



FOUNDERS PLEDGE

Cause area report:
MENTAL HEALTH

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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

Mental illnesses such as depression, anxiety, and dementia are a daily reality 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. MNS disorders have a greater impact on years lived with disability than any other category of disease: a 2012 report estimated that the annual global cost of mental health conditions was \$2.5 trillion in 2010.

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 victims. The result is that people with MNS disorders are often isolated from their community, which can lead to a further deterioration of their condition. At the institutional level, sedation and restraint remain common practice in many countries.

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. International aid has done little to fill the funding gap: more is spent on takeaway coffee in a single week in the UK than is spent on development assistance for mental health in low and middle income countries in a year. 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 for low resource settings. 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.
3. *The importance of evidence generation*
There is somewhat 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 prefer charities which work in low income countries, engage in task-shifting, and seek to generate evidence.

Key Recommendation

Following a search through over one hundred mental health charities (see Appendix 1 – our process), we believe [StrongMinds](#) to be the best donation opportunity in the space.

StrongMinds mainly targets depressed women in Africa, using interpersonal group psychotherapy. As of September 2017, 20,588 people have been treated by StrongMinds, and they aim to treat over 100,000 women from 2017-19. They use a task-shifting model, training laypeople to lead a 12 week course, usually for groups of around 12 people.

A number of published randomised control trials as well as StrongMinds' internal impact assessment suggest that interpersonal psychotherapy is highly impactful. A StrongMinds' quasi-randomised controlled trial showed that the StrongMinds intervention reduced depressive symptoms by an average of 16% in the treatment group compared to the control.² The long-term effects of the programme are unclear, but academic studies and StrongMinds' own data weakly suggest that 50% of the treatment effect persists 30 months post treatment.

One can measure the health benefits of a charity using the Disability Adjusted Life Year (DALY metric): 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. A more damaging disease receives a higher DALY weight. One DALY can be thought of as one lost year of healthy life. According to our rough [model](#), we believe that StrongMinds averts a DALY for \$154 - \$508, with a median estimate of \$218 per DALY averted. This median estimate is comparable to some of the most cost-effective interventions available in global health. However, it should be noted that this estimate is uncertain, and that the StrongMinds intervention is much less well studied than other interventions in global health.

² Note that this sentence is different to that in the previous version of this report, which stated StrongMinds' impact in terms of "% depression free in the treatment group". We believe the former formulation gave the impression that StrongMinds's impact is much greater than it actually is. We are thankful to Thomas Blank for pointing this out. This change is presentational and does not affect our cost-effectiveness estimate.



REPORT STRUCTURE

1. OVERVIEW OF MENTAL HEALTH DISORDERS

We give an overview of the consequences of MNS disorders. We conclude that MNS disorders impose a large burden of disease and that depression constitutes a large proportion of this burden. As well as the direct health effects, MNS disorders are strongly associated with stigma, marginalisation, high healthcare costs and low levels of economic productivity.

2. KEY THEMES

We outline three key themes which emerged from our review of the academic literature. These were used to inform our search for effective charities. These themes are:

1. Severe neglect of mental illness in the developing world: MNS disorders are neglected across the world, but especially so in the developing world.
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.

3. CHARITY EVALUATION: STRONGMINDS

We assess StrongMinds, a charity working in Africa, which we believe to be the most cost-effective charity working on mental health.

APPENDIX 1 - OUR PROCESS

We discuss our process and review different methods for eliciting mental health diagnoses.

APPENDIX 2 - REVIEW OF DIFFERENT WAYS OF ELICITING DIAGNOSES

We review different ways of eliciting mental health diagnoses



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.³ MNS disorders frequently co-occur in the same individual and are strongly associated with stigma and discrimination.⁴ 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.⁵

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).⁶ 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.⁷

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.

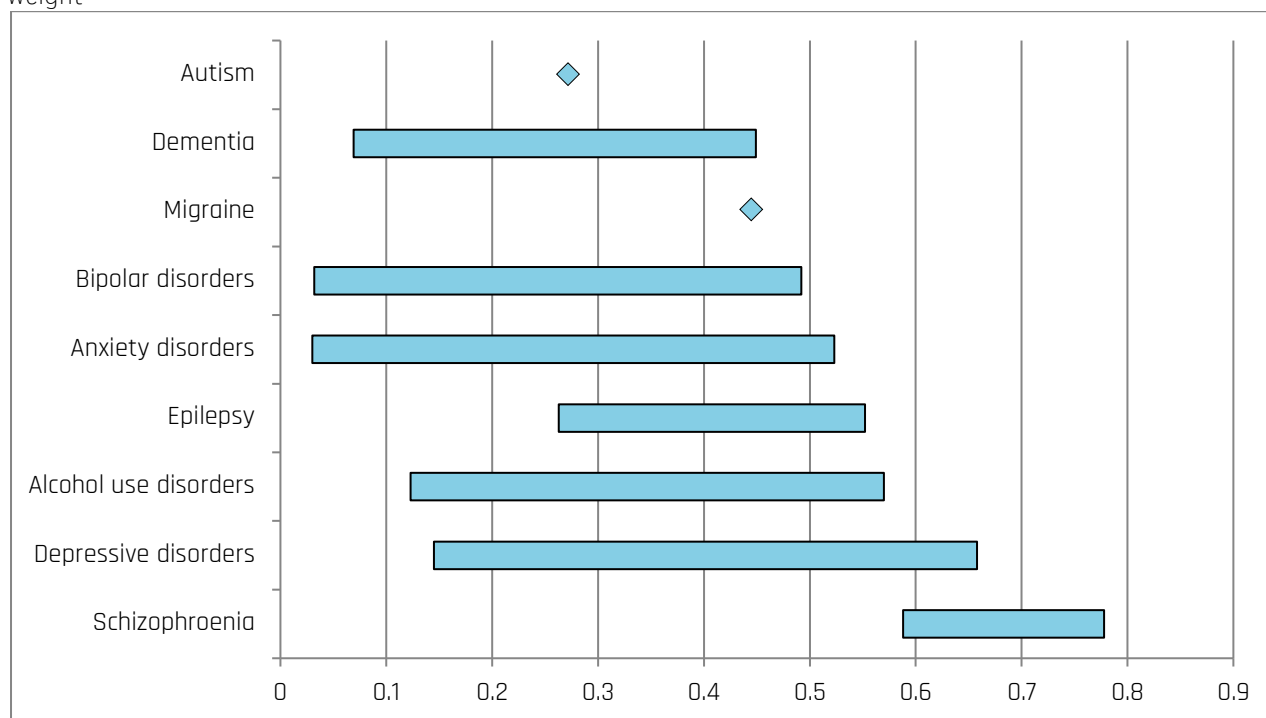
How severe are MNS disorders?

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 0.66.⁸

Figure 1. DALY weightings for different MNS disorders; more severe cases receive a higher DALY weight⁹



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.¹⁰ 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 actually 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.¹¹

⁸ 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.

⁹ Ibid.

¹⁰ Ibid.

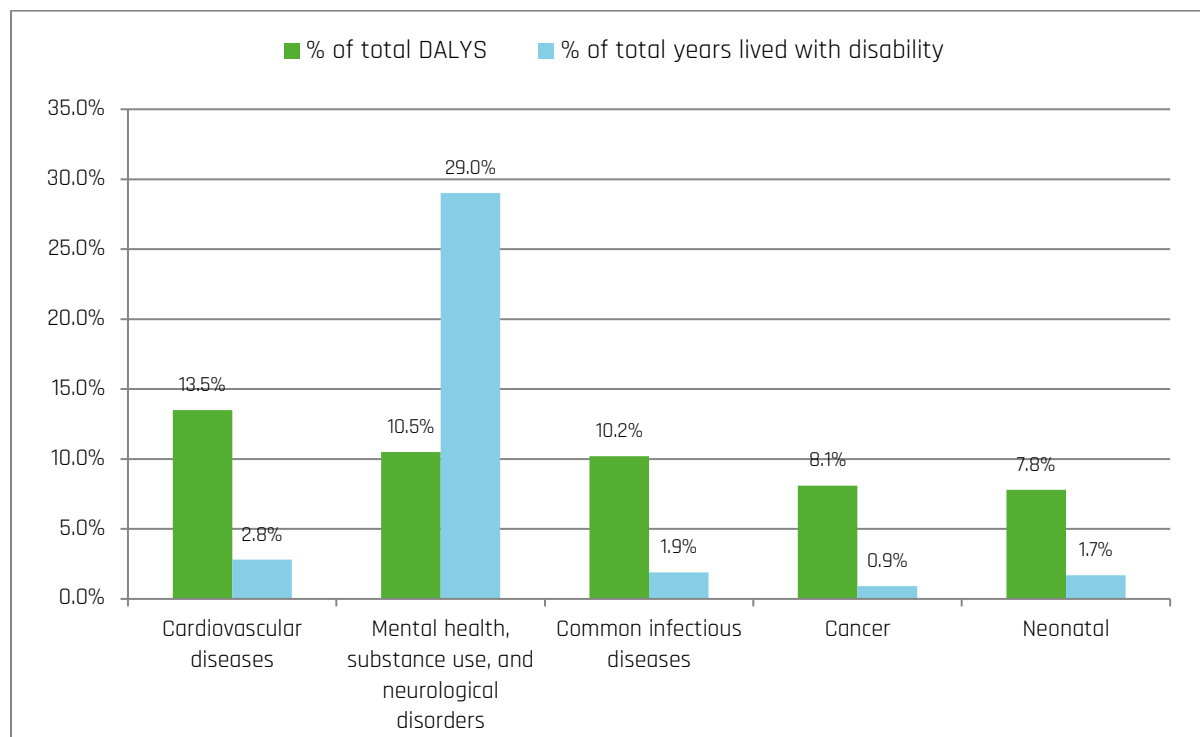
¹¹ Fujiwara, Daniel, and Paul Dolan. "Valuing mental health." *Policy* 4 (2014): 2.1.



The Global 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 2013¹²

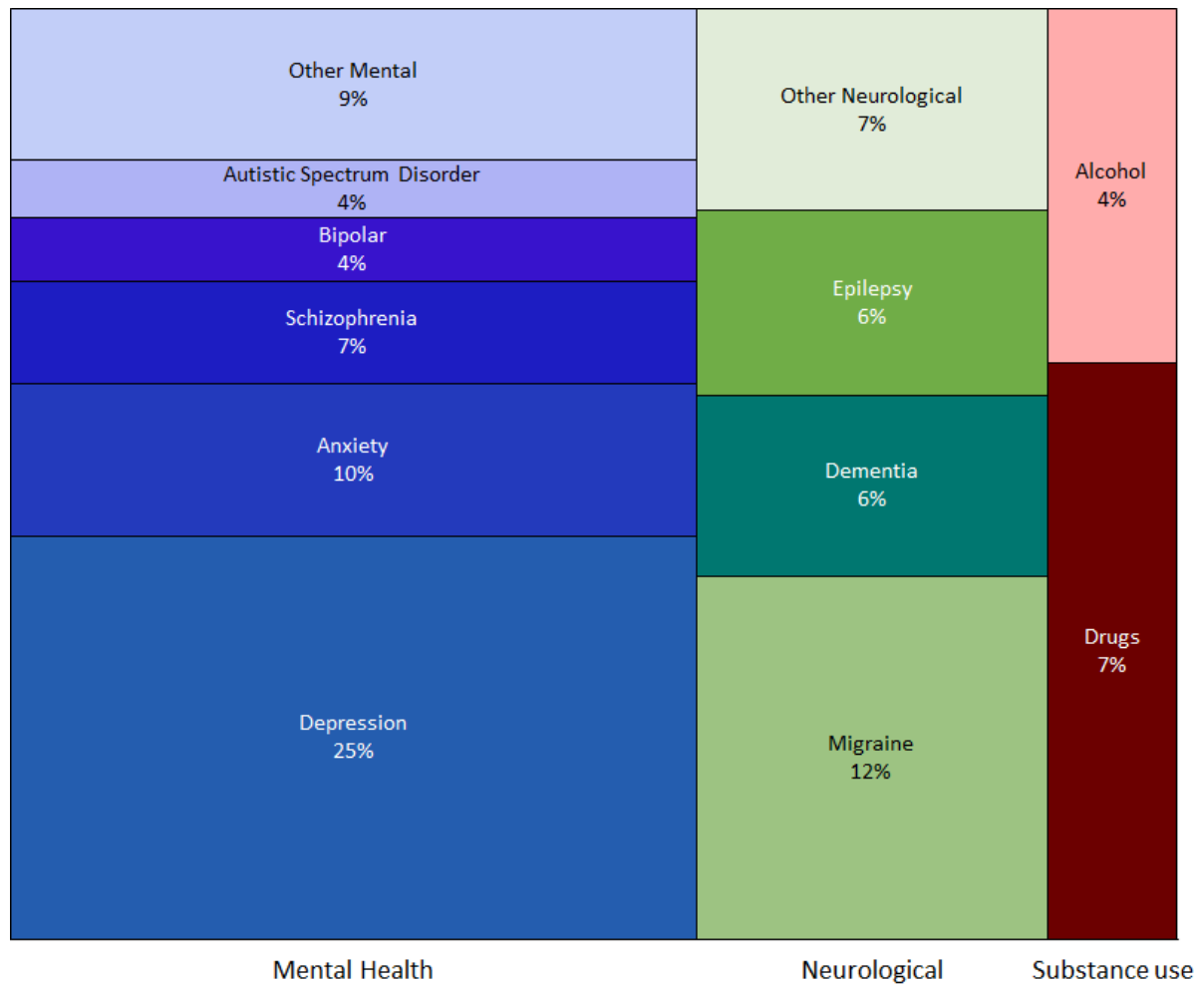


¹² "Global Burden of Disease (GBD) | Institute for Health Metrics and ..." 2014. 2 Jul. 2016
<http://www.healthdata.org/gbd>



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.

Figure 3. Contributions to MNS disorder disease burden (DALYs, 2013)¹³



¹³ "Institute for Health Metrics and Evaluation." 2002. 4 Jul. 2016 <<http://www.healthdata.org/>>

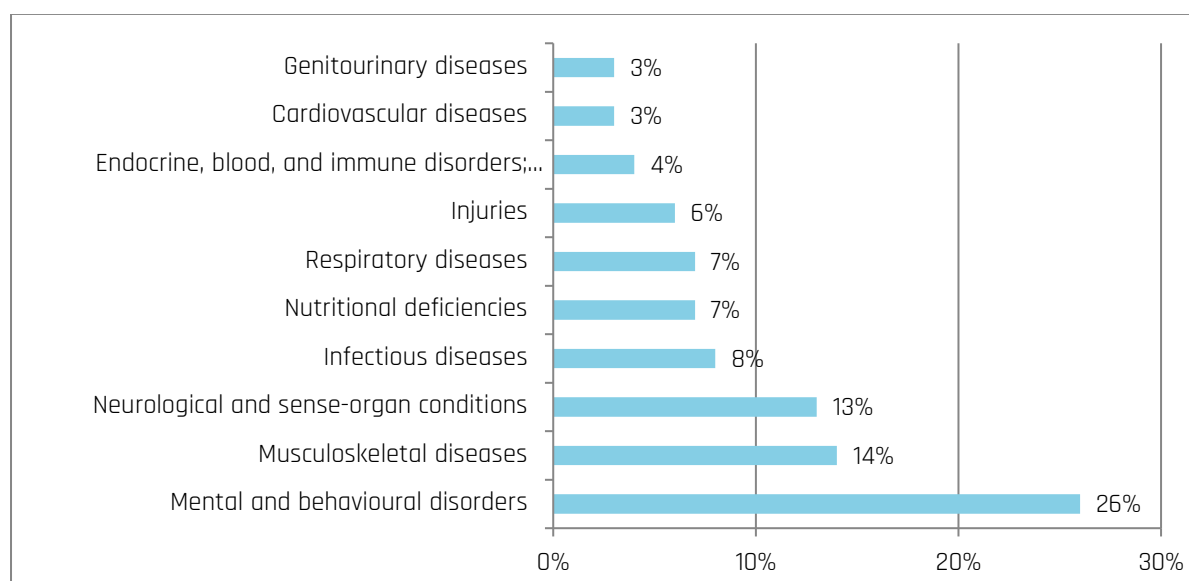


The Economic Burden of Mental Illness

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 2030.¹⁴ Reducing the disease burden of mental health is therefore both an economic and humanitarian imperative.

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.¹⁵ 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,¹⁶ and completely mitigated by prevention.

Figure 4. Top Ten Sources of Time Lost to Disability Globally from all Medical Causes, by percentage¹⁷



¹⁴ Bloom, David E et al. "The global economic burden of noncommunicable diseases." *PGDA Working Papers* Jan. 2012.

¹⁵ 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.

¹⁶ Dewa, Carolyn S. "The association of treatment of depressive episodes and work productivity." *Canadian Journal of Psychiatry* 56.12 (2011): 743.

¹⁷ "Darkness Invisible - Foreign Affairs." 2015. 4 Jul. 2016

<<https://www.foreignaffairs.com/articles/africa/darkness-invisible>>



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 work are also more likely to develop mental health problems.¹⁸⁻¹⁹ In particular, those living in conditions of extreme poverty are at increased risk of developing stress-related mental health problems.^{20-21,22} 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.²³ The result is that people with MNS disorders are often isolated from their community, which can lead to a further deterioration of their condition.²⁴ Mental illnesses are sometimes viewed as less credible, due to the lack of physical symptoms, which can result in further stigmatisation.²⁵ People with MNS disorders may also be reluctant to seek treatment, impeding their recovery.²⁶

At the institutional level, sedation and restraint remain common practice in many countries.²⁷ 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.²⁸ Scepticism towards mental illnesses may also impact the level of funding apportioned to them by national health systems.²⁹

¹⁸ Dohrenwend, Bruce P et al. "Disorders: The Causation-Selection Issue." (1992).

¹⁹ 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).

²⁰ 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.

²¹ Patel, Vikram, and Arthur Kleinman. "Poverty and common mental disorders in developing countries." *Bulletin of the World Health Organization* 81.8 (2003): 609-615.

²² 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).

²³ Mfoafo-M'Carthy, Magnus, and Stephanie Huls. "Human Rights Violations and Mental Illness." *SAGE Open* 4.1 (2014): 2158244014526209.

²⁴ 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.

²⁵ 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.



²⁶ 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.

²⁷ 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.

²⁸ "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>>

²⁹ 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 which 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,³⁰ even though it accounts for around 7% of the global disease burden.³¹ 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.³²

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 health in low and middle income countries in a year.³³ Only 0.4% of international development assistance for health is devoted to promoting mental health.³⁴

³⁰ 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>.

³¹ "GBD Compare | IHME Viz Hub - Data Visualizations - Institute for ..." 2014. 16 Jun. 2016 <<http://vizhub.healthdata.org/gbd-compare/>>

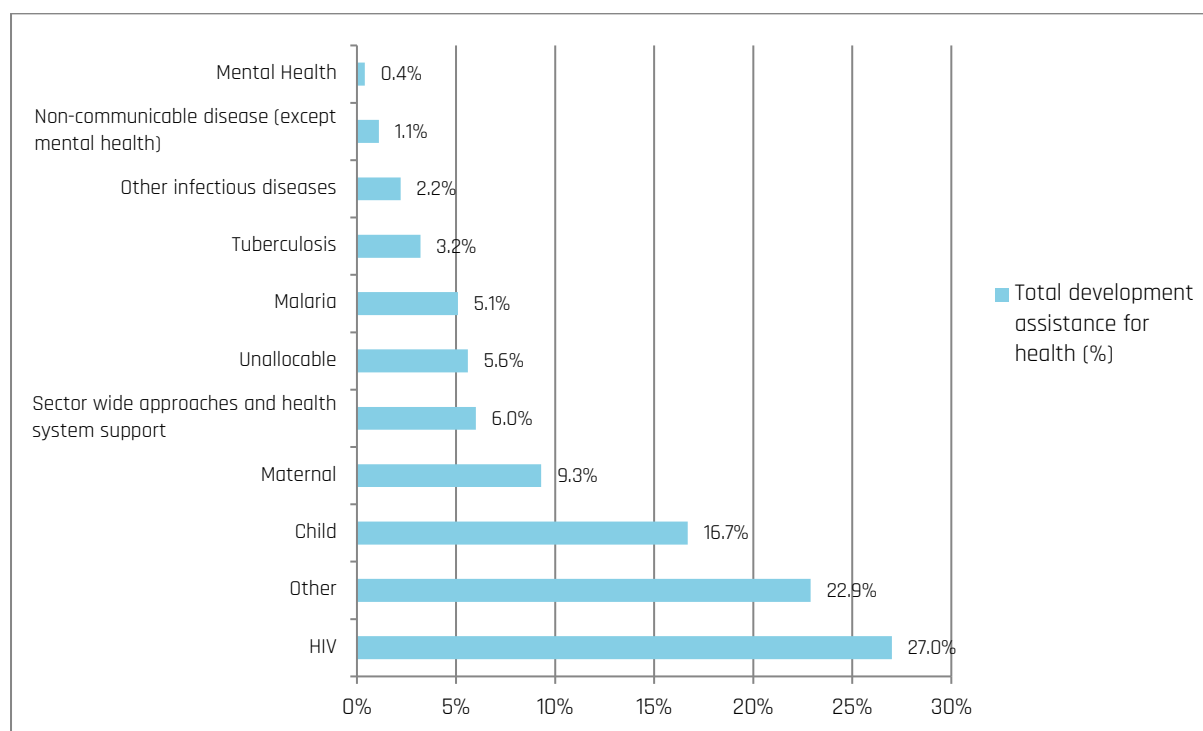
³² Chisholm et al., "Scaling-up Treatment of Depression and Anxiety," 415.

³³ "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>>

³⁴ 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.



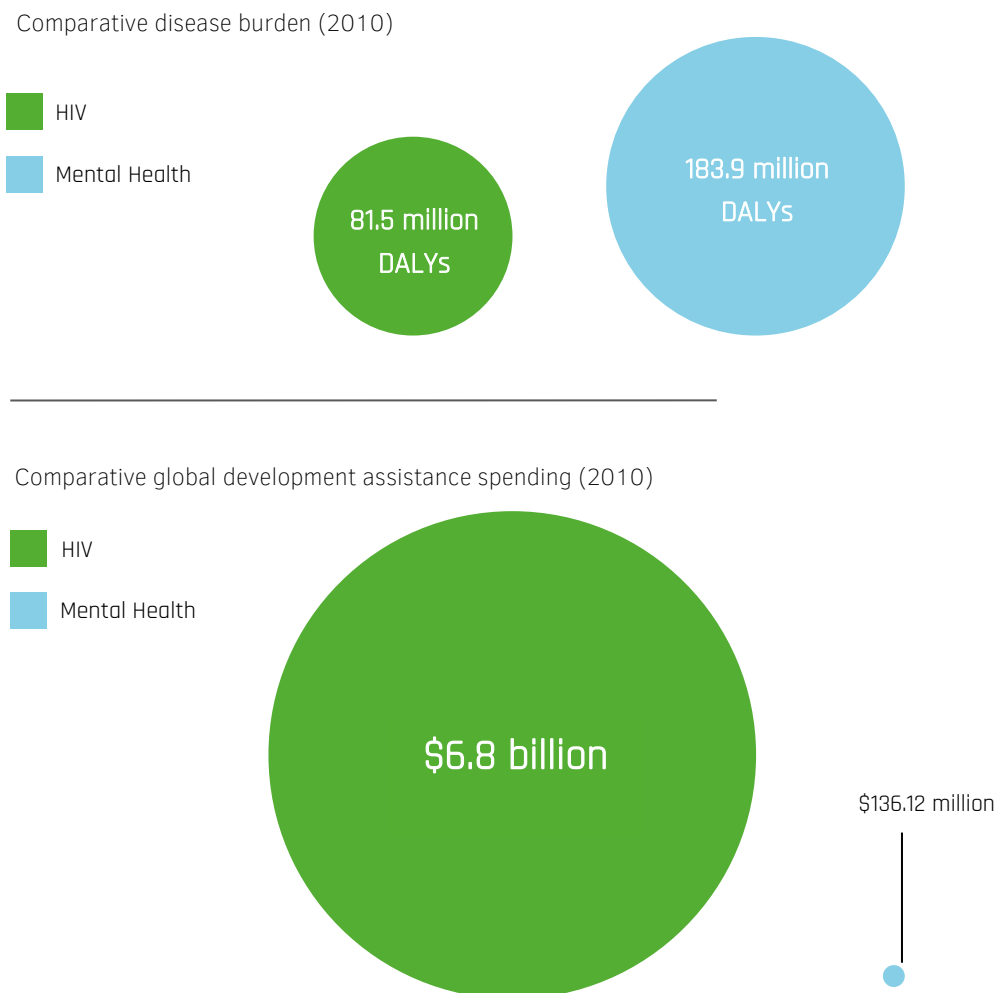
Figure 5. Development assistance for health per area as a percentage of total (US\$372.2 billion) from 2000 to 2014³⁵



³⁵ Ibid., 176.



Figure 6. Global health burden of mental illness vs. development assistance spending in Low Income Countries in 2010³⁶

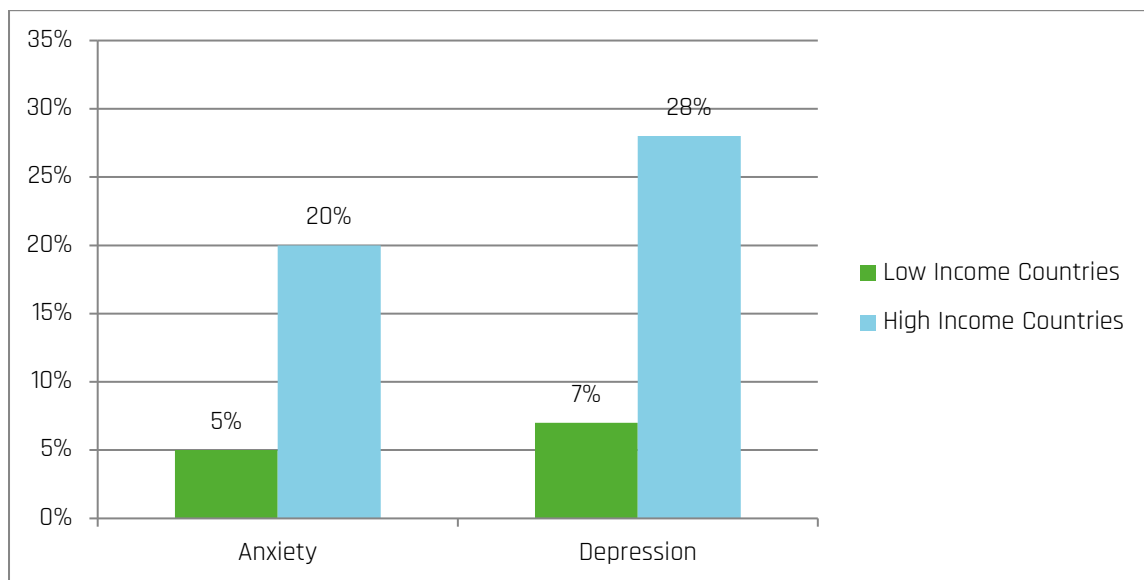


As a result of this funding gap, a large number of people with MNS disorders in low and middle income countries are unable to access treatment. The proportion of people with mental disorders who receive treatment is low in both high and low income countries but particularly so in low income countries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

³⁶ 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>.



Figure 7. Treatment Prevalence for anxiety and depression in Low and High Income Countries (%)³⁷



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.

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 for low resource settings.

³⁷ Chisholm et al., "Scaling-up Treatment of Depression and Anxiety," 418.



Figure 8. Average number of psychiatrists, occupational therapists and social workers for every 100,000 people, broken down by World Bank Income Groups³⁸



In this context, development economists and public health practitioners have called for increased use of *task-shifting* in countries without the necessary skilled personnel.^{39,40,41} 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.⁴²

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

³⁸ "WHO | Mental Health Atlas 2014." 2015. 29 Jun. 2016

<http://www.who.int/mental_health/evidence/atlas/mental_health_atlas_2014/en/>

³⁹ 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.

⁴⁰ 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.

⁴¹ Kakuma, Ritsuko et al. "Human resources for mental health care: current situation and strategies for action." *The Lancet* 378.9803 (2011): 1654-1663.

⁴² Patel, Vikram. "The future of psychiatry in low-and middle-income countries." *Psychological medicine* 39.11 (2009): 1759-1762.



effective in the past, provided there is adequate supervision.⁴³ These interventions have also been shown to provide significant cost savings over traditional psychiatric interventions.⁴⁴ 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.⁴⁵ As discussed below in our review of the charity StrongMinds, there are only a handful of RCTs investigating the intervention implemented by StrongMinds.

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 favour charities which have demonstrated a commitment to generating this evidence, through a publicly available impact report, or cost-effectiveness analysis.

⁴³ Kaufman, Joan A et al. "Community-based mental health counseling for children orphaned by AIDS in China." *AIDS care* 25.4 (2013): 430-437.

⁴⁴ 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.

⁴⁵ 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



3. CHARITY EVALUATION: STRONGMINDS

Following a search through over one hundred mental health charities, we believe StrongMinds to be the best donation opportunity in the space (see Appendix 1 for more on our method). The next best charity we found was BasicNeeds, which we do not recommend at this time because it has very limited room for more funding,⁴⁶ and because we believe StrongMinds to be very roughly three times as cost-effective.



Summary

What do they do? Interpersonal Group Psychotherapy (IPT-G) utilising laypeople to treat depressed women in Uganda.

Is there evidence the intervention works? There is some evidence for the efficacy of IPT-G in low-resource settings. This evidence comes from two randomised control trials (RCTs) and StrongMinds' own impact assessment.

Is the intervention cost-effective? We estimate direct health benefits at \$154 - \$508, with a median estimate of \$218 per DALY averted.

What are the wider benefits? Substantial improvements in employment, nutrition, housing, and education.

Is it a strong organisation? Strong focus on evidence generation and led by an experienced global health practitioner.

Room for more funding: Due to the large treatment gap for depression in Uganda and Africa more generally, we believe that StrongMinds can productively use more funds.

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



What do they do?

Strong Minds uses Interpersonal Group Psychotherapy (IPT-G) to treat depressed women in Uganda. IPT-G is a model of therapy which focuses on the depressed individual's relationships with others. The intervention is entirely therapy-based due to the difficulties of accessing effective drugs in Uganda,⁴⁷ and the relative effectiveness of psychotherapy.⁴⁸

Mental Health Facilitators (MHFs) from the community implement the program. MHFs are laypeople with a high-school diploma who are given two weeks training from a certified IPT-G expert. MHFs are supervised by a professional Mental Health Supervisor. At full capacity, each MHF will treat 350-400 patients each year.

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

The primary target population until recently has been women over the ages of 15. These women are typically married, have 2-5 children and manage a family income of \$2-5 per day. Starting in 2017, in collaboration with the NGO BRAC-Uganda, StrongMinds has also started treating adolescent girls aged over 12. They also plan for around 5% of patients to be men in the coming year, but women have been prioritised due to their higher rates of depression⁴⁹ and evidence that they respond better to ITP-G.⁵⁰

As of September 2017, StrongMinds had reached over 20,500 women with depression,⁵¹ with a target of treating over 100,000 women from 2017-19.⁵² Expenditure in 2016 was around \$1.2m.⁵³

Is there evidence the intervention works?

Interpersonal psychotherapy appears to be an effective treatment for depression. The effect sizes are comparable to cognitive behavioural therapy (CBT).^{54,55} 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".⁵⁶ However, the evidence-base 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 eligibility criteria.⁵⁷

As the effectiveness of mental health interventions is likely to be sensitive to the target populations, the evidence for StrongMinds' intervention largely relies on two RCTs in Uganda. We have also considered StrongMinds' own impact assessment.



The first study was an RCT in 2003 which examined the impact of a 16 week IPT-G intervention on 284 people in South-west Uganda.⁵⁸ The study found significant reductions in levels of depression in the treatment group, with mean depression scores on the diagnostic test decreasing by 13.91 in the intervention group compared to the control group, with both groups starting on around 24 (out of a possible 42).⁵⁹

⁴⁷ Kigozi, Fred et al. "An overview of Uganda's mental health care system: results from an assessment using the world health organization's assessment instrument for mental health systems (WHO-AIMS)." *International journal of mental health systems* 4.1 (2010): 1.

⁴⁸ 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.

⁴⁹ Kessler, Ronald C. "Epidemiology of women and depression." *Journal of affective disorders* 74.1 (2003): 5-13.

⁵⁰ 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.

⁵¹ StrongMinds, "2017 Quarter 2 Summary," 2017, 1.

⁵² StrongMinds, "Strategic Operating Plan 2017-19," 2016.

⁵³ From private communication

⁵⁴ 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.

⁵⁵ 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.

⁵⁶ Cuijpers, Pim et al. "Interpersonal psychotherapy for depression: a meta-analysis." *American Journal of Psychiatry* (2011).

⁵⁷ 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, doi:10.1146/annurev-clinpsy-032816-045217.

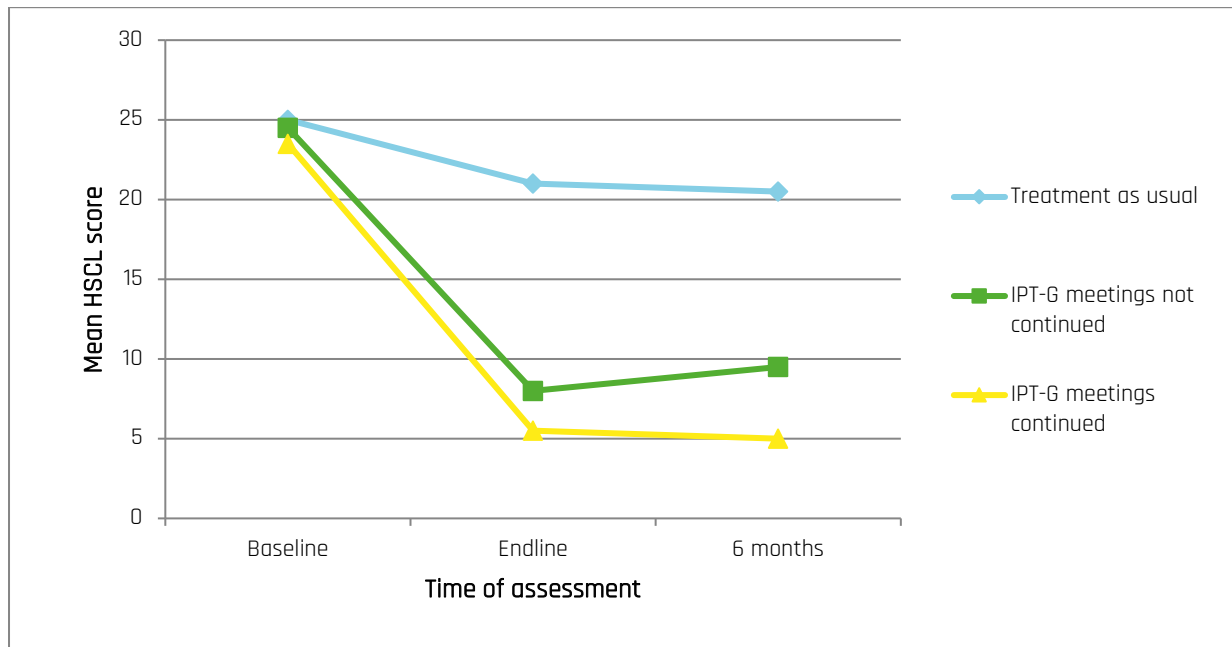
⁵⁸ Bolton, Paul et al. "Group interpersonal psychotherapy for depression in rural Uganda: a randomized controlled trial." *Jama* 289.23 (2003): 3117-3124.

⁵⁹ 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 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): 569, <https://doi.org/10.1192/bjp.188.6.567>.



Six months after the intervention had 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 control group. Figure 9 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).⁶⁰

Figure 9. Outcomes for IPT-G 6 months after intervention⁶¹



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.⁶² The treated population was a group of 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 was again found to result in a statistically significant reduction in depressive symptoms, with mean depression scores falling from 43.5 to 27.8 in the treatment group. The effect compared to the control was a 9.79 reduction in depressive symptoms. Interestingly, the improvements were driven by girls, with no significant impact found for boys (although the study was not powered to detect an impact at the gender level).

Overall, these two studies represent quite strong evidence for the efficacy of the StrongMinds intervention. Both studies have high external validity as they were administered in Uganda, where StrongMinds operates, and the treatment effect was most significant in women, the primary population StrongMinds is treating.



Since 2011, some additional studies have confirmed the effectiveness and feasibility of IPT-G in low resource settings. A case study of IPT-G delivered by lay-people in South Africa concluded that IPT-G was both feasible and effective.⁶³ An RCT in South Africa, conducted in 2014, analysing an intervention similar to IPT also found a significant positive impact.⁶⁴ A 2015 RCT in Uganda examined a combination of mental health interventions targeted at mothers including IPT and CBT.⁶⁵ Mothers in the treatment group had significantly fewer depressive symptoms than mothers in the control.

There are two main areas of uncertainty regarding the two RCTs of IPT (discussed at the start of this section) that constitute the primary evidence-base for our assessment of StrongMinds:

- The long term benefits of intergroup psychotherapy are highly uncertain. While most of the treatment group remained depression-free after 6 months, it is unclear how this would translate over a longer period.
- Neither of the studies reported programme costs, making it impossible to assess cost-effectiveness. We therefore use StrongMinds' impact report to estimate cost-effectiveness.

StrongMinds have conducted impact evaluations on the effectiveness of their programme.

Phase Two of the StrongMinds' pilot study formed the basis of our cost-effectiveness model of StrongMinds. The study treated 270 women. At the end of the 12 week intervention, there was on average a 4.5 point reduction in PHQ-9 depression survey scores (out of a possible 27 points) in the treatment group compared to the control,⁶⁶ equating to a 16% reduction in depressive symptoms.⁶⁷ (In our model, we have revised this figure down, as there is some reason to believe that it is too high due to social desirability bias in survey respondents.^{68,69}) There were also significant improvements in economic status and occupation, nutrition status, physical health, and child well-being.⁷⁰

Limitations of the study include:

⁶³ Petersen, I et al. "The feasibility of adapted group-based interpersonal therapy (IPT) for the treatment of depression by community health workers within the context of task shifting in South Africa." *Community mental health journal* 48.3 (2012): 336-341.

⁶⁴ Petersen, I et al. "A group-based counselling intervention for depression comorbid with HIV/AIDS using a task shifting approach in South Africa: a randomized controlled pilot study." *Journal of affective disorders* 158 (2014): 78-84.

⁶⁵ Daisy R Singla, Elias Kumbakumba, and Frances E Aboud, "Effects of a Parenting Intervention to Address Maternal Psychological Wellbeing and Child Development and Growth in Rural Uganda: A Community-Based, Cluster-Randomised Trial," *The Lancet Global Health* 3, no. 8 (August 1, 2015): e458-69, doi:10.1016/S2214-109X(15)00099-6.

⁶⁶ StrongMinds, "Impact Evaluation: End of Phase Two Impact Evaluation for the Treating Depression at Scale in Africa Program in Uganda," July 2015, 17.



⁶⁷ Note that the way we have described StrongMinds impact in this section is different to that in the previous version of this report, which stated StrongMinds' impact in terms of "% depression free in the treatment group". We believe the former formulation gave the impression that StrongMinds's impact is much greater than it actually is. We are thankful to Thomas Blank for pointing this out. This does not affect our cost-effectiveness estimate.

⁶⁸ StrongMinds, "2017 Quarter 2 Summary."

⁶⁹ StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2," n.d., 2.

⁷⁰ "Impact Evaluation End of Phase Two Impact Evaluation ... - StrongMinds." 2015. 12 Jul. 2016
<<http://strongminds.org/wp-content/uploads/2013/07/StrongMinds-Phase-Two-Impact-Evaluation-Report-July-2015-FINAL.pdf>>, pp.18-24.



- The existence of social desirability bias. The outcome variables were initially intended to be based off post-treatment assessment of PHQ-9 scores, which found that 99% of women 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, the evaluators instead used assessment data from the final week of the trial, finding a 92% depression-free rate. This data is less prone to social desirability bias as neither the MHFs or the patients were aware that it would be used for endline assessment. Following their experience with subsequent cohorts, StrongMinds subsequently revised further downward to 86%.^{71,72} We have accounted for this in our cost-effectiveness model.
- The composition of the control group. The control group was not technically randomised because it consisted of patients who declined group therapy (as they preferred to receive individual therapy after the trial). It is possible that this could lead to bias if a preference for individual therapy is correlated with the responsiveness of the patient to treatment. The sign of this potential bias is unclear however, and the control group had similar baseline characteristics to the treatment group which reduces our concerns about introducing bias.

While the trial has a number of limitations, results align with the RCTs discussed above. We therefore believe there is reasonably strong evidence (relative to other mental health interventions) that the StrongMinds' intervention has a substantial impact on rates of depression. The long-term effect of StrongMinds' programme is unclear. StrongMinds has carried out follow up evaluations of Phases 1 and 2. For Phase 1, after 24 months, 78% were depression-free, while for Phase 2, after 18 months, 67% were depression-free.⁷³ However, for both of these follow ups, it proved impossible to establish control populations, so it is unclear what effect the programme had compared to no intervention.

Moreover, in assessing the long-term effect of StrongMinds, it would be more useful to have data on average decline in PHQ-9 depression survey scores rather than "percentage depression-free" because the former data is more informative about the true effect of StrongMinds' intervention: it provides information on reductions in depression for those who are *not* depression-free at endline, and it also tells us about the magnitude of the reduction in depressive symptoms (i.e. it tells us about the severity of the depression that people had before they became depression-free), whereas the "% depression-free" statistic gives much less granular information.

Is the intervention cost-effective?



⁷¹ StrongMinds, "2017 Quarter 2 Summary."

⁷² StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2," n.d., 2.

⁷³ StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2."



Our rough [model](#) suggests that the StrongMinds intervention averts a DALY for \$154 - \$508, with a median estimate of \$218 per DALY averted. The model can be explained as follows. Immediate treatment effects were estimated by converting the immediate reduction in PHQ-9 scores into a DALY weighting. This led to a mean estimate of a 0.10 decrease in mean individual disability burden immediately following the intervention.

The main source of uncertainty was uncertainty about the long-term effects of StrongMinds. The long-term effects were estimated using a 2012 study by Reay et al, which suggested that IPT-G has half the effect size after two years (a “two year half life”).⁷⁴ However, there are reasons to believe that this estimate may be somewhat pessimistic. Firstly, the study was carried out in a high income country – Australia – and the control population received treatment as usual, which “encompassed all of the options for support and treatment for postnatal depression available in the community, including antidepressant medication, natural remedies, non-directive counselling, maternal and child health nurse support, community support groups and individual psychotherapy”.⁷⁵ Treatment as usual in Uganda is considerably worse than this: a significant proportion would likely receive no treatment if they did not receive the StrongMinds intervention.⁷⁶ Therefore, it is reasonable to expect that the effect size would be greater for the StrongMinds’ intervention than for the intervention evaluated in Australia.

Secondly, StrongMinds’ internal impact data weakly suggests that a two year half life is pessimistic. Follow up evaluations showed that 67% of the phase 1 cohort were depression-free 18 months post-treatment, and 78% were depression-free 24 months post-treatment.⁷⁷ However, neither of these follow up evaluations used a control, so it is unclear how much of this effect is attributable to StrongMinds’ intervention. If the levels of depression among the untreated population remained constant from the completion of treatment, then the half life of the StrongMinds’ intervention would be closer to three years. Taking each of these factors into consideration, our very rough median estimate is therefore that the half life of the programme is 2.5 years.

Using this trajectory of impact, we estimate that each person treated gains the equivalent of 0.36 healthy life years over ten years. We have not time-discounted these health improvements.

The cost per patient was \$78, determined from StrongMinds’ metrics for the second quarter of 2017. This decline in cost per patient far surpassed internal projections made in 2016.⁷⁸ This has driven a significant improvement in cost-effectiveness since 2016.

What are the wider benefits?



⁷⁴ 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>.

⁷⁵ Reay et al., 219.

⁷⁶ "WHO-AIMS Report on Mental Health System in Uganda - World Health ..." 2008. 9 Jun. 2016
<http://www.who.int/mental_health/uganda_who_aims_report.pdf>

⁷⁷ StrongMinds, "Follow Up Evaluations for Phase 1 & Phase 2."

⁷⁸ StrongMinds, "2017 Quarter 2 Summary."



As well as decreasing rates of depression, StrongMinds also had a significant impact on different aspects of functionality.⁷⁹ These benefits were not included in the cost-effectiveness analysis, but are nevertheless important. Benefits at the end of treatment include:

- Increased time spent working in primary occupation and increased job satisfaction.
- Families who had not consumed meals over the last 24 hours fell from 53% to 13%.
- The proportion of families sleeping in protected shelters increased from 65% to 83%.
- Days of school missed reduced from 43% to 33%.
- Significant improvements in the women's social networks.

A follow up evaluation of the functionality benefits was only possible for the Phase 2 cohort. The evaluation suggests that some functionality benefits increased 18 months after the end of the programme, while others eroded. Improvements included:

- Patient reported self-employment increased from 17% to 45%.
- Employment continuity increased -- yearlong work nearly doubled from 35% to 66%.
- Women reported a significant decrease in absenteeism by comparison with data immediately following treatment.
- The proportion of women reporting poor attention at work fell from 44% to 19%.
- There were statistically significant gains in self-reported job performance; no women reported that they were unable to perform at work at the 18 month follow up.

Other functionality gains have eroded 18 months post-treatment for the Phase 2 cohort:⁸⁰

- Women's self-reported income and savings levels, on average, have decreased from their relative highpoint immediately following treatment.
- As above, self-reported nutrition, children's schooling, and shelter indicators have declined, effectively to their pre-treatment levels.

StrongMinds believe the erosion of these functionality gains may be due to wider macroeconomic forces in Uganda, and potential data collection issues. They plan to investigate this matter further.

Is it a strong organisation?

StrongMinds appears to be an outstandingly transparent organisation which is contributing to the global evidence-base of cost-effective treatment for mental health. They have a strong commitment to monitoring and evaluation and have published high quality impact assessments of their Phase One and Phase Two implementations online. They are also seeking funding to carry out an RCT of their intervention in the next few years.



⁷⁹ "Impact Evaluation End of Phase Two Impact Evaluation ... - StrongMinds." 2015. 12 Jul. 2016
<<http://strongminds.org/wp-content/uploads/2013/07/StrongMinds-Phase-Two-Impact-Evaluation-Report-July-2015-FINAL.pdf>>

⁸⁰ Follow up data on functionality for the Phase 1 cohort was unavailable.



The Executive Director is Sean Mayberry, who has twenty years of experience in the government, private and non-profit sector. Mr. Mayberry previously worked for Population Services International, a leading global health NGO and has substantial in-country experience. StrongMinds is partially funded by DRK Foundation, which has a strong reputation in venture philanthropy.

Future plans

StrongMinds' ultimate goal is to treat two million depressed African women by 2025. Having treated 20,500 women up until mid 2017, they plan to scale up tenfold and treat 100,000 women in Uganda and another African country between 2017 and 2019. They plan to accomplish this through two scalable pathways, which they are pursuing in parallel.⁸¹ The first pathway involves partnering with large international NGOs in order to implement the StrongMinds model. The second pathway involves 'virally expanding' the task-shifting model by training volunteer facilitators to lead therapy groups who in turn train members of the therapy groups to become volunteer facilitators themselves.

StrongMinds expects the overall cost per patient of the viral expansion approach to be very low because of the voluntary nature of the group leaders. Their cost per patient has fallen significantly over the last few years.⁸²

They are actively seeking opportunities to expand the evidence-base by carrying out an RCT of their programme.

Room for more funding

StrongMinds estimates that they could productively spend \$8.4m over the course of 2017-2019. The budget for the next three years is:

- FY 2017: \$2m
- FY 2018: \$2.8m
- FY 2019: \$3.6m

Of this \$8.4m requirement, StrongMinds have a soft/approximate pipeline of funds totalling \$2.1m.⁸³ Moreover, StrongMinds is exploring the possibility of carrying out an RCT of their project in the next few years. This would cost between \$500,000 and \$1million, and this cost is not included in their projected funding needs.⁸⁴

We are fairly confident that StrongMinds has a scalable model which can absorb more funding. The unmet need is large. Prevalence of depression in Uganda is estimated to be 30%⁸⁵ with a large proportion of people remaining untreated due to inadequate health systems.⁸⁶ Additional funds would allow StrongMinds to scale their model faster, and serve a greater proportion of the population.



Limitations of analysis

1. Self-reported mental health diagnoses are subject to social desirability bias. However, we believe that StrongMinds has taken reasonable steps to mitigate this bias. Nevertheless, there remains a strong possibility that the StrongMinds intervention is less cost-effective than it appears in their impact assessment.
2. The long term efficacy of IPT-G is extremely uncertain and plays a large role in our cost-effectiveness analysis. The longer term impact of IPT-G has been estimated based on a developed world therapy intervention which may have limited external validity for this intervention.

⁸¹ StrongMinds, "Strategic Operating Plan 2017-19," 4ff.

⁸² StrongMinds, "2017 Quarter 2 Summary," 2.

⁸³ StrongMinds, "Strategic Operating Plan 2017-19," 12–13.

⁸⁴ Personal correspondence with StrongMinds, 1st September 2017.

⁸⁵ Kinyanda, Eugene et al. "Poverty, life events and the risk for depression in Uganda." *Social psychiatry and psychiatric epidemiology* 46.1 (2011): 35-44.

⁸⁶ "WHO-AIMS Report on Mental Health System in Uganda - World Health ..." 2008. 9 Jun. 2016

<http://www.who.int/mental_health/uganda_who_aims_report.pdf>



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 - REVIEW OF DIFFERENT WAYS OF ELICITING DIAGNOSES

There are several ways to elicit self-reported mental health diagnoses. The StrongMinds impact evaluation used the Patient Health Questionnaire (PHQ-9),⁸⁷ while two of the sources used in our evaluation of BasicNeeds used the 12 Item General Health Questionnaire (GHQ-12).⁸⁸⁻⁸⁹ Another widely used psychometric test is the Beck Depression Inventory (BDI).

These questionnaires are similarly structured. Respondents answer a set number (9, 12 and 21 respectively) of multiple-choice questions. The PHQ-9 asks how often the respondent has been bothered by certain problems during the last two weeks and the BDI focuses more on the feelings the respondents have experienced during the past two weeks. The GHQ-12 gives respondents questions such as 'Have you been getting edgy and bad tempered?' and they have to respond with: *Not at all*, *No more than usual*, *Rather more than usual*, or *Much more than usual*.⁹⁰ For all of the questionnaires, each response is given a score, typically from 0-3. The score for each question is then added up and if the total score is above a certain threshold the patient is diagnosed with a certain condition or referred to further assessment by a clinician. For example, in New Zealand a PHQ-9 score greater than or equal to 10 is mild major depression, ≥ 15 is moderate major depression, ≥ 20 is severe major depression.⁹¹ These thresholds vary across countries and populations, e.g. postnatal women have higher thresholds.⁹² None of these questionnaires are obviously better than any of the others and all are useful in detecting psychiatric conditions.^{93,94,95}

Table 1. Comparison of PHQ-9, GHQ-12 and BDI

	Patient Health	General Health	Beck Depression
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⁸⁷ "Impact Evaluation End of Phase Two Impact Evaluation ... - StrongMinds." 2015. 14 Jul. 2016 <<http://strongminds.org/wp-content/uploads/2013/07/StrongMinds-Phase-Two-Impact-Evaluation-Report-July-2015-FINAL.pdf>>

⁸⁸ Lund, Crick et al. "Outcomes of the mental health and development model in rural Kenya: a 2-year prospective cohort intervention study." *International Health* 5.1 (2013): 43-50.

⁸⁹ de Menil, Victoria et al. "Cost-effectiveness of the Mental Health and Development model for schizophrenia-spectrum and bipolar disorders in rural Kenya." *Psychological medicine* 45.13 (2015): 2747-2756.

⁹⁰ Sterling, Michele. "General Health Questionnaire-28 (GHQ-28)." *Journal of physiotherapy* 57.4 (2011): 259.

⁹¹ Arroll, Bruce et al. "Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population." *The Annals of Family Medicine* 8.4 (2010): 348-353.

⁹² Shelton, NJ, and KG Herrick. "Comparison of scoring methods and thresholds of the General Health Questionnaire-12 with the Edinburgh Postnatal Depression Scale in English women." *Public health* 123.12 (2009): 789-793.



	Questionnaire 9	Questionnaire 12	Inventory
Type of question	How often respondent has been bothered by specific problems over the last 2 weeks?	How often are you feeling or thinking specific things?	How strong/frequently has the respondent felt this emotion in the last 2 weeks?
Sample question	Over the past 2 weeks, how often have you been bothered by little interest or pleasure in doing things?	Have you been getting edgy and bad tempered?	How sad do you feel?
Sample responses	0. Not at all 1. Several days 2. More than half the days 3. Nearly every day	0. Not at all 1. No more than usual 2. Rather more than usual 3. Much more than usual	0. I do not feel sad 1. I feel sad 2. I am sad all the time and I can't snap out of it 3. I am so sad and unhappy that I can't stand it
No. of questions	9	12	21
Maximum score	27	36	63
Standard clinical thresholds (in Anglosphere countries, but should be validated for each population assessed)	10-14: mild major depression 15-19: moderate major depression	16-24: moderate depression 24-36: severe depression	0-9: minimal depression 10-18: mild depression 19-29: moderate

⁹³ Aalto, Anna-Mari et al. "The Beck Depression Inventory and General Health Questionnaire as measures of depression in the general population: a validation study using the Composite International Diagnostic Interview as the gold standard." *Psychiatry research* 197.1 (2012): 163-171.

⁹⁴ Schutt, Paul E et al. "Comparing the Beck Depression Inventory-II (BDI-II) and Patient Health Questionnaire (PHQ-9) Depression Measures in an Outpatient Bariatric Clinic." *Obesity surgery* 26.6 (2016): 1274-1278.

⁹⁵ "Using scales to monitor symptoms and treat depression (measurement ...". 2013. 14 Jul. 2016

<<http://www.uptodate.com/contents/using-scales-to-monitor-symptoms-and-treat-depression-measurement-based-care>>



	20-27: severe major depression		depression 30-63: severe depression
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These questionnaires have been translated and used across the world. Various studies have shown that the GHQ-12 is a valid psychiatric screening instrument in countries as varied as Spain,⁹⁶ Brazil,⁹⁷ Iran,⁹⁸ the United Arab Emirates,⁹⁹ and Korea.¹⁰⁰ However, there are significant variations in the optimum threshold to adopt for these questionnaires to maximise the accuracy of their diagnosis in different settings.¹⁰¹ The optimum threshold for a diagnosis of depression using the GHQ-12 in Latin America is significantly higher than in the United Kingdom and North America, which suggests that cross-cultural comparisons using these questionnaires is likely to be misleading.¹⁰²

These differences largely arise for two reasons.

First, cultural and linguistic differences between countries can influence how the questions are interpreted by the patient.¹⁰³ Second, there is often no directly equivalent term to diagnostic labels, such as depression, in non-European languages because these terms originated from western European culture. Using these labels in non-European cultures often leads to mistaken beliefs over what the essential features of a given disorder is. For example, the term 'depression' in medicine is mainly linked to mood changes, but using the label 'depression' in non-European cultures often leads to the incorrect belief that sadness is an essential feature of depression.

Therefore, the concept of depression, with its focus on mood change, has evolved from within a Western culture and may not be universally applicable. This concern also applies to other psychiatric conditions, which generally have Western roots.¹⁰⁴

This does give us some cause for concern. Making cross-country comparisons of mental health diagnosis questionnaire scores and converting these to DALYs is likely to be a flawed, or at least highly subjective method due to the issues raised above. However, within-culture or within-country comparisons are less likely to be affected by these concerns. In particular, the analysis in the papers discussed compares the scores of groups before and after treatment and the scores of treatment and control groups. We would expect these comparisons to be valid as cultural differences between the respondents are limited.

The self-reporting aspect of these questionnaires also gives us cause for concern. Social desirability bias is when respondents give responses that they think the person administering the test wants, rather than reflecting their true emotional state. This is particularly common when conditions have attached stigma, as many mental health disorders do.¹⁰⁵⁻¹⁰⁶ The possibility of this biases should reduce our confidence in research that relies on self-reporting mental health questionnaires. In light of these concerns, the main alternative is using clinicians to more objectively assess the presence of a psychiatric condition using tools such as the Hamilton Depression Rating Scale.¹⁰⁷ However, this comes with increased cost, which is especially problematic in low resource settings.



