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Mental Health Policy in India: Seven Sets of Questions and Some Answers*

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Abstract

Background

This paper frames the state of mental health policy in India in terms of seven sets of questions, and seeks to provide at least partial answers to these questions, based on a meta-analysis of existing research. The context of the analysis is the arguably poor state of mental health care in India, as well as an unprecedented level of policy attention to the issue.

Aims of the Study

In brief, the questions we pose pertain to (1) the provision of such care in hospitals, (2) non-hospital provision, including by non-medical providers, (3) issues of education and social acceptance, (4) affordability, (5) within-country variation of care and possibilities for benchmarking, (6) aggregate resource impacts of a concerted effort to change policies and improve care, and (7) the shape of a more effective “continuum of care for mental health issues.

Methods

Given the complexity of the subject, this paper is meant to serve as a framing of issues for further research, but in doing so, to clarify what issues are most pressing, those that are most difficult and perhaps those that can be tackled more readily, to create some momentum in changing the relatively poor state of mental health care in India.

Results

While new laws and policies being introduced in India propose ideas and changes that are groundbreaking for that country, leading to cautious optimism, there still are many gaps in the understanding of the challenges of the provision of increased access to, as well as better quality, mental health care in India. These challenges can be understood on two fronts: one is the

psychiatric and medical aspect of the issues, and the other is the management and administration of the system.

Discussion

Perhaps the highest priority in achieving the goals of greater access and better quality is to increase the number of trained personnel at all levels of specialization and skilling that are relevant. Further, while the new legal framework and policy identify the importance of information technology in rapid expansion of access to mental healthcare, more context-specific research and trials are needed. With respect to the administration and management needs of the public system, important challenges will be the need for significant organizational innovations in the education system, and cultural changes that allow specialized medical professionals to accept the use of software and less-qualified, more dispersed, frontline providers. A final area is the interface between the public and private sectors, including the role of non-profit organizations: challenges include information sharing, division of responsibilities, and resource allocation.

Implications for Health Care Provision and Use

Our analysis suggests that incorporating information technology, along with training professionals at a variety of skill levels in its use, may provide a resource-feasible approach to improving access to mental healthcare at reasonable cost and quality in the Indian context.

Implications for Health Policies

India's mental health policies are already undergoing major changes, and our analysis emphasizes the need for translating these generic policies into specific and implementable versions that can be tested at the local level across different regional and social contexts in India.

Implications for Further Research

The overall challenge is daunting, being the need to expand access and improve quality, while still managing costs, all within an overall healthcare system that is itself struggling to achieve these goals. Further research based on piloting and trials of assistive software and training programs will likely be useful.

JEL Codes: I10, I18, J78, K38, Z18

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Mental Health Policy in India: Seven Sets of Questions and Some Answers

Arshad Mirza and Nirvikar Singh

1. Introduction

Mental health is a challenging subject for policy makers, even in advanced countries. For example, a 2006 Canadian report states, “In no other field, except perhaps leprosy, has there been as much confusion, misdirection and discrimination against the patient, as in mental illness...” This is certainly true of India, where many laws date to the 19th century, and until as recently as 2017, which criminalized some forms of mental illness. However, as part of an overall focus on increased public funding of healthcare in India, mental health is also receiving more funds and attention. For example, in the sphere of legal frameworks, the national government in India has embarked on a major reform of mental health laws, aimed at changing policy so that “people are treated in a humane manner” and that the rights of persons suffering mental illness are preserved, just as for anyone with any other kind of illness.¹ The Mental Health Care Act, passed in 2017, is a laudable step in this direction, providing special place for the mentally disabled in the judicial system and decriminalizing suicide. Other initiatives, as part of a broader push to create an integrated national healthcare framework, include pilot mental health programs in rural areas, designed to reduce the inequalities that currently exist in mental

¹ Interview in New Delhi with senior Government of India policy maker, October 2013. All of our interviewees highlighted the problem of stigmatization of mental illness in India, and almost every discussion or study of mental health in India foregrounds this problem, which affects demand for treatment, but also the supply of caregivers.

healthcare (greater than in other forms of basic healthcare).² These efforts are in partnership with non-profits, and, according to senior policy makers, mental health policy reform in India represents the most ambitious effort by government to partner with grassroots organizations for effecting change. This heterogeneity of actors, along with the heterogeneity of conditions that can be grouped under “mental illness,” constitute a challenge for policy formulation as well as details of effective implementation.³

Despite recent forward steps, mental health policy and mental healthcare delivery in India each still face multiple challenges. These include unequal distribution of public resources (more so than for other forms of primary healthcare), a heterogeneous array of caregivers (including various types of counselors as well as medically trained psychiatrists), severe shortages of trained personnel (again, much more than in other areas of healthcare), and, of course, continued social stigma and/or lack of understanding of mental illnesses such as depression. This paper seeks to provide a unified overview of the evolving situation with respect to mental health policy and care delivery in India, in the context of the country’s overall health policy.

² For recent reports that illustrate changing policy, social norms and public discourses, see, for example, Shankar and Shankar (2016), Govindarajan (2017) and Evans (2017).

³ Policy makers and professionals we spoke with noted the range of perspectives and approaches held by different non-profits and community organizations. India’s dismal history of treatment of those with mental illness has engendered considerable suspicion of the mental health specialists in the medical profession, and some activists have argued against any medical approaches to mental illness. Our impression is that the dialogue between a range of actors prior to the passage of the new mental health legislation led to some overcoming of distrust and finding of some areas of common ground.

This paper seeks to provide partial answers to seven sets of questions related to the multiple challenges of mental healthcare policy and service delivery in India. The next section lays out the questions, and provides some context and background for the various sets of issues. Section 3 offers some partial, tentative and incomplete answers for policy formulation and implementation issues. Section 4 serves as a summary conclusion, with suggestions for future research and policy attention.

2. Context and Questions

We first provide some basic statistics on mental health in India. The Census of India (2011) gathered data about disability⁴ due to mental illness and “mental retardation” and reports that about 3 percent of the persons in the country suffered from these mental conditions. The latest data on incidence are reported by a National Mental Health Survey⁵ (NMHS) conducted by National Institute of Mental Health and Neuro Sciences, NIMHANS, in 2015-16 (Gururaj, et al., 2016). The same study also conducted a review of the state mental health care provision. The findings of the survey paint a rather dire picture of the incidence of mental health diseases, the gap between the demand and supply of health care, and the condition of health-care provision.

⁴ Data retrieved from the Census 2011 (Chandramauli, 2013)

⁵ The National Mental Health Survey was conducted during 2014-16 in 12 states of India. The sampling was representative, based on the Census of 2011, stratified by poverty rates, random, and proportional to all individuals aged eighteen years and above.

The NMH survey reports that common mental disorders⁶ (including co-morbidities such as substance abuse) are a huge burden, affecting nearly 10 percent of the population.⁷ Due to a lack of awareness, the stigma associated with mental disorders, difficulty in accessing care, the lack of resources needed for treatment, or some combination or subset of these factors, individuals and families ignore and neglect these disorders till they become severe. Nearly 1.9 percent of the population were affected with severe mental disorders in their lifetime and 0.8 percent were identified to be currently affected with a severe mental disorder. The prevalence is highest in the

⁶ In this paper, we will use the term ‘mental disorders’ to include co-morbidities such as drugs, alcohol, tobacco, and other substance abuse, unless otherwise specified. It is important to note here the wide range of illnesses or disorders that come under the umbrella of mental health. Given the broad nature of our survey, we cannot adequately consider subcategories of illness and treatment in the detail that they deserve. Several of our interviewees noted imbalances in resource allocation across different categories of mental healthcare, as well as the widely differing sets of issues that could arise. For example, most obviously, milder forms of behavioral issues or common stress-related problems raise different challenges than severe clinical disorders that might require institutionalization. Another important area of differentiation is gender: see Malhotra and Shah (2015) for an overview on the topic of women and mental health in India. Sub-populations such as college students are also receiving more specific attention: see, for example, Govind (2017).

⁷ Other sources provide higher estimates of the prevalence of mental disorders in India. For example, the WHO put the percentage at double that reported in the NMH survey. See Roy (2016) for this figure and similar “headline” numbers from various sources. Of course, there can be variations in definitions and measurement techniques. Our purpose is to note the variation in estimates as well as the severity of the issues. Other examples include Banerjee (2016) and Habermann (2016). The latter piece describes a large-scale study assessing and comparing mental health issues in India and China.

age group 30 – 49, and most of the persons who were identified as suffering such disorders experienced severe disability and were unable to work for long durations.

Much more even than disability, the most severe outcome from mental health disorders is suicide, and India has one of the highest suicide rates in the world (Basu, Das, & Misra, 2016; Patel, et al., 2012; Mayer, 2003). In the more recent NMH survey (2016), they also find that the incidence of suicidal ideation is very high, at nearly 1 percent of the population, even though it is not always correlated with other diagnosed mental illnesses. There is a general consensus, that while there are many structural and circumstantial issues that lead to suicides, timely and well targeted counseling and treatment can address the underlying stress and hopelessness.

Inefficiencies in provision of public mental healthcare, thus, have welfare effects via the loss of work productivity, earning potential and the quality of life of these individuals and their families, and in the extreme cases loss of life.

To summarize, policy-makers and mental health experts in India have documented that mental illness is an important societal issue, with significant negative consequences for individual and social welfare. In this context, we aim to systematically assess various components of the challenges faced in treating mental illness in India. We do this by posing various sets of questions that serve to frame our assessment. The seven sets of questions that we tackle in this paper are as follows.

1. What is the condition of India's mental health hospitals, and can standards of quality and overall nature of care be improved in resource-efficient ways, through redesign of internal processes?

2. What is the condition of non-hospital provision of mental health care, through various levels of providers, from medically-trained psychiatrists to social workers and counselors? What are the deficits, on the demand side and the supply side, of provision of such services?
3. How can education about mental illness play a role in improving the scope and timing of care provisions? Can early recognition and addressing of symptoms through overcoming current stigmas associated with mental illness lead to better outcomes without increased calls on public or private resources? What is the condition of mainstreaming of recuperating patients with respect to social acceptance and services for aiding normalization?
4. What role is played by issues of affordability, particularly with respect to ongoing care through consultations and drugs? How can redesign of policies, including direct subsidies as well as health insurance coverage, overcome affordability issues?
5. What are the differences in mental healthcare across different parts of India, especially rural-urban divides, and is there scope for identifying and benchmarking best practices in the Indian context?
6. What are the aggregate resource impacts of an integrated approach to mental healthcare that combines improvements in quality, access and awareness, and how will policy redesign fit into overall health policy goals and available resources?
7. What would a redesigned mental healthcare ecosystem look like, and to what extent can a “continuum of care” be developed, one which addresses impacts on family members of specific challenges of mental illness?

3. Some Partial Answers

Having laid out our questions, in this, the main section of our paper, we provide some partial answers to those questions, also highlighting where there are gaps in our knowledge.

3.1 Provision of Mental Healthcare - Infrastructure

In this sub-section and the next (3.2), we develop somewhat interlinked answers to the first two sets of questions. To answer the questions regarding hospitals, we begin by describing the mental healthcare infrastructure more broadly, before making some specific observations on the organization and quality of mental healthcare facilities. To the extent that the answers also depend on human resources, the discussion in Section 3.2 will also be relevant for the answer to the first question. Some of the potential remedies explicitly or implicitly required in the first two sets of questions will also emerge in subsequent sub-sections.

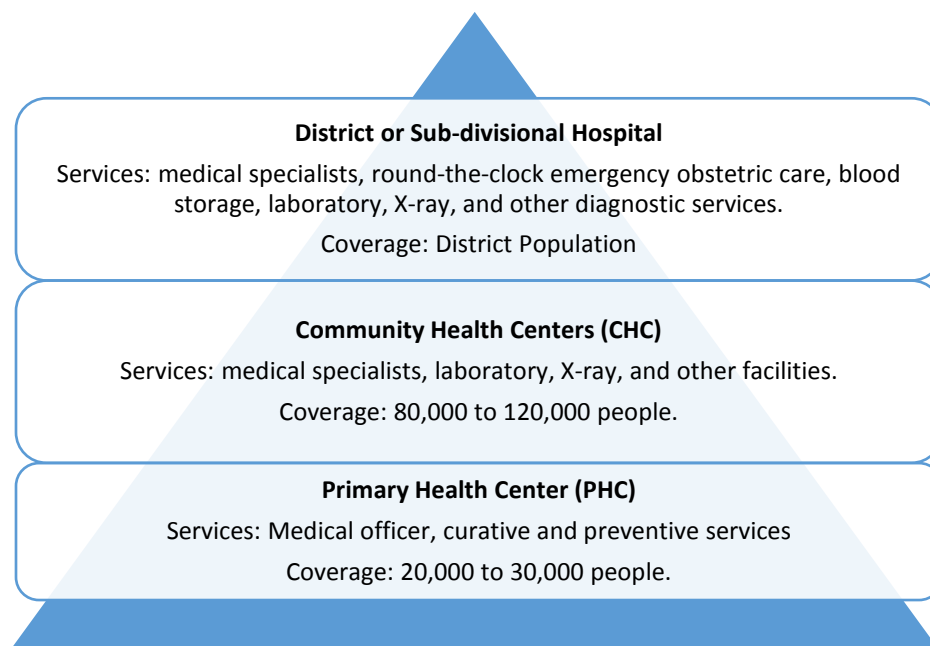


Figure 1: Organization of Public Healthcare in India

We first summarize and discuss the overall mental healthcare infrastructure.⁸ The infrastructure for general public healthcare in India is structured as outlined in Figure 1. The first point of contact between a medical officer and a person are the Primary Health Centers, while the Community Health Centers are the first level for specialist care. The main towns at the district level⁹ generally have a hospital with round-the-clock emergency care, many-bed hospitals for in-patients, and provision of advanced diagnostic and specialist services.

The provision of public mental healthcare in India is a joint responsibility of the central (i.e., national) and state governments.¹⁰ At the center, the responsibility of mental health falls under the domain of the Ministry of Health and Family Welfare (MoHFW). There has been a National Mental Health Program (NMHP) since 1982, which was rechristened the District Mental Health Program, DMHP in 1996. The goals of the public mental health program are defined as provision of mental healthcare for all, particularly to the most vulnerable and most underprivileged sections of the population, but also to impart mental health knowledge in general health care and to promote community participation in mental health services development.

⁸ A useful history specifically of mental hospitals in India is provided by Krishnamurthy et al. (2000). That paper also provides some global historical context.

⁹ Districts are the administrative units next below the state government level, and are often where day-to-day governance is managed, since many of India's states are country-sized in population. There are about 600 districts in the country.

¹⁰ India has a federal system with legislatures at the national and state levels, and divisions of powers and responsibilities are specified in the national constitution.

The organizational hierarchy of DMHP consists of the Central Mental Health Authority (CMHA) at the national level and the various State Mental Health Authorities (SMHA). Mental Health Authorities have been assigned the responsibility of development, regulation and coordination of mental health services in a State/Union Territory.

The infrastructure and associated human resources that DMHP can utilize are the 11 excellence centers for research that are within various psychiatry departments in state-government-run hospitals and medical colleges; the psychiatry departments in district or sub-division hospitals, which are expected to have 30 beds for in-patients; medical officers/specialists at the PHC/CHC clinics which are at the sub-district level; and the Accredited Social Health Activists (ASHAs), who are the community health workers instituted by the MoHFW at the village level.

The NMH survey (Gururaj, et al., 2016) reports that the treatment gap¹¹ for almost all mental diseases is very high: nearly 80 percent of persons suffering from mental disorders had not received any treatment despite the presence of illness for more than 12 months. The treatment gap was more than 60 percent for major mental disorders¹² and 85.2 percent for depressive disorders. Only a third of the dozen states surveyed by them had more than 50 percent of the

¹¹ Treatment gap is defined as the proportion of people who suffer from illness but do not receive treatment. This can happen because the individuals do not seek treatment or because mental health resources are not available.

¹² Major mental disorders are the ones that can cause severe disability, for example schizophrenia, psychotic disorders, bipolar disorders, major depressive disorders, etc.

population covered by the public supply of mental health. More than 60 percent of people who accessed this care did so directly at a district hospital rather than at a local primary health care clinic, and this provision was limited to psychiatric clinics (Patel, et al., 2017). Up to 40 percent of the patients must travel more than 10 km to reach the first available services at the district headquarters. There have been efforts in some states to increase access to non-hospital mental health: many states have mobile mental units and de-addiction centers that provide mental health services, however the report emphasizes that even including these efforts, the existing facilities are “inadequate” and the holistic picture is of “limited care accessibility” (Gururaj, et al., 2016). The NMH survey also reports that at the local Primary Healthcare Centers (PHCs) and Community Health Centers (CHCs) even the drugs listed as essential for mental health care are not available continuously. While many of these issues are general issues of health care provision in India, such as continual absenteeism among doctors, interrupted supply of drugs, and abysmal standards of hygiene, mental health care suffers more severely. For example, the existing mental healthcare facilities have been described as “inhuman”, where patients are kept in a “prison-like environment” (Dhawan, 2016). As quoted in Sharma (2013), “According to the National Human Rights Commission (NHRC), there are only 43 government mental hospitals in India, of which hardly half a dozen are in a ‘livable’ condition.”¹³

¹³ A third example of a recent journalistic account of the state of mental hospitals is Barnagarwala (2014). The scholarly review by Krishnamurthy et al. (2000), while more muted in its language, suggests a similar conclusion. The more recent reporting indicates that improvement has been minimal in the new millennium.

3.2 Provision of Mental Healthcare – Human Resources

In this sub-section, we consider the state of human resources in the mental health sector, going beyond hospital-based care providers. The basic answer to the second set of questions is that there are deficiencies in supply at every level of the system. The demand side is more difficult to assess, since it is related to problems of stigma and lack of awareness of mental health issues: these factors are considered in sub-section 3.3.

Table 1: Mental health professionals in India (Khurana & Sharma, 2016)

	Need ¹⁴	Availability	Availability/Need
Psychiatrists	11500	3800	33%
Clinical psychologists	17250	898	~ 5%
Psychiatric social workers	23000	850	~ 4%
Psychiatric nurses	3000	1500	50%

Lack of qualified mental health care professionals is a challenge that mental healthcare programs face everywhere in the world, but in India and other low and middle-income countries, the lack of human resources is severe and likely to get worse unless there are effective interventions (Kakuma, et al., 2011). Table 1 summarizes the availability of mental healthcare professionals per population of 100,000 people on average in the country based on the reporting of Khurana and Sharma (2016). Note, in particular, the greater shortage at lower skill levels, a somewhat

¹⁴ This was estimated using a norm of 1 psychiatrist per 100,000 populations, 1.5 clinical psychologists per 100,000 population, and two psychiatric social workers per 100,000 populations and one psychiatric nurse per 10 psychiatric beds

striking imbalance for a relatively poor country.¹⁵ The number of medical officers at the district level trained to deliver mental health services (per 100,000 people) is very low and highly variable among India's states, ranging from 0.1 to 10. This variation cannot be completely due to varying income levels of the states, since this range is much greater than the variation in income levels. It is likely due to differing priorities of mental health in different state budgets.

The scarcity of specialist mental healthcare in India has led to diverse community mental healthcare models that use lay health workers rather than doctors. In a very recent paper, van Ginneken, et al. (2017) study 72 such programs across twelve states, in which non-specialists provide care to patients of severe mental disorders. These non-specialist care managers often received support, often through multiple specialist and non-specialist organizations, including both voluntary, non-profits and public sector or government agencies. The study proposes a revised framework for different community outreach and collaborative care models, but leaves open questions of cost-effectiveness, scalability and the relative merits of different forms of organizing such care.¹⁶

¹⁵ Similar observations of relative shortages at different levels were made by several of the interviewees, including psychiatrists, educationists and officials. Arguably, the numbers are a symptom of a typical dual economy, but also may reflect imbalances in institutions that are specific to the Indian case.

¹⁶ Experiments and innovations in this realm are multiplying in different Indian contexts. See, for example, Chavan et al. (2013), Silberner (2016, 2017), and Shields-Zeeman et al. (2017),

Under the 11th five-year plan in 2007,¹⁷ the national government of India started two schemes for addressing the dearth of human resources in mental healthcare provision. Under scheme A, the goal was to establish a dozen centers of excellence in mental health by upgrading existing mental health institutions/ hospitals. A grant of about USD 50 million (INR 3380 million) was made available for undertaking the capital work, equipment acquisition, library creation, and faculty induction and retention. Scheme B was meant to support publicly funded medical college/hospitals in starting post-graduate courses or to increase their capacity for training in mental health. Each state identified a venue for departments of psychiatry, clinical psychology, psychiatric social work, and psychiatric nursing. The national government provided support of up to about USD 75,000 (INR 5 million) per department.

By 2015, academic sessions had started in 8 out of 11 centers proposed under the 11th five-year plan, and 27 postgraduate departments and 11 institutes had been established in various states (Khurana & Sharma, 2016). The NMH survey (Gururaj, et al., 2016) argues that the number of institutions providing a postgraduate course in psychiatry are still too few to meet the country's requirements.¹⁸ The yearly intake of the mental healthcare professionals across institutions is also very low, ranging from 0 to 52 per year. Some non-profit organizations offer education for

¹⁷ India used a form of indicative planning for allocating government resources from 1951 until 2017, when that approach was discontinued.

¹⁸ This point was made to us by several of our interviewees, who also noted some barriers to expansion in the design of programs and organization of institutions. One psychiatric professional noted the separation of mental health training from general medical training, and made the case that all medical professionals should have some exposure to mental health issues and training in recognizing them for, at a minimum, referral to specialists.

practitioners, but these efforts are not sufficient to fill the gap. Research in mental health in India is limited to a few medical colleges and there is no appreciable research in any aspect of mental health other than psychiatry. The National Health Policy (2017) emphasizes increasing the training of specialists through public financing and giving preference to those persons willing to work in public systems after graduating.

3.3 Public Education, Early Detection and Rehabilitation

In this sub-section, we discuss the role of public education with respect to mental healthcare, and how it might affect the scope and timing of care. In particular, we consider the role of such education in overcoming the stigma associated with mental illness. Finally, we touch on issues of recuperation, at the opposite end of the care spectrum from initiation of treatment. Here, too, overcoming stigma is important. The focus of this sub-section is on answering the third set of questions, but the issues of deficits on the demand side framed in the second set of questions are also relevant here.

Stigma related to mental illness is a widespread problem in many countries (Clement, et al., 2015). In India, the lack of awareness about mental disorders such as depression, anxiety, suicidal risk and emotional stress reinforces the stigma of getting mental health treatment, and are major impediments to demand for mental healthcare (Maulik, et al., 2017; Shidhaye, et al., 2017).¹⁹ The responsibility of promotive and preventive activities lies with the District Mental

¹⁹ While various references in this paper highlight improvements in attitudes toward mental illness, the problem is still pervasive. For example, a popular Indian version of the reality TV show “Big Brother,” called Big Boss Tamil,

Health Program (DMHP) and the program does provide sufficient funds for public education efforts (Khurana & Sharma, 2016). The following programs are expected to be conducted regularly: life skill education and counselling in schools and colleges, work place stress management training, and suicide prevention counselling. Unfortunately, despite the available funding, the NMH survey (Gururaj, et al., 2016) did not find any appreciable public education or communication efforts in any of the states.²⁰ Moreover, while the districts are required to make information publicly available regarding such education and communication activities and the associated funding for them, such information is not maintained in an easy-to-access format, making any review extremely difficult.

The large unaddressed need for mental health care education is highlighted in the work of Shidhaye et al. (2017). In their multi-media education project, they discovered that as the knowledge about mental disorders increased over the eighteen-month period, the demand for mental health care increased dramatically, from about 5 percent in the pre-period to about 27 percent in the post-period. Although their experiment does not have a control group, the large magnitude of increase is indicative of the order of the increase in the demand of the public services, especially among the households with the lowest incomes, that can be expected if the DMHP can perform the public education functions that are assigned to them.

tasked contestants with acting as if they were inmates in a mental health facility (BBC, 2017). At least the episode was met with widespread condemnation, suggesting that there is greater awareness than in the past.

²⁰ There are examples of small-scale efforts by public institutions. For example, the Public Health Foundation of India held a local event in New Delhi, India's capital, aimed at raising awareness of mental health issues among young people (Pal and Gonsalves, 2016).

Apart from the treatment and counseling services, there is a serious lack of resources for continued care and rehabilitation of persons suffering from mental disorders, in the form of facilities such as day care centers, half way homes, sheltered workshops, and temporary stay facilities. The NMH survey reports that, although they are required to, most districts do not keep records of the data regarding public rehabilitation workers, special education teachers and paraprofessional counselors. The NMH survey's review of these facilities and the personnel also reveals that these facilities are very limited in number and were mainly concentrated in cities or district headquarters. (Gururaj, et al., 2016, p. 38). While there are many non-profit societies that attempt to fill this gap, there is a serious dearth of such support systems. In the NMH survey, across the 12 states, nearly 69 NGOs were reported to be functioning prominently in the sphere of mental healthcare (Gururaj, et al., 2016, p. 39). IT-based innovations such as online video training modules in local languages (Mehta, et al., 2018) may be able to reduce the cost of providing education to the care-givers and family members, and help in addressing this substantial mismatch.

3.4 Affordability, Subsidies and Insurance

In this section, we discuss the relative cost of mental diseases and their treatment, the condition of health insurance and the welfare transfers for disability brought on by mental diseases as partial answers to the issues framed in the fourth set of questions.

Disability brought on by any kind of illness presents challenges at multiple levels: the patients and their family members have to increase their spending towards the treatment of the illness,

while the ill persons typically cannot contribute towards earning. Those who are nursing their disabled family members also lose productive time, which may further lead to reduced household income. Thus it is not surprising that, in the absence of monetary incentives (such as expected inheritance of property), the persons suffering mental illness may not be given the care they need (Patel & Prince, 2001).

In principle, government health services are available to all citizens in India, but in practice, the low quality of the public care and poor availability of doctors compel households to seek expensive private care (Das, Hammer, & Leonard, 2008). In the absence of state or insurance coverage for most families, a large proportion of payments for treatment are out-of-pocket expenses and mental health care is no exception. The NMH survey (Gururaj, et al., 2016) shows that median out-of-pocket expenditure per month on mental healthcare was approximately INR 1000 to 1500 (USD 17-25). The prevalence of mental disorders is decreasing in household income – being highest in the lowest quintile, at 12 percent. These expenditures present a significant financial challenge to such households²¹. There is a direct impact of this cost on the demand for care among the lower income households, In their research Maulik et al (2017) and Shidhaye et al. (2017) find that the prohibitive cost of treatment is one of the major reasons for low effective demand for mental healthcare among low income households (Maulik, et al., 2017; Shidhaye, et al., 2017).

²¹ For comparison, the median monthly household income in this quintile is about INR 9000 (USD 150).

There are a few public welfare programs in India that address the financial needs of persons suffering with mental illnesses. The Persons with Disabilities Act of 1995 allows for direct subsidies such as disability pensions, legal aid, and travel concessions for people with schizophrenia and intellectual disabilities, but the effective coverage of the welfare measures is not well studied or reported. Analyses based on small samples shows that about 70 percent of the persons suffering with chronic mental illnesses avail of this pension, but they do not have access to any other benefits described in the Act (Kashyap, Thunga, Rao, & Balamurali, 2012). Furthermore, the process of accessing these pensions and benefits is complicated. Arguably, it needs to be simplified and redesigned, keeping in mind the needs of the persons suffering from mental illnesses. For example, a single window clearance for all certification, pensions and other benefits has been suggested (Kashyap, Thunga, Rao, & Balamurali, 2012).

Mental healthcare could be affordable for persons from all economic classes if the known risks can be hedged during the times of ability to work by pooling these risks with health insurance (Raza, Poel, Bedi, & Rutten, 2016). Currently, there are no specific public insurance programs for mental health care in India. The *Rashtriya Swasthya Bima Yojana* (RSBY) is a general health insurance program of the central government aimed at families living on incomes below the poverty line, and it also covers the medical needs of mental illnesses. The program began in 2008 under the national Ministry of Labour and Employment. Seven years after the start of the program, in 2015–2016 only 41.3 million families were enrolled, representing 57 percent of the

target²². There are a few other general health insurance schemes that cover mental health specifically for the people employed by the various government departments: the central government has a health insurance scheme for its employees, railway and defense employees have their own schemes, state governments have schemes for their employees as well, and they also contribute towards the Employees State Insurance Scheme for factory workers. Despite these various schemes, only 15 percent of the population is covered by any form of health insurance (Raza, Poel, Bedi, & Rutten, 2016). Hence, there likely is scope for designing insurance products that keep the needs of mental illness in mind, and that can be marketed to those already suffering, or who are at high risk of mental illnesses. For example, such insurance might cover costs of treatment as well as loss of income during times of disability.

3.5 The Mental Healthcare Divide

In the fifth set of questions, we raised concerns about the uneven distribution of access to mental healthcare. In this sub-section, we describe ways in which access to mental healthcare is not uniform across the country, and the situation is markedly worse in rural parts compared to urban areas. Of course, this divide is also broadly true of other forms of health care in India, but we do not have data that can identify the relative inequality for mental health care versus general health care, or other specific categories of health care.²³ One of our interviewees, a psychiatric

²² See, for example, <http://www.rsby.gov.in/overview.aspx>. Some states such as Andhra Pradesh have introduced their own public schemes at the state government level, and allowing for this additional source of insurance will change the coverage figures.

²³ However, a useful recent study (Das et al., 2012) documents the poor quality of care in both urban and rural India, with urban care characterized as “somewhat better.”

professional, did provide one indicator of rural-urban differences in terms of time spent with patients. He estimated that a private practitioner specializing in psychiatric outpatient cases would, on average, see 15-20 cases a day at 15-30 minutes per patient in a metro area, while in a more remote rural area, the numbers would be 60-100 cases and 3-5 minutes per patient.²⁴

While there are large variations from one state to the other, in general one can characterize three geographic categories that are relevant for comparisons: metro-cities and urban districts, smaller cities and towns, and rural districts/villages. There is a large difference in the density of population and thus the cost of living, living conditions, and the income opportunities in these three types of geographies. The NMH survey (Gururaj, et al., 2016) reports a higher incidence rate of almost all mental illnesses and stress-related disorders in the metro regions compared to the non-metro regions, and in rural regions compared to urban (non-metro) regions.²⁵ Access to care in general, and to mental health care specifically, is lower in rural areas as compared to urban and metro regions.²⁶ In their study of disability certificates and access to government

²⁴ The interviewee also noted that rates charged would be different, with urban patients paying an average of 4-5 times what rural patients would pay per consultation.

²⁵ This pattern, therefore, is not consistent with the possibility that variations are driven only by reporting or detection that is higher in more urban areas.

²⁶ One of our interviewees pointed out a further divide, which may widen in the short run. Specifically, multinational corporations import human resource practices that include behavioral health services for employees similar to what would be offered in advanced economies. Thus, even within an urban area, and aside from income and class differentials in affecting access, the type of employer may be emerging as important in shaping access to mental

disability pensions, Kashyap et al. (2012) find that while most of the mentally ill (in absolute numbers) live in the rural parts of the country almost none of them could avail of any benefits other than the disability pension; while about two thirds of the urban disabled were already residing in rehabilitation centers or custodial care centers.

The suicide rate in rural areas – specifically among farmers – is an issue that has been widely politicized and debated in the popular media.²⁷ However, Basu et al. (2016) study nineteen states over the period of 1995-2011, and find that, quite contrary to popular belief, suicide rates are lower among farmers compared to non-farmers. Also, in the years they studied, suicide rates were increasing among non-farmers while decreasing among farmers. Similarly, when Andrés et al. (2014) studied panel data for fifteen major Indian states over a period of eighteen years from 1992 to 2009, they found that urbanization in general is correlated with an increase in suicide rates.

How can this divide between rural and urban mental healthcare be addressed? Our perspective is that there are two complementary avenues for possible intervention and improvement. The first is with respect to the management of the public health care system. The second is with respect to the sharing of resources between the different kinds of non-profits that are working in various communities.

health services within the formal sector. Until such coverage becomes widespread among corporate employers, this will be a further source of unequal access.

²⁷ For example, see Umar (2015), Tiwary (2017) and Shiva (2017)

While the healthcare system is constrained by an alarming shortage of trained workers, this shortage is greatly exacerbated because of lack of proper incentives of the existing workers (Gururaj, et al., 2016). This is a general problem, not restricted to the case of mental healthcare provision.²⁸

Turning to the second possible intervention, it is important to note that much of the country's mental healthcare is de-facto provided by private non-profits. With their experience and goodwill in communities, some non-profits may be more effective in the public information and education campaigns (Shidhaye, et al., 2017; van Ginneken, et al., 2017; Gururaj, et al., 2016). This situation raises an important and challenging question: how can existing or redesigned public programs facilitate sharing the work and results of various non-profits to learn and replicate the most effective methods for reducing the stigma against mental health, in rural as well as in urban areas?

3.6 Integrated Care in the National Health Policy and Mental Health Care Bill

In this sub-section, we discuss some partial answers to the sixth and seventh sets of questions, regarding the place of integrated mental health care in the latest legislation and policy documents, namely the Mental Health Care Bill (2016) and National Health Policy (2017). The resource consequences of the policy proposals are touched on here, as well as in the next sub-section, along with potential implications for a revamped mental healthcare ecosystem.

²⁸ See, for example, Chaudhury et al. (2006), Das and Hammer (2007), and Hammer et al. (2007).

The Mental Health Care Bill is a comprehensive document that was passed into law in August of 2016. The bill was under debate in parliament for several years: while the lower house of India's parliament passed the bill in 2013, the upper house only passed it three years later, with many important amendments. The bill recognizes that all individuals in the country who are suffering from mental disorders have a right to get treatment, support, and lead a normal life free from discrimination and injustice. It also describes the responsibilities of various public agencies, such as the police, judicial system, and the public health care system, in protecting these rights; and sets goals of public mental health programs, and the role of DMHP.

To protect the rights of people who suffer mental illnesses and are caught in the judicial system, the bill describes the set-up of state level Mental Health Review Boards. These boards will be comprised of District Judges, persons from administrative services such as District Collectors,²⁹ along with psychiatrists and representatives of mental health non-profits, as well as some persons with mental disorders, who can represent the interests of the affected population. The boards will have the power to decide whether a person suffers from mental illness, ascertain whether the rights of such persons are being harmed, overturn previous judicial directives, and adjudicate the complaints made by such persons under trial or serving a prison sentence.

²⁹ A District Collector or Deputy Commissioner is typically the most senior administrative official at the district level in the system of India's governance, preserving a structure mostly developed under British colonial rule.

The National Health Policy (2017) identifies some specific problems in mental healthcare and makes some proposals targeted at these problems. First, noting the dire lack of specialists in mental healthcare, the document emphasizes a need for increased training of specialists through public financing mechanisms that are specifically aimed towards those who are willing to work in public systems after graduation. Another measure of rapid expansion of human resources identified in the policy is training the accredited health workers, called ASHAs, to provide community or home-based care for prevention, cure, and rehabilitation from mental illnesses.³⁰ Second, it proposes that a layer of non-specialist psycho-social support could be provided through networks of community members at primary level healthcare facilities. Third, the policy also recognizes that digital technology can be leveraged in contexts where access to qualified psychiatrists is difficult. Provision of internet- and mobile-based services have been suggested (and tested in other contexts) for the following purposes: multi-media based interactive online courses for training medical officers and ASHA workers in specialized skills required for provision of mental healthcare; multi-media and interactive apps for diagnosis of mental disorders and preliminary prescriptions to assist mental healthcare workers; and interactive therapies for common mental challenges such as stress and low-intensity depression – all in local languages which can be used flexibly.

³⁰ We have not been able to give much attention to discussing rehabilitation in this paper, but it remains a problematic issue. One professional we spoke with specializes in developing half-way houses for rehabilitation or long-term treatment that does not require traditional institutionalization. On the other hand, there is concern that the new legal framework has not really come to grips with the scale of the problem of rehabilitation and how to implement it (Bhattacharya, 2017).

There are also some proposals in the National Health Policy, in the context of overall public healthcare in India, which are aimed at bolstering healthcare more broadly, and which may further integrate mental healthcare with general healthcare.³¹ First, it is also proposed that government(s) partner with private agencies to operate ‘health and wellness centers’ that will provide specialized preventative and care services, including mental healthcare, at a fee for households that can afford it and free for poor households. Second, as a mechanism of rapid expansion of the public healthcare system, NMH proposes partnering with the private sector via a referrals system: charitable and non-profit hospitals may volunteer for accepting referrals from public health facilities. For-profit hospitals/clinics may also designate free/ subsidized services in their hospitals if proper incentives are provided. Third, the policy also proposes creation of a unified emergency response system, linked to a dedicated universal access number (like 911), with a network of emergency care that has an assured provision of life support ambulances, trauma management centers (one per 3 million persons in urban and one per every 10 million in rural areas). Fourth, recognizing the lack of good management systems, the National Health Policy envisions setting up of Health Information Exchanges and a National Health Information Network by 2025. As mentioned earlier, the present system was created with a focus on areas such as maternal services and does not serve the needs of mental healthcare well (Gururaj, et al., 2016). The proposed integrated health information system is meant to track the complete health of all individuals in the country based on real-time records captured using phone and tablets, i.e.,

³¹ Psychiatric professionals we interviewed noted the advantages of greater integration in training and treatment, to alleviate shortages of specialists, reduce stigmatization and improve care through diminishing silo effects. See also Minds Foundation (2017) as well as footnote 15.

an Electronic Health Record (EHR), and will be linked to the unique identification numbers of individuals (known as Aadhaar). If the system is implemented effectively, this data could be very helpful in understanding the health systems and their limitations, and thus, serve to improve the efficiency and transparency of resource allocation.³²

While the National Mental Health Policy (2017) recognizes and addresses many issues about mental healthcare, there are many outstanding debates. One such debate is regarding the goal of the mental healthcare: whether the goal should be absence of extreme symptoms or that the person be able to perform as an independent agent.

This is not an easy question to answer since, as it is, treatment of mental illness presents a financial burden to the family that may be devastating (NIMHANS, 2017). With limited resources available in the public health system, the amount of resources available per person is also constrained, and the question becomes one of trade-offs between the number of persons treated versus the extent of care they can get. What exactly should be the model of such recovery methods is still under debate, where advocates of cultural psychiatry such as Bayetti, Jadhav, & Jain (2016) caution against taking western-culture-based recovery models (Jacob, 2015 and

³² Aside from issues of technical feasibility, there are also major potential concerns about privacy and security, as well as implications for the functioning of health insurance markets where private for-profit providers are part of the mix. The experience of advanced countries reminds us of the challenges of implementing this aspect of India's National Health Policy, but further consideration of these issues is beyond the scope of the paper. It is worth remarking, however, that mental health records can be particularly sensitive in the arena of privacy and security, for the kinds of reasons discussed in the introduction.

Davidson, 2005) and applying them to the Indian context as a blanket policy goal of mental healthcare. Alternatively, rather than a top-down policy, the government could replicate, or facilitate and support the replication of, the community-based recovery models used by non-government organizations that have already been demonstrated to work well, e.g. like the ones presented in Kumar et al (2014) and Gautam and Bansal (2014).

3.7 The Present Ecosystem, and Imagining a Redesigned System with a Continuum of Care

In this sub-section, we offer a critique of the current District Mental Health Program (DMHP) and the public healthcare system, and then outline a picture of the ecosystem for provision of continuum of healthcare that seems to emerge from the legislation, policy, and the DMH programs, as a partial answer to the seventh set of questions.

While the policy statements and laws are very comprehensive and thoughtfully crafted, the implementation of the mental healthcare policy is a very different story. The NMH Survey's Mental Health Systems Assessment reveals that very few of the states have well-defined mental health objectives and mechanisms. Mental health programs suffer from severe constraints in administrative and technical know-how, and in human and material resources. Mental health is still a low priority in the public health agenda – and other than in a few states, the activities and programs are fragmented and disorganized.

As discussed earlier, the public mental healthcare system is working with an acute shortage of trained workers; moreover, the motivation of the existing mental healthcare workers is also low (Gururaj, et al., 2016). The national health policy and mental health act both recognize the lack

of good healthcare management systems, and propose systematic solutions that can rapidly improve the provision of healthcare. The motivation of healthcare workers, in general, can be improved by reinforcing the mission statements, incentive-based remuneration, interactions with the community through in-person feedback and town-hall-style interactions, oversight of non-profit organizations, and promoting overall accountability with independent monitoring and evaluation activities. While the monitoring and evaluation activities are required by the DMHP, such activities are largely missing in all states (Gururaj, et al., 2016). There also are some structural shortcomings that may specifically affect the motivation of workers in the DMHP, since, in its design the program does not have any element of comparison among different districts. An element of competition among the different districts based on outcomes and quality of services, along with a system of rewards for those that work well and penalties (even if symbolic) for the ones below par, may also help motivate the employees, and facilitate sharing of best practices benchmarked against each other. Again, this is such a pervasive problem that it may defy easy solutions: however, starting with very specific areas of healthcare such as certain kinds of mental health interventions may be more manageable than a systemwide solution.

The NIM Survey finds that the financing of mental healthcare is in a state of total disarray, and there is a lack of clarity in the sharing of responsibilities between central and state governments and the various state-level departments, which also leads to large under-spending of resources; for example, in 2012–13, only 42 percent of the total funds allocated for DMHP were spent (Patel, et al., 2017). The NMH survey (Gururaj, et al., 2016) reports that the budgeted funds for mental-health-related activities do not have clear specification, justification, and/or timely

allocation, and are thus difficult to spend, and that most states were unable to utilize even clearly available funds due to lack of clear mechanisms, guidelines, and shortage of human resources.

The current working of mental healthcare provision is separate from general healthcare due to historical reasons: while it shares infrastructure with general healthcare, the management, oversight and financing of these systems are separate. As discussed earlier, the NMH study (Gururaj, et al., 2016) found that the drugs identified as critical in the mental healthcare bill are not continuously available at most of the facilities they surveyed. There exist Urban/Rural Health Mission programs with established systems that DMHP can benefit from. For example, these health missions have a well-established drug logistics, procurement, and distribution system that ensures continuous and uninterrupted availability of the most important drugs. DMHP can benefit from using these existing drug logistics systems to ensure the availability of the most critical drugs.

The DMHP requires that the districts maintain reports on the functioning of the mental health program and information regarding monitoring and evaluation activities, such as measurable and defined indicators, methods of data collection, specified program officers for monitoring and review of program components, but there is no support system or records of monitoring and evaluation activities in any of the states.

There does exist a national Health Management Information System (HMIS), which is a portal of real time information about the status of healthcare. It has been established with a focus on maternal health, but the same system can possibly be used for monitoring and tracking mental

healthcare. This could potentially help optimize the allocation of limited resources and identify the most important constraints to be overcome for improving the quality of care. As noted earlier, the health policy statement proposes setting up of Health Information Exchanges and National Health Information Network by 2025 (Ministry of Health & Family Welfare, 2017), and given the urgent need for better mental healthcare, this might well be prioritized in these proposed information systems.

As discussed earlier in sub-section 3.3, major obstacles in the demand for mental healthcare are lack of knowledge and stigma around mental disorders. DMHP has assigned budgets for information and education programs which are not utilized (Gururaj, et al., 2016). If the DMHP can perform the functions that are assigned to them, we might see an increase in the demand for public services in this area, especially among households with the lowest incomes (Maulik, et al., 2017; Shidhaye, et al., 2017).

As discussed in detail in sub-section 3.4, another reason that demand for mental healthcare is low is the high cost of treatment. While pensions and subsidies are available for those experiencing severe disabilities, gaining access to these services is complicated and the process can be simplified and redesigned to keep in mind the disability of the target audience (Kashyap, Thunga, Rao, & Balamurali, 2012). For persons from all economic classes, mental healthcare will be much more affordable if the known risks can be hedged in times of ability to work by pooling these risks with general health insurance (Raza, Poel, Bedi, & Rutten, 2016). There may also be scope for designing insurance products that will cover costs of treatment as well as lost income during times of disability.

The following picture of a system with a continuum of care emerges from the reading of the policy and the bill. The first contact between the urban population and the public care system would be counseling and community-based educational services provided via urban wellness centers, while in rural districts the ASHA would provide similar services. The planned synergy with non-profits would make this first contact more effective and expand the reach.

The second layer of care would be provided by primary and community health centers (PHC and CHC). There would need to be a rapid expansion in their capacity if referral services are made operational, and thus DMHP can involve local private clinics and hospitals to participate at low cost or for free.

The third layer is at district-level hospitals. These hospitals work around the clock, and can provide specialized diagnostic services and in-patient care. At this level also, their reach can be expanded through referral services. This level of care for the chronically disabled and those who need emergency care would also be expanded by a unified emergency response system, linked to a dedicated universal access number, and extra capacity in the form of trauma management centers, as described in the National Health Policy.

At all levels, there would need to be an increase in the number of mental healthcare workers, incentivized by the national and state governments' investments in training for mental health education. An information architecture for data-based management could make resource allocation more transparent and objective, and patients would then be able to provide real time

feedback that could inform the direction of future policy adjustments. Linking of health records to Aadhaar numbers might also make transfers of pensions and other welfare payments much easier to implement. The Mental Health Review Boards could protect the rights of the ill and the disabled in the judiciary system, whether under trial or serving prison terms.

4. Conclusions

The Mental Health Act (2017) and the National Health Policy (2016) propose groundbreaking ideas and changes for India. While there is cautious optimism with the new law and policies, there still are many gaps in the understanding of the challenges of the provision of increased access to, as well as better quality, mental health care in India. These challenges can be understood on two fronts: one is the psychiatric and medical aspect of the issues, and the other is the management and administration of the system.

Perhaps the highest priority in achieving the goals of greater access and better quality is to increase the number of trained personnel. At the level of full medical practitioners, the cost of increasing the number of seats in medical colleges is not too great relative to the size of government budgets, since existing levels are so low. It is more difficult to determine the optimal tradeoff between resources invested here and in other kinds of expansion of medical training, but our conversations with professionals and policy makers suggested that the current investment in training psychiatrists or similar medical professionals in the area of mental health is suboptimal. As noted earlier, there also seems to be a case for greater integration of training on mental health issues into general medical training. Increasing the number of qualified personnel at levels below that of full medical training, such as psychologists, counsellors and social workers, will require

greater resources, because, although the training required is less costly, the scaling up needed is much greater. It is here that technology might play a role, providing knowledge tools to less-qualified practitioners, including the ability to consult those more qualified at scale and across geographies.

In fact, the new legal framework and policy identifies the importance of information technology in rapid expansion of access to mental healthcare. There is some research that supports the idea that ASHA workers can be trained to identify symptoms of common mental illnesses and be the front line for providing mental healthcare (Van Ginneken, et al., 2013; Nadkarni, et al., 2016). Further research could provide models for internet- and mobile-based training for healthcare workers, for example an app-based or app-reinforced multi-media and interactive MOOC for training medical officers /ASHA workers in specialized skills required for provision of mental healthcare. Multi-media and interactive apps have also been used for diagnosis of mental disorders and preliminary prescriptions and for common mental challenges such as stress and low-intensity depression, in other contexts (Lee, Denison, Hor, & Reynolds, 2016). However, further research is necessary for the context-specific challenges in India, such as translation in local languages, and the diverse education and abilities of the people who may be administering or using these apps, from highly trained psychiatrists/ medical officers to community activists (ASHAs).³³ Research is also needed to find context-specific models to support prevention mechanisms by identifying high risk individuals and providing them with

³³ Some initial reports are encouraging: for example, Moses (2016), George Institute (2017) and D’Cunha (2017).

care and training, e.g., the family members of people suffering high disability mental illnesses (Collishaw, et al., 2016) and aging adults (Deb, 2016).

With respect to the administration and management needs of the public system, one can highlight a few of the important issues that need attention. Some of these are implied by the need to expand the numbers and structure of the mental health profession. Increasing the number of mental health specialists and providing integrated training to generalists in the medical profession will require significant organizational innovations in the education system, not limited to medical colleges. This is likely to be a serious challenge. Furthermore, developing high-quality software and engaging with mental health specialists for this development, as well as encouraging their participation in a system where less-qualified professionals play a potentially greater role in diagnosis, and even treatment, will require changes in the culture of the system, including how the top of the skill pyramid see their personal and social roles.³⁴ These issues cut across the public and private sectors in the provision of healthcare in general, and mental health in particular.

Another set of issues pertain to the interface and potential coordination between the public system and private providers. One is the importance of identifying the most effective mechanisms for resource sharing between general healthcare and mental healthcare, including continuous and rigorous evaluation of welfare mechanisms, such as disability pensions, for persons suffering with mental health problems. While the new policy framework recognizes the

³⁴ Hence, there is the potential for new incentive problems on top of the existing ones alluded to earlier in the paper.

potential positive role for public-private partnerships, there are a few outstanding questions in this regard, especially in determining the most effective mechanisms for resource and information sharing between the public organizational infrastructure and those private non-profits that are doing excellent work in the provision of mental healthcare. Clearly, there can be a potential for a great deal of diversity in the nature of the organizations and the types of care involved in such partnerships, complicating the crafting of agreements and sustainable relationships.

On the information sharing aspect of partnerships, with their experience and goodwill in communities, some non-profits may be more effective in public information and education campaigns: how can public programs facilitate sharing the work and results of various non-profits to learn from and replicate the most effective methods for reducing stigma against mental health? For example, the public education methods found effective in reducing stigma by Maulik et al. (2017) and Shidhaye et al. (2017) could be scaled up by partnership between DMHP and non-profits.

Finally, it is also paramount to identify mechanisms for reducing the burden of cost of mental healthcare. One way could be public-private partnerships in the provision of insurance. Rigorous research is needed to understand how existing health insurance schemes provide for the specific needs of persons suffering with mental disabilities, and how to design and market an insurance

product or scheme that may cover disability and treatment costs due to mentally-related disabilities.³⁵

Greater access requires affordability as well as greater availability of care providers. The experience of healthcare in general in India and even in advanced economies has shown that all of these issues are major challenges. In the case of mental health in India, the only consolation is that the starting point is so dismal that the potential for improvement is enormous.

³⁵ For an optimistic initial assessment of the impact of legislative changes on mental health insurance, see Kapoor (2017).

References

- Andrés, A. R., Chakraborty, B., Dasgupta, P., & Mitra, S. (2014). Realizing the significance of socio-economic triggers for mental health outcomes in India. *Journal of Behavioral and Experimental Economics*, 50, 50-57.
- B. B. C. India. (2017). Anger over India's Big Brother mental health task. Retrieved Aug 2017, from <http://www.bbc.com/news/world-asia-india-40847732>
- Banerjee, P. (2016). Voices in their heads: How India deals with mental disorders. *Hindustan Times*. Retrieved Aug 2017, from <http://www.hindustantimes.com/health-and-fitness/voices-in-their-heads-how-india-deals-with-mental-disorders/story-a64Jhyk4o72k6SV1Ke7WdJ.html>
- Barnagarwala, T. (2014). In urgent need of being human: Mental hospitals. *The Indian Express*. Retrieved from <http://indianexpress.com/article/cities/mumbai/in-urgent-need-of-being-human-mental-hospitals/>
- Basu, D., Das, D., & Misra, K. (2016). Farmer Suicides in India: Levels and Trends across Major States, 1995-2011.
- Bayetti, C., Jadhav, S. S., & Jain, S. (2016). The re-covering self: a critique of the recovery-based approach in India's mental health care. *Disability and the Global South*, 3(1), 889-909.
- Chandramauli, C. (2013). *Census of India 2011*. Office of the Registrar General & Census Commissioner, New Delhi. Retrieved June 27, 2017, from censusindia.gov.in/Census_And_You/disabled_population.aspx

- Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K., & Rogers, F. H. (2006). Missing in action: teacher and health worker absence in developing countries. *The Journal of Economic Perspectives*, 20, 91-116.
- Chavan, B. S., Gupta, N., Arun, P., Sidana, A., & Jadhav, S. (2013). *Community mental health in India* (Vol. 29). Jaypee Brothers Medical Publishers. New Delhi.
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., . . . Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological medicine*, 45, 11-27.
- Collishaw, S., Hammerton, G., Mahedy, L., Sellers, R., Owen, M. J., Craddock, N., . . . Thapar, A. (2016). Mental health resilience in the adolescent offspring of parents with depression: a prospective longitudinal study. *The Lancet Psychiatry*, 3, 49-57.
- Das, J., Hammer, J., & Leonard, K. (2008). The quality of medical advice in low-income countries. *The Journal of Economic Perspectives*, 22, 93-114.
- Das, J., Holla, A., Das, V., Mohanan, M., Tabak, D., & Chan, B. (2012). In urban and rural India, a standardized patient study showed low levels of provider training and huge quality gaps. *Health affairs*, 31, 2774-2784.
- Davidson, L. (2005). Recovery, self management and the expert patient—Changing the culture of mental health from a UK perspective. *Journal of Mental Health*, 14(1), 25-35.
- D' Cunha, S. D. (2017). This Online Clinic Is Helping Over 400 Indians Every Day Access Mental Health Care. *Forbes*. Retrieved Aug 2017, from <https://www.forbes.com/sites/suparnadutt/2017/03/07/how-a-health-startup-is-tackling-indias-mental-health-problems%E2%80%A8-counselling-400-patients-a-day/>

- Deb, S. (2016). Mental health of elderly people and its association with feeling of neglect: an empirical study in Kolkata (India). *Injury Prevention*, 22, A342--A342.
- Dhawan, H. (2016). Women in mental asylums live in inhuman conditions: Report. *The Times of India*, March. Retrieved Jun 2017, from <http://timesofindia.indiatimes.com/india/Women-in-mental-asylums-live-in-inhuman-conditions-Report/articleshow/51557475.cms>
- Evans, J. (2017). Mental illness: shedding the stigma around India's big secret. *Philosophy for life*. Retrieved Aug 2017, from <http://www.philosophyforlife.org/mental-illness-shedding-the-stigma-around-indias-big-secret/>
- Gautam, A., & Bansal, S. (2014). Community-based approach as an innovation in mental health care in India. *Archives of Mental Health*, 15(1), 19.
- Govind, N. (2017). India Is Facing a Mental Health Crisis – and Its Education System Is Ill Equipped to Handle It. *The Wire*. Retrieved Aug 2017, from <https://thewire.in/132585/india-is-facing-a-mental-health-crisis-one-that-its-education-system-is-ill-equipped-to-handle>
- Govindarajan, P. (2017). India Gets Serious About Mental Healthcare Provision. *The Diplomat*. Retrieved Aug 2017, from <http://thediplomat.com/2017/04/india-gets-serious-about-mental-healthcare-provision/>
- Gururaj, G., Varghese, M., Benegal, V., Rao, G. N., Pathak, K., Singh, L. K., . . . collaborators. (2016). *National Mental Health Survey of India, 2015-16: Summary*. National Institute of Mental Health and Neuro Sciences, NIMHANS Publication No. 128. NIMHANS. Retrieved from <http://www.nimhans.ac.in/national-mental-health-survey-2015-16>

- Hammer, J., Aiyar, Y., & Samji, S. (2007). Understanding government failure in public health services. *Economic and Political Weekly*, 4049--4057.
- Jacob, K. S. (2015). Recovery model of mental illness: A complementary approach to psychiatric care. *Indian journal of psychological medicine*, 37(2), 117.
- Kakuma, R., Minas, H., van Ginneken, N., Poz, D. a., Desiraju, K., Morris, J. E., . . . Scheffler, R. M. (2011). Human resources for mental health care: current situation and strategies for action. *The Lancet*, 378, 1654-1663.
- Kashyap, K., Thunga, R., Rao, A. K., & Balamurali, N. P. (2012). Trends of utilization of government disability benefits among chronic mentally ill. *Indian journal of psychiatry*, 54, 54-58.
- Khurana, S., & Sharma, S. (2016). National mental health program of India: a review of the history and the current scenario. *International Journal Of Community Medicine And Public Health*, 3, 2696-2704.
- Krishnamurthy, K., Venugopal, D., & Alimchandani, A. K. (2000). Mental hospitals in India. *Indian journal of psychiatry*, 42, 125.
- Kumar, C. N., Desai, G., Waghmare, A., & Thanpal, S. (2014). Mental Health Rehabilitation: No Simple Answers. *Journal of Psychosocial Rehabilitation and Mental Health*, 1(1), 37-39.
- Lee, E. W., Denison, F. C., Hor, K., & Reynolds, R. M. (2016). Web-based interventions for prevention and treatment of perinatal mood disorders: a systematic review. *BMC pregnancy and childbirth*, 16, 38.
- Malhotra, S., & Shah, R. (2015). Women and mental health in India: An overview. *Indian journal of psychiatry*, 57, S205.

- Maulik, P. K., Devarapalli, S., Kallakuri, S., Tewari, A., Chilappagari, S., Koschorke, M., & Thornicroft, G. (2017). Evaluation of an anti-stigma campaign related to common mental disorders in rural India: a mixed methods approach. *Psychological Medicine*, *47*, 565-575.
- Mayer, P. (2003). Female equality and suicide in the Indian states. *Psychological reports*, *92*, 1022-1028.
- Mehta, K. M., Gallagher-Thompson, D., Varghese, M., Loganathan, S., Baruah, U., Seeher, K., & Pot, A. M. (2018). iSupport, an online training and support program for caregivers of people with dementia: study protocol for a randomized controlled trial in India. *Trials*, *19*(1), 271.
- Ministry of Health & Family Welfare. (2017). *National Health Policy of India 2017*. Government of India. Retrieved Aug 2017, from <http://www.mohfw.nic.in/showfile.php?lid=4275>
- Ministry of Health & Family Welfare. (October 2014). *National Mental Health Policy of India*. Government of India. Retrieved Aug 2017, from <https://www.nhp.gov.in/sites/default/files/pdf/national%20mental%20health%20policy%20of%20india%202014.pdf>
- Moses, N. (2016). Digital initiatives are helping improve rural India's mental health. *Factor Daily*. Retrieved Aug 2017, from <https://factordaily.com/mhapps-rural-india-mental-illness/>
- Nadkarni, A., Weobong, B., Weiss, H. A., McCambridge, J., Bhat, B., Katti, B., . . . others. (2016). Counselling for Alcohol Problems (CAP), a lay counsellor-delivered brief

- psychological treatment for harmful drinking in men, in primary care in India: a randomised controlled trial. *The Lancet*.
- Pal, S., & Gonsalves, P. (2016). Project Report from PRIDE: Engaging young people with mental health in India. *Mental Health Innovation Network*. Retrieved Aug 2017, from <http://www.mhinnovation.net/blog/2016/dec/21/project-report-pride-engaging-young-people-mental-health-india>
- Patel, V., & Prince, M. (2001). Ageing and mental health in a developing country: who cares? Qualitative studies from Goa, India. *Psychological medicine*, 31(1), 29-38.
- Patel, V., Ramasundarahettige, C., Vijayakumar, L., Thakur, J. S., Gajalakshmi, V., Gururaj, G., . . . others. (2012). Suicide mortality in India: a nationally representative survey. *The lancet*, 379, 2343-2351.
- Patel, V., Xiao, S., Chen, H., Hanna, F., Jotheeswaran, A. T., Luo, D., . . . others. (2017). The magnitude of and health system responses to the mental health treatment gap in adults in India and China. *The Lancet*, 388, 3074-3084.
- Raza, W. A., Poel, E., Bedi, A., & Rutten, F. (2016). Impact of Community-based Health Insurance on Access and Financial Protection: Evidence from Three Randomized Control Trials in Rural India. *Health economics*, 25, 675-687.
- Roy, S. (2016). 11 Shocking Facts About Mental Health India Needs To Address Right Now. *BuzzFeed*. Retrieved Aug 2017, from https://www.buzzfeed.com/shayanroy/facts-about-mental-health-in-india?utm_term=.xoxeB3eZW#.ysr87X8MP
- Shankar, P., & Shankar, A. (2016). Hidden in plain sight: mental health in India. *The Lancet Psychiatry*, 3, 207-208.

Sharma, G., & Krishna, S. N. (2013). Mentally ill suffer a horrible fate in India. *Deutsche Welle (dw.com)*. Retrieved Aug 2017, from <http://p.dw.com/p/19MQV>

Shidhaye, R., Murhar, V., Gangale, S., Aldridge, L., Shastri, R., Parikh, R., . . . others. (2017). The effect of VISHRAM, a grass-roots community-based mental health programme, on the treatment gap for depression in rural communities in India: a population-based study. *The Lancet Psychiatry*.

Shields-Zeeman, L., Pathare, S., Walters, B. H., Kapadia-Kundu, N., & Joag, K. (2017). Promoting wellbeing and improving access to mental health care through community champions in rural India: the Atmiyata intervention approach. *International Journal of Mental Health Systems*, 11, 6.

Shiva, V. (2017). From Seeds of Suicide to Seeds of Hope: Why Are Indian Farmers Committing Suicide and How Can We Stop This Tragedy? *Huffington Post*. Retrieved Aug 2017

Silberner, J. (2016). Neighbors Treating Neighbors For Depression And Alcoholism. *NPR*. Retrieved Aug 2017, from <http://www.npr.org/sections/goatsandsoda/2016/12/15/505733704/neighbors-treating-neighbors-for-depression-and-alcoholism>

Silberner, J. (2017). India and Its Innovative Mental Health Treatments. *Pulitzer Center*. Retrieved Aug 2017, from <http://pulitzercenter.org/reporting/india-and-its-innovative-mental-health-treatments>

The George Institute of Global Health. (2017). Case study: Using mobile technology to treat mental health in rural India. Retrieved from <http://www.georgeinstitute.org/our-impact/using-mobile-technology-to-treat-mental-health-in-rural-india>

- The Minds Foundation. (2017). TBI Blogs: Why Mental Healthcare in India Needs to Go Mainstream Now. *The Better India*. Retrieved Aug 2017, from <https://www.thebetterindia.com/101952/mental-health-address-doctors-primary-health-care/>
- Tiwary, D. (2017, Jan). In 80% farmer-suicides due to debt, loans from banks, not moneylenders. *Indian Express*. Retrieved Jul 2017, from <http://indianexpress.com/article/india/in-80-farmer-suicides-due-to-debt-loans-from-banks-not-moneylenders-4462930/>
- Umar, B. (2015, May). India's shocking farmer suicide epidemic. *AlJazeera*. Retrieved Jul 2017, from <http://www.aljazeera.com/indepth/features/2015/05/india-shocking-farmer-suicide-epidemic-150513121717412.html>
- van Ginneken, N., Maheedhariah, M. S., Ghani, S., Ramakrishna, J., Raja, A., & Patel, V. (2017). Human resources and models of mental healthcare integration into primary and community care in India: Case studies of 72 programmes. *PLoS One*, *12*, e0178954.
- van Ginneken, N., Tharyan, P., Lewin, S., Rao, G. N., Meera, S. M., Pian, J., . . . Patel, V. (2013). Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low-and middle-income countries. *The Cochrane Library*.
- World Health Organisation. (2015, Oct). Mental health care in India: restoring hope and dignity. Retrieved Aug 2017, from <http://www.who.int/features/2015/mental-health-care-india/en/>
- World Health Organization, Others. (2016). mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings. Retrieved Aug 2017, from http://apps.who.int/iris/bitstream/10665/44406/1/9789241548069_eng.pdf