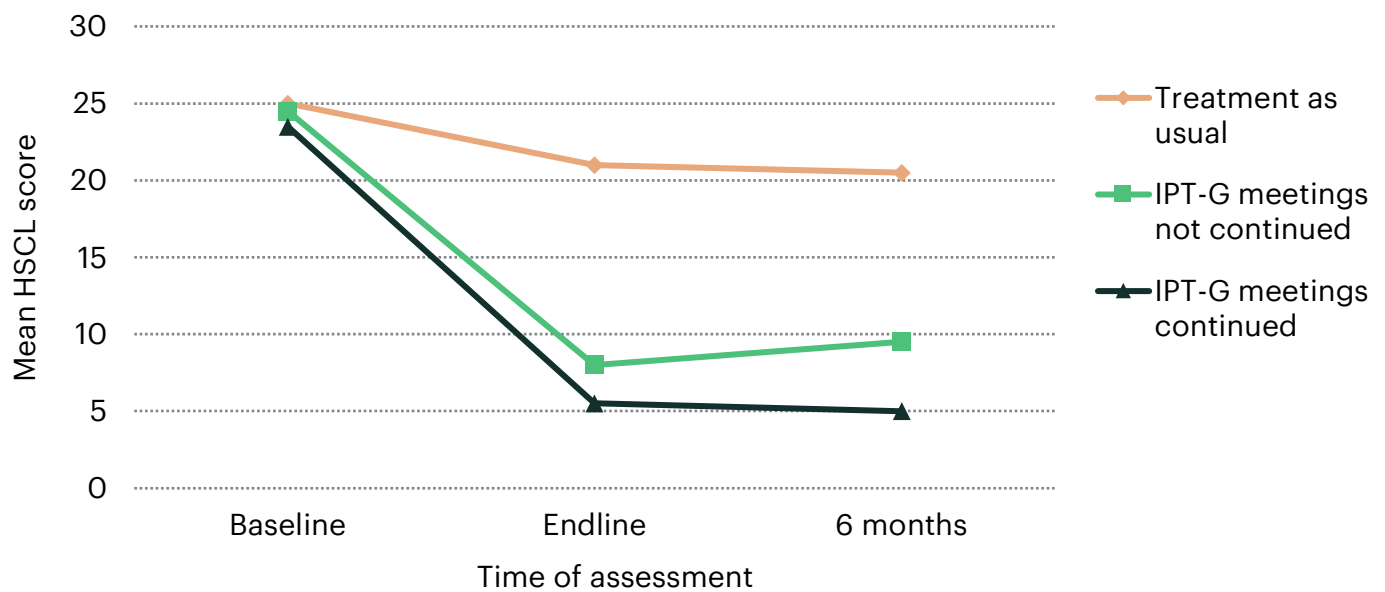
⁵⁸ At baseline 86% of participants in the intervention group met modified diagnostic criteria for major depressive disorder and 94% of those in the control group met these criteria. See Bass et al., "Group Interpersonal Psychotherapy for Depression in Rural Uganda," June 1, 2006, 569.



control group. Figure 7 shows the decline, as measured by the depression section of the Hopkins Symptoms Checklist (a method which correlates well with other standard measures of depression and with clinical judgement of change in depression over time).⁵⁹

Figure 7.

Outcomes for IPT-G 6 months after intervention⁶⁰



Source: Judith Bass et al., “Group Interpersonal Psychotherapy for Depression in Rural Uganda: 6-Month Outcomes: Randomised Controlled Trial,” *The British Journal of Psychiatry* 188, no. 6 (June 1, 2006): 567–73

A second RCT was conducted by the same researchers in 2007. It studied the impact of a 16-week IPT-G intervention carried out by World Vision in northern Uganda.⁶¹ The treated population was a group of 300 adolescents aged 15–17 who were survivors of war and displacement. Treatment outcomes were measured using a locally developed diagnostic tool, different from that used in the first study. IPT-G again resulted in a statistically significant ($p=0.05$) reduction in depressive symptoms: the mean effect in the treatment group, compared to the control group, was a 9.79-point reduction on a 105-point scale in depressive symptoms. Interestingly, the improvements

⁵⁹ Bass et al., 568.

⁶⁰ Bass et al., 570.

⁶¹ Paul Bolton et al., “Interventions for Depression Symptoms Among Adolescent Survivors of War and Displacement in Northern Uganda: A Randomized Controlled Trial,” *JAMA* 298, no. 5 (August 1, 2007): 519–27, <https://doi.org/10.1001/jama.298.5.519>.



were driven by girls, with no significant impact found for boys (although the study was not powered to detect impact at the gender level).

These two studies represent moderate evidence for the efficacy of the StrongMinds intervention. Both studies have relatively high external validity as they were administered in Uganda, where StrongMinds operate, and the treatment effect was most significant in women, the primary population StrongMinds treat. On the other hand, the second RCT targeted only displaced people and survivors of war, a different group than StrongMinds generally target. There are two main areas of uncertainty that apply to both RCTs:

- Neither of the studies reported programme costs, making it impossible to assess cost-effectiveness. We therefore use StrongMinds's own quasi-experimental impact assessment to estimate cost-effectiveness.
- The long-term benefits of intergroup psychotherapy are highly uncertain. While most of the treatment group in the first RCT remained depression-free after six months, it is unclear whether this would persist over a longer period. In our cost-effectiveness analysis we used a study by Reay et al. in Australia⁶² and StrongMinds's own impact evaluation to estimate the long-term effects of StrongMinds's intervention.

Direct evidence of StrongMinds's effectiveness

StrongMinds have conducted multiple impact evaluations on the effectiveness of their programme. Their highest-quality evaluation, a quasi-experimental pilot study including 270 women, formed the basis of our [cost-effectiveness model](#) of StrongMinds. At the end of the 12-week intervention, there was on average a 4.5-point (16%) out of a possible 27 points reduction in PHQ-9 depression survey scores in the treatment group compared to the control group.⁶³

Limitations of the study include:

- The existence of social desirability bias. The outcome variables were initially intended to be based on post-treatment assessment of PHQ-9 scores, which found that 95% of women

⁶² Rebecca E. Reay et al., "Trajectories of Long-Term Outcomes for Postnatally Depressed Mothers Treated with Group Interpersonal Psychotherapy," *Archives of Women's Mental Health* 15, no. 3 (June 1, 2012): 217–28, <https://doi.org/10.1007/s00737-012-0280-4>.

⁶³ StrongMinds, "Impact Evaluation: End of Phase Two Impact Evaluation for the Treating Depression at Scale in Africa Program in Uganda," July 2015, 17.



were depression-free following the treatment. However, the post-assessment outcomes were found to be subject to social desirability bias. Social desirability bias occurs when respondents answer questions in a manner that will be viewed favourably by the questioner. To mitigate this effect, StrongMinds revised their estimate down to 85%.⁶⁴ We have accounted for this in our cost-effectiveness model.

- The composition of the control group. The control group was not randomised: it consisted of patients who declined group therapy as they preferred to receive individual therapy instead, which they did after the study was finished. This way of forming a control group could lead to bias if a preference for individual therapy is correlated with the responsiveness of the patient to treatment. The direction of this potential bias is unclear, however, and the control group had similar baseline characteristics to the treatment group. These two factors reduce our concerns about the composition of the control group, though they don't fully account for them.
- No control data for the longer-term follow-up. StrongMinds carried out follow-up evaluations that show reduced rates of depression after 18 and 24 months.⁶⁵ However, these follow-ups didn't include control groups, so it is unclear what long-term effects the programme had, compared to no intervention.

While the study has several limitations, results align closely with the RCTs discussed above. Together, the indirect and direct evidence constitute reasonably strong evidence that StrongMinds's intervention substantially reduces depression.

3.3. Is the intervention cost-effective?

Our rough [model](#) suggests that the StrongMinds intervention prevents a woman from the equivalent of living with severe major depressive disorder for one year for \$200–\$299, with a best guess estimate of \$248. The model includes explanations for each step of the analysis.

The most widely-used metric for measuring the health benefits of a programme is the disability-adjusted life year (DALY): the more DALYs a disease causes, the greater the disease burden it creates. DALYs account for the premature death (mortality) and years lived with disability (morbidity) that a disease causes. One DALY can be thought of as one lost year of healthy life—a

⁶⁴ StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2," 2017, 2.

⁶⁵ StrongMinds, 2.



more damaging disease receives a higher DALY weight. Our model suggests that StrongMinds averts a DALY for \$304–\$454, with a best guess estimate of \$377.

3.4. What are the wider benefits?

In addition to an impact on rates of depression, StrongMinds’s impact evaluation suggests a positive impact on different aspects of daily life for those who no longer suffer from depression.⁶⁶ These benefits were not included in the cost-effectiveness analysis, as we don’t have enough evidence to reliably estimate the effect size, and we expect most of the impact of the intervention to come from direct relief of depression. Furthermore, as StrongMinds measured for 46 different indicators, we would expect some—though far from all—of the measured effects to be explained by non-programme-related variation.

Statistically significant ($p=0.05$) benefits measured at the end of treatment include:

- Job satisfaction increased by, on average, 1 point on a 5-point scale.
- The percentage of families who had not consumed meals over the last 24 hours fell from 53% to 14%.
- The percentage of families sleeping in protected shelters increased from 65% to 83%.
- Use of medical care in the past month decreased from 58% to 42%.
- The percentage of children missing a day of school in the past week decreased from 43% to 33%.
- The percentage of women reporting the presence of someone in their lives they could rely upon for support with personal problems increased from 64% to 98%.

A follow-up evaluation, 18 months after the end of the programme, suggests some further benefits, while other benefits eroded.⁶⁷ Further benefits included:

- Reported self-employment increased from 17% directly after treatment to 45%.
- Employment continuity increased—yearlong work increased from 35% to 66%.
- The percentage of women reporting poor attention at work fell from 44% to 19%.

⁶⁶ StrongMinds, "Impact Evaluation - End of Phase Two Impact Evaluation for the Treating Depression at Scale in Africa Program in Uganda," 2015, 3.

⁶⁷ StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2," 3–4.



Self-reported nutrition, children’s schooling, and shelter indicators had eroded 18 months after treatment, effectively declining to their pre-treatment levels. StrongMinds believe that the erosion of these benefits may be due to wider macroeconomic forces in Uganda, and potential data-collection issues.

3.5. Is it a strong organisation?

StrongMinds appears to be a transparent and self-improving organisation which is contributing to the global evidence base for cost-effective treatment for mental health.

First, they have a strong commitment to monitoring and evaluation. StrongMinds have published the impact assessments of their pilot study online. They also sought funding to carry out an RCT of their intervention, which proved to be difficult to find. As an interim measure, they are currently working on establishing a formal control group in Uganda consisting of several hundred women with depression, which they plan to use to evaluate the longer-term impact of their programme.⁶⁸

Second, StrongMinds has good norms of transparency. They publish quarterly updates on their performance and finances and share yearly financial statements on their website. Furthermore, they shared all required information for us to do this evaluation.

They have also shown a commitment to continuous improvement and learning from mistakes. For instance, when finding out about a potential social-desirability effect affecting the results of their impact evaluations, they revised these results downward substantially, and have since used only external data collectors. Furthermore, after receiving feedback they announced that they will start including average PHQ-9 score reductions in the main metrics section of their quarterly reports, in addition to the (less informative) ‘depression-free’ statistics they were reporting on so far.⁶⁹

3.6. What is their strategy?

StrongMinds’s ultimate goal is to treat two million African women suffering from depression by 2025. Having treated more than 30,000 women up until mid-2018, they plan to scale up and treat 130,000 women in Uganda and either Tanzania, Malawi or Zambia (into which they will expand in 2019) by 2020. They plan to accomplish this through two scalable pathways, which they are pursuing in parallel.⁷⁰

⁶⁸ Private correspondence with StrongMinds, 22 August 2018.

⁶⁹ StrongMinds, “2018 Quarter 2 Report,” 5.

⁷⁰ StrongMinds, “Strategic Operating Plan 2017-19,” 4.



The first pathway involves partnering with large international NGOs such as BRAC Uganda in order to implement the StrongMinds model. The second pathway involves ‘virally expanding’ through what StrongMinds calls the Peer Therapy Group model: they train graduates of the therapy groups to become volunteer facilitators themselves. The overall cost per patient in Peer Therapy Groups is very low because the group leaders volunteer. On the other hand, there is a risk of decreased effectiveness, as the volunteers receive a less-intensive training on IPT than the Mental Health Facilitators that lead the regular StrongMinds groups.⁷¹ Overall, we expect this trade-off to balance out positively in terms of cost-effectiveness, given the large cost reductions. However, as StrongMinds expand further we will monitor their outcome measurements for both types of groups to see if any significant differences emerge.

StrongMinds are actively seeking to expand the evidence base for their intervention by establishing a formal control group, and they intend to carry out an independent randomised controlled trial if they can secure funding.

3.7. Is there room for funding?

StrongMinds estimate that they could productively spend an additional \$5.1 million in funding over the course of 2018–2020. Much of StrongMinds’s current funding is limited to 2018, which makes it more difficult to plan ahead.⁷² As of August 2018, their remaining funding gaps for each of the coming three years are:

- 2018: \$500,000
- 2019: \$2,000,000
- 2020: \$2,600,000

As we mentioned in the previous section, StrongMinds also explored the possibility of carrying out an independent RCT of their project. This would be conducted in collaboration with global research organisation J-PAL. However, they could not secure the estimated \$1 million in funding necessary and were forced to put the plan on hold. This potential study is not included in the projected funding needs cited above.⁷³

⁷¹ Private correspondence with StrongMinds, 26 September 2018.

⁷² Private correspondence with StrongMinds, 22 August 2018.

⁷³ Private correspondence with StrongMinds, 22 August 2018.



3.8. What are the main uncertainties?

The two most important sources of uncertainty in our analysis of StrongMinds are:

- Self-reported mental-health diagnoses are subject to social-desirability bias. We believe StrongMinds has taken reasonable steps to mitigate this bias, and we have accounted for it in our cost-effectiveness model. Nevertheless, there remains a possibility that the intervention is less cost-effective than we expect given our current information.
- The long-term efficacy of IPT-G is highly uncertain and plays an important role in our cost-effectiveness analysis. We have based our estimation in part on a high-income-country study which may have limited external validity for this intervention.



Appendix 1. Our Process

Our process began with a review of the academic literature related to the cost-effectiveness of different mental health interventions. This was supplemented by interviews with experts in mental health and public health. On the basis of this review, three key themes were identified, which informed selection of charities for in-depth evaluation. These themes were:

1. Severe neglect of mental illness in the developing world
2. Cost-effectiveness of task-shifting
3. The importance of evidence-generation

We generated a long-list of charities and programs working on mental health in developing countries from mhinnovation.net. This was supplemented by recommendations from experts and our previous experience of effective charities. The long list comprised 126 charities and programs.

We visited the websites of long-listed charities to identify candidates for in-depth analysis. A short list was generated based on:

1. Fit with the three key themes above
2. Availability of a high quality impact assessment available on their website
3. 501(c) status
4. Whether programs were already fully funded by institutional funders
5. Our previous experience with the charities

A shortlist of two charities was selected for in-depth evaluation. They were:

1. StrongMinds
2. BasicNeeds

We contacted each of these charities to request additional information, including impact assessments, financial data, and interviews with senior management. We had previous experience with BasicNeeds but not StrongMinds. Where possible, we leveraged previous research.

We conducted an in-depth review of the academic evidence-base of the efficacy and cost-effectiveness of each charity and the type of intervention they undertake. Findings have been synthesised and presented above.



Appendix 2. Updates to our 2017 evaluation of StrongMinds

Our evaluation of StrongMinds is an update of the evaluation of their programme for the previous version of our Mental Health report in November 2017. We updated this evaluation as we considered StrongMinds for our report on Women’s Empowerment, which was published in December 2018⁷⁴. The most important changes are:

- We updated our [cost-effectiveness model](#), using StrongMinds’s most recent costing data.
- We updated the information on StrongMinds’s room for funding for the coming three years.
- We incorporated StrongMinds’s most recent plans, such as their expansion to a new country; their plans to establish a formal control group for their programme; and their plan to start reporting on mean PHQ-9 reductions as a main metric.

Overall, these changes did not significantly change our view of StrongMinds. Our slightly lower cost-effectiveness estimate still implies they are a highly cost-effective organisation; the results of their programme have been consistent with our expectations; they’ve shown commitment to improving their programme and the evidence supporting it; and they still have much room for funding and the ability to scale up.

⁷⁴ “Research,” Founders Pledge, accessed February 20, 2019, <https://founderspledge.com/research>.