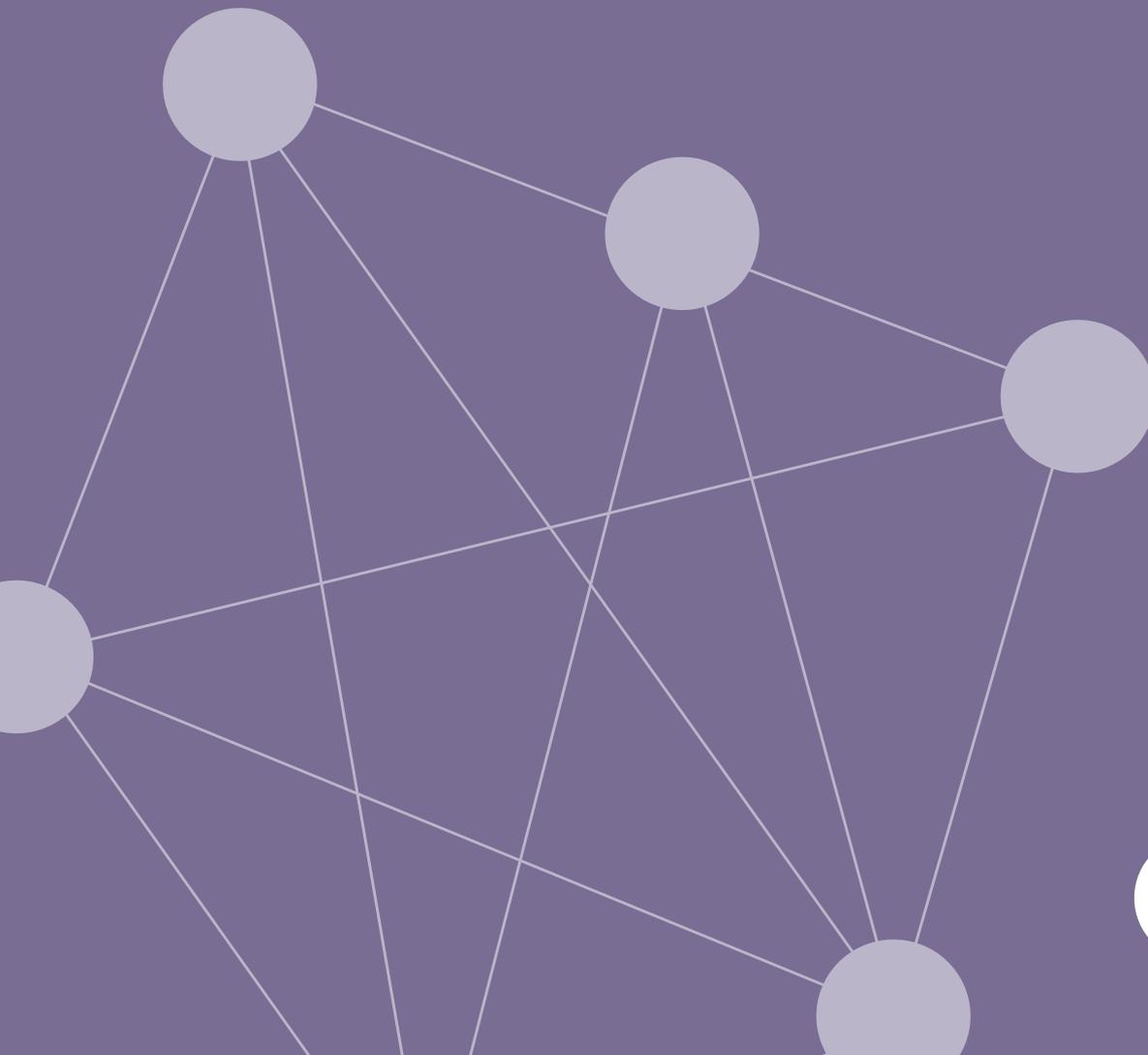


Investing in mental health in low-income countries



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Acronyms and abbreviations

COPSI	Community Care for People with Schizophrenia in India
DCP3	Disease Control Priorities, Third Edition
DFID	Department for International Development (UK)
GBD	Global Burden of Diseases, Injuries, and Risk Factors Study
GCC	Grand Challenges Canada
GGHE	general government health expenditure
HIV	human immunodeficiency virus
HLY	healthy life year
LIC	low-income country
LMIC	low- and middle-income countries
LSHTM	London School of Hygiene and Tropical Medicine
MANAS	MANAshanti Sudhar Shodh (meaning 'project to promote mental health')
mhGAP	WHO Mental Health Gap Action Programme
MHIN	Mental Health Innovation Network
NGO	non-governmental organisation
NHA	National Health Accounts
ODI	Overseas Development Institute
pppa	per person per annum
PRIME	Programme for Improving Mental Health Care
SDG	Sustainable Development Goal
SF-12	12-item Short Form Health Survey
THE	total health expenditure
WHO	World Health Organization

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ODI Insights is a new series of research papers, policy briefings and outreach activities that address urgent and unresolved development priorities and challenges. As well as reaching new audiences, the aim of Insights is to ensure that ODI's high-quality research and analysis influences policy debates, providing innovative practical solutions to existing and emerging problems. This Insights report on mental health is the fifth in the series.

Methodology

Directly influencing this work are two prior reports by the ODI (Mackenzie, 2014; Mackenzie and Kesner, 2016), completed with the guidance and support of Grand Challenges Canada (GCC), the London School of Hygiene and Tropical Medicine (LSHTM) and the World Health Organization (WHO). Both reports highlighted the need to answer, with some clarity (that is, with pragmatic, costed policy options), the question 'what next?'. This paper seeks to answer that question.

The framing of the research evolved from discussions that took place during an expert roundtable convened to launch the most recent report, *Mental health funding and the SDGs: what now and who pays?*, in May 2016 (a full list of attendees can be found in Annex A). The research builds on country visits and interviews conducted with the Mental Health Innovation Network (MHIN) since 2014, extensive discussions with and calculations by WHO health economist, Dan Chisholm, and interviews with sector experts.¹ As with previous reports, we have also drawn heavily on the extensive analysis conducted by WHO, LSHTM, GCC, *The Lancet*, the DCP3 series, BasicNeeds and other pioneers in the field of global mental health evidence.

The research was conducted over a five-month period (July-November 2016), with funding from the Department for International Development (DFID). A series of semi-structured interviews with leading practitioners in the field, lasting between 60 and 90 minutes each, was conducted to inform the paper, as well as the roundtable hosted at ODI in 2016, and the programmatic work conducted on several country projects (from 2014 to 2016) as part of ODI's work with MHIN.

Global data on mental disorders is incomplete, and under-diagnosis remains a problem. Therefore the analysis presented here is necessarily based on averages and extrapolations. The costings will vary greatly across countries and contexts. Likewise, the returns that can be delivered to the economy are calculated across a wide range of countries and variables. To calculate the amount that should be spent in different low-income countries (LICs), we used proposed spending estimates taken from the Lancet Global Mental Health Group (Chisholm et al., 2007a), and related these to current total health expenditure (THE) data from WHO's National Health Accounts (NHA) database, which is publicly available.² The data used are available in full in Annex B. For the price and reach of the different packages, we drew upon the work of the DCP3 series (Patel et al., 2015), coordinated by the University of Washington and funded by the Bill & Melinda Gates Foundation.³ For indicative costs of practical considerations (such as how much a prevalence assessment might cost in-country), we consulted BasicNeeds and other MHIN projects, and drew upon national and district studies such as Gureje et al. (2007) for Nigeria and Chisholm et al. (2015) for a range of low- and middle-income countries (LMICs) in Asia and Africa.

While recognising the limitations of the data and the scope of research, this paper presents realistic and manageable options for LIC governments to increase mental health services provision. It aims to be direct enough to support informed decision-making, while recognising that other models and approaches exist that have not been included. It also looks to stimulate further research and analysis.

1 Jess McQuail, Chris Underhill and Uma Sunder of BasicNeeds; Grace Ryan and Agnes Becker of LSHTM; Julian Eaton of CBM; and Ellen Morgan of GCC.

2 Available at <http://apps.who.int/nha/database/ViewData/Indicators/en>. The population data are taken from World Population Prospects 2015 revision from UN Population Division <https://esa.un.org/unpd/wpp/Download/Standard/Population>.

3 DCP-3.org.

Executive summary

Mental health is critical to successful international development, and ensuring we achieve the Sustainable Development Goals and truly ‘leave no one behind’ (Mackenzie, 2016; UNDESA, 2015). Mental health practitioners have been telling us this for some time and demonstrating the benefits of good programming. Jim Yong Kim, President of the World Bank, announced publicly in 2016 that addressing mental health was a global imperative:

This is not just a public health issue – it’s a development issue. We need to act now because the lost productivity is something the global economy simply cannot afford. (WHO-World Bank, 2016)

Leading health economists have shown that ignoring the need for good mental health has significant costs in terms of lost healthy (and often ‘productive’) years of life (Chisholm et al., 2016a), and we also know that mental, neurological and substance-use disorders make life much harder for the world’s most vulnerable people (Mackenzie and Kesner, 2016).

The implications of mental health for development are beginning to be understood – in the public sphere as well as the political. But, as a recent report by the Overseas Development Institute (ODI) found, there has been no real move towards actual funding commitments by the development community, despite growing momentum (Mackenzie and Kesner, 2016). This absence of funding commitment means that millions of people are not receiving the treatment they desperately need. In some cases, the treatment they are receiving is not only inadequate, it is also inhumane and ineffective (HRW, 2016).

There is increasing awareness that more needs to be done to solve this, and efforts are being made to find solutions that are practical, costed and realistic. Policy-makers in LICs including Ethiopia, Sierra Leone, Nepal, Uganda and Haiti are grappling with complex and urgent competing national priorities in the context of constrained budgets. Amid busy schedules, engaging with mental health programming can seem opaque, complicated and politically sensitive.

Consultations during previous research found that a synthesis of how much and how to spend money on mental health policies and programmes was seen as missing. This was cited as a major barrier to moving forward, particularly in prioritising national budgets (and therefore delivering effective services) and leveraging further funding. These consultations also revealed that donors

would be willing to invest in mental health, but that the demand had to come from country governments. A first step would be for policy-makers to prioritise funding for mental health in their own national health budgets.

Prioritising funding for particular physical health issues has been aided by presenting decision-makers with a ‘menu’ of costed options and activities.⁴ If LICs were to spend even \$1 per person per annum (pppa), this would be five times the average amount that they are currently spending on mental health. To help make this leap surmountable, this research consolidated and repackaged existing data into a step-by-step action plan and costed service packages at \$1, \$2 and \$3 pppa to make mental health provision realistic and manageable for LICs.⁵ We calculated how much each LIC would need, if they were to request funding to meet the most basic level of mental health care that experts recommend, and then what returns they could expect for their investment, depending on how they structure the spending.

Current funding in LICs, which is evidently inadequate to meet needs, is estimated to be about \$0.20 pppa (based on Chisholm et al., 2007a; 2015; 2016). The cost of delivering basic services to affected populations has, however, been estimated to range from \$0.11 to \$0.33 pppa for Ethiopia, Nepal and Uganda (Chisholm et al., 2016a). Based on calls for increased funding (Gureje et al., 2007; Patel et al., 2015; Chisholm et al., 2015; 2016b) we applied an indicative range of \$1 to \$3 pppa, broken down into three different packages (dependent upon the resources available and the level of ambition). We then estimated what these packages would deliver in terms of health benefits and returns to a country’s workforce and economy.

Despite these packages representing a significant increase on current average spending in LICs, they remain far from ideal. By comparison, the UK spends \$278 pppa (WHO, 2014a), and this is still seen by many as insufficient for the needs of the British population and inadequate compared to spending on physical health (NHS Providers, 2016). The recommendations in this paper are the initial pragmatic entry points to scale up mental health programming.

Recognising the complex pressures that governments are facing (with finite budgets and competing priorities), this paper also outlines four key steps for funding allocation, regardless of the package chosen. The aim is to help policy-makers working on health and development issues in their countries who may be unsure of how to start.

4 Roundtable discussion, May 2016. A list of attendees is provided in Annex A.

5 There is already a significant body of literature on these issues. Excellent material has been produced over recent decades by leaders like the WHO, King’s College London and the London School of Economics; the Mental Health Innovation Network (MHIN) has assimilated more recent material.

Whether the final decision is to go for the \$1, \$2 or \$3 package, the following activities, based on consultations with and programme documents from several BasicNeeds and MHIN projects, are recommended:

1. Know your domestic mental, neurological and substance-use disorder needs. Recommended spend: 0.1% to 2.5% of your funding package.
2. Know your domestic mental health assets. Recommended spend: 0.75% to 1.0% of your funding package.
3. Implement a community-based model, linked to trained professionals, which is scalable. Recommended spend: 80% to 95% of your funding package.
4. Integrate mental health into existing development priorities. This is a low, but not zero, spend option and requires leadership and political buy-in. It could involve joint funding. Activities and human resources

responsible for coordination should be incorporated in national strategic plans and monitoring and evaluation (M&E) systems.

Activities that focus on monitoring, evaluation and reporting should be integrated into each step, along with awareness-raising activities focused on the prevention of mental illness. By using emerging evidence, monitoring activities can help decision-makers to allocate resources where the need is greatest and where impact can effect real change.

This paper is a practical application of previous research, economic modelling and follow-up with sector experts. The aim is to help policy-makers and international development practitioners who are looking to improve development outcomes and economic growth to make decisions about the merits of various options, and the cost effectiveness of investing in different sectors.

Introduction

Depression and anxiety disorders are responsible for more than 10% of the global disease burden (the number of healthy years lost to death and illness worldwide) and globally cost \$1 trillion every year in lost productivity (Chisholm, 2016a). In the words of Jim Yong Kim, President of the World Bank, ‘We need to act now because the lost productivity is something the global economy simply cannot afford.’

This is a significant cost in lost healthy years of life, and the existing situation makes life that much harder for the world’s most vulnerable people. Three quarters of the mental health disease burden is in low- and middle-income countries (LMICs), and it is country governments and households in these countries – those least able to afford it – that bear the brunt of the costs for mental health care (Mackenzie and Kesner, 2016).

The urgency of the situation is beginning to be understood. But, as ODI’s recent report found, despite growing declarations and media momentum, there has been no real move towards generating actual funding commitments by the development community (Mackenzie and Kesner, 2016). The report, *Mental health funding and the SDGs: what now and who pays?*, highlighted an estimated deficit of more than \$1 billion per annum across all LICs, similar to the estimated gap of \$1.05 billion for an annual spend of \$2 per person. This funding gap must be acknowledged in terms of what it means for services: nine out of 10 of those living with mental disorders do not receive basic treatment (Chisholm et al., 2007a). In some cases, the treatment they are receiving is inhumane and ineffective (HRW, 2016).

Purpose

This paper aims to make the provision of mental health services realistic and manageable for LICs. It is a practical application of previous research, during which several donors and development banks suggested that they are open to funding mental health programmes in LICs, but that prioritisation and requests need to come from LIC governments themselves. However, consultations with LIC governments revealed that several appeared to be unaware of the precise funding shortfall that they could or should be considering for mental health programming. Similarly, governments seemed not to know what such programmes could deliver in terms of returns to the economy and regained healthy life years (HLYs), as evidence on this is only now starting to emerge.

No list of options existed for how to pursue this, unlike many other areas of development programming. For many policy-makers in LICs, the lack of clarity around what and how to spend money on mental health policies and programmes was the major barrier – both for prioritising national budgets (and therefore delivering effective services), and in leveraging further funding. Further, a general scarcity of resources – such as human

resources for health, and poor or inconsistent resource allocation formulae for competing health priorities such as human immunodeficiency virus (HIV), malaria, TB, disasters and nutrition insecurity – make it harder both to prioritise mental health and to fund it.

During a roundtable launch of ODI’s mental health financing report in May 2016 (see Annex A for list of attendees), participants agreed that what had worked well in prioritising funding for particular physical health issues was to present decision-makers with a ‘menu’ of costed options and activities. Several examples were given that drew on participants’ field experience. One of the most compelling was the graduated set of activities and costed policy options developed as part of the background preparation for DFID’s work with the International Labour Organization to halt the spread of HIV in South East Asia (DFID, 2008). This included propositions and costings illustrating the range of benefits to be gleaned (from the number of lives that would be lost due to lack of action, to what gains could be made by involving sex workers versus investing in public awareness campaigns). This demonstrated to decision-makers the relative value (and potential returns) of investing in a graduated set of activities and increasing spending in this area.

It was agreed that the same approach might be useful for encouraging and supporting country governments to prioritise funding for mental health. Although the collection of accurate large-scale data and innovation around what works in the field of mental health are underfunded, there might be options that could be constructed according to current research and expertise. Would it be possible to devise an incremental approach to increasing funding for mental health in LICs? If governments better understood the impact of mental health disorders on population well-being and the overall impact on the growth of their economies, how much money would be needed to address and/or mitigate the negative externalities? Where could this money be spent and what benefits might they see? Would they prioritise requesting this funding for mental health? Would donors and development banks then also get behind it?

This approach informed a step-by-step action plan, and ‘menu’ of spending packages presented in this paper. This paper provides an overview of: (i) precisely how much experts suggest should be spent in different countries; (ii) how this could be spent, including what service delivery packages can be provided and what these different packages will give back, in terms of health benefits and returns to the workforce and economy; and (iii) four steps for getting started.

This paper has been written for policy-makers – and in particular, ministries of health – and international development practitioners who are looking to improve development outcomes and economic growth. It aims to help them make more informed decisions around the

merits of programmes they are considering implementing, and the cost effectiveness of investing in different development sectors. The gains to be made from investing in infrastructure programmes have long been promoted; we hope to propel the benefits of mental health programming into consideration.

The paper assumes that readers have a general understanding of health programming, but may not know much about mental health, nor have the time to read the detailed literature available or tailor it to specific country programming. This paper should act as an advisory shortcut to help decision-makers with limited time who are trying to weigh the merits of competing programmes across a portfolio. It underpins a policy brief that will synthesise the recommendations in a more accessible form, geared directly at policy-makers in LICs.

Chapter 1 will cover what countries should be spending, based on a review of existing literature. Chapter 2 looks at how this might realistically translate to services. It also explains the merits and returns of these packages, using an economic modelling approach. Chapter 3 outlines the key next steps for any government wanting to implement this in-country, drawn from interviews with sector experts.⁶

By explicitly framing what country governments can ask for, and what that will deliver, we hope this paper will prompt more requests by LIC governments for donor funding for mental health activities in-country to help the millions of people currently being left behind in terms of access to treatment and care.

⁶ See note 1.

1. Funding mental health in low-income countries: what is missing?

1.1 What is currently being spent?

Current funding for mental health in developing countries is evidently inadequate. Millions of people are not receiving the treatment they need, despite the availability of cost-effective, evidence-based solutions (Mackenzie and Kesner, 2016). In monetary terms, we estimate that governments in LICs are spending only \$0.20 pppa on average, equivalent to 0.5% of THE (based on Chisholm et al., 2007a; 2015; 2016a; see Annex B). This varies between countries, of course. For example, in recent cost estimation using the OneHealth tool, Chisholm et al. (2016a) show that in Ethiopia, Nepal and Uganda, spending ranges from \$0.11 to \$0.33 per person.⁷

1.2 How much should be spent domestically?

There have been repeated calls for action and more funding for mental health programmes in developing countries. ODI's 2016 report is a recent addition to an already articulate campaign. *The Lancet's* global mental health series in 2007 was the first to set out the expected level of investment needed to deliver a core package of support. They recommended \$2 pppa in LICs, and \$3 to \$4 in lower-middle income countries (Chisholm et al., 2007a). The different costs for the two country groupings reflect the different current levels of spending and coverage rates.⁸ Although it would be desirable for LICs to spend \$3 to \$4 pppa also, these amounts reflect what is reasonable in an incremental change to existing levels.

This is a very small amount per person, and relies on cost-effective programmes (using methods like task-sharing) to minimise costs. It is also a conservative estimate, in that it does not look for spending to address all mental, neurological and substance-use disorders, but is based rather on the most common and/or highly prioritised conditions: schizophrenia, depression, anxiety and alcohol-use disorders. As a comparison, in 2014 the United Kingdom spent an average of \$278 pppa on mental health services, and this is still criticised as inadequate to address the pressing needs of the population (NHS Providers, 2016).

In a more recent update of these calculations, the DCP3 series suggested that the amount of spending required on mental health domestically is \$3 to \$4 per annum for LMICs as a whole (Patel et al., 2015). This was based on

analysis for whole regions of the world using economic modelling and cost-effectiveness results, and it confirmed that the earlier estimate is still relevant.

The cost of delivering treatment also varies, depending upon the costs of services in-country, how remote the regional areas/populations are, and factors such as the condition of existing infrastructure. Research to enable the prediction of all of these factors has been limited, though there are several national- and district-level studies (such as Gureje et al., 2007 and Chisholm et al., 2015) that assess costs for service delivery across a range of LMICs in both Asia and sub-Saharan Africa. These studies have generally shown rather lower costs (per case or person) than those estimated at the global level, partly due to lower modelled coverage rates and less intensive resource-use patterns.

Overall, research suggests that minimum spending on mental health in LICs should be somewhere between \$1 and \$3 pppa (Gureje et al., 2007; Patel et al., 2015; Chisholm et al., 2015; 2016b). One dollar would be a mediocre short-term goal, and well below expert recommendations. Given that LICs are on average currently spending just \$0.20 pppa, a five-fold increase to \$1 pppa represents a significant leap. This would be an absolute minimum starting point, however, and represents a realistic, minimum package of care with reasonable coverage levels for selected priority conditions.

An increase in spending to between \$2 to \$3 pppa would allow more comprehensive provision of basic services and care. The \$2 and \$3 packages also represent medium- (\$2) and longer-term (\$3) spending goals, recognising the time needed to increase health system capacity. This paper therefore recommends that LICs should spend between \$2 and \$3 pppa, but countenances beginning at \$1 pppa as an incremental first step.

1.3 How much are LICs missing?

There are 31 LICs currently listed by the World Bank, several with large populations. Taking this advised spending per person, and aggregating this across the populations of 29 of these countries,⁹ reveals the need for significant spending. Spending \$2 pppa in all LICs would translate to a total funding outlay of \$1.17 billion per annum, an \$3 pppa would mean a total outlay of

7 The OneHealth Tool is designed to inform national strategic health planning in LMICs. It links strategic objectives and targets of disease control and prevention programmes to the required investments in health systems. For more information see <http://www.who.int/choice/onehealthtool/en/>.

8 Increases in the improvement of coverage were set at 80% for schizophrenia and bipolar affective disorder, 25% for hazardous alcohol use and 33% for depression.

9 For two of the LICs listed (North Korea and Somalia), there are no available National Health Accounts (NHA) data. For the 29 countries for which NHA data are available, we have used reporting on their current populations to calculate the estimated aggregate spending to meet these needs.

\$1.76 billion per annum. If we subtract the current amount that LIC governments are currently spending on mental health (the \$0.20 pppa calculated above), this leaves a funding gap of \$469 million (at \$1 pppa), \$1.05 billion (at \$2 pppa) or \$1.64 billion (at \$3 pppa) per annum.

1.4 What should be spent per country?

By breaking these figures down to the country level, we start to see budgets that governments can work with. If we take the target amount per person (\$1, \$2 or \$3) and multiply it by the population of a given country, we get a sense of the budget requirements. For example, if Sierra Leone, with a population of 6.3 million, were to ask donors to help it to meet the basic package of care (\$2 pppa) recommended by global experts, the country government needs to request \$11 million, whereas Nepal, with a population of 28.2 million, would need to request \$51 million.

A lot more needs to be spent to deliver the minimum services that would meet the needs of country populations. We know that LICs are spending only an average of \$0.20 pppa. Experts advise that governments should be spending between \$2 and \$3 pppa in LICs, which is 10 to 15 times the current level. Table 1 shows the current estimated funding gap for five of the 29 LICs; calculations for all 29 countries can be found in Annex B. Policy-makers can consider these figures

Table 1. Total mental health funding gap at different assumed levels of per person spending

Country	Population (millions)	Total health expenditure (THE) (millions, \$)	Total mental health funding gap at different assumed levels of pppa spending (millions, \$)		
			\$1 pppa	\$2 pppa	\$3 pppa
Ethiopia	97.0	2,600	78	175	271
Haiti	10.6	645	9	19	30
Nepal	28.2	1,100	23	51	79
Sierra Leone	6.3	543	5	11	18
Uganda	37.8	2,000	30	68	106

Source: NHA data and authors' own calculations. See Annex B.

as spending targets for their domestic settings, if they want to provide a minimum level of care and help meet international targets and reporting – especially those related to the SDGs and the WHO Mental Health Action Plan 2013-2020.

2. Translating funding into services

2.1 Balancing coverage and quality

One of the first decisions to be made when devising a mental health action plan is what to treat and how. This should be considered from several points of view.

Disorder prevalence

The first of these is prevalence – that is, how common certain mental health disorders are at the national, sub-national and local levels. In Chapter 3, we outline how a prevalence assessment might be carried out to attain data on the most pressing local mental, neurological and substance-use disorders. Alternatively, policy-makers can draw from international estimates, such as the Global Burden of Disease (GBD) studies (Whiteford et al., 2013). These suggest that there are several common mental health disorders that should be addressed because of their significant contribution to the burden of disease and the availability of cost-effective and scalable interventions. These include severe mental disorders such as psychosis, bipolar disorder and depression, as well as epilepsy and alcohol-use disorders.

Ethics, ‘fairness’ and severity

But while cost effectiveness and prevalence data are important, public health priorities must also consider ‘fairness’. First and foremost, it would be wholly unethical (and unproductive) to fail to treat certain disorders. But there are also other fairness issues that should be taken into account, such as disease severity and financial protection. These are relevant concerns that are not taken into account when measuring cost-effectiveness ratios, but are principles that have been well argued for theoretically (Strand et al., 2016). Take the example of schizophrenia: although it is associated with low prevalence compared to anxiety and depression (which typically have high prevalence rates), it could be considered a more severe condition because it is highly disabling, it occurs at a young age and it pushes households into poverty (Patel et al., 2015). Therefore, introducing severity as an additional criterion is likely to shift the ranking for treatment of schizophrenia and psychosis.

Country priorities

Excluding certain disorders at any of the spending levels may also be artificial because this is not how choices are made in reality. For example, childhood developmental disorders such as autism have not been included in the \$1 package outlined in the subsequent section, yet in some countries this disorder may represent a high burden, and as a result should be expanded into the ‘core’ package. Similarly, community-based action such as school-based life skills programmes may be high up on the list of priorities and be implemented as part of a basic rather than a comprehensive service package.

The imperative to treat a mental health disorder does not necessarily correspond to how common it is, or the

cost effectiveness of its treatment. Service planning and provision should be contextually relevant, with the focus on increasing levels of service coverage across severe and common mental health disorders, the balance of which should be determined by governments based on locally driven consultations.

Maintaining quality

At the same time, prioritising the quantity of available and accessible services should not impair the quality of care provided. This follows the logic of the WHO Consultative Group on Equity and Universal Health Coverage. This international group of ethicists argues that it is ethically unacceptable to prioritise costly services that are expected to provide large financial risk protection and small health benefits over less costly services that provide low financial risk protection but offer substantial health benefits (WHO, 2014b). High quality services build people’s confidence in care, thereby fuelling the demand for, and increased use of, preventive and treatment interventions.

Treatment types and approaches

Taking this into consideration, a range of psychosocial and pharmacological treatment interventions that can target the aforementioned mental health disorders have been found to be effective, cost-efficient and feasible in the context of LMICs (Patel et al., 2015). Consistent with the approach of WHO’s mhGAP Intervention Guide (WHO, 2008), these interventions can be delivered in non-specialist or general health care settings – a crucial consideration for the low-cost packages that this paper will recommend. The cost of treating a case can be calculated using the WHO’s mhGAP costing tool, which is a disease-specific costing tool for short- or medium-term planning that can be used to generate forecasts of human and financial resource needs.

This tool was used to model the costs and benefits of scaled-up treatment for depression and anxiety disorders across the 36 largest countries in the world, including the six largest LICs – Afghanistan, Bangladesh, Democratic Republic of Congo, Ethiopia, Myanmar and Tanzania (Chisholm et al., 2016b). The study is billed as the first global estimate of the health and economic benefits of investing in treating the most common mental disorders, and it directly informed our low-cost packages. Drawing from these findings (see Annex B), alongside other recently published analyses of return on investment (Stenberg et al., 2014), it is possible to extrapolate what various types of mental health care packages might look like, as well as their outcomes, according to differing levels of investment.

Ultimately, it is important to remember that policies should be enacted, and resources allocated, according to specific individual population needs. Each country is different, and each will want to make its own decisions. It is therefore necessary for more economic evidence to be generated

alongside clinical trials or other evaluations at the national level (see the steps outlined in Chapter 3), rather than relying on international estimates that may lack sensitivity to local priorities or health system characteristics.

2.2 Costed service package options

Based on these considerations, and on the identified \$1 to \$3 spending increments, we have devised three costed services packages that LICs could use to structure their budgets and service delivery planning, or to scale them up. The packages ultimately aim to improve rates of coverage for mental health services across different disorders (see Figure 1). The focus of spending should be to increase service coverage (that is, the number of people accessing services across both severe and common mental health disorders) rather than focusing only on specific disorders.

The service packages chosen will depend upon available resources and the level of ambition of the policy-makers, but should be viewed as incremental steps to improving mental health care, not finite goals in themselves.

For the price and coverage of the different packages, we drew upon the work of the DCP3 series (Patel et al., 2015), and while the costs of delivering services to different countries (and sub-national areas, dependent on terrain and infrastructure), these costed service packages provide a useful rule of thumb.¹⁰ To illustrate what costs might look like at the country level, we have used a fictional country, Nesamania, with a population of 10 million and total health expenditure of \$350 million.

The core package: \$1 pppa

In Nesamania, \$1 pppa would provide a basic care package for \$10 million, which would correspond to approximately 3% of its THE.¹¹

This core package would provide the most basic services to those with urgent, unmet needs. This would deliver brief physician advice in primary care to tackle alcohol-use disorders, and episodic treatment in primary care with older anti-depressant drugs (like tricyclic antidepressants) for those with depression, for example.

The package would deliver treatment to 33% of cases with depression, bipolar disorder and alcohol use, and 65% of cases with psychosis and epilepsy.

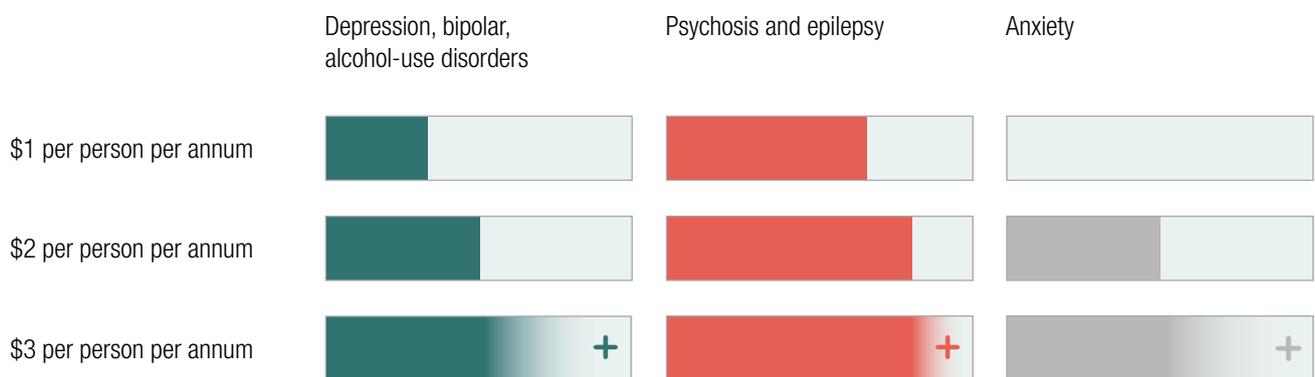
As a result, this minimum package would provide treatment coverage to around 22% of the affected population. This is by no means adequate and is included only as a stepping stone to higher spending, given the current low levels of spending and subsequent low levels of mental health coverage per person.

The expanded package: \$2 pppa

In Nesamania, \$2 pppa would provide a more comprehensive care package for \$20 million, which would correspond to approximately 6% of its THE.

Over and above what is delivered in the \$1 package, this expanded package would deliver brief physician advice in primary care to tackle alcohol-use disorders, episodic psychosocial treatment plus anti-depressant drugs for

Figure 1. Estimated service coverage for each costed service package, by disorder type



¹⁰ As a general rule, services are cheaper to deliver in South Asia and the Pacific than in the Middle East and North Africa, for example. For more, see the DCP3 studies.

¹¹ These percentages are estimates only, based on averages of current THE across 29 LICs.

those with depression, and anti-epileptic drugs in primary care to treat epilepsy, for example.

Selecting this care package would see an increase in the treatment coverage rates for all these disorders to 50% and 80%, respectively (thereby reaching the desired target coverage levels specified in the WHO Mental Health Action Plan, to which 194 countries have committed). In addition, half of all cases of anxiety disorder and a third of childhood behavioural disorders could also be treated. In total, 49% of the affected population would receive treatment. This is the minimum level of coverage that experts recommend.

The comprehensive package: \$3 pppa

In Nesamania, \$3 pppa would provide a comprehensive care package for \$30 million, which would correspond to approximately 9% of its THE.

This comprehensive package would deliver community-based treatment with anti-psychotic drugs, episodic and maintenance treatment in primary care for depression, brief physician advice in primary care for those with alcohol-use disorders, and anti-epileptic drugs in primary care to treat epilepsy. It would extend the coverage of the above disorders even further. It would also extend the range of disorders to include other neurological conditions (such as Alzheimer’s and Parkinson’s Disease) and other substance-use disorders (such as drug use), as well as augmented promotion and prevention efforts, such as awareness and anti-stigma campaigns and school-based programmes. We estimate that 75% of the

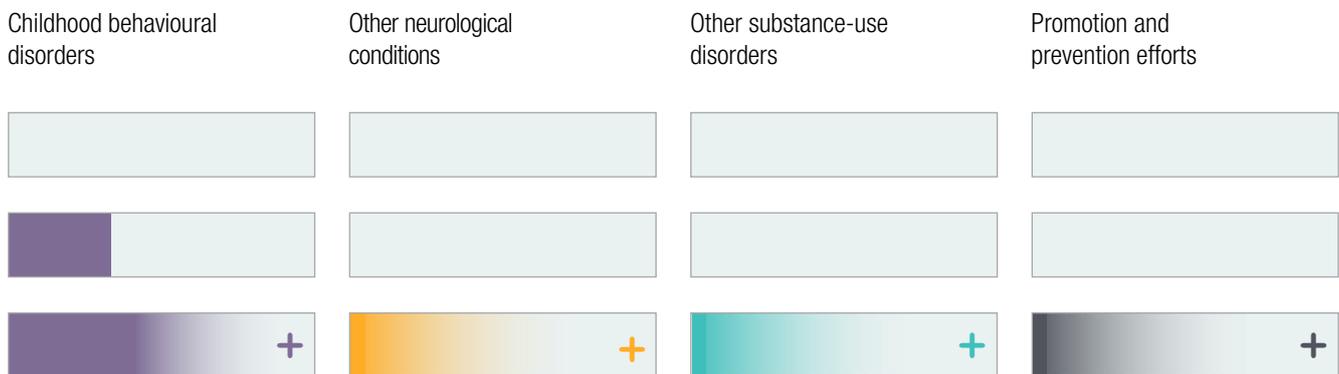
affected population could be treated if this package is implemented. This is what LIC governments should be aiming to provide.

2.3 What you stand to gain

Scaling up treatment for mental health disorders will create health, economic and social benefits. The benefits of good mental health include both its intrinsic value (improved mental health and well-being) alongside its instrumental value, in terms of an individual’s ability to form and maintain relationships, to work or pursue leisure interests and to make decisions in everyday life.

Health improvements can be captured in terms of improved recovery or remission, increased levels of functioning and a reduced probability of premature death. The fatal and non-fatal outcomes of health intervention are commonly captured together through the metric of HLYs gained.¹² This metric is useful because it focuses on the quality of life spent in a healthy state, rather than simply the quantity of life (as measured by life expectancy). It is used to distinguish between years of life free of any activity limitation and years experienced with at least one activity limitation.

Using data from a recent analysis of global return on investment (Chisholm, 2016b), the HLYs gained per treated case per annum ranges from as little as 0.05 (for alcohol-use disorder) to 0.35 (for bipolar disorder) in the six LICs. Correspondingly, for our suggested \$1 pppa package, close to 5,000 HLYs would be gained per one million population. For the \$2 pppa package, the gain is



Sources: Estimates of coverage based on DCP3 series (Patel et al., 2015).

¹² Also called disability-free life expectancy.

estimated at nearly 13,000 HLYs per million population. For a population as large as that of Ethiopia, this might translate to gains such as 485,000 HLYs (\$1 pppa) and 1,261,000 (\$2 pppa) returned to the country each year.

It is difficult to measure the overall expected health gain from the \$3 pppa package because not all included disorders or programmes have been subject to a detailed impact analysis. However, it would be expected to be at least 50% greater than the health benefits associated with the \$2 package, thus we estimate this to be 20,000 HLYs per million population. It is important to recall that these estimates are HLYs returned to the population per year.¹³

This dramatic increase in HLYs returned to a country's population would not only improve the situation of individuals (good health and a long life are fundamental objectives of human activity), but it would also lead to economic benefits. This would be due to lower public healthcare expenditure, people being able to return to the workforce and an increased possibility that people could continue to work later into life. The intrinsic economic value of these additional years of healthy life can be converted into monetary values; for the Lancet Commission on Investing in Health, the value of increasing life expectancy by one year in LMICs was estimated to be two to three times national per capita income (Jamison et al., 2013).

In a 2014 study, Stenberg and colleagues attributed two thirds of this derived value to the instrumental components (including people's ability to be productive and have healthy relationships), leaving the remaining third for the intrinsic benefits of health, which is equivalent to 0.5 times per capita income (Stenberg et al., 2014). What matters for decision-making is that by using this rate of 0.5 and multiplying it by the population-weighted average gross domestic product (GDP) per capita of the six largest LICs (\$662 in 2013), the return on investment of the \$1 package – which could see returns of 5,000 HLYs – would be in the order of \$1.63 million per million population, and \$4.26 million per million population the \$2 package.¹⁴ Chisholm et al. also found that (on average) every \$1 invested in scaling up treatment for depression and anxiety alone leads to a return of \$4 in better health and ability to work (2016b).¹⁵ This makes an excellent economic case for investing in mental health, even setting aside the many other social and household benefits to be gained.¹⁶

Box 1. Applying this at the country level

The fictional country of Nesamania has a population 10 million, and a per person GDP of \$600. What would it look like if the government of Nesamania increased investment in mental health?

If the country increased its spending on mental health to \$1 pppa, it could see yearly economic returns (based on the return HLYs to the population) of \$1,500,000 per million population. If it were to increase its spending to \$2 pppa, the returns could be as high as \$3,900,000 per million population.

With a population of 10 million, Nesamania could see a total annual economic benefit of \$15 million for the \$1 pppa package or \$39 million for the \$2 pppa package, respectively. Subtracting what the government will have invested to get there, the net returns might be as high as \$19 million in a single year.

Health improvements also have a social value; conceptually distinct from improvements in clinical functioning and the restored ability to do paid work, the successful scaled-up treatment of mental disorders such as depression and anxiety can also lead to improved opportunities for individuals and households to participate in more social and community activities, carry out household production roles and pursue their leisure interests. It is important to note that the social benefits would begin to accrue more rapidly compared to the economic benefits as a result of better health outcomes, because the latter take time to build up.

2.4 Linking this to international reporting and meeting the SDG targets

The countries that this spending relates to have also committed to report on several international targets, such as those agreed in the Sustainable Development Goals (SDGs). The type of spending increase that experts suggest (which we are translating to the country level) will help meet some of those targets. One SDG target relating to mental health focuses on lower suicide rates – something that the depression and anxiety packages in Chapter 2 would contribute to.

13 Though granted, they are built on an estimation that care would be continuous for several years to allow benefits to accumulate. Further these HLY estimates for LICs may in fact be on the conservative side, as other literature estimates such as Johansson et al. (2016) show.

14 Our modelling sees a return of between \$1.50 and \$2.00 per dollar spent on mental health services. However, the HLY estimates used by this paper are conservative, so returns could be greater. The metrics used also mean that returns increase exponentially with higher GDP; Johansson et al. (2016) actually suggest that LICs and countries with lower GDP may see higher returns than such financial modelling used here suggests.

15 This was calculated using LMICs, which have a higher GDP on average, and so a better opportunity to gain from returned HLYs to the economy. LICs may see return slightly lower than these levels, but arguably need it all the more.

16 Other benefits include mental health improving household food security due to improved household economic productivity, improved happiness and reduce chances of other conditions that could trigger other mental health disorders such as stress and anxiety.

A secondary target, suggested by WHO, requiring an absolute increase of 20% in service coverage for severe mental disorders, was not included in the final SDG targets but remains a key commitment on the part of 194 countries in the WHO Mental Health Action Plan 2013-2020. This means it is a commitment that 194 countries are working towards achieving, though with limited reporting. The packages outlined in this paper would certainly help LICs to make progress with regard to these targets. Current coverage of mental health services (or 'how many people can access care') is poorly measured in these countries, but experts assess that it typically lies in the range of only 10% to 20% of the population. The target that 194 countries have committed to by 2020 requires them to cover an additional 20% of the population. So, if in one LIC the coverage is currently 15% of their population, the international target which it aiming towards is 35%. If the LIC in question were to implement spending (as recommended by experts) of \$2 pppa, we have calculated that this would translate to coverage levels well in excess of this 3. This means that LICs could easily meet the WHO targets (enabling at least a 20% improvement in coverage) by implementing several of the packages listed in this chapter.

As a whole, there is a lot to be gained from investing in mental health, especially when we expand our focus from the individual to the aggregate level; given the widespread number of people in need, the gains add up fast. A widespread study of the global return on investment has shown that in the six largest LICs, scaled-up treatment of depression and anxiety would

generate productivity gains of \$2 billion over the SDG era (2016-2030) (Chisholm, 2016b).

We have broken down the expert recommendations for country spending into those services which might be the most realistic to deliver, and addressed how these might be provided, including an incremental set of package options. The merits of these packages are that there is space for policy-makers to begin with the lowest increment and increase their funding and services as they adjust.

Countries should remember that the \$1 package is well below expert recommendations and not nearly adequate, and we encourage them to progress to the comprehensive \$3 pppa package as soon as possible, and. The returns from these packages are exponential. From Table 2 you can see that an investment of a few dollars per person, for mental health services, which are extremely cheap compared to treatments for other health disorders, delivers astounding returns. Returns to the economy are in the order of millions of dollars, even when we account for the dollars invested. What is more, the returns increase with the amount spent – and so we encourage all policy-makers and donors to start implementing such packages immediately.

Beyond the social, humanitarian and normative rationales, there is clearly an excellent economic argument that cannot be overlooked. For those interested in how to implement these packages in practice, Chapter 3 outlines four key steps that any government wanting to pursue this can undertake to start generating such returns.

Table 2. Estimated returns on investment packages, using Nesamania as a fictional country case study

Package of mental health care	Overview	Service coverage	Funding required per annum in Nesamania (population 10 million)	Return on investment: HLYs 'bought' per annum	Return on investment: what those extra years of health are worth in monetary terms	Estimated return on investment across all 29 LICs for reference at the aggregate level
\$1 pppa	The most basic services to those with urgent, unmet needs. This would deliver brief physician advice in primary care to tackle alcohol-use disorders, and episodic treatment in primary care with older anti-depressant drugs (like tricyclic antidepressants) for those with depression, for example.	Services for an estimated 22% of people with common and severe mental disorders: 33% of cases with depression, bipolar disorder and alcohol use, and 65% of cases with psychosis and epilepsy.	\$10 million	50,000	\$15 million	\$1.63 million per million population
\$2 pppa	This expanded package would deliver brief physician advice in primary care to tackle alcohol-use disorders, episodic psychosocial treatment plus anti-depressant drugs for those with depression, and anti-epileptic drugs in primary care to treat epilepsy, for example. This is the minimum level of coverage that experts recommend.	Services for an estimated 49% of people with common and severe mental disorders: 50% of cases with depression, bipolar disorder and alcohol use, and 80% of cases with psychosis and epilepsy; plus a third of all child behavioural disorders.	\$20 million	130,000	\$39 million	\$4.26 million per million population
\$3 pppa	This would deliver community-based treatment with anti-psychotic drugs, episodic and maintenance treatment in primary care for depression, brief physician advice in primary care for those with alcohol-use disorders, and anti-epileptic drug in primary care to treat epilepsy.	Services for an estimated 75% of people with common and severe mental disorders (as above), plus other neurological conditions (such as Alzheimer's and Parkinson's Disease), other substance use disorders (such as drug use), and promotion and prevention strategies.	\$30 million	Harder to calculate, but somewhere in the range of 195,000 years – a 50% increase compared to the \$2 package.	Harder to calculate without detailed studies to model the costs and returns, but net gains estimated to be approximately \$28.5 million based on increases comparative with \$2 package.	Harder to calculate, but estimated to be \$8 million per million, based on increases comparative with \$2 package.
		Gross gains to the economy			Gains to the economy net of expenditure	
					\$5 million	

Source: Calculations based on personal communication with Dan Chisholm, using metrics outlined in this chapter.

3. Key steps to implementing a mental health investment package

This chapter sets out how to go about establishing a package once policy-makers have embraced the return on investment that can be generated by investing in mental health packages (not to mention the healthier lives generated). It is written from the perspective of government, though of course it could also be done by non-governmental organisation (NGO) partners and donors, with permissions from and partnerships with local government.

Regardless of the spending package selected – \$1, \$2 or \$3 pppa – this chapter outlines four key steps for how each government could allocate the funding. The recommended spending is based on a ‘funding package’, which is assumed to be the chosen spending multiplied by the population (for Nesoania, for example, the core \$1 pppa package would cost a total of \$10 million).

Efforts to monitor and track implementation for each of the steps below are critical to the production of evidence to inform decision-making, to allocate resources where the need is greatest and where impact can affect real change. Mackenzie and Cassidy (2015) contains guidance and planning tools for monitoring policy influence in mental health. Most countries have no mechanisms to monitor progress, so this addition is important (Chisholm et al., 2007b). Mental health awareness activities and activities that focus on the prevention of mental illness are also important measures, and if several countries were to establish programmes of this kind, relatively cheap communities of practice could be formed around practicalities of what works regionally.

Step 1: Know your domestic needs

Recommended spend: 0.1% to 2.5% of the selected funding package

Regardless of which package of care is ultimately selected, an essential first step for national governments is to understand what the most prevalent mental disorders are in the country. This can be based on existing data in the country’s Ministry of Health (though very few countries have this kind of information available) or on WHO data contained in the Mental Health Atlas, which is based on reporting from country governments. Furthermore, the majority of mental health disorders go undiagnosed, compounding the problem.

Any governments without accurate information about domestic mental health needs that choose to implement a package, could, as a key first step, conduct a pilot

Box 2. BasicNeeds pilot prevalence survey

A pilot prevalence survey was conducted in 2014-2015 in Laos for approximately \$25,000. This took one year, had a sample of 700 people and a coverage of nine districts in Vientiane. It was funded by the University of Queensland, and conducted by international NGO BasicNeeds, with the Laos PDR Ministry of Health and the Queensland Centre for Medical Health Research. They were careful to obtain ethics approvals, worked closely with the Laos Government and carefully trained their surveyors, making sure to debrief regularly. This team successfully demonstrated how such a pilot can be run using local partners. They captured their findings and the process as a whole in an open access article, which others can use to inform their planning.

More information can be found in the report of the pilot prevalence survey here: <http://www.basicneeds.org/a-small-step-towards-big-data-in-mental-health/>.

prevalence assessment. These range in cost, depending on the size of the country, how expensive it is to reach remote areas and how accurate in scope the policy-makers want to be. For a small country, policy-makers could spend as little as \$25,000 (testing a sample of several districts, in one city, in a country of fewer than 10 million people. For larger countries, policy-makers would want to spend as much as \$300,000 (testing several districts, in up to 10 cities, across a country of up to 100 million people, like Ethiopia).¹⁷

Based on the pilot prevalence survey conducted by BasicNeeds (Box 2), a prevalence assessment could take 6-12 months and would involve:

Activity 1. The Ministry of Health assembles a core team of 2-10 researchers to conduct the pilot prevalence assessment. This core team plans and sets up the project, including specifying timeframes, selecting site locations, setting criteria for recruiting data collectors and designing their training. (1-4 weeks)

Activity 2. The core team selects the survey instruments. Tools include: the Medical International Neuropsychiatric Interview¹⁸ (no cost, but requires creator’s permission before use); the 12-item Short Form Health Survey (SF-12) to measure health status;¹⁹ and questionnaires to gather demographic information

¹⁷ For indicative costs of practical considerations (such as how much a prevalence assessment might cost in-country) we consulted BasicNeeds and other MHIN projects, and drew upon national and district studies such as Gureje et al. (2007) for Nigeria and Chisholm et al. (2015) for a range of LMICs in Asia and Africa.

or service-use patterns of respondents. This includes obtaining ethics clearance from the National Ethics Committee for Health Research. (2-4 weeks)

Activity 3. If relevant, work with a technology partner (such as Mahiti in Bangalore, India)²⁰ to develop a mobile data collection app for the research team. (1-2 months)

Activity 4. Recruit data collectors and conduct training sessions for them (e.g. three days training for 10-100 data collectors, depending on scope). The training provides mental health literacy and introduces the survey instruments and contents. (1-3 months)

Activity 5. Data collection phase. It is useful to debrief data collectors every evening during this phase to check for errors and data gaps. (1-2 months)

Activity 6. Coding and analysis, followed by write up and sharing with key decision-makers (2-4 weeks)

Although this final step is important, if the 6-12 months required to conduct a prevalence assessment is likely to mean that momentum is lost, then it may be preferable to omit this step. The convention is to use the WHO epidemiological formula to estimate the psychiatric problems in any given population (WHO, 2001). This formula states that at any one time, 10% of the population suffers from neuropsychiatric conditions and 1% from severe mental illness. Specifically, the Programme for Improving Mental Health Care (PRIME) – a qualitative study that generated evidence on the implementation and scaling up of integrated mental health care packages in five LMICs – identified the priority mental disorders as psychosis, depression, epilepsy and alcohol-use disorders (Lund et al., 2012). These mental disorders impose the largest burden of disease, and offer the most robust evidence for the efficacy of specific, cost-effective and culturally acceptable interventions (Hyman et al., 2006).²¹ Moreover, the onset of the vast majority of cases is before the age of 30, and most tend to run a chronic or relapsing course (Patel et al., 2015).

We advocate a pilot prevalence assessment so long as it does not detract from finite energy and enthusiasm for implementing a mental health package in-country. Conducting a prevalence assessment ensures the approach is based on real evidence and is directed at those who are most in need. This seems a modest investment to ensure spending is targeted correctly, given that the cost is around 0.1% to 2.5% of what countries would be spending if they were to meet expert recommendations.²² The principal concern is that momentum may be lost.

Step 2: Know your domestic assets

Recommended spend: 0.75% to 1% of the selected funding package

A second, essential step before selecting a package of care is for country governments to conduct a stocktake of the mental health care and support services that are already underway in the country. There may already be an extensive understanding of local assets and entry points (by the ministry of health or a similar authority), but government staff are often very busy and, particularly after public crises such as the outbreak of Ebola, circumstances can change. There are often informal or donor-led activities or mechanisms in place, which may not be coordinated in any way or reported on to government. These might provide platforms upon which government programmes can build, or provide important information on where new programmes do not need to operate to avoid duplication. Governments should consider conducting an asset stocktake (or baseline assessment) – these typically cost between \$4,000 to \$20,000 and take up to three months, depending on population size, geography, and the staff time and resources available.²³

This would involve:²⁴

Activity 1. Collect information on policy and operating context to review the relevant national legislation, policies, programmes, budget allocation and resources that impact the mental health situation in the country.²⁵ For government representatives, this is fairly straightforward and may already exist.

18 <http://www.medical-outcomes.com/index/mini>.

19 <https://www.ncbi.nlm.nih.gov/pubmed/23796290>. 2

20 <http://www.mahiti.org>.

21 It is important not to focus simply on common mental disorders because of prevalence. The Mental Health Innovation Network (MHIN) emphasises that very little of the limited funding provided to mental health is ever targeted at severe mental disorders.

22 Pilot prevalence studies cost between \$25,000 and \$300,000, and most LICs would be working with a budget of several million (see Table 1). Even under the most conservative estimate (the most expensive pilot in a small country, with the smallest increment like the \$11 million for Sierra Leone, the pilot prevalence study costs 2.7% of that funding package.

23 These are estimates based on interviews with and documents and in-country programming finances from BasicNeeds, and on our work since 2013 with MHIN.

24 These activities have been informed by the BasicNeeds model and Eaton et al. (2011).

Activity 2. Collect information on key assets and other relevant information. Host community consultations to find out what conditions are like, including the available treatment support and livelihood opportunities for people living with mental disorders, and their families. Identify available resources such as human resources²⁶ and sustainable funding,²⁸ know the strengths and weaknesses of the existing health system,²⁷ and map the relevant local government, non-governmental and private sector agencies in the area.²⁹ It is important to find out which non-governmental actors are operating and what they do, and assess the potential for cooperation with them (either to jointly implement activities or share resources). Security or insecurity, crime, accidents and a general fragility or potential for emergencies are also factors to consider when deciding where and how to operate, as governments well know.

Activity 3. Identify programme partners in the local communities to help with delivery on the ground and support treatment access, training and reach. This saves resources by building upon and acknowledging the value of the resources already in place. Faith-based organisations have traditionally provided mental health services across Africa, particularly at the province, district and community levels. Church-based hospitals tend to provide these services at no cost and also access communities to identify those needing care.³⁰ INGOs, NGOs and international development partners have also played a crucial role in providing these services, especially in the past three decades when most sub-Saharan African countries have battled, and continue to battle, HIV/AIDS.³¹ Therefore, working with existing non-medical support (such as traditional and faith healers and faith-based organisations) provides critical support for people living with mental illness and their families. Mobilising doctors and nurses, alongside community-based leaders, workers and volunteers makes it easier to identify people who could benefit from the programme, and coordinate diagnosis and treatment in rural and community settings. All this will enable the running of regular outreach mental health clinics,³²

and activities (like livelihood activities) that together contribute to sustainable outcomes.

Activity 4. Identify potential donors and funding opportunities if desired. It is important to remember that funding grants do not have to be drawn solely from donors with an interest in mental health; it is worth considering other donors with the mission of reducing poverty, empowering of marginalised communities, enabling community development, promoting human rights, or engaging advocacy or research.

The fundamental goal of the asset stocktake is to understand the overall context and the services and resources that are already in place to sustainably improve the lives of people with mental illness, and their carers. This will help identify any gaps that a programme of care and support could aim to fill, and provides a basis for measuring the quality and impact achieved by the programme.

Step 3: Implement a scalable community-based model, linked to trained professionals³³

Recommended spend: 80% to 95% of the selected funding package

The majority of the funding package should be spent on implementing a community-based mental health care model, with a system of referrals, and training provided by, trained medical professionals. Essentially, this means creating a tiered programme (Figure 2) based on having a select few trained medical specialists at the top (however many qualified psychiatrists are working in-country),³⁴ with some nurses and health professionals throughout the national system then specifically trained in mental health care who can refer up as needed. Finally, these link to a broad base of previously unskilled people who are willing to be trained by professionals to help deliver basic mental health services as the foundation of the system. These people (often called lay-workers), once trained, become specialists in able to diagnose, refer and provide basic mental health services such as counselling, for the

25 More information on how to conduct a feasibility study can be found in Orsmond and Cohn (2015), and an example can be found in Montia (2001).

26 Explore the health system for task sharing options (Patel et al., 2008).

27 Identify available human resources at all different levels of existing health care (Eaton et al., 2011: 1600).

28 Governments can consider a combination of government and external funding (Eaton et al., 2011: 1600).

29 It also helps to understand the economic position of people living with mental illness and epilepsy and their carers – what is their access to work and livelihoods? Can they afford the medications required? What are their poverty levels and involvement in productive work? This also helps to understand the real effects of stigma being experienced.

30 ‘Churches’ here refers to Orthodox churches, although in countries such as Zambia, Botswana, South Africa Zimbabwe, Namibia and Nigeria Pentecostal churches have also taken on this role.

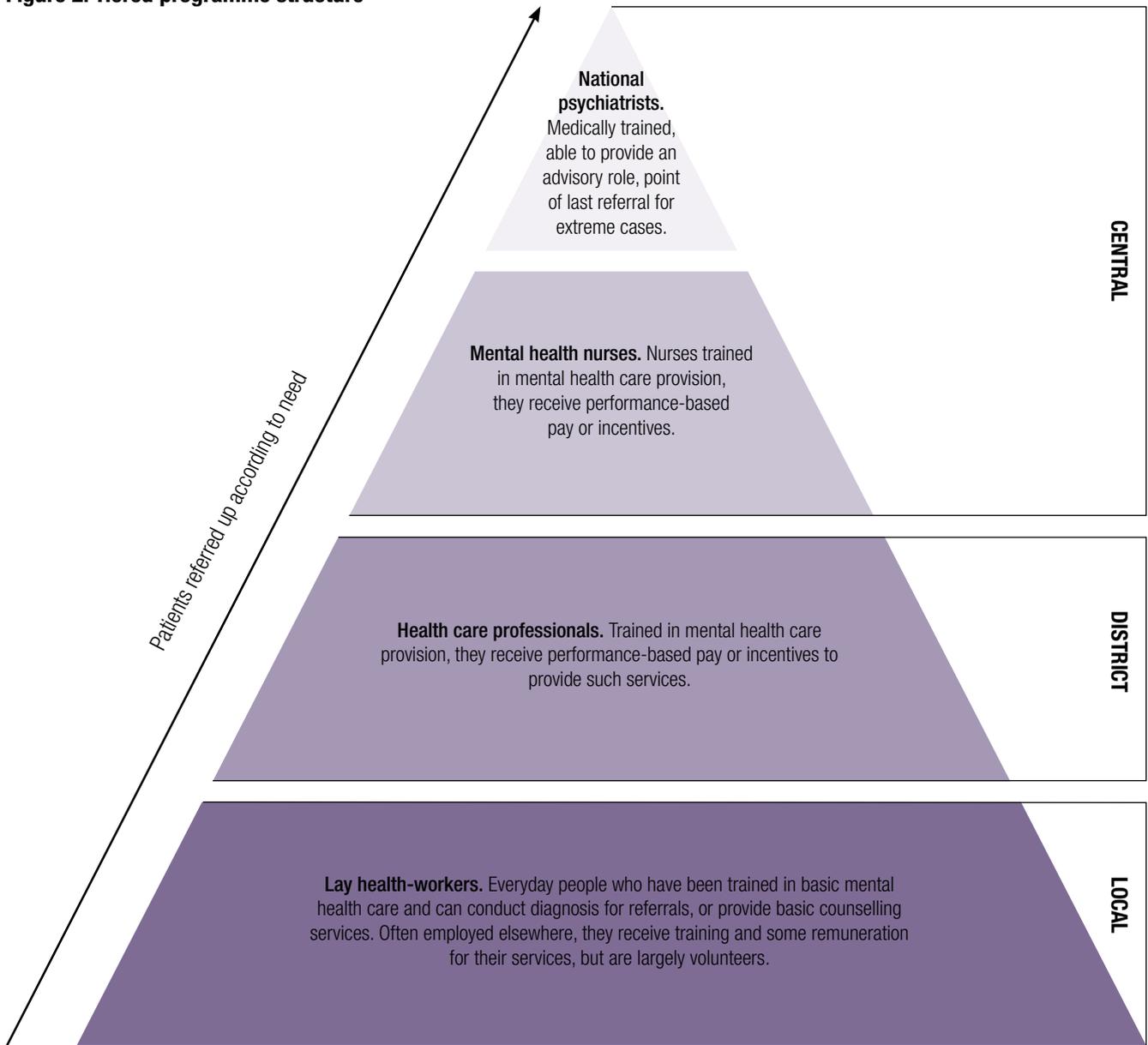
31 Psychosocial care has been and remains an essential core care package for HIV treatment (treatment of the virus being broader than clinical treatment).

32 Delivering diagnosis and medicines to where the majority of people live makes it unnecessary for people to come to a centralised institution (most people with mental illnesses do not have the capacity, money or time to do so).

33 This could draw upon the collaborative stepped care model, but depends upon the capacity in-country.

34 In places like Sierra Leone, this is as few as one for a country of seven million people.

Figure 2. Tiered programme structure



Source: Informed by personal communication with Julian Eaton (CBM) and Ellen Morgan (GCC).

population. They would require remuneration for their work, but this need not be expensive. This model forms the basis of several programmes operating effectively in the NGO space – including BasicNeeds, Community Care for People with Schizophrenia in India (COPSI) and MANAshanti Sudhar Shodh (MANAS), all of which are delivering impressive results for low cost.³⁵ It is a strong model for governments to use as a template to allocate their funding package.

This is best designed as a pilot to be trialled in a select district or province, which is can then be scaled up

across the country. This is the most widely recognised way to efficiently reach those people who need assistance with limited resources. The rationale is to use frontline, non-specialist health workers to identify and treat mental illness at a national level, as a means to counter the large treatment gap in LICs. A key principle is that the level of intensity of care should be matched to the complexity of the condition. The most appropriate (and affordable) level of care may range from brief, minimally intrusive interventions that can be initiated by the local physician, to interventions requiring the enhanced, ongoing efforts of a range of professionals. This

³⁵ For more on COPSI, see: www.mhinnovation.net/innovations/care-people-schizophrenia-india-copsi#.V-UvBfArK70; for more on MANAS, see: www.mhinnovation.net/innovations/manas#.V-UvBvArK70.

community-based approach builds upon the capacity of existing health professionals and services, and creates a cost-effective and sustainable process for achieving good mental health.

As well as being relevant to a broad range of mental health problems, and an effective form of treatment for most people, this approach is believed to generate a population health benefit; that is, it may benefit groups of people, rather than just individuals. Furthermore, it reduces stigma by helping the broader community understand what mental illness is, and how it can be addressed. In practice, it would involve:

Activity 1. Identify the priority conditions for service provision (WHO, 2010). With all key stakeholders that need to be brought on board, develop consensus about the priority conditions requiring services. Assess the evidence for treatment that is available, and review what service provision would be appropriate for the local context (i.e. the level and type of provision that is acceptable, affordable, feasible).

Activity 2. Develop a strong planning and implementation group, with access to experts. This group should have strong ties with local community groups and resources (Kiima and Jenkins, 2010).

Activity 3. Design a method of service delivery (for the pilot) that fits the current health system (BasicNeeds, 2009). Identify the methods of service provision that can be delivered through the existing healthcare system and community provision, such as through faith-based organisations. Adapt and use the relevant guidelines (such as mhGap), based on resource availability. Develop clear, locally relevant referral systems between components of these services.

Activity 4. Ensure essential medicine is available at the local level. This requires its inclusion on national essential medicines lists, as well as safe transportation (full supply chain quality assurance) and that it is prescribed when needed (Eaton, 2008: 179-181).

Activity 5. Identify potential barriers (especially for scale up) and ways of managing these. Identify a contact as a mental health focal point at the local and national level to oversee this process, and create communication channels to sort out blockages. Allocate responsibility for success to be achieved, and foster local leadership. Enhance public programme management skills, and provide other training where necessary (Ssebunnya et al., 2010).

Activity 6. Build a coalition to oversee progress and steer this work. Create strong management structures, with a budget for advocacy activities. Foster a strong voice to communicate why this is happening and engage with other relevant programmes. The key focus of this coalition should be to prepare for national scale-up from the pilot – a scaling-up strategy should be based on the evidence from the programme (Patel, 2010: 169-172).

Activity 7. Monitor and evaluate results, and disseminate your findings (BasicNeeds, 2009). Integrate your reporting into national health reporting systems, involve all stakeholder levels in the evaluation, and the planning of any adjustments to the programme as a result. Develop partnerships with academic institutions and the WHO for sharing your findings.

This can be called a ‘collaborative stepped care model’, and is a credible and evidence-based approach that draws on good principles and practice of chronic disease management. The model is likely to be cost effective, because the least intensive intervention that is appropriate for a person is typically provided first. People can step up or down the pathway according to changing needs and in response to treatment. It is typically provided in LMICs, but would be a sensible approach in LICs if led by governments with a funding package to allocate. However, there is little evidence of how task-sharing could impact the quality of care. It is crucial to avoid jeopardising the quality of care or service user outcomes in the search for cost efficiency. More assessment is needed to ascertain whether health outcomes, as well as the quality of care, can be maintained through such an approach.

Step 4: Integrate mental health into existing development priorities

Recommended spend: will vary, as the aim is to tap into existing resources

Mental health is an issue that crosses sectoral boundaries, and investing in it can deliver benefits to other types of international development programmes. This is sometimes referred to as ‘bi-directionality’. Given the negative impacts of mental disorders on daily functioning, there is space to include components addressing mental health in almost any existing national development programme. The more obvious examples include addressing the following combinations: agriculture and suicide; debt and depression; climate change and mental health resilience; and maternal, new-born and child health with maternal depression (Steel et al., 2009; Bogic et al., 2015; Ventevogel et al., 2015; in Mackenzie and Kesner, 2016). Country governments should consider adding a mental health component to national programmes that are already operating and have secured funding. If stand-alone mental health programmes are not possible (for political or administrative reasons), the most basic course of action would be to incorporate a mental health component into whatever the high-priority development programming is in-country.

Although this still requires consultation, planning and an investment of time, this is ‘low hanging fruit’ in development terms: the setup costs will be minimal as mental health work will be piggybacking on existing programmes, and adding a mental health component can help other sectoral programmes reach their own targets (see the case study outlined in Box 3, for example). It also allows policy-makers to use existing budgets that may not yet be fully allocated. It would involve:

Activity 1. Identify the country's most well-resourced development programme that is receiving national, donor, private sector or international funding. This might be a climate change programme, an infrastructure programme, or a giant national health programme (especially in countries suffering from high levels of HIV infection or recent Ebola outbreaks). It is important to note that such funding is often accompanied by conditionalities that may restrict the movement of funds, so mental health should be identified as an explicit and costed priority at an early stage.

Activity 2. Consult with mental health experts on how a mental health component could be included. This includes local expertise, members of MHIN and WHO and other expert resources. Almost every sectoral programme would benefit from a mental health component, which need not be large or expensive, and will in every likelihood contribute to the programme's effectiveness.

Activity 3. Work with mental health practitioners to add this component, and include it in the reporting. Try to tie this to national community-based programme reporting (step 3), so that they are aligned. This will involve:

Box 3. Delivering benefits to other development programmes

The Friendship Bench in Zimbabwe provides counselling services to people living with HIV, helping to prevent suicide and improving adherence to anti-retroviral therapy, which in turn improves the outcomes of the HIV programme as a whole (Chibanda et al., 2011). Another illustration is found in maternal mental health interventions that demonstrate that programmes can improve not only the mothers' symptoms (Thinking Healthy programme, MHIN), but also child development (a South African case study by Cooper et al., 2002).

considering the human resource requirements needed for mental health provision as well as system planning, management and evaluation; advocacy and awareness campaigns through mass media outlets; and ultimately considering data generation – for instance, through nationally representative surveys of mental health status. This is likely to involve workshops for planning and monitoring (Chisholm et al., 2007b).

Conclusions

This paper aims to prompt more requests by LIC governments for donor funding for mental health activities in-country, by explicitly framing what country governments can ask for and what that will deliver as a result, thus helping the millions of people currently being left behind in terms of treatment.

Chapter 1 explained what countries should be spending, based on an application of expert opinion. We know that LICs are spending only \$0.20 per head of population. Those governments should be spending between \$2 and \$3 pppa domestically on mental health services. This would help them to meet their international targets and reporting requirements – especially those in the SDGs and the WHO Mental Health Action Plan 2013-2020. We have calculated how much should be spent nationally in 29 LICs (the only LICs for which there are population and health spending data). The amount per country is available in full in Annex B.

Chapter 2 outlined how this might realistically translate to services. The graduated nature of these packages means that there is space for policy-makers to begin with the lowest increment and increase their services as local circumstances and capacities adjust. Countries should remember that the \$1 package is well below expert recommendations and not nearly adequate, and we encourage them to progress to the \$3 package as soon as possible. The returns from these packages are exponential. An annual investment of a few dollars per person, for mental health services, could deliver impressive returns; returns of millions of dollars are estimated, even when the money invested in the programme is accounted for. What is more, the returns increase with the amount spent – and so we encourage all policy-makers and donors to start implementing such packages immediately. Beyond the very valid social, humanitarian and normative rationales, there is an excellent economic argument that cannot be overlooked – most of all in the poorest economies in the world.

Chapter 3 outlined four next steps for any government wanting to implement a package domestically: (i) assess domestic needs; (ii) conduct a stocktake of what is underway already and what is working in mental health interventions locally; (iii) establish a pilot community-based model, linked to trained professionals; and (iv) incorporate mental health into whatever the national priority programming is.

Spending even \$1 pppa amounts to five times the current average LIC spending on mental health. For this reason, we have devised incremental packages that build the spending in a more realistic way for governments. We again reiterate that the packages are far from what is needed to ensure that those in need of treatment receive it (given that the UK spends \$278 pppa). However, these are certainly sensible as ‘starter packages’, within the initial phase of scaling up such a programme. It is for the same reason that in Chapter 2 we have outlined a pilot programme, which can then be scaled up as technically trained specialists are incorporated into the national healthcare system. As a minimum, we hope governments would look at step 4 in Chapter 3 and see how they might incorporate a mental health component into their most significant national development programme.

These aim to be accessible, pragmatic steps, in recognition of the complex and urgent competing pressures that governments are facing today. We hope this outline will be helpful for those policy-makers wondering how to invest in mental health and why it might be worthwhile from a development perspective. For those seeking more information on the details of implementation, we encourage you to tap into the wealth of existing resources in this field. And for those willing, we urge you to invest in this important area.

Recommendations



1. Allocate mental health funding

Given the potential benefits from investing in mental health, governments should make funding it a priority in their national budgets, and should request this funding from donor governments and via other funding mechanisms. It is possible to demonstrate these returns, to taxpayers and to donors, in terms of healthy life years gained, GDP increases, people in work and reduction in suicides. There are international and national targets and baselines, to guide investment and measure progress, as set out by WHO.

There is also value in tracking and reporting on funding for mental health. This means countries can show they are progressing against the WHO Mental Health Action Plan 2013-2020, and towards achieving SDG3. Tracking of mental health funding is currently incomplete and inconsistent at best (and at worst, non-existent).

If countries can explicitly demonstrate that mental health is a local priority, it may attract more support from the wider donor community. Our consultations found that donors would be prepared to invest more in mental health programming, but that the demand would have to come from country governments.



2. Increase spending gradually

The gap is not insignificant and governments are dealing with competing priorities. Low-income country governments are currently only spending around \$0.20 per person per annum on mental health. The expert-recommended spend of \$2-\$3 pppa is 10-15 times this current spending, and represents a huge increase for governments with limited budgets and many competing priorities.

We have devised three costed service packages that LICs could use to structure their budgets and service delivery planning. The service package chosen will depend upon available resources and the level of ambition of the policy-makers, but the packages should be viewed as incremental steps to improving mental health care, not finite goals in themselves.

Minimum spending on mental health in LICs should be somewhere between \$1 and \$3 per person per annum (Gureje et al., 2007; Patel et al., 2015; Chisholm et al., 2015; 2016b). One dollar would be a mediocre short-term goal, and well below expert recommendations. Though still inadequate, it represents a realistic, minimum package of care with reasonable coverage levels for those people with unmet, urgent needs. Recognising the time required to increase health system capacity, this could then be increased incrementally, to \$2 pppa, \$3 pppa, and more, as investment begins to yield returns and capacity in-country increases.



3. Consider a community-based, stepped care approach

A community-based stepped-care model is the most widely recognised way to reach people who need mental health services, sensibly and with limited resources. This model is the basis of several effective programmes in the NGO space – including BasicNeeds, COPSI, and MANAS, all of which are delivering impressive results for low cost. The approach is believed to generate population health benefit – that is, it may benefit groups of people rather than just individuals. Furthermore, it can reduce stigma by helping the broader community understand mental illness and how it can be addressed.

It is a strong cost-effective model for governments to use. A stepped care model is a tiered programme (Figure 2). It is based on having a few select trained medical specialists at the top (however many qualified, operating psychiatrists are available in country); some nurses and health professionals trained in mental health care throughout the national system; and finally, a broad base of people willing to be trained by professionals to help deliver basic mental health services. These people (often called lay health-workers), once trained, are able to diagnose, refer and provide basic mental health services such as counselling, for the population. They would require remuneration for their work, but it need not be expensive. This model is likely to be cost

effective, because the least intensive intervention that is appropriate for a person is typically provided first. The idea is to use frontline, non-specialist health workers to identify and treat mental illness at a national level, as a means to counter the large treatment gap in LICs.



4. Conduct national assessments

Policies should be enacted and resources allocated according to specific individual country needs.

Each country is different, and each country will want to make its own decisions. It is therefore necessary for more economic evidence to be generated alongside clinical trials or other evaluations at the national level (see the steps outlined in Box 1), rather than relying on international estimates that may lack sensitivity to local priorities or health system characteristics.

Governments should undertake a prevalence assessment to better understand which disorders to prioritise in increasing service coverage.

This doesn't have to be expensive, but it is crucial. Conducting a prevalence assessment will help governments understand the scale of the problem and therefore the levels of investment needed. It will also ensure that approaches are based on real evidence and are directed at those who are most in need. Given these cost around 0.1% to 2.5% of the funding that countries would be spending if they were to meet expert recommendations, this seems a modest investment to ensure spending is targeted correctly.

Governments should do a 'stock-take' of existing services and what's working. 'What's working' can be tricky in mental health, because it's not always as simple as 'curing' someone; often it is about managing an ongoing disorder, or allowing an individual and their family to maintain a certain quality of life. Treatment choices are also difficult, and best-practice guidance should be sought from national and international health practitioners. Typically, a combination of talking (or signing) therapies and drug-based interventions works best, though the same combinations of treatment won't work for every individual, or in every context. The cost of services and treatments varies across countries (and sub-national areas, depending on terrain and infrastructure), and so we can only estimate what certain spending will deliver. Some work has already been done in this area by WHO.

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Annex A. Minding the mental health funding gap roundtable attendees

Alan Whiteside	Balsillie School
Alberto Lemma	Overseas Development Institute
Dan Chisholm	World Health Organization
Delna Ghandi	DFID
Dixon Chibanda	Friendship Bench Zimbabwe
Ellen Morgan	Grand Challenges Canada (by telephone link)
Harry Minas	University of Melbourne
Foday Sawi Lahai	Former Minister of Health and Sanitation, Sierra Leone
Inka Weissbecker	International Medical Corps (by telephone link)
Jess McQuail	BasicNeeds International
Jessica Mackenzie	Overseas Development Institute
Kim Borrowdale	Suicide Prevention Australia
Kim Harper	Doctors of the World
Kirsty Smith	CBM UK
Liam Sollis	Plan UK
Nilesh Goswami	Formerly Kings Centre for Global Health
Doris Payer	London School of Health and Tropical Medicine
Silvia Stefanoni	Development Action/HelpAge International
Valentina Lemmi	London School of Economics

Annex B. Collected data and calculations

Our average spend of \$0.20 pppa on mental health across the low-income countries assessed was arrived at by: (i) listing all 31 LICs and their populations, as defined by the World Bank in 2015; (ii) coordinating spending data from the publically available WHO Health Expenditure Database for 29 of these 31 countries;ⁱ and (iii) making an informed estimate about current mental health spending levels in these countries, using 0.5% of THE (based on WHO estimates).ⁱⁱ

To calculate the amount that should be spent in different LICs, we used proposed spending estimates taken from the Lancet Global Mental Health Group (Chisholm et al., 2007a), and related these to current THE data from WHO's NHA database, which is publicly available.ⁱⁱⁱ For the price and reach of the different packages available, we drew upon the work of the DCP3 series (Patel et al., 2015), coordinated by the University of Washington and funded by the Bill & Melinda Gates Foundation.^{iv}

For indicative costs of practical considerations (such as how much a prevalence assessment might cost in-country), we consulted BasicNeeds and other MHIN projects, and drew upon national and district studies such as Gureje et al. (2007) for Nigeria and Chisholm et al. (2015) for a range of LMICs in Asia and Africa.

See overleaf for full data tables.

i <http://apps.who.int/nha/database/Home/Index/en>.

ii The 0.5% of THE produced estimates above and below \$0.20 per person, and while it may capture variances in health system capacities it also reflects data weaknesses so was not considered to be robust. Consequently, the average was applied.

iii <http://apps.who.int/nha/database/ViewData/Indicators/en> The population data are taken from the World Population Prospects 2015 revision from UN Population Division <https://esa.un.org/unpd/wpp/Download/Standard/Population>.

iv See DCP-3.org.

Low-income countries (<\$1,025 per capita income in 2015)	Population ('000s)	GDP per capita (\$)	Total health expenditure (THE) per capita (\$)	General government health expenditure (GGHE) per person (\$)	THE as % of GDP	GGHE as % of GDP	GGHE as % of THE	Total mental health (MH) expenditure per person (\$)	
	2014	2014	2014	2014	2014	2014	2014	0.5% of THE	Estimated
Afghanistan	31,628	691	57	20	8	3	36	0.28	0.20
Benin	10,598	825	38	19	5	2	49	0.19	0.20
Burkina Faso	17,589	710	35	18	5	3	52	0.18	0.20
Burundi	10,817	286	22	11	8	4	53	0.11	0.20
Central African Republic	4,804	371	16	8	4	2	49	0.08	0.20
Chad	13,587	1,025	37	20	4	2	55	0.19	0.20
Comoros	770	841	57	19	7	2	33	0.28	0.20
Congo, Dem. Rep.	74,877	440	19	7	4	2	37	0.10	0.20
Eritrea	5,110	755	25	12	3	2	46	0.13	0.20
<i>Ethiopia</i>	96,959	546	27	16	5	3	59	0.13	0.20
Gambia, The	1,928	419	31	21	7	5	69	0.15	0.20
Guinea	12,276	540	30	15	6	3	48	0.15	0.20
Guinea-Bissau	1,801	666	37	8	6	1	20	0.19	0.20
Haiti	10,572	813	61	13	8	2	21	0.31	0.20
Liberia	4,397	461	46	15	10	3	31	0.23	0.20
Madagascar	23,572	449	14	7	3	1	48	0.07	0.20
Malawi	16,695	255	29	15	11	6	53	0.15	0.20
Mali	17,086	696	48	11	7	2	23	0.24	0.20
Mozambique	27,216	602	42	24	7	4	56	0.21	0.20
<i>Nepal</i>	28,175	688	40	16	6	2	40	0.20	0.20
Niger	19,114	419	24	13	6	3	55	0.12	0.20
Rwanda	11,342	697	52	20	8	3	38	0.26	0.20
Senegal	14,673	1,062	50	26	5	2	52	0.25	0.20
Sierra Leone	6,316	\$775	86	15	11	2	17	0.43	0.20
South Sudan	11,911	1,097	30	12	3	1	42	0.15	0.20
Tanzania	51,823	927	52	24	6	3	46	0.26	0.20
Togo	7,115	646	34	13	5	2	38	0.17	0.20
<i>Uganda</i>	37,783	724	52	13	7	2	25	0.26	0.20
Zimbabwe	15,246	896	58	22	6	2	38	0.29	0.20
Average								0.20	

Notes: No data were available for the Democratic People's Republic of Korea or Somalia. Italics denotes Emerald Project countries. Sources: Population data taken from World Population Prospects 2015 revision from the United Nations Population Division, Total Population - Both Sexes; de facto population in a country, area or region as of 1 July of the year indicated, available at <https://esa.un.org/unpd/wpp/Download/Standard/Population>. GDP data taken from NHA Database: macro data, consumption; THE and GGHE taken from NHA Database, both available at <http://apps.who.int/nha/database/Select/Indicators/en>.

LICs (<\$1,025 per capita income in 2015)	General govt MH expenditure per person	Estimated total current MH spending (millions, \$)	Estimated current govt MH spending (millions, \$)	Total MH budget at different assumed levels of per person spending (millions, \$)			Total MH budget as % of current THE (at different per person spending levels)			Total MH funding gap at different assumed levels of per person spending (millions, \$)		
				\$1.00	\$2.00	\$3.00	\$1.00	\$2.00	\$3.00	\$1.00	\$2.00	\$3.00
	<i>Same % as total</i>											
Afghanistan	0.07	6.3	2.3	32	63	95	2%	4%	5%	25	57	89
Benin	0.10	2.1	1.0	11	21	32	3%	5%	8%	8	19	30
Burkina Faso	0.10	3.5	1.8	18	35	53	3%	6%	9%	14	32	49
Burundi	0.11	2.2	1.1	11	22	32	5%	9%	14%	9	19	30
Central Afr. Rep.	0.10	1.0	0.5	5	10	14	6%	13%	19%	4	9	13
Chad	0.11	2.7	1.5	14	27	41	3%	5%	8%	11	24	38
Comoros	0.07	0.2	0.1	1	2	2	2%	4%	5%	1	1	2
Congo, Dem. Rep.	0.07	15.0	5.5	75	150	225	5%	10%	16%	60	135	210
Eritrea	0.09	1.0	0.5	5	10	15	4%	8%	12%	4	9	14
<i>Ethiopia</i>	0.12	19.4	11.4	97	194	291	4%	8%	11%	78	175	271
Gambia, The	0.14	0.4	0.3	2	4	6	3%	7%	10%	2	3	5
Guinea	0.10	2.5	1.2	12	25	37	3%	7%	10%	10	22	34
Guinea-Bissau	0.04	0.4	0.1	2	4	5	3%	5%	8%	1	3	5
Haiti	0.04	2.1	0.4	11	21	32	2%	3%	5%	8	19	30
Liberia	0.06	0.9	0.3	4	9	13	2%	4%	6%	4	8	12
Madagascar	0.10	4.7	2.3	24	47	71	7%	15%	22%	19	42	66
Malawi	0.11	3.3	1.8	17	33	50	3%	7%	10%	13	30	47
Mali	0.05	3.4	0.8	17	34	51	2%	4%	6%	14	31	48
Mozambique	0.11	5.4	3.1	27	54	82	2%	5%	7%	22	49	76
<i>Nepal</i>	0.08	5.6	2.3	28	56	85	3%	5%	8%	23	51	79
Niger	0.11	3.8	2.1	19	38	57	4%	8%	12%	15	34	54
Rwanda	0.08	2.3	0.9	11	23	34	2%	4%	6%	9	20	32
Senegal	0.10	2.9	1.5	15	29	44	2%	4%	6%	12	26	41
Sierra Leone	0.03	1.3	0.2	6	13	19	1%	2%	3%	5	11	18
South Sudan	0.08	2.4	1.0	12	24	36	3%	7%	10%	10	21	33
Tanzania	0.09	10.4	4.8	52	104	155	2%	4%	6%	41	93	145
Togo	0.08	1.4	0.5	7	14	21	3%	6%	9%	6	13	20
<i>Uganda</i>	0.05	7.6	1.9	38	76	113	2%	4%	6%	30	68	106
Zimbabwe	0.08	3.0	1.2	15	30	46	2%	3%	5%	12	27	43
Total		117	52	586	1,172	1,757				469	1,054	1,640
Average							3%	6%	9%			

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