Scaling Up Mental Health Services in Low- and Middle-Income Countries – Challenges and Recommendations for Scaling Up Mental Health within the Primary Health Care System in the Indian State of Madhya Pradesh

By

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A Master’s Paper submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Public Health in the Public Health Leadership Program

Chapel Hill
2013

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### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>DALY</td>
<td>Disability Adjusted Life Years</td>
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<tr>
<td>DFID</td>
<td>Department for International Development (United Kingdom)</td>
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<td>HSRP</td>
<td>Health Sector Reform Program</td>
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<tr>
<td>IEC</td>
<td>Information, Education and Communications</td>
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<td>LMIC</td>
<td>Low- and middle-income countries</td>
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<td>mhGAP</td>
<td>Mental Health Gap Action Plan</td>
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<td>PRIME</td>
<td>Programme for Improving Mental Health Care</td>
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<td>SPRF</td>
<td>Spending &amp; Policy Research Foundation</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>YLD</td>
<td>Years Lived with Disability</td>
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Abstract
Mental illness is a crucial global health issue accounting for about 14% of the global burden of disease. Worldwide, there is an immense treatment gap between the occurrence of mental illness and the availability of mental health interventions. The World Health Organization (WHO) estimates that nearly 80% of the burden of disease from mental health exists in low- and middle-income countries (LMICs), while virtually all the resources for addressing mental illness are located in high-income countries. Many LMICs have limited or no budget for mental healthcare, and only about 10% of their citizens who need services actually have access to them (World Health Organization, 2009). A number of affordable, evidence-based, and cost-effective interventions have been identified to address mental illness, but these have not been implemented on a sufficient scale in resource-poor countries. In light of the severe shortage of mental health services, the Lancet Mental Health Group and WHO have made an urgent call for scaling up mental health services in resource-poor countries by incorporating mental health interventions into government-financed primary and maternal healthcare systems (The Lancet Mental Health Group, 2007; World Health Organization, 2008a). However, many challenges and barriers have to be overcome if mental health services are to be scaled up rapidly and sustainably. This paper discussed the importance of mental health as a global health issue. Next it reviewed the constraints and success factors in scaling up global health interventions. Then, based on the author’s practicum experience in the Indian state of Madhya Pradesh, the paper made an ex-ante assessment of how these factors might affect a program to scale up mental health services in that state. The paper concluded that scaling up mental health in Madhya
Pradesh is likely to encounter significant challenges, including the size and complexity of the state's population, high rates of poverty, low spending on primary healthcare, and a weakly-performing public health system. The paper recommended policies and actions to improve the success of scaling up mental health interventions in the Madhya Pradesh. These included taking a phased approach to scaling up, selecting the initial districts for inclusion in the program carefully, conducting a statewide information, education, and communications (IEC) plan to counter stigma against mental health, developing strong leadership throughout the state to promote mental health, continuing with on-going health system reform and finding a partner to help finance the required services.
Introduction

This paper reviews the constraints and success factors that have been encountered in scaling up health interventions in low- and middle-income countries (LMICs), or resource-poor countries (I use these terms interchangeably in this paper). Then, based on a practicum in the Indian State of Madhya Pradesh, I make an ex-ante assessment of how these factors might affect a program to scale up mental health services in that state. The first section of the paper discusses mental health as a global health problem. The next section reviews the literature on factors that influence the success or failure of programs and projects to scale up global health interventions. The third section looks at these factors in the context of the Indian State of Madhya Pradesh. Finally, the paper proposes recommendations for policies and actions to improve the success of scaling up mental health interventions in Madhya Pradesh.

Mental Health as a Global Public Health Issue

Mental illnesses are diseases that affect a person’s daily functioning, mood, thinking, feeling, and ability to relate to others. The most common mental illnesses are depression, alcohol abuse, substance-use disorders, and psychoses (Bloom et al., 2011). From its inception in 1946, the World Health Organization (WHO) recognized the importance of mental health to overall health. This is reflected in WHO’s constitution which defines health “as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 1946 p. 1). In its seminal 2001 World Health Report (WHR 2001), WHO reminded the global health community that mental health is just as important as physical health.
Mental health disorders cause immense human suffering and disability. Globally in 2002, 154 million people suffered from depression, 25 million from schizophrenia and over 100 million from drug and alcohol abuse. Around 100,000 people commit suicide every year (Bloom et al., 2011). Mental illnesses account for about 14% of the global burden of disease, measured in disability adjusted life years (DALYs), mostly due to chronic disability caused by depression and other mental health diseases. As shown in Figure 1, which is based on WHO data, mental illnesses account for the largest share (28%) of the global burden of non-communicable disease (Prince et al., 2007).

**Figure 1**

*The Burden of Non-Communicable Disease*

Because mental illnesses tend to cause more long-term disability than mortality, they account for a high percentage of the disability component of the burden of disease, referred to as years lived with disability (YLDs). Mental illnesses accounts for 30.8% of all YLDs. Depression causes the highest amount of disability of all diseases, accounting...
for almost 12% of total YLDs (World Health Organization, 2001b). Economic losses from mental health diseases are also enormous. Bloom et al. have calculated that over the next twenty years, non-communicable disease will cost more $30 trillion, and that mental health conditions will account for over half this amount at $16 trillion, representing about 26% of 2010 global gross domestic product (Bloom et al., 2011).

Mental illness contributes to overall morbidity and mortality through complex pathways. Mental illnesses are comorbid, or act as risk factors, for non-communicable and communicable diseases and are factors in maternal depression, sexual violence, injuries, and accidents (World Health Organization, 2001b, 2008a). Conversely, many medical conditions increase the risk for mental illness. For example, Prince, et al (2007) cited evidence from the United States that people with mental health disease have a higher rate of HIV infection, and that people living with HIV are at risk of developing mental illness. This comorbidity between mental and physical illnesses led WHO to declare that there can be "no health without mental health" and to recommend that mental health be incorporated into national health systems, rather than being treated separately (Prince et al., 2007).

In spite of the prevalence and high burden of mental illness, the WHR 2001 reported that only a few of the 450 million people who were then suffering from mental illnesses received treatment. Worldwide, there is an immense treatment gap between the prevalence of mental illness, which occur mainly in LMICs, and the availability of mental health interventions, which are mainly in high-income countries. The WHO estimates that nearly 80% of the burden of disease from mental health exists in LMICs, while virtually all the resources for addressing mental illness are located in the high-
income countries of the developed world. Between 75% - 80% of the people living with mental illnesses in LMICs have little or no access to appropriate mental health services.

Globally, resources available to finance essential mental health interventions are inadequate. WHO estimates that one-third of countries have no mental health budgets. Even in countries with mental health budgets, the allocation is often too low. WHO estimates that worldwide a meager 3.8% of overall health budgets are allocated for mental health, with some countries allocating less than 1% of their health sector budgets to mental health (World Health Organization, 2009). Globally, per capita spending on mental health is less than two US dollars. To make matters worse, funds for mental health are inefficiently allocated, with 67% of spending directed towards mental institutions instead of focusing on more efficient community-based interventions (World Health Organization, 2011).

The already stretched health sector budgets of resource-poor countries will face even more pressure as the burden of non-communicable diseases grows. High-income countries have gone through an epidemiological transition, in which the main focus of their health systems has shifted from communicable to non-communicable diseases. (High income countries still experience incidence of communicable diseases, but their burden of disease stems largely from non-communicable or chronic diseases). Many LMICs are facing a “double burden” in which communicable diseases still account for a large portion of the burden of diseases, while non-communicable disease are becoming an important public health threat (Heilbuth, 2011). While addressing the growth of non-communicable diseases poses an organizational and financial challenge to LMICs, there is a growing understanding that the “double burden” of disease can be managed
in resource-poor countries as part of health system strengthening (Ramaswamy & Barker, 2012).

WHR 2001 recommended a transformation in the treatment of people with mental illnesses, including ten specific strategies for strengthening service provision: (a) incorporating mental health treatment into existing primary healthcare systems; (b) making psychotropic drugs readily available; (c) shifting care from institutional settings to the community; (d) educating the public about mental health; (e) involving families and communities integrally in treatment programs; (f) establishing effective national policies; (g) developing human resource capacity; (h) linking mental health programs with other sectors; (i) monitoring community health; and (j) supporting more research (World Health Organization, 2001b). The WHO recommended that resource poor countries start implementing the ten strategies with relatively modest steps, including making psychotropic drugs available at all facilities, training of health personnel, and moving people with mental illness out of intuitional settings such as prisons.

In view of the large burden of disease from mental illness and its disproportionate effect on the poor in LMICs, the global health community began to recognize the need for more rapid and sustained growth of mental health services. In 2007, the Lancet Mental Health Group issued a call for sustained efforts to scale up mental health services in resource-poor countries. The Lancet Mental Health Group estimated that an adequate package of basic mental health services could be provided to citizens of resource-poor countries by increasing per capita expenditures for basic and primary healthcare by about two US dollars (The Lancet Mental Health Group, 2007). Then in 2008, WHO intensified its commitment to expanding access to mental health services
by establishing the *Mental Health Gap Action Programme (mhGAP)*. The objectives of mhGAP are to increase the allocation of financial and human resources for care of mental illness, and to expand coverage of the most effective interventions, particularly in LMICs. mhGAP sets out a framework for national action to scale up mental health services including (a) developing political commitment at the highest levels; (b) assessing mental health needs and available resources; (c) developing a supportive policy environment; (d) effectively delivering the intervention package; (e) strengthening human resources; and (f) mobilizing financial resources. (World Health Organization, 2008a).

**Scaling up Health Services**

**Definition of Scaling Up**

The term “scaling up” has gained wide currency in the global health literature, although there is no common definition. Scaling up refers to the process of expanding coverage of a promising health intervention to cover additional stakeholders or a wider geographic area (Mangham & Hanson, 2010). The term is often used to describe efforts to expand coverage of an intervention beyond an initial pilot study group or experimental approach (Simmons, Fajans, & Ghiron, 2007). Sometimes the term refers to applying more intensified human or financial resources to a promising health intervention (World Health Organization, 2001a). The WHO defines scaling up health services as “doing something in a big way to improve some aspect of a population’s health.” (World Health Organization, 2008b). mhGAP describes scaling up as “a deliberate effort to increase the impact of health service interventions that have been successfully tested in pilot projects so that they benefit more people, and to foster
sustainable development of policies and programs” (World Health Organization, 2008a p.13). Scaling up is not just about expanding a program in a “business as usual” manner; it implies conducting a rapid, highly-focused, and sustained campaign to address an urgent public health problem.

**Approaches to Scaling Up**

Scaling up can take several different forms. Horizontal scaling up involves increasing the geographic coverage of a program, such as when expanding the number of villages or districts covered by an intervention. Vertical scaling up entails expanding a program or intervention that is successful at one organizational level to additional levels, such as when a successful village level program is replicated at district level. Vertical scaling up can take place in an upward direction (from village to district) or downwards from district to village level. Functional scaling up refers to reforms, improved methods or increased capacity applied from one program to another. An example of functional scaling up is when improvements in drug procurement for antiretroviral therapy under an HIV/AIDS program are applied to procurement of psychotropic drugs for mental health (Neuman-Silkow, 2010). Yamey (2011) highlights two scaling-up models. The cascade model is a vertical approach in which regional trainers prepare district trainers, who in turn train local teachers and health workers. The phased model starts from the pilot project stage and expands to successively larger phases (Yamey, 2011).

In a Technical Brief on scaling up, the WHO points out that scaling up can be applied to the entire spectrum of the input-output model as depicted in the box below:
Planners can intervene at various points in the input/output model, depending on the objective of the scale up operation. They may focus on enhancing quality to improve utilization, or they may concentrate on increasing access to reach additional clients. In many cases there is a need to focus on multiple dimensions (World Health Organization, 2009). There may be a need to increase access to a service, while at the same time improving its quality.

**Challenges and Success Factors in Scaling Up Health Interventions**

mhGAP emphasizes that program planners must anticipate the barriers and obstacles that might be confronted in scale-up operations. Even at a pilot stage, planners should try to anticipate the problems that might be encountered within the health system, at the community and household levels, in service delivery mechanisms, and in the social and environmental context. While each country is unique and must
follow its own path to expanding health services and improving outcomes, there are some common success factors that facilitate successful scaling up (Subramanian, Naimoli, Matusbayashi, & Peters). The following table describes some of the key challenges and success factors that have been found to affect scaling up global health interventions.

**Table 1**

*Challenges and Success Factors in Scale-Up Projects*

<table>
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<tr>
<th>Component</th>
<th>Challenges and Success Factors</th>
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<tr>
<td>The intervention</td>
<td>• Simple interventions are easier to scale up than complex interventions</td>
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</table>
| Characteristics of the adopting community | • The community is receptive to the intervention and capable of taking it up  
• There is community demand for the intervention |
| The health system                  | • Performance of the health system is strong  
• There is capable leadership in the health system                                             |
| Financial resources                | • Adequate resources are available to support scaling up                                        |
| Avoiding external consequences     | • The scaling up operation avoids adverse external consequences for other programs and the health system |
| Continuous quality improvement     | • The scale up efforts incorporates continuous quality improvement                              |

Source: Adapted from Yancey (2011), Ramaswamy & Barker (2013)

**Characteristics of the Intervention**

Simple interventions lend themselves to scaling up more readily than complex interventions, and complexity can be a major barrier to scaling up (Yamey, 2012). Gericke, Kurowski and Mills (2005) developed a model for analyzing interventions. Among the key characteristics of a simple intervention are: it can be easily standardized; its demands on existing human and physical infrastructure are
manageable; its demands on government capacity, including the need for new laws and regulations are manageable; and there is existing demand for the intervention among the target population (Gericke, Kurowski, Ranson, & Mills, 2005). There is a close link between the complexity of an intervention and the capacity of the implementers. Scaling up a complex intervention in a resource-constrained or weakly-performing health system will be a challenge. To address such constraints, planners can simplify the intervention while strengthening the capacity of the health system.

**The Health System**

Scaling up a major health intervention requires a robust, highly functional, efficient, and effective health system. According to WHO’s definition, a health system consists of all the activities carried out by the system, as well as the people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population (World Health Organization, 2000). While there are many elements of health system that must be functioning properly to assure the health of a country’s population, WHO highlights the following as key areas: leadership and governance, health information systems, health financing, health human resources, essential products and technologies, and service delivery (World Health Organization, 2010). When these elements are not in place, planners of scaling-up operations face the challenge of designing technical assistance, or enabling packages to strengthen the functioning of the system, and implementing these packages simultaneously with the scale-up program.

Yamey (2012) pointed out that lack of human resources, leadership, and management capacity are key problems in the health systems of many LMICs, and a
major barrier to scaling up health interventions. Effective leaders are needed to plan scale-up operations, develop appropriate policies, and ensure commitment from higher level stakeholders and from communities. Strong leadership can “make or break” a scaling up operation (Yamey, 2012). For example, the Leadership Development Programme financed by the United States Agency for International Development (USAID) in rural Egypt led to expanded access to pre-natal and post-natal care and a decrease in maternal mortality. Working with the Ministry of Health, this program focused on helping managers develop high-performance teams and leading them to achieve results. The program introduced leadership and management practices, and developed a methodology for identifying service delivery constraints. It demonstrated that when teams acquired appropriate leadership skills, they were able to develop and scale up their own solutions to complex public health problems. After USAID departed, local participants scaled up the program to 184 health centers covering 10,000 doctors. The teams were able to reduce maternal mortality in the project areas from 85.0 to 35.0 per 100,000 (Mansour, Mansour, & Swesy, 2010).

As pointed out by Sollecito, of the University of North Carolina, health sector leadership cannot be confined to traditional, bureaucratic leaders with official titles; but must be cultivated at all levels of a system. Effective leadership must extend from the health ministry in the capital city to the village and community level (W. Sollecito, personal communication, January 2013). Health sector planners interested in scale up must promote the development of leadership capacity at all levels and allow natural leaders to emerge and exert influence throughout the system.
The Adopting Community

Planners of scale-up operations must engage the local communities and local implementers in assessing community needs and in planning, implementing, and monitoring the project or program. Engaging prospective patients in programs is another crucial factor (Yamey, 2011). A high degree of community cohesiveness facilitates scaling up, while factionalized communities are not ideal targets. Communities with balanced power sharing arrangements and strong community traditions of collective action are more likely to be successful at scaling up. Planners should capitalize on communities’ existing traditions of collective action. Strong linkages between communities and government agencies are an advantage. At the same time, the community must be committed, ready and receptive to the intervention. Sustained demand from the community is key to ensuring the commitment of policy makers and service providers (Gillespie, 2004). Health planners can cultivate demand for an intervention by using demand-side interventions such as conducting information, education and communication (IEC) campaigns, increasing local participation in planning, supporting local leaders, and reducing formal and informal costs of the intervention (Razavi, Gaumer, & Wallack, 2009).

Financial Resources for Scaling Up

In resource-poor countries, scaling up major health interventions require significant additional domestic and external funding to cover the costs of the new services (World Health Organization, 2001a). Mangham (2010) reported that scaling up interventions to address the health MDGs would cost an additional $36 billion to $45 billion annually. WHO estimated that between 2006 and 2015, an additional $5.2 billion
would be needed annually just to scale up the required child health interventions (Mangham & Hanson, 2010). While adequate financing may be a necessary condition for scaling up a major health intervention, it is not a sufficient condition (World Health Organization, 2001a). Even well-resourced interventions can fail if the other key conditions such as a receptive community, a robust health system, an appropriate, evidence-based intervention and a well-planned and executed program are not in place. A lack of financial resources can be countered by careful planning of the scale-up process, incorporating local learning into pilots, incorporating strong participatory processes, and priority setting based on cost-effectiveness (Subramanian et al.).

**Avoids External Consequences**

Scaling up of a new program in a resource constrained environment can lead to unproductive competition among existing and new programs for scarce resources including funds, medical and public health personnel, infrastructure, and managerial assets (World Health Organization, 2008b). In resource constrained health systems, it is possible that scaling up one program may inadvertently involve “scaling down” another program through diversion of resources. For example, scaling up of HIV/AIDS activities has had adverse consequences on human resources in some countries. Workers assigned to internationally-financed HIV/AIDS programs have sometimes been paid better than their counterparts in mainstream programs, causing resentment among the lower paid workers. The attention to scaled up HIV/AIDS interventions, such as antiretroviral therapy, may divert resources from lower profile diseases such as diabetes or hypertension. In some cases, health workers have simply walked away from their existing jobs in favor of new jobs in higher-profile programs being scaled up by
international organizations. Although this may be beneficial to the individual worker, it adversely affects the health system (World Health Organization, 2008b). Yu et al. noted that scaling up HIV programs in Malawi may have decreased the availability of health personnel to provide antenatal services. In other settings family planning and reproductive health programs have been adversely affected by the shifting of funding to HIV programs. Health system planners involved in scaling up new interventions have the obligation to ensure that their efforts do not disrupt the health system.

**Incorporates Quality Improvement**

In many LMICs, the poor quality of health care available is a major reason for low utilization of facilities and services. Health facilities do not open on schedule, doctors are absent or hostile towards patients, drugs are out of stock, patients are charged under-the-table-fees, and facilities are rundown and unsanitary. Low quality causes patients to forego care, by-pass local facilities, and visit unqualified “quacks” or expensive private providers, sometimes impoverishing themselves in the process (Bahree, 2012; O'Donnell, 2007). Improving the quality of health services in LMICs represents a potent means of improving health outcomes, even in resource-constrained environments (Ramaswamy & Barker, 2012).

Planners of scale up-programs should incorporate appropriate quality improvement methods in their designs. The most effective designs will include continuous learning cycles as the program is expanded vertically or horizontally. As pointed out by Ramaswamy and Barker, programs that sequentially scale up services from one geographical area to the next offer an excellent opportunity to incorporate systematic learning and quality improvement techniques after each successive
expansion cycle. By incorporating a systematic Plan, Do, Study, Act (PDSA) cycle, planners can learn and make changes from each successive stage of the scale-up operation to the next (Deming, 1986). For example, the Project Fives Alive project in Ghana followed a sequential, rapid scale-up approach using a continuous quality improvement cycle to accelerate the spread of community-based strategies to improve maternal child health (horizontal scale up), while improving the capacity of the health system across the nation (functional scale up) (Ramaswamy & Barker, 2012; Twum-Danso, 2013).

**Scaling Up Mental Health in Madhya Pradesh: Local Context**

During my practicum, I worked with Sangath, an Indian non-governmental organization whose mission is to improve the health of the population across the lifespan. I assisted Sangath with the design of process metrics to monitor a planned package of mental health interventions to be pilot-tested in Sehore District of Madhya Pradesh. If the pilot tests are successful, Sangath aims to partner with the Government of Madhya Pradesh and the Program for Improving Mental Health Care (PRIME), a global mental health program financed by the United Kingdom, to scale up the interventions in another district in the state. If the interventions in the first two districts are successful, it is anticipated that the government might want to scale up the interventions throughout the state. After completing my practicum, and anticipating that some of these pilot tests would be successful, I decided to analyze the issues and capacity constraints that the government might encounter in scaling up successful mental health interventions within Madhya Pradesh’s primary health care system. This section examines the constraints and success factors for scaling up global health
interventions that were discussed in the previous section, and discusses their
applicability to the plans to scale up mental health in Madhya Pradesh.

Located in the center of India, Madhya Pradesh is India’s second largest state
with an area of 308,252 area of square kilometers (Department of Public Health and
Family Welfare, 2002). The Capital City, Bhopal is located at 23.25° N and 77.42° E.

With a population of 72.6 million, Madhya Pradesh is India’s sixth most populous state.
If Madhya Pradesh were an independent country, it would rank as the nineteenth largest
country in the world; just after Iran and before Thailand (World Bank, 2011 b). The
population is heavily rural – 73% of the people live in rural areas. Scheduled Castes and
Scheduled Tribes account for 15.4% and 19.9% of the population respectively
(Scheduled Castes are communities that were formerly considered low caste or
“untouchables” in the Indian caste system. Scheduled Tribes are tribal communities
outside the caste system; many still live in remote areas. Poverty is disproportionately
high among these groups. (P. Jadhav, 2008)).

**Mental Health is a Complex Intervention**

Although the WHO has identified a number of cost-effective, affordable
interventions to address mental illnesses, implementation of these packages is a
complex endeavor for several reasons. Mental health interventions have to be
implemented at all levels of the health system from the community level to the
secondary and tertiary hospital levels. Recognizing and diagnosing mental illnesses is a
highly complex matter. Psychotropic drugs must be procured and made available at all
facilities. Community health workers have to be trained to identify and provide “first aid”
to people with mental illnesses. Those who cannot be treated at the community level
must be referred to successively higher levels, and should be accompanied by a family member or trusted caregiver while moving between levels. The most complex cases must eventually be cared for at tertiary referral hospitals staffed by trained psychiatrists, who are in short supply in Madhya Pradesh. Once treatment has been successful, clients have to be returned to their community for follow-up care. This client aftercare requires complex coordination mechanisms with families, communities, employers, pharmacies, and healthcare providers.

**Characteristics of the Adopting Community**

The size of the population, geographical scale and social complexity of Madhya Pradesh presents a considerable challenge to scaling up mental health. Madhya Pradesh is a relatively poor and disadvantaged Indian state - poverty is widespread and the population’s health status is poor. Per capita income is Rs.15,000 (US $273) compared with Rs.25,000 ($454) for all-India.\(^1\) Life expectancy is 58.6 years in Madhya Pradesh compared with 63 years nationally. The infant mortality rate is 58.6 per 1000 live births compared with 50 per 1000 for India as a whole. The maternal mortality rate is 269 per 100,000 live births compared with a national rate of 254 per 100,000 and the sex ratio is 930 women to 1000 men compared with the national rate of 940/1000 (Department of Public Health and Family Welfare, 2002; Programme for Improving Mental Health Care, 2012). This sex ratio implies that in Madhya Pradesh there are approximately 5 million fewer women than would be expected if the sex ratio were closer to a 50:50 ratio (Nair, 2011). The skewed sex ratio is significant because it can increase rates of human trafficking, bride buying/selling, domestic violence towards

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\(^1\) An exchange rate of Rs.55/US$ is used for currency conversions.
women, and sexual abuse. These abuses are risk factors for many common mental health problems among women including anxiety, fear, depression, substance abuse, and traumatic stress (Patel, n.d.).

Mental illness affects the poor, women, ethnic minorities, and other vulnerable populations disproportionately (World Health Organization, 2001b). My practicum discussions with village women in Sehore District indicated that they frequently suffer from postpartum depression, particularly after giving birth to a girl. Mangham (2007) points out that ensuring equitable access of vulnerable populations to new interventions is one of the major challenges of scaling up. The need to reach into the state’s remote rural communities will raise the cost of the services. And the scaled-up interventions must be specifically tailored to meet the contextual needs of women, ethnic minorities and disadvantaged castes.

Stigma towards mental illness and people with mental illness are likely to present another barrier to scaling up mental health programs in Madhya Pradesh. The general public in India lacks understanding of mental health issues, and directs stigmatizing attitudes towards people with mental illness. Ganesh (2011) conducted a cross-sectional survey of 100 subjects in Southern India and found that knowledge of mental illness or “mental health literacy” among the subjects was poor. Ganesh found that only about 18% of the respondents visited a psychiatrist when they had an emotional problem, while 36% visited a traditional faith healer. Sixty percent of the respondents were afraid of people with mental illness and 75% said they would not befriend someone with mental illness. Fifty-five percent indicated they would be ashamed to admit that someone in their family had a mental illness. Surprisingly, 55% thought that
marriage would cure mental illness. Ganesh concluded that most of his subjects had negative attitudes about mental illness and stigmatized the people with mental illness (Ganesh, 2011). Although Ganesh’s study focuses on Southern India, there is anecdotal evidence that such stigmatization exists in Madhya Pradesh. For example, the *Times of India* reported that a man with mental illness was forcibly sterilized in a government district hospital in February 2012 (Lall, 2012). Further research on stigmatization of people with mental illness in Madhya Pradesh is required to strengthen plans for scaling up mental health interventions in the state.

Madhya Pradesh is a predominantly rural state. Jadhav et al. found that stigmatization of people with mental illness was significantly worse among rural residents than among urban dwellers. Stigmatization was particularly high among rural manual laborers. Changing the attitudes of rural dwellers will be challenging because of the difficulty of reaching people in remote rural areas with effective IEC campaigns (S. Jadhav et al., 2007).

Stigmatization of people with mental illness and of mental health itself even extends to medical providers. In a survey of Indian medical students at five Delhi medical teaching colleges, Jugal, Mukerjee, Parashar, Jiloha & Ingle (2007) found that only 60% of the medical students considered mental illness to be a disease. Nearly 80% of the respondents considered psychiatry to be a “difficult” discipline. The medical school respondents also exhibited adverse attitudes towards the people with mental illness – 24% believed that those in contact with people with mental illness are likely to start behaving oddly; nearly 70% reported that they would be uncomfortable talking with a person with mental illness; and 63% of the respondents thought that mental illnesses
were caused solely by social circumstances. Although the study by Jugal et al. refers to New Delhi, the recent sterilization of a man with mental illness in a state district hospital in Madhya Pradesh provides anecdotal evidence that such stigma is present among officials in the state (Lall, 2012). Further research is needed to determine whether such attitudes prevail among medical students in Madhya Pradesh. Such research should be a part of the scaling up effort because stigmatizing attitudes by medical students presents a significant challenge to the efforts to sensitize primary practitioners to the plight of people with mental illness (Jugal, Mukerjee, Parashar, Jiloha, & Ingle, 2007).

The Primary Healthcare System in Madhya Pradesh

Integrating mental health care into primary healthcare system in Madhya Pradesh may be challenging because the system is already constrained by infrastructure and human resource shortfalls. Although most of the mandated health care facilities have been constructed, the reality is that many are not functioning as efficiently as intended. The Spending & Policy Research Foundation (SPRF) based in Mumbai reports that rural India faces a shortfall of over 12,300 specialists and 3,880 general physicians, and a shortfall of almost 10,000 primary health centers. Madhya Pradesh is one of the states with the highest shortfall in required number of facilities and in medical personnel to staff the facilities. According to SPRF, Madhya Pradesh has only 82% of the required primary health centers and 67% of the required community health centers.² There is also a shortage of doctors in Madhya Pradesh – of the 1,517 functioning primary health centers in Madhya Pradesh, 199 primary health centers or 17% have no doctors. When looking at the requirement for specialist positions in

² MP requires 1851 primary health centers but has only 1,517. It requires 494 community health centers but has only 333.
Madhya Pradesh’s community health centers, the situation is even more critical. Of the required 1,332 positions only 778 have been sanctioned and only 227 (17% of the requirements) have been filled. The scarcity of facilities and healthcare personnel in Madhya Pradesh’s primary healthcare system poses a significant obstacle for implementing the basic services already covered by the primary healthcare program, and an even greater challenge for the introduction and scaling up of new services.

The inadequate performance of the primary healthcare system has been recognized by the State Government for some time. In its 2001 Medium-Term Strategy Paper, the government analyzed the situation as follows: “While seeking health care, people increasingly prefer approaching private health care, if they can afford it. The reasons for this, apart from the problems associated with distance, are the poor quality of services, lack of availability of doctors and their unsympathetic attitude” (Department of Public Health and Family Welfare, 2002 p.19).

During my practicum visit to Sehore District, our team talked with village women about their access to mental health care. At first they were unsure what was meant by mental health problems, but after some explanation they understood and indicated that they sought care from traditional healers rather than qualified medical providers. Asked about their views of the government primary healthcare system, these village women voiced mixed opinions. Although some were satisfied with the primary care services, others indicated that they could only get quality services if they offered under-the-table payments. The mistrust of the government-provided primary healthcare system by the population and their tendency to bypass the public system in favor of formal and
informal private providers is another obstacle that must be overcome when scaling up mental healthcare in Madhya Pradesh.

The Madhya Pradesh Government is engaged in a major health reform program, financed by the United Kingdom’s Department for International Development (DFID), called the Madhya Pradesh Health Sector Reform Program (HSRP). However, even with the Government’s commendable efforts to strengthen the health care system under the Madhya Pradesh HSRP, requires considerable time and effort to overcome the system’s capacity constraints. Scaling up mental health programs, while simultaneously introducing comprehensive system reform, will be demanding. Many of the shortcomings, including the lack of staff and infrastructure, shortage of essential medicines, the unsympathetic treatment of patients, and the poor accountability and low motivation of staff will directly impinge on the efforts to scale up new mental health interventions.

Financial Resources

Madhya Pradesh has limited financial resources. According to DFID, Madhya Pradesh allocated only 3.5% of government expenditures to the health sector. Per capita public spending on healthcare of US eight dollars per capita is among the lowest in the country. Eighty-five percent of health expenditures are out-of-pocket payments by private individuals. These high out-of-pocket expenditures present a significant barrier to healthcare access for the poor. The Federal Government provides limited funding for health expenditures in Madhya Pradesh, particularly through the National Rural Health Mission and the National Aids Control Organization. Although DFID projects that the state will be able to gradually increase its health sector financing, it is likely that the
budget will remain tight for the foreseeable future, adversely affecting plans for scale up of mental health services (Department for International Development, 2007, 2012a).

Madhya Pradesh’s efforts to strengthen the capacity of its health sector are likely to encounter roadblocks for reasons beyond its control. In February 2012, the government in New Delhi announced that India intended to terminate its development relationship with the United Kingdom. A senior Indian official said that British assistance “is a peanut in our total development exercises [expenditure].” Another official said that the reason India wished to terminate British assistance was because of the “negative publicity of Indian poverty promoted by DFID” (Gilligan, 2012). On 9 November 2012, the United Kingdom announced that it was ending its development assistance to India, though it would complete its on-going commitments (such as the Madhya Pradesh HSRP). All of the United Kingdom’s financial aid programs to India will be completed by 2015 (Department for International Development, 2012b). While at a macro level India has adequate resources to address its development challenges, the suspension of the United Kingdom’s development assistance may have adverse implications for Madhya Pradesh’s health sector reform program. Health reform projects, particularly those in large and complex states like Madhya Pradesh, must be sustained on a long-term basis if they are to produce the required systemic changes.

**Avoiding External Consequences**

Maintaining health system quality as services are scaled up presents another challenge for state health sector planners. In the context of the inevitable resource constraints operating in Madhya Pradesh, policy makers are likely to face a tradeoff between expanding services and ensuring quality. A perceived lack of service quality is
already a key factor in the under-utilization of the primary health system in the state (Department of Public Health and Family Welfare, 2002). Adding a new, scaled-up mental health program, within the existing resource constraints, could place undue pressure on the quality of services in Madhya Pradesh by diverting scarce human and financial resources away from existing programs (Yu, Souteyrand, Banda, Kaufman, & Perriëns, 2008).

**Recommendations for Scaling Up Mental Health Services in Madhya Pradesh**

Sangath is the implementing agency for PRIME in Madhya Pradesh. The aim of PRIME is to generate evidence on effective approaches to providing mental health care in resource-poor settings. Sangath and PRIME are planning to experiment with introducing mental health interventions into one or two districts in Madhya Pradesh. However, the true success of these pilot projects will be if the Government of Madhya Pradesh decides to scale them up in other districts across the state, so that they can reach more of the people in need of mental health services. Based on my review of the key factors in scaling up health interventions and the contextual situation in Madhya Pradesh, the following are recommendations for promoting successful scale up of the mental health interventions in Madhya Pradesh.

**The Adopting Community**

- A successful scale up operation requires a receptive community, including clear demand by the community for the intervention. Madhya Pradesh’s health planners should select the districts for scaling up carefully. It is suggested that more urbanized districts be addressed first, since stigmatizing attitudes are likely to be less deeply entrenched than in rural districts. Within each district, planners
should adopt a cascade approach in which high level officials are trained first and then provide training to lower level care providers (Yamey, 2011). As the program gains momentum, more isolated rural districts can be tackled, also using a cascade approach and utilizing trained staff from districts that have been successfully scaled up.

- Overcoming stigma against mental health is a prerequisite to successful scaling up. IEC campaigns have been successfully used to address disease-focused stigma in resource-poor countries (Bekele & Ahmed, 2008). A major IEC campaign addressing the stigmatization of mental health should be initiated at the outset of the scaling up project. The campaign should use a wide range of communications technologies, including social media, radio and TV spots, and billboards. Specific IEC efforts should be focused on rural areas using traditional media such as painting IEC messages on barns and fences, and conducting live performances at social gatherings. In a state as large and as diverse as Madhya Pradesh, the IEC messages must be tailored to the local context to make them effective (Yamey, 2011). Different messages are needed for rural and urban areas. Research into the stigmatization of persons with mental illnesses and towards mental health itself should be an integral part of the scale-up program.

- Medical educators in Madhya Pradesh should include mental health in the curriculum at all levels, with the aim of reducing stigmatizing attitudes towards mental health services and people with mental health disorders as a key
objective. Medical students should be given an opportunity to work with people with mental health illness during their training programs (Jugal et al., 2007).

The Health System

- Mental health scale up needs to be integrated with health system reform efforts. Madhya Pradesh should continue with its commendable health system reform efforts, but these are unlikely to be completed before 2015 when DFID departs. After the departure of DFID, Madhya Pradesh may consider engaging another international partner to provide financial and technical assistance to health reform, and integrate the mental health scale up within the reform program. Wide-ranging, systemic reforms are necessary to ensure success of the scale up program, including human resource and staffing improvements, better management of pharmaceuticals and improved information technology. A key reform will be developing and providing incentives for practitioners to proactively address mental health issues.

- Madhya Pradesh needs to develop a strong leadership team, including an overall champion and a cadre of leaders to promote the scaling up of mental health services in the state (World Health Organization, 2008b). If possible, high level political leaders, such as the Chief Minister, should be enlisted to support the mental health program. As recommended by Sollecito, the leadership structure must reach down to the village and community level, so that people with mental health disorders can be identified, treated, and reintegrated into the community.
Financing of the Scale-up Program

- As a resource-poor state with health expenditures of only eight US dollars per capita, Madhya Pradesh will have difficulty affording development of a comprehensive mental health program without external assistance, either from the Federal government or an international partner. The Government should consider engaging an external financing partner such as the International Development Association (IDA) of the World Bank’s or a similar agency. Reducing the burden of mental health in Madhya Pradesh would surely carry a very high economic rate of return, and thus could bear the burden of repaying a low-interest loan (McDaid et al., 2008). Failure to address mental illness will involve huge costs for the state in terms of lost productivity (Bloom et al., 2011). If massive international assistance is merited for physical diseases such as HIV and tuberculosis, why should it not be used for scaling up mental health in a resource-poor state like Madhya Pradesh?

Promoting Continuous Quality Improvement

- Quality improvement and scaling up must go hand-in-hand in Madhya Pradesh. As suggested by Ramaswamy and Twum-Danso, project planners should incorporate a systematic Plan, Do, Study, Act cycle between each of the phases of the scale-up process (Ramaswamy & Barker, 2012; Twum-Danso, 2013). By learning lessons at each stage, planners can adjust the program to prevailing realities and the socio-economic context in each of the districts and at each care level. Planners should also look to other states and projects in India that have
piloted or scaled up mental health projects and incorporate the lessons learned from this experience.

**The Intervention**

- Scaling up simple interventions is easier than scaling up complex interventions. Even though mental health interventions are complex by their nature, project planners should make efforts to simplify individual components of the services. For example, staff members of Sangath are already experimenting with computer and tablet-based apps or routines to help field workers identify, diagnose and treat mental health conditions (Srivastava, S. personal communication, November 2012). Planners should also bear in mind that complexity can, to an extent, be addressed by health system strengthening (Gericke et al., 2005). They should also remember the role of functional scaling up. For example, on-going efforts under the Madhya Pradesh Health Sector Reform Program to improve the procurement and management of drugs can be applied to the procurement of psychotropic drugs for the mental health program. The application of mHealth (mobile health) techniques, such as mobile phones, to collect program data should also be studied. Such data could include the number and type of community-level mental health activities conducted, number of community health workers trained, the availability of psychotropic medicines, and the identification, diagnosis, treatment and referral status of patients.
**Conclusion**

Mental health is a crucial component of overall health that accounts for a significant portion of the global burden of diseases. Yet in LMICs, very few resources are devoted to this aspect of human health. As a result, only about 10% of the people in need of services actually receive them. Madhya Pradesh is a large Indian state with a population of 72 million that currently lacks a comprehensive mental health program. The health and economic status of its citizens is lower than India’s population as a whole. With widespread poverty; a large rural population; and a complex social structure, with high concentrations of Schedule Castes and Scheduled Tribes, Madhya Pradesh is in need of a comprehensive mental healthcare system. Ideally, this should be integrated into the existing primary healthcare system.

Under the PRIME Project, Sangath aims to pilot test a range of affordable, evidence-based mental healthcare interventions in Sehore District. After successfully piloting these interventions, the aim is to scale up the interventions in another district of Madhya Pradesh. This sets the stage for expanding the program to other districts in the state. Scaling up a multifaceted intervention, such as the provision of comprehensive mental healthcare, involves daunting challenges. In Madhya Pradesh, these challenges include the complexity of the intervention, the socio-economic context, a weakly performing primary health system, a shortage of budgetary resources, the need to plan carefully to avoid adverse consequences of the scale up, and the need to simultaneously improve system quality while scaling up. Adopting the recommendations in this paper may help the state become one of the first in India to implement a comprehensive mental health program. In due course, India’s public health planners
can use the PDSA cycle to replicate and scale up Madhya Pradesh’s mental health program in additional Indian states. If carefully documented, these lessons about scaling up can be added to the knowledge base of implementation science and applied to mental health and other health interventions in resource-poor countries around the world.


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