National Mental Health Survey of India, 2015-16

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Summary

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Key Words: Mental morbidity, Mental disorders, Epidemiology, Public Health, Substance use disorder, Alcohol use disorder, Schizophrenia, Depression, Anxiety disorders, Children, Adults, Elderly, Mental health systems, Policy, Action Plan, Advocacy, Legislations, Intersectoral collaboration, Drug Logistics, Monitoring, Evaluation

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Message

The Ministry of Health and Family Welfare, Government of India commissioned NIMHANS, Bengaluru to undertake a nationally representative mental health study to understand the burden and patterns of mental health problems, examine treatment gap, health care utilization patterns, disability and impact amongst those affected. It is one of the largest mental health "Research and Action" oriented study undertaken in recent times across 12 states of India.

This study has provided us major insights into the magnitude of problem and state of service and resources to strengthen mental health programmes. The comprehensive Mental Health Systems Assessment has brought out the strengths and weaknesses in the system of mental health care in the states.

I take this opportunity to congratulate the NIMHANS team and all State teams of nearly 400 members for undertaking and completing this task promptly with utmost care and quality.

(Jagat Prakash Nadda)

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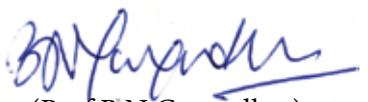Director
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Foreword

Mental health and well-being, across civilisations, have received attention although variably. The ancient science of Yoga emphasises *'chittavrittinirodha'* i.e., to calm the oscillation of the mind towards stability. Public Health focus was provided by the landmark World Health Report - 2001 titled "Mental health: new hope, new understanding". Beginning with the World Health Day 2001 theme "Stop exclusion ¬– Dare to care", there has been a renewed effort to mainstream mental health along with the growing Non Communicable Disease agenda. There is thus an urgent need to identify the force multiplier for mental health. A dedicated Mental Health Policy, the new mental health care bill are definitely right steps in this direction. The just concluded National Mental Health Survey (NMHS) needs to be considered as another beginning being made for accelerating solutions for mental health care services across the country.

The National Mental Health Survey has quantified the burden of those suffering from mental, select neurological and substance use problems. NMHS has also undertaken the onerous task of identifying the baseline information for subsequent development of mental health systems across the states. The results from the NMHS point to the huge burden of mental health problems: while, nearly 150 million Indians need mental health care services, less than 30 million are seeking care; the mental health systems assessment indicate not just a lack of public health strategy but also several under-performing components. NMHS by providing the much needed scientific rigour to plan, develop and implement better mental health care services in India in the new millennium, has hence termed its report as "Prevalence, Patterns and Outcomes" and "Mental Health Systems".

The NIMHANS team had 125 investigators drawn from nearly 15 premier institutions pan-India. The NMHS has been a unique activity entrusted to NIMHANS. Team NIMHANS has worked tirelessly over the last two years. The 50+ strong team from Epidemiology and Mental health takes credit for this accomplishment. I would like to specially compliment the former Director, Prof Satish Chandra, who took special interest and laid a firm foundation for the NMHS activities and all expert members for their unstinted support and continued guidance. The Ministry of Health and Family Welfare, Government of India as the nodal agency for mental health provided the financial resources for the survey and also facilitated the smooth conduct of the survey related activities in the individual states. The Joint Secretary chaired the NTAG meetings and guided the work.

The recommendations of the present report are structured to make a better beginning as well as to enhance and improve care where it already exists. It provides for a public health framework to monitor and evaluate plans, programs and services. We look forward to the continued dialogue and feedback, whence we take a pledge to improve mental health care systems in our country.

Place: Bengaluru

Date: 07-10-2016

(Prof B N Gangadhar)

Director – NIMHANS

Preface

With changing health patterns among Indians, mental, behavioural and substance use disorders are coming to the fore in health care delivery systems. These disorders contribute for significant morbidity, disability and even mortality amongst those affected. Due to the prevailing stigma, these disorders often are hidden by the society and consequently persons with mental disorders lead a poor quality of life.

Even though several studies point to the growing burden, the extent, pattern and outcome of these mental, behavioural and substance use disorders are not clearly known. Though unmeasured, the social and economic impact of these conditions is huge. It is also acknowledged that mental health programmes and services need significant strengthening and / or scaling up to deliver appropriate and comprehensive services for the millions across the country who are in need of care.

India recently announced its mental health policy and an action plan; these along with the proposed mental health bill attempts to address the gaps in mental health care. In addition, recommendations from National Human Rights Commission and directives from the Supreme Court of India have accelerated the pace of implementation of mental health services. Several advocacy groups, including media, have highlighted need for scaling up services and providing comprehensive mental health care.

To further strengthen mental health programmes and develop data driven programmes, the Ministry of Health and Family Welfare, Government of India commissioned NIMHANS to plan and undertake a national survey to develop data on prevalence, pattern and outcomes for mental disorders in the country. Furthermore, a systematic assessment of resources and services that are available to meet the current demands was a felt need.

Thus, the National Mental Health Survey was undertaken by NIMHANS to fulfil these objectives across 12 selected states of India during 2015 – 16. After making adequate preparations for nearly 12 months, the study was implemented on a nationally representative sample adopting a uniform and standard methodology. Data collection was undertaken by well-trained staff using hand held devices from 39,532 individuals across the states. Simultaneously, mental health systems assessment undertaken using secondary data sources and qualitative methods, set down indicators with the active engagement of stake holders.

The findings from NMHS 2015-16 are presented in two parts: the first part provides data on the prevalence, pattern and outcomes, while the second one reports the current status of mental health systems. These reports provide a detailed description of the need, focus, methods,

results, implications along with recommendations. The methods section would empower to understand the results and also guide other researchers to plan and implement large scale national surveys.

Robust and quality population data aid policy makers to formulate programmes and policies that meet the needs of citizens in various areas. NMHS 2015-16 reveals that nearly 15% of Indian adults (those above 18 years) are in need of active interventions for one or more mental health issues; Common mental disorders, severe mental disorders and substance use problems coexist and the middle age working populations are affected most; while mental health problems among both adolescents and elderly are of serious concern, urban metros are witnessing a growing burden of mental health problems. The disabilities and economic impact are omnious and affect, work, family and social life. However, to address these problems, the current mental health systems are weak, fragmented and uncoordinated with deficiencies in all components at the state level.

The National Mental Health Survey is a joint collaborative effort of nearly 500 professionals, comprising of researchers, state level administrators, data collection teams and others from the 12 states of India and has been coordinated and implemented by NIMHANS. The results and implications point to a need for a strong public health approach and a well-functioning mental health systems within larger health system. The response needs to be integrated, coordinated and effectively monitored to appropriately address the growing problem.

Our efforts will be amply rewarded, if, the political leadership at all levels - policy makers in health and related sectors - professionals from all disciplines - the print and visual media and importantly the Indian society acknowledge the huge burden of mental disorders in India and make strong attempts to intensify and scale-up mental health care services, integrate mental health promotion into care and management and also strengthen rehabilitation in health, social, economic and welfare policies and programmes. Undoubtedly, all these should be based on equity, promote a rights approach and enhance access. The country should join together towards 'Finding solutions together'

NMHS team

Team NMHS would like to place on record their gratitude to all the individuals and members from the community across the 12 states who participated in the survey. We immensely appreciate their invaluable contribution.

Acknowledgements

The National Mental Health Survey (NMHS) was a unique collaborative endeavour undertaken across 12 states of India with active engagement of more than 400 persons during 2014-16. The project was funded by the Ministry of Health and Family Welfare, Government of India.

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Abbreviations

AS	Assam
CG	Chattisgarh
CHC	Community Health Centre
CPH	Center for Public Helath.
DALYs	Disability Adjusted Life Years
DMHP	District Mental Health Programme
GJ	Gujarat
HMIS	Health Management Information System
IEC	Information Education Communication
JH	Jharkhand
KL	Kerala
MHSA	Mental Health System Assessment
MN	Manipur
MNSuDs	Mental, neurological and substance use disorders
MoHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh
NCDs	Non-Communicable Diseases
NGOs	Non-Governmental Organizations
NHRC	National Human Rights Commission
NIMHANS	National Institute of Mental Health and Neuro Sciences
NMHP	National Mental Health Programme
NMHS	National Mental Health Survey
OG	Operational Guidelines
PB	Punjab
RJ	Rajasthan
SDG	Sustainable Development Goals
SMHSA	State Mental Health Systems Assessment
TN	Tamil Nadu
UP	Uttar Pradesh
WB	West Bengal
WHO	World Health Organisation
WHO	AIMS -World Health Organisation Assessment Instrument for Mental Health Systems
WP	Weighted Prevalence

Introduction

Health is pivotal for the growth, development and productivity of a society and is vital for a happy and healthy life anywhere in the world. The World Health Organisation definition of health, includes physical, social, spiritual and mental health, and not merely the absence of disease or infirmity[1]. Since ancient times, India, has given importance to the health of people and has highlighted the need for a physically and mentally healthy society. The maxim, "there is no health without mental health" underlines the fact that mental health is an integral and essential component of health. Mental health, hither to neglected, is now recognised as a critical requirement and is engaging the attention of policy-makers, professionals and communities in India and across the globe.

The health of people in India is changing due to sociodemographic and epidemiological transition. The double burden of communicable and non-communicable diseases (NCDs) (also sometimes referred to as triple burden by including injury and violence as a third separate category) is placing a huge burden on the health system at all levels. In this emerging scenario, mental, neurological and substance use disorders (MNSUDs), included under the broader rubric of NCDs are well acknowledged as major public health problems with a greater share of morbidity and disability. Countries around the world are working towards developing the required (both independent as well as integrated) services for their populations. In fact, India was one of the first countries to develop a National Mental Health Programme in the early eighties with a focus on accessible and equitable mental health care.

MNSUDs include a wide range of conditions that have varied presentations and range from being acute to chronic in nature. Some of them have remissions and relapses. They could involve emergencies or protracted illness, be subclinical or fully blown disorders, and are most often unrecognised due to neglect by individuals, lack of objective procedures or deficient services.

Mental disorders are important

- Mental disorders contribute to a significant load of morbidity and disability, even though few conditions account for an increasing mortality. As per Global Burden of Disease report, mental disorders accounts for 13% of total DALYs lost for Years Lived with Disability (YLD) with depression being the leading cause[2]. Previous reviews, meta analysis, studies and independent reports have indicated that nearly 100 million persons in India are in need of systematic care based on data[3] that are a few decades old and have serious methodological limitations.

- Conditions related to the brain and mind are acknowledged to be on the increase in recent times. This is probably due to the growing awareness in society, improved recognition, variations in disease patterns, changing lifestyles and biological vulnerabilities. Consequently, depression, anxiety, alcohol use, suicidal behaviours, drug use, sleep disorders and several others are on the increase[4].

- Mental disorders affect everyone, irrespective of age, gender, residence and living standards, even though some groups are at a higher risk for certain illnesses; only the impact varies. For example, mental disorders among children, depression among pregnant mothers, and dementia among the elderly are well known.

- Growing evidence from research has demonstrated the close association of mental disorders as precursors/risk factors/co-morbid conditions /consequences of a wide range of acute and chronic conditions like Non-Communicable Diseases[5,6], injury and violence, maternal and child health conditions. For example, depression and cancer are known to coexist, while anxiety disorders are linked to the occurrence of cardiovascular disorders[7]. Non-recognition of associated mental health problems often leads to delayed recognition and recovery.

- Mental disorders are known to be caused by a complex interaction of biological, social, environmental, cultural and economic factors.[4] In countries like India, the social determinants of health like employment, education, living standards, environment, access, equity and others contribute significantly to both causation and recovery. Poverty, low living standards and related factors are implicated in the increased occurrence, but they also vitiate the cycle of poverty and impoverishment[8].

- Persons with mental disorders are also known to be associated with a wide range of social and societal problems if their illness is unrecognised or inappropriately managed. Some mental health conditions are implicated not only in lower productivity and earning potential, but also in a number of antisocial behaviours, crime, homelessness, domestic violence, alcohol and drug use . Undoubtedly,

mental health care is an important issue to be addressed.

- Mental problems of a chronic nature, result in a lifelong impact. This impact lasts for a protracted period, gradually resulting in a poor quality of life for such individuals and their families.

- From a cultural perspective, mental disorders are associated with a considerable amount of stigma in Indian society, leading to neglect and marginalisation. Such individuals and their families face numerous challenges in daily life , both for managing the condition as well as for making them productive due to prevailing attitudes, media portrayals, societal discrimination and deprived opportunities.

- From an economic angle, the impact of MNSUDs is acknowledged to be high due to the nature, duration, and impact of illness affecting growth, productivity and the earning potentials of individuals.

- Persons with mental illness are unable to receive quality care due to limited awareness, availability, accessibility and affordability; the costs of care are also becoming increasingly prohibitive.

- Significantly, persons with mental disorders account for nearly a fourth of the total case load in primary care settings highlighting the burden at peripheral levels. Most often, these individuals present as common mental health problems or as a comorbid condition of other disorders and are missed or inappropriately managed.

- An alarming fact which has been recognised for several years, is the huge gap[3], often referred to as the treatment gap, in the care of the mentally ill in Indian society. This is due to the poor awareness among people and the availability of limited resources.

With the recognition of the above factors, efforts are ongoing to strengthen, integrate and scale up activities to develop comprehensive and integrated services. India was one of the first countries to make a pledge to promote the mental health of its people. This was done through its National Mental Health Programme initiated in the early 1980s. However, mental health has often been accorded a lower priority amidst competing health and social priorities; hence, the progress has been far from satisfactory[9]. Apart from several reasons that have been put forth for this, a systems approach and public health components in mental health delivery are often found missing.

Mental Health Research in India

During the last five decades, several researchers both from India and abroad have examined a number of mental health issues. Research has been undertaken in both clinical and population based settings, often with different priorities that are complementary to each other. From a public health perspective, the prevalence, pattern, characteristics and determinants of various mental disorders have been examined. In addition, care related issues like service delivery aspects and system issues have also been studied[3]. However, scientific extrapolations and estimates at the national and state levels have not been possible due to methodological limitations. Moving beyond prevalence, data has been extremely limited on health care utilisation, disability, impact, stigma and the overall impact of mental disorders on individuals and families.

Recent studies and anecdotal reports indicate the emergence of new problems like common mental disorders, alcohol and drug abuse, depression, suicidal behaviours and others. Understanding these emerging

public health problems has been limited due to lack of research.

Furthermore, the preparedness, responsiveness and capacity of health systems to address these challenges have not been well understood till date, even though previous reviews and evaluations have addressed the independent components. Thus, these issues combined, have not only slowed the growth of mental health services, but also limited its expansion both quantitatively and qualitatively.

Health Systems and Mental Health

To achieve the goal of high standards in the quality of care and improved outcomes based on the principles of universal care and equity, it is essential that health systems are strengthened and made responsive to changing health priorities and concerns. *A good mental health system has the responsibility of reducing the substantial burden of untreated mental disorders, decreasing human rights violations, ensuring social protection and improving the quality of life especially of the most vulnerable and marginalised subgroups in a society. Moving beyond care, it should also integrate and include mental health promotion and rehabilitation components*[10]. On the contrary, lack of a comprehensive and integrated systems approach to mental health care, results in poorly functioning or absent mental health care services.

Public health approaches and their several components within health systems contribute towards the effective functioning of a system. A systems perspective for mental health provides a broader framework for health care serves better integration of the already available services and improves the uptake of care for those with mental health problems. Policy makers will be able to organise and

deliver high-quality mental health services, close the mental health- treatment gap and strengthen preventive / promotive measures along with rehabilitation services with a systems framework. A well-planned and organised mental health system has immense scope for enhanced service delivery, positive outcomes and improved human rights for people with mental disorders.

Mental Health and Sustainable Development goals

Within the health related SDGs, two targets are directly related to mental health and substance abuse.

Target 3.4 "By 2030, reduce by one third premature mortality from Non communicable diseases through prevention and treatment and promote mental health and well-being."

Target 3.5 requests that countries: "Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol."
Source: 11

To develop strong health systems and mental health programmes within health systems, good quality data is an important prerequisite. The availability of good quality, scientific and reliable information is the bedrock of all public health programmes and more so in mental health. Moving beyond numbers, the data should reflect changing patterns and priorities, support the development of new programmes and monitor the progress of existing ones. Apart from information on the prevalence and patterns of mental disorders, data should also be available on other aspects like service utilisation, burden, impact and

the efficacy of systems . In the absence of the right kind of data, health systems' response to strategically reorient their services and activities through policies and programmes becomes limited.

Nevertheless, mental health initiatives are definitely growing, both in quantity and quality, albeit at a slow pace. In the Indian context, a systems approach to mental health becomes critical not only to advance mental health, but also because of its impact on the nation's commitment to implement Mental Health Action plans (table 1) and to achieve Sustainable Development Goals (SDGs)[11] in the coming years.

Need for the National perspective

To plan, develop, implement, monitor, evaluate and strengthen mental health services in India, there is a need to understand the clear burden of mental disorders as well as the existing resources and services across the country. As the data from previous studies had its limitations which often precluded its use for planning mental health services in India, the need for good quality information has been reiterated. Thus, in order to strengthen mental health policies and programmes at the national and state levels, the Ministry of Health and Family Welfare (MOHFW) identified the National Mental Health Survey (NMHS) as a priority area during the 12th plan period based on the recommendations of the Joint Parliamentary Committee, parliamentarian's frequent questions, judicial directives, policy maker's concerns, professional's need, media concerns, and several others.

Focus of NMHS

The NMHS was conceptualised to cover a representative national population,

Table 1 : Mental health Action Plan (2013-2020)

Objective1: To strengthen effective leadership and governance for mental health	
Target	**Indicator**
Global Target 1.1: 80% of countries will have developed or updated their policy/plan for mental health in line with international and regional human rights instruments (by the year 2020).	Existence of a national policy and/or plan for mental health that is in line with international human rights instruments [yes/no]
Global target 1.2: 50% of countries will have developed or updated their law for mental health in line with international and regional human rights instruments (by the year 2020).	Existence of a national law covering mental health that is in line with international human rights instruments [yes/no].
Objective 2: To provide comprehensive, integrated and responsive mental health and social care services in community-based settings	
Target	**Indicator**
Global target 2: Service coverage for severe mental disorders will have increased by 20% (by the year 2020).	Proportion of persons with a severe mental disorder (psychosis; bipolar affective disorder; moderate-severe depression) who are using services [%].
Objective 3: To implement strategies for promotion and prevention in mental health	
Target	**Indicator**
Global target 3.1: 80% of countries will have at least two functioning national, multisectoral mental health promotion and prevention programmes (by the year 2020).	Functioning programmes of multisectoral mental health promotion and prevention in existence [yes/no]
Global target 3.2: The rate of Suicide In countries will be reduced by 10% (by the year 2020).	Number of Suicide deaths per year per 100000 population.
Objective 4: To strengthen information systems, evidence and research for mental health	
Target	**Indicator**
Global target 4: 80% of countries will be routinely collecting and reporting at least a core set of mental health indicators every two years through their national health and social Information systems (by the year 2020)	Core set of identified and agreed mental health indicators routinely collected and reported every two years (yes/nol.

Source: World Health Organisation. Mental Health Action Plan 2013-2020. Available at http://www.who.int/mentalhealth/publications/actionplan/en/ Accessed on 1st October 2016

examine all priority mental disorders, focus on the treatment gap, service utilisation, disability and impact along with an assessment of resources and systems in a sample of Indian states; simultaneously and with uniform methodologies. The population selected and interviewed was drawn based on scientific sampling methods by including individuals aged 18 years and above. A sample of adolescents (13 – 17 years) was included in four states to examine the feasibility of the methodology for understanding mental morbidity in this age group. The quality of the data was the prime focus. The study actively engaged state administrators, health ministry officials, professionals and communities in a continuous dialogue and feedback using e-communication platforms for assessment of state mental health systems. Both quantitative and qualitative methods were employed in the study. Most significantly, the data collection started on June 1 2015 after adequate preparations and ended on June 1, 2016, indicating the meticulous planning of the study.

The objectives

(i) Estimate the prevalence and pattern of various mental disorders in a representative Indian population

(ii) Identify treatment gap, health care utilisation, disabilities and impact

(iii) Assess the current mental health services and systems in the surveyed states

The detailed methodology, results and implications are available as a two-part series (Prevalance, pattern and outcomes: Systems for care) and readers may refer to the same for a complete understanding of the National Mental Health Survey.

As per the above objectives and as discussed in the methodology in a later section of this report, the National Mental Health Survey examined the prevalence and patterns of mental problems along with treatment gap, disability nature and socioeconomic impact based on the primary data collected from 12 states.

Mental health system components on several domains (based on available secondary data and opinion of experts, administrators and professionals) were examined to understand current systems of care; certainly, limitations exist in this approach.

The final prevalence data and score card indicates the combined performance score of each state and across domains in each state (scoring mechanisms are given in the second report of NMHS and should be understood in detail). It is essential to highlight that interstate comparisons should not be made as each state is at a different stage of development in mental health. Instead, it would help in learning from each other and the need to invest in different areas within each state to strengthen existing systems. The state specific fact sheets (available in the second report), sets the baseline for measuring progress made in each area over time.

Project Management

The 30 months of the NMHS activities was guided and supported by the National Technical Advisory Group (NTAG), National Expert's panel, NIMHANS - NMHS Advisory Committee and NMHS State Advisory Board at different stages of project implementation.

The Centre for Public Health (CPH) and faculty from the Department of Psychiatry took the lead role in conceptualizing the methodology, facilitating the formation of state teams, and developing the procedures for training, computer enabled data collection on tablets, as well as monitoring and hand holding of the state teams on a continuous basis. It also handled the data analysis and management, report development, dissemination and feedback.

In each state, a dedicated team of researchers was supervised by the State Principal Investigator (PI) who was a mental health professional, and the Co-PI who was a public health professional. A local team of Co-Investigators and a fully trained team of field-workers undertook data collection as per the Master Protocol and the Operational Guidelines document. The NIMHANS Institutional Ethics Review Board, approved the study proposal and the protocol was also approved by the respective Institutional Ethics Committee of the partner organisations.

Methodology

1. The NMHS was undertaken as a large scale, multi-centred national study on the various dimensions and characteristics of mental health problems among individuals aged 18 years and above across 12 Indian states (Figure 1) during 2014 - 16.

2. A pilot study was undertaken in Kolar district, Karnataka during Jan-Nov 2014, on a sample of 3190 individuals (13 years and above) to examine the feasibility of: conducting the survey, the proposed sampling methodologies and the use of hand held computing devices for field data collection. Six well trained data collectors were involved in data collection across 50 clusters (Villages and urban wards) of the district which provided a crude prevalence of 7.5% for all mental disorders. The lessons learnt and experience gained helped in developing the NMHS methodology.

3. The selection of states was based on the availability of an interested and reliable partner organisation in that state, their willingness to undertake the study and the availability of screening and diagnostic data collection tools in the vernacular languages spoken in that state. The states selected were

   North : Punjab and Uttar Pradesh,

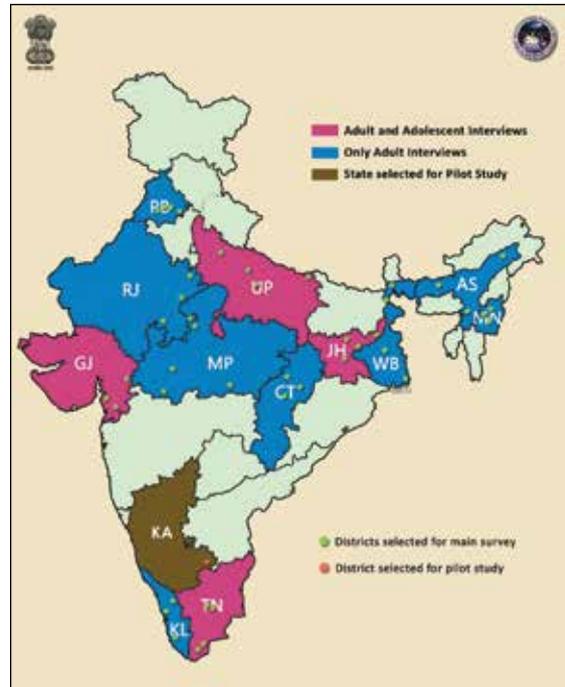   South: Tamil Nadu and Kerala,

   East: Jharkhand and West Bengal,

   West: Rajasthan and Gujarat,

   Central: Madhya Pradesh and Chhattisgarh and,

   North-East : Assam and Manipur.

Figure 1. States covered in National Mental Health Survey -2015-16

4. A Master Protocol outlining the study components, was developed to provide the overall guiding framework for conducting the study. A companion Operational Guidelines (OG) document (developed separately for the survey and for the mental health systems assessment) provided a step-by-step guide to the activities specified in the Master Protocol, ensuring that the survey was uniformly conducted across all the states.

5. The overall study design of the NMHS was *multi-stage, stratified, random cluster sampling technique, with random selection based on Probability Proportion to Size at each stage (MSRS-PPS)*. Each named inhabited village as per the Census 2011 constituted a rural cluster, while a census enumeration block represented

an urban cluster. The sampling strategy was representative (12 states), stratified (3 districts in each state based on poverty head count ratio), random (2 taluks in each district and 10 clusters in each), proportional (PPS strategy) and all individuals were above 18 years (13+ years in 4 states).

6. A multi stage sampling was adopted (District → Taluka → Village / Ward → HH) in each state and each selected state of India constituted the sampling frame. The districts (selected using stratified random sampling technique (based on district level poverty estimates) and talukas within the states constituted the Primary and Secondary Sampling Units, respectively, and individuals within the identified households formed the unit of analysis. The numbers of rural, urban metro and urban non-metro clusters were selected based on their respective proportions for the state. Within each cluster all eligible members (>=18 years) within the households selected using systematic random sampling method were interviewed. Thus, in total 34802 adults and about 1191 adolescents drawn from 12 states were interviewed (Figure 3).
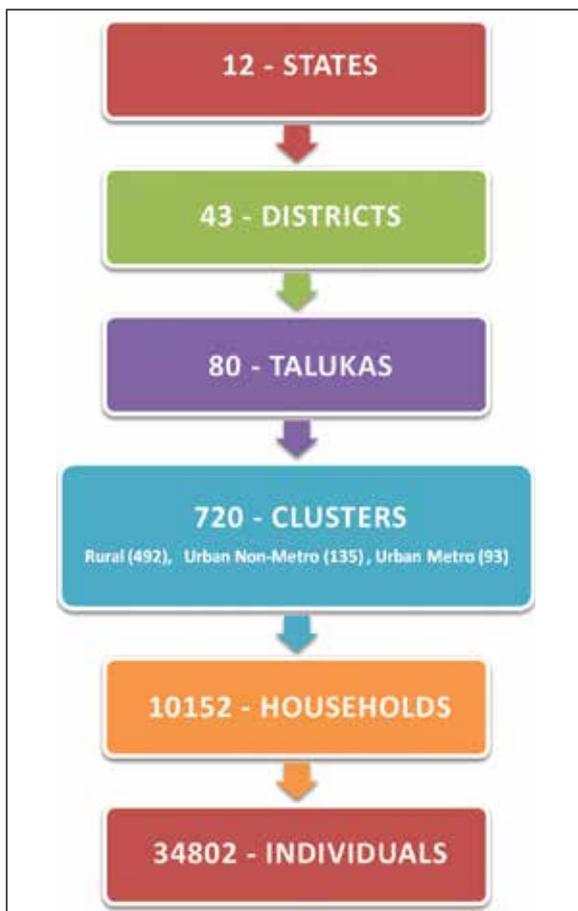
Figure 2. Key documents used in NMHS 2016

NATIONAL MENTAL HEALTH SURVEY, INDIA
MASTER PROTOCOL

May 2015

Centre for Public Health
National Institute of Mental Health and Neuru Sciences,
(Institute of National Importance)
Bangalore – 560029

NATIONAL MENTAL HEALTH SURVEY, INDIA
OPERATIONAL GUIDELINES

July 2015

Centre for Public Health
National Institute of Mental Health and Neuru Sciences,
(Institute of National Importance)
Bangalore – 560029

NATIONAL MENTAL HEALTH SURVEY, INDIA
STATE MENTAL HEALTH SYSTEMS ASSESSMENT

August 2015

Centre for Public Health
National Institute of Mental Health and Neuru Sciences,
(Institute of National Importance)
Bangalore – 560029

NATIONAL MENTAL HEALTH SURVEY, INDIA
GUIDELINES FOR FGDs AND KIIs

November 2015

Centre for Public Health
National Institute of Mental Health and Neuru Sciences,
(Institute of National Importance)
Bangalore – 560029

7. The study instruments collected socio-demographic information including completed age, gender, education, occupation, income (house-hold and individual) and marital status. For assessment of mental morbidity, the Mini International Neuro-Psychiatric Inventory (MINI) adult version and the MINI-Kid version were used for adults and, older children and adolescents, respectively. In addition, additional questionnaires for tobacco use (Fagerstrom questionnaire) and to screen for Epilepsy, Intellectual Disability (ID) and Autism Spectrum Disorders (ASD) were also incorporated. Further, questionnaires on health care utilisation, assessment of disability (modified Sheehan's scale) and socioeconomic impact of illness were used in the study.

Figure 3. Sampling and selection of individuals in NMHS

8. The MINI was chosen as the instrument for assessment of mental illnesses as it overcomes the two-stage interview needed for diagnosis in field surveys, provides ICD 10 compatible diagnostic categories for mental illness based on predefined algorithms, and takes a shorter time to administer than other instruments. Other reasons for choosing the MINI included the relative ease of training field staff, availability of validated multiple Indian language versions and most importantly the availability of the MINI instrument on a digital platform enabling its use on tablets and reducing a number of problems faced with traditional pen and paper methods . The MINI-Adult and MINI-Kid cover 16 and 19 psychiatric conditions, respectively, in a modular format.
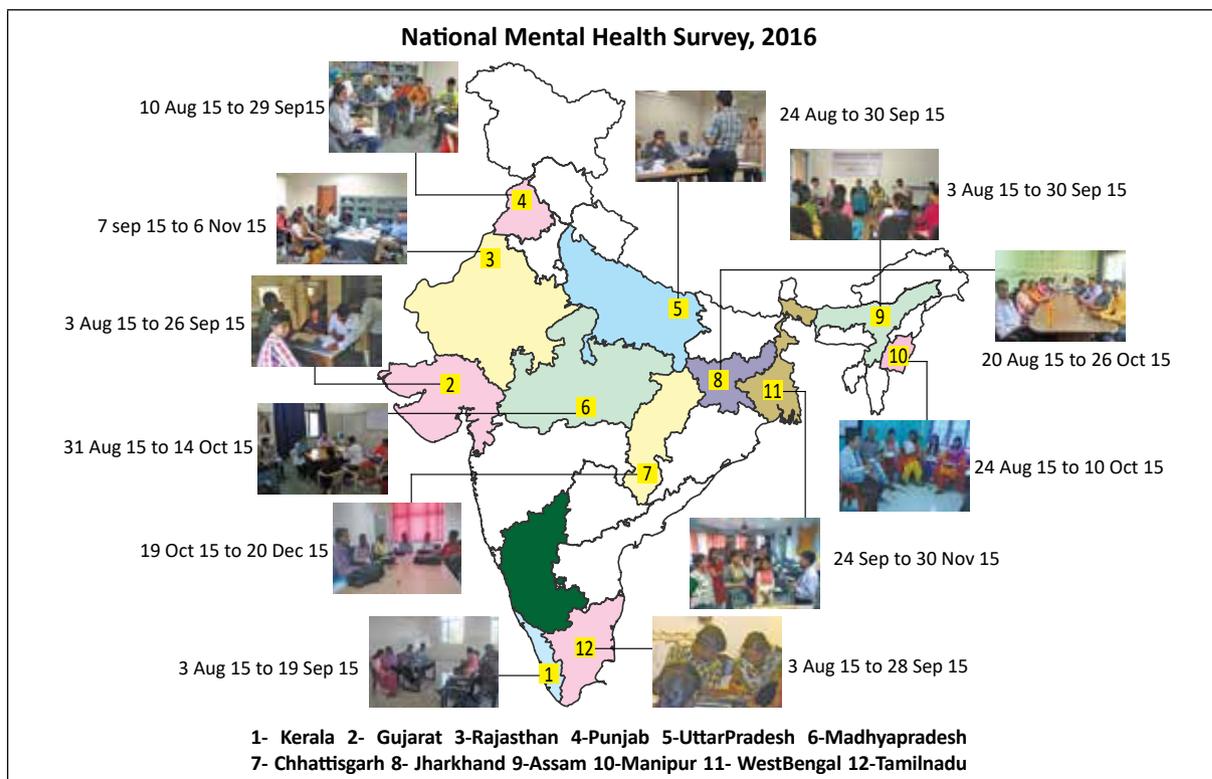
9. All data collection instruments were translated into the local languages of each of the surveyed states. Translated MINI instruments which were already available along with the other translated instruments were checked for social and cultural appropriateness, back -translated and then appropriate changes made for the final versions, which were then field-tested before use.

10. A team of 8 – 10 well trained field data collectors undertook data collection in each state based on micro planning steps after finalising field logistics. Training for the NMHS was conducted at 3 levels; first at NIMHANS for the core team, second for all PIs and Co-PIs from the selected states and third for state data collection teams. The data collection teams were trained for a period of 8 weeks (Figure 4). This involved two weeks of monitored data collection in the field. All the state teams were trained based on a uniform standardised training schema which enabled data collection in a standardised manner in all the states.

Figure 4. Training of field data collectors at State level

National Mental Health Survey, 2016

10 Aug 15 to 29 Sep15

7 sep 15 to 6 Nov 15

3 Aug 15 to 26 Sep 15

31 Aug 15 to 14 Oct 15

19 Oct 15 to 20 Dec 15

3 Aug 15 to 19 Sep 15

24 Aug to 30 Sep 15

3 Aug 15 to 30 Sep 15

20 Aug 15 to 26 Oct 15

24 Aug 15 to 10 Oct 15

24 Sep to 30 Nov 15

3 Aug 15 to 28 Sep 15

1- Kerala 2- Gujarat 3-Rajasthan 4-Punjab 5-UttarPradesh 6-Madhyapradesh
7- Chhattisgarh 8- Jharkhand 9-Assam 10-Manipur 11- WestBengal 12-Tamilnadu

11. Approvals were obtained from all local authorities and using the door knock method the field staff administered the questionnaires, using hand held tablet computers (Dell Venue 8 Pro 5000 series) (Figure 5).

12. To maintain quality assurance, several steps were built into the protocol (i) monitoring of activities on daily, weekly and fortnightly intervals, (ii) certification of training for data collectors to ensure high levels of inter-rater reliability, (iii) fortnightly e-communications between teams, (iv) regular data checks and feedback and (v) 5% validation re-interviews by Field Data Collector supervisors and PIs of the respective states. The re-interview data was analysed to study the agreement between the interviews and re-interviews and had a kappa value of 0.54 indicating that the agreement was satisfactory.

13. Strict protocols were established for data transfer and management with access controlled mechanisms. Data received from all states was examined for errors and after checks, was used for analysis.

14. In addition to the household surveys, a total of 57 Focused Group Discussions (FGDs) and 69 Key Informant Interviews (KIIs) were undertaken in the states to provide qualitative information especially regarding certain areas, where it was felt that the survey method may not be adequately informative. These areas included patterns of substance abuse (both licit–alcohol & tobacco, and illicit substances), issues relating to mental illness and homelessness, the perceived treatment gap, stigma experienced around mental health and the barriers / challenges to mental health care delivery.

15. With the merger of the data base, individual frequencies and descriptive

statistics were obtained for the population as also the socio-demographic and economic characteristics of the sample on the pooled data of all 12 states and individually for each state.

As the survey was based on a population that was representative, developed on multi stage, random sample, weighted prevalence rates and estimates were obtained for any mental morbidity and also select conditions. In the NMHS, the state and national estimates have been calculated based on the probability of selection of districts and talukas for design weight calculation. The individual non-response rate was used for the calculation of national pooled weights. The design weight was calculated to get a state level weight and the state level weights were pooled to get a national level weight.

Figure 5. Data collection schema in NMHS-2016 .
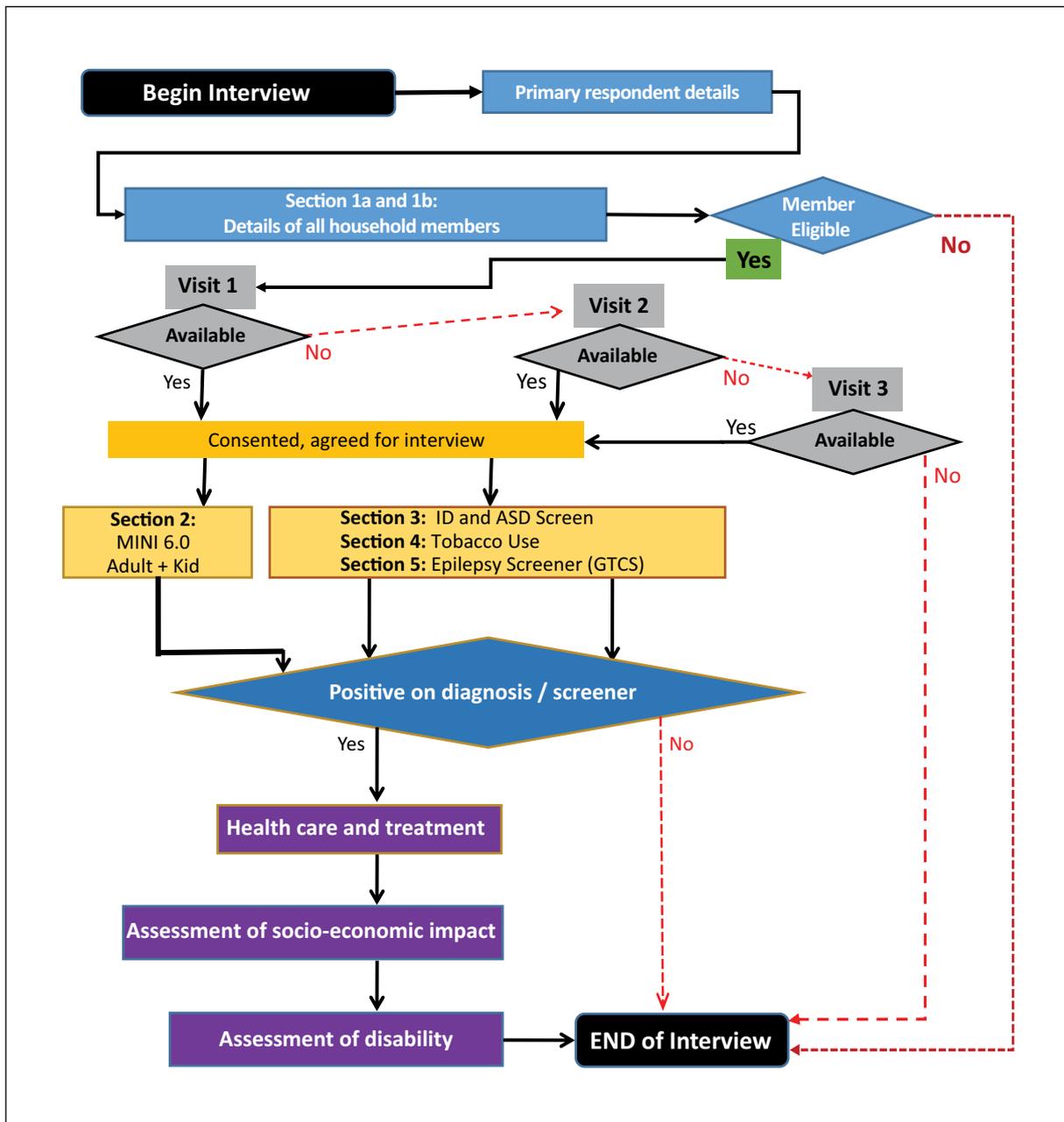
The unweighted estimates were obtained first, followed by the development of weighted estimates for all conditions as per The International Classification of Disease, 10th revision, Diagnostic Criteria for Research (ICD 10 DCR)[12]. Current (Point) prevalence is reported for all diagnostic groups (ICD categories F10-19, F40-48), and both current and life-time prevalence (ever in the life of an individual in the past) is reported for select conditions under F20-29, F30-39 and panic disorders.

Figure 6. Online monitoring meetings between Central team at NIMHANS and State teams

1- Kerala 2- Gujarat 3-Rajasthan 4-Punjab 5-UttarPradesh 6-Madhyapradesh
7- Chhattisgarh 8- Jharkhand 9-Assam 10-Manipur 11- WestBengal 12-Tamilnadu
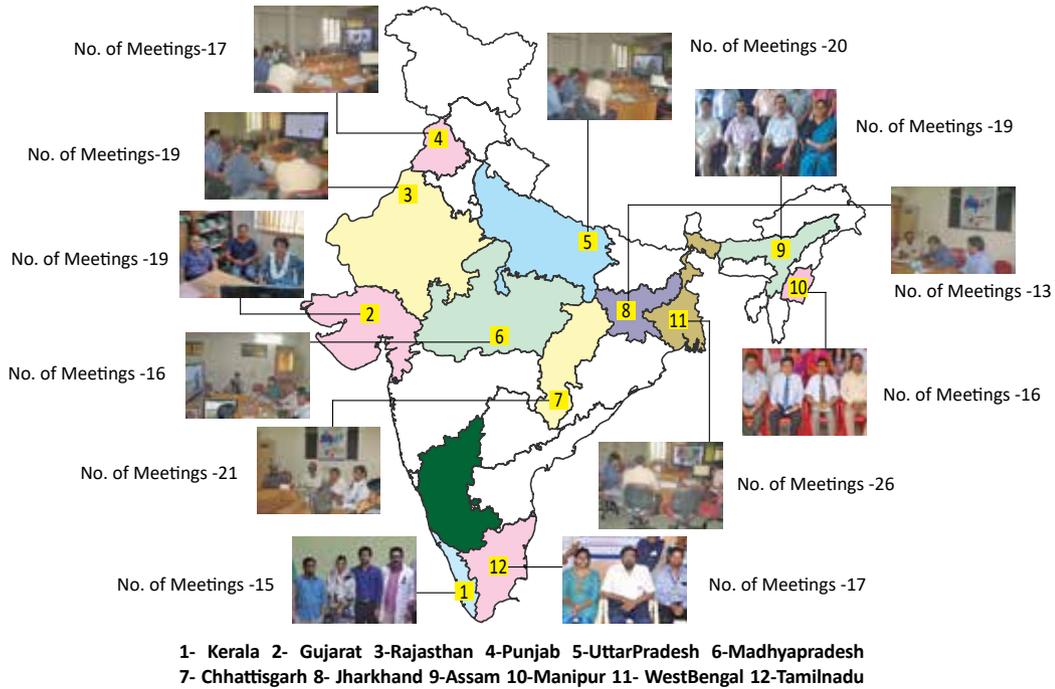
Snapshots of data collection in different states

Results

1. Survey population characteristics

Survey population was representative of the source population

The National Mental Health Survey of India-2016 was conducted on a nationally representative sample of 34802 individuals, sampled from 12 states of India. The response rate at households was 91.9%, while individuals interviewed were 88%, with some variations across the surveyed population.

One out of every three respondents in the survey was a young adult (aged 18-29 years). The age distribution of study subjects in the sample was closely similar to that documented in the Census of India-2011 in all age-groups, except for a slightly higher proportion of elder respondents (more than 60 years). This pattern was similar in all states .

Females comprised 52.3% of all respondents in the NMHS. The proportion was slightly higher in the states of Kerala, Assam and Manipur (57%). Rural, urban and metro respondents were proportionately distributed across all age-groups and both sexes. Three-fourths of the study subjects were currently married. The percentage of widowed / separated / divorced respondents

(6.2%) were higher among females (9.8%) and in Kerala, Tamil Nadu, and Gujarat (13-14%). The literacy status in the total sample was similar to the national literacy levels. Five states (Rajasthan, UP, Chattisgarh, Madhya Pradesh and Jharkhand) reported literacy levels less than the national average. Nearly one third of the respondents reported 'household duties' as their predominant occupation. One-third of households reported having a BPL (Below Poverty Line) card, with variations as low as 5% in Tamil Nadu to as high as 75.6% of households in Chattisgarh. The median household income in the surveyed households across all 12 states was observed to be INR 9000 per month, though self reported information regarding poverty and income needs to be interpreted with caution.

Despite minor variations, the study sample was representative of the Census-2011 population with regard to all the above characteristics. The minor variations between states in female population proportions, literacy and income are unlikely to influence the overall results.

2. Prevalence and pattern of mental disorders, 2016

Mental disorders are a diverse group of conditions varying in their presentation ranging from acute to recurrent to chronic, mild to severe, multiple disorders to single illness, morbid or co-morbid conditions and in several other ways. The prevalence of these disorders are also measured in number of ways like life time, past year, previous month and even in the last two weeks. Without the availability of objective tests for mental disorders, capturing precise estimates of these disorders in population based surveys has always a been a challenge, globally; and will continue in the years to come. The prevalence rates of mental disorders are also critically influenced by a wide variety of factors, ranging from socio-economic and other environmental determinants, variations in perceived threshold of distress, differences in assessment tools, choice of symptom thresholds in disease definition and interpretations of results.

Mental disorders contribute to a substantial disease burden in India

Figure 7. Prevalence of mental disorders (Weighted Percent)
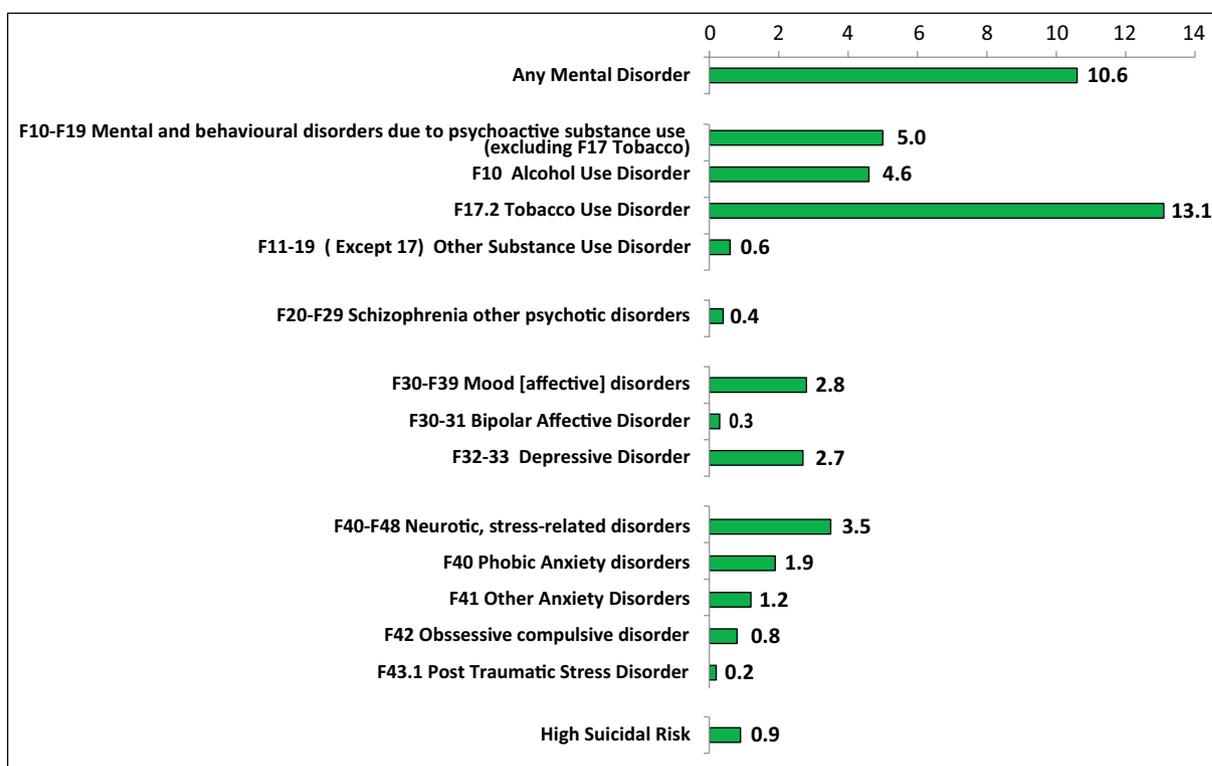
Based on uniform and standardised data collection procedures from a nationally representative population, it is estimated that, excluding tobacco use disorders, mental morbidity of individuals above the age of 18 years currently was 10.6%.

The life time prevalance in the surveyed population was 13.7%. This proportion of the population currently suffering from a mental disorder requires an active intervention. This estimate includes a range of mental disorders F10 – F49 categories within the

International Classification of Disorders (ICD -10). Translated to real numbers (based on weightage for different levels), nearly 150 million Indians are in need of active interventions.

## Prevalence of mental morbidity is high in Indian urban metros

The weighted prevalence across diagnostic categories in urban metros was higher than in rural and urban non-metro areas (with less than 10 million population). However, differences exist across diagnostic categories. The prevalence of schizophrenia and other psychoses (0.64%), mood disorders (5.6%) and neurotic or stress related disorders (6.93%) was nearly 2-3 times more in urban metros.

One can speculate and consider the contribution of several factors (fast paced lifestyle, stress, complexities of living, breakdown of support systems, challenges of economic instability) for this higher prevalence and further investigations are needed to understand the relationship between urbanisation and mental illness. With continuing urbanisation, the burden is expected to rise and hence, there is a need for an urban specific mental health programme.

While the causes, risk factors and protective factors vary in urban and rural populations, availability, accessibility and affordability of mental health services as well as awareness are major drivers of service utilisation. Thus, the need for coverage of mental health services across India on an equitable basis merits importance.

Figure 8. Rural urban differentials in prevalence of mental disorders (%)
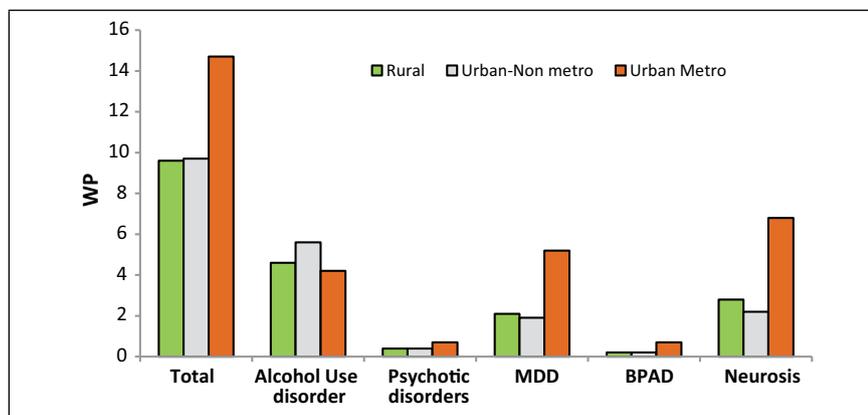

Common mental disorders affect significant sections of society

Common mental disorders (CMDs), including depression, anxiety disorders and substance use disorders are a huge burden affecting nearly 10.0% of the population. This group of disorders are also closely linked to both causation and consequences of several non- communicable disorders (NCD), thereby contributing to a significantly increased health burden. These disorders have previously been unaddressed in the planning and delivery of health care programmes. Individuals and families also ignore and neglect these disorders till they become severe.

Figure 9. Current prevalence of common and severe mental disorders
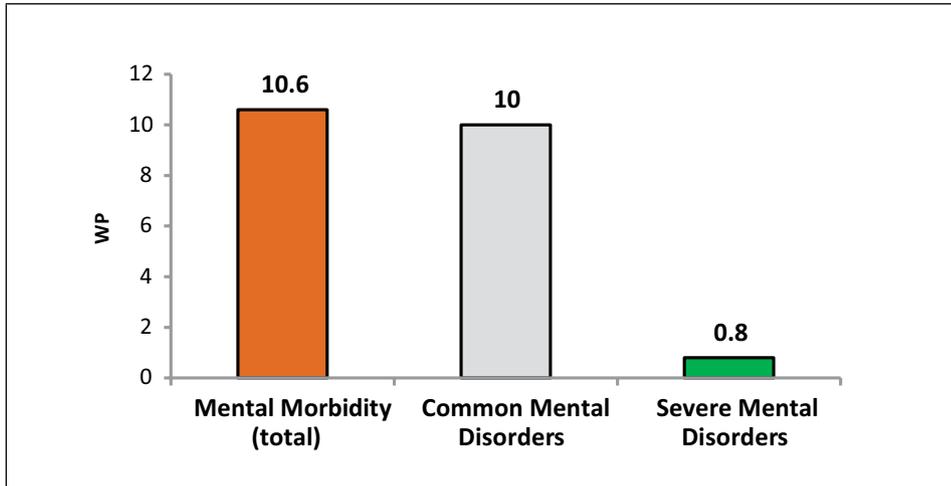

1 in 20 people in India suffer from depression

The weighted prevalence of depression for both current and life time was 2.7% and 5.2%, respectively, indicating that nearly 1 in 40 and 1 in 20 suffer from past and current depression, respectively.

Depression was reported to be higher in females, in the age-group of 40-49 years and among those residing in urban metros. Equally high rates were reported among the elderly (3.5%).

Figure 10. Prevalence of MDD and socio-demographic differentials
(highest prevalence category)
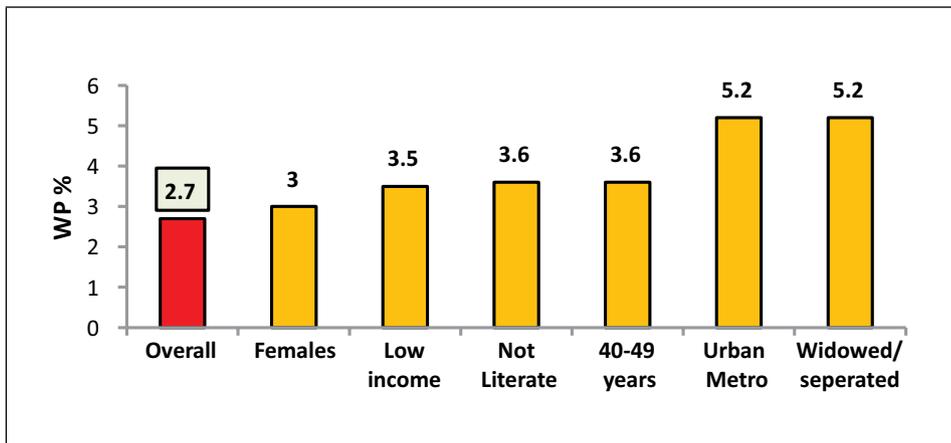
There is a high prevalence of psychoactive substance use

Substance use disorders (SUDs), including alcohol use disorder, moderate to severe use of tobacco and use of other drugs (illicit and prescription drugs) was prevalent in 22.4 % of the population above 18 years in all the

12 surveyed states. The MINI diagnostic instrument identified those with alcohol use disorder (abuse and dependence) to the extent of 4.6% and the number of users may be much higher.

Figure 11. Prevalence of Substance Use Disorders (%)
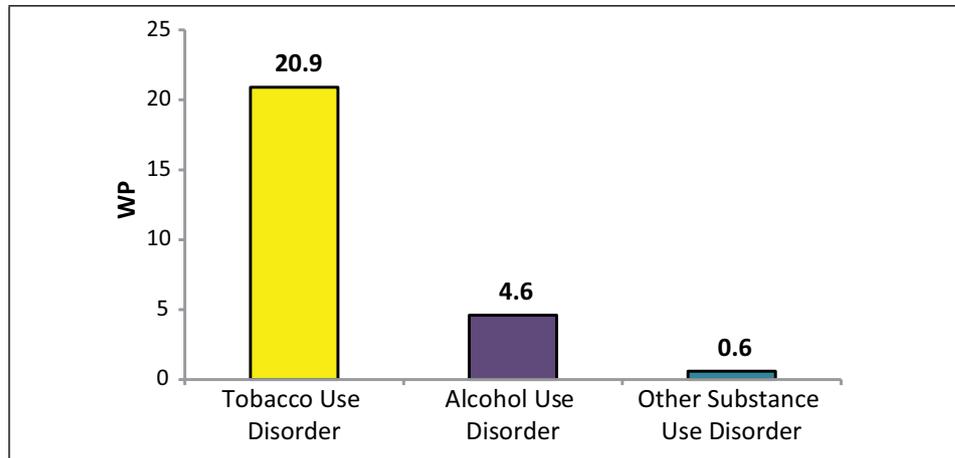
The prevalence of tobacco use disorder (moderate and high dependence) and alcohol use disorder (dependence and harmful use / alcohol abuse) was 20.9% and 4.6%, respectively. The prevalence of alcohol use disorders in males was 9% as against 0.5% in females. The numbers could be much higher as the study instrument captured only the more severe end of the spectrum of alcohol use. Further, the use and the rates of alcohol abuse / harmful use are likely to be under-reported in general household studies.

Figure 12. Prevalence of Substance Use Disorders by gender (%)
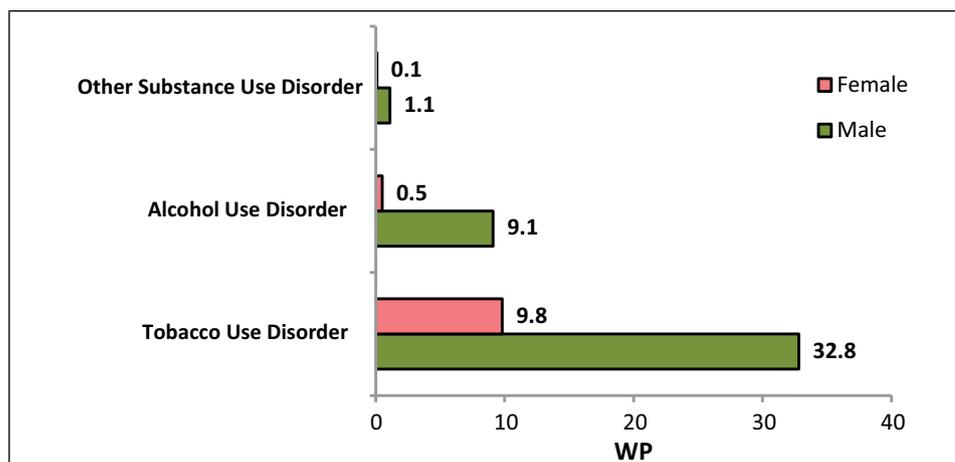
The survey also revealed that 0.6% of the 18+ population were recognised with illicit substance use disorders (dependence + abuse) which included cannabis products, opioid drugs, stimulant drugs, inhalant substances and prescription drugs. Among adult males this was 1.1%. There was a wide variation across different states, and similar high rates of consumption of illicit drugs were reported by participants in many states during our focused group discussions. The burden of SUDs, contributed mainly by alcohol and tobacco, was more in middle aged (40-59) individuals (29%), among males (35.67%) and in rural areas (24.12%). However, other SUDs (illicit drugs) were more prevalent in urban metro areas. In the context of the bidirectional relationship between mental health and SUDs and their demonstrated role as causative factors for non-communicable disorders, the high prevalence of SUDs in India is of serious concern.

Figure 13. Prevalence of Alcohol Use Disorder and socio-demographic differentials (highest prevalence category)
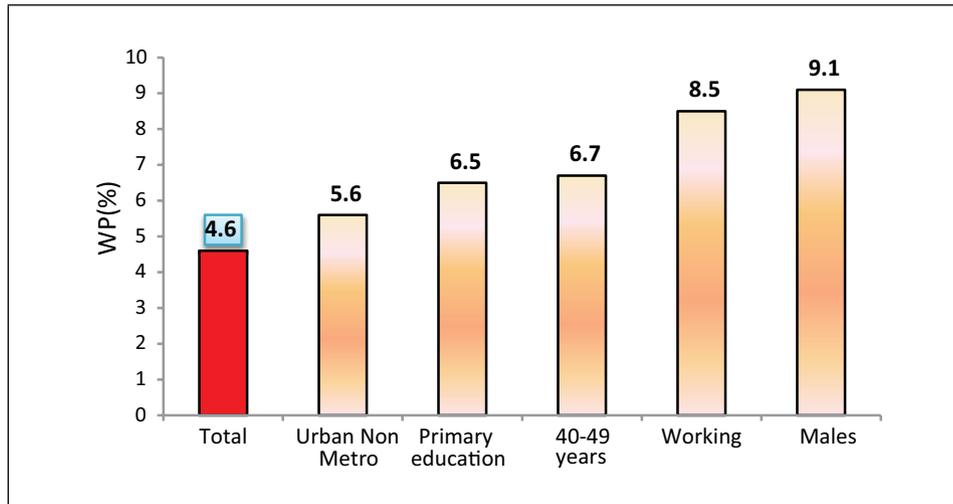
High suicidal risk is an increasing concern in India

Figure 14. Prevalence of high suicidal risk : Socio-demographic differentials
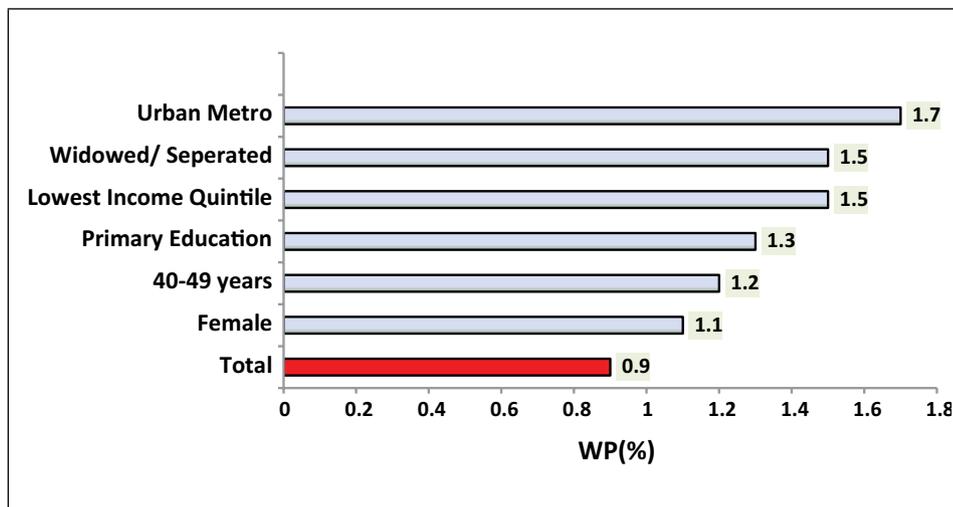
Nearly 1% of the population reported high suicidal risk. The prevalence of high suicidal risk was more in the 40-49 age group (1.19%), among females (1.14%) and in those residing in urban metros (1.71%). While half of this group reporting suicidal risk had co-occurring mental illness, the other half did not report any co-morbid mental disorder. This warrants the need for multi-sectoral actions. Suicide and suicidal ideation are important public health problems (and have in recent times assumed extremely sensitive political and social ramifications).Apart from the loss of lives (predominantly young), the causes, risk factors and consequences are poorly understood in India and this calls for good quality research at the national and state levels as well as coordinated and comprehensive interventions.

Severe mental disorders are equally important

Nearly 1.9% of the population were affected with severe mental disorders in their lifetime and 0.8% were identified to be currently affected with a severe mental disorder (Figure 9). Severe mental disorders like schizophrenia, other non-affective psychoses and bipolar affective disorder were detected more among males and in those residing in urban metro areas. The current prevalence of severe mental disorders in most states was less than 1%, excepting in Manipur and West Bengal. Even though prevalence is low in comparison to common mental disorders, severe mental disorders are equally important as their manifestation, outcome and impact are overtly different from CMDs. Furthermore, there is significant stigma associated with these disorders as they affect all domains of life and require long term rehabilitation services.

Productive age groups are affected most

Males in the age group of 30 – 49 years were the most affected indicating that mental disorders contribute to greater morbidity in the productive population. The prevalence of all disorders peak in this age group affecting work productivity and earning potential, and quality of life.

Figure 15. Prevalence of mental morbidity in different age groups (%)
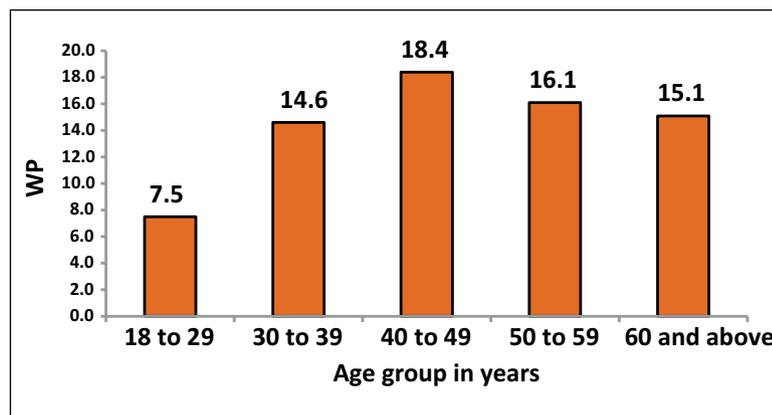

Both genders are affected – variation across disorders exists.

Significant gender differentials exist with regard to different mental disorders. The overall prevalence of mental morbidity was higher among males (13.9%) than among females (7.5%). However, specific mental disorders like mood disorders (depression, neurotic disorders, phobic anxiety disorders, agarophobia, generalised anxiety disorders and obsessive compulsive disorders were higher in females. Small number of female alcohol users identified in the present survey were reported to be dependent users. These gender differences have been reported in earlier studies as well.

Figure 16. Prevalence of mental disorder by gender(%)
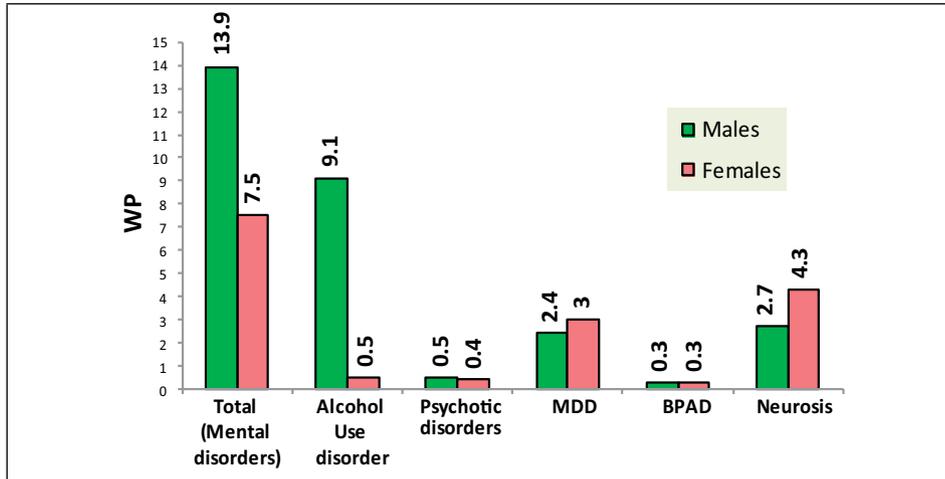
Children and adolescents are vulnerable to mental disorders

Prevalence of mental disorders in age group 13-17 years was 7.3% and nearly equal in both genders. Nearly 9.8 million of young Indians aged between 13-17 years are in need of active interventions. Prevalence of mental disorders was nearly twice (13.5%) as much in urban metros as compared to rural (6.9%) areas. The most common prevalent problems were Depressive Episode & Recurrent Depressive Disorder (2.6%), Agoraphobia (2.3%), Intellectual Disability (1.7%), Autism Spectrum Disorder (1.6%), Phobic anxiety disorder (1.3%) and Psychotic disorder

(1.3%). A recent study among 15 – 24 years in the state of Himachal Pradesh revealed that adolescents suffered from a wide range of mental health conditions like depression (6.9%), anxiety (15.5%), tobacco (7.6%), alcohol (7.2%), suicidal ideation (5.5%), requiring urgent interventions[13].While the fact that it interferes in their growth, development, education and day to day social interactions is undisputed, their vulnerability is greater due to several factors within and outside home. Early recognition and intervention will help to realise favourable outcomes.

Figure 17. Prevalence of mental disorders (%) in 13 - 17years by age and residence
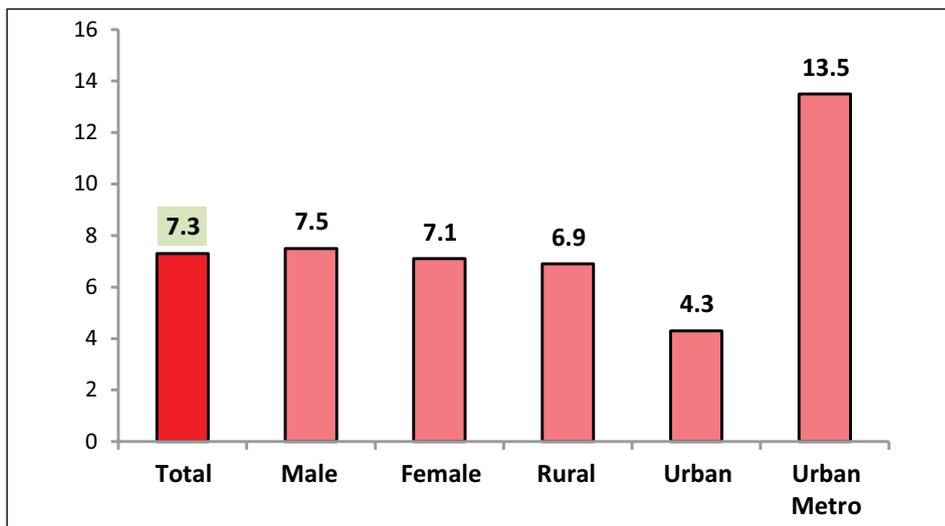
Neurosis and stress related disorders affect women disproportionately

Neurosis and stress related disorders affected 3.5% of the population and was reported to be higher among females (nearly twice as much as males).

Neurosis and stress related disorders are commonly encountered in primary care settings where they are usually missed or misdiagnosed.

Figure 18. Prevalence of Neurosis. Socio-demographic differentials (highest prevalence category)
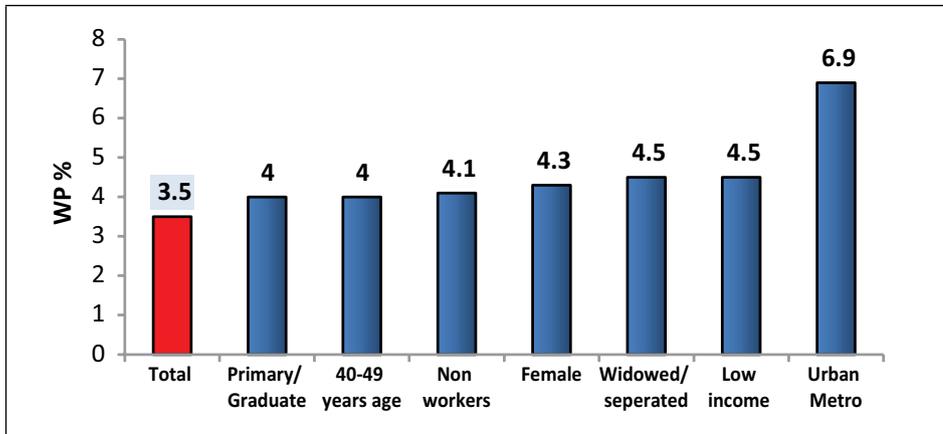
Variations in prevalence exist at the regional and state levels

While the overall current prevalence estimate was 10.6% in the total surveyed population, significant variations in overall morbidity are seen across the different surveyed states, ranging from 5.8% in Assam to 14.1 % in Manipur. Three states Assam, Uttar Pradesh and Gujarat reported prevalence rates less than 10%; in 8 of the 12 states, the prevalence varied between 10.7% and 14.1%.

Figure 19. Prevalence of mental disorders in different States (%)
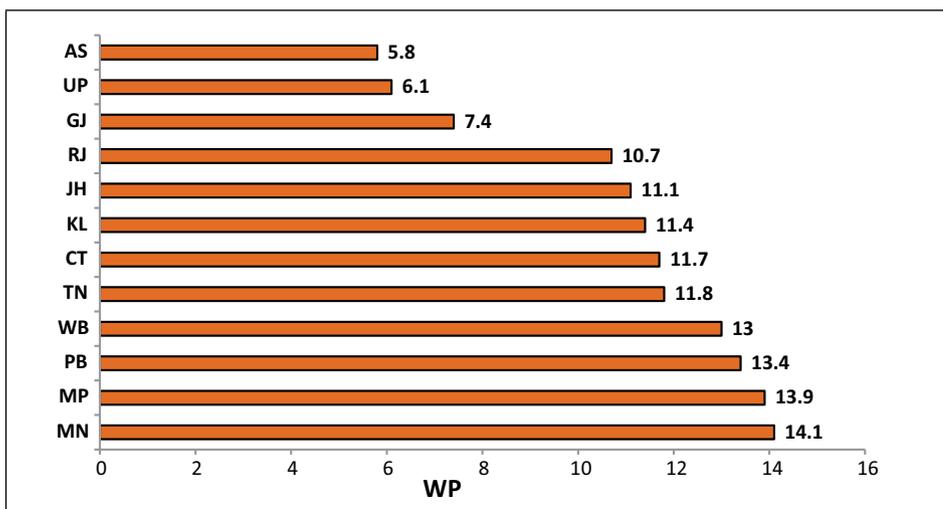
Variations also exist between urban and rural populations and have been highlighted in previous studies . Variations across sites in multisite studies are well acknowledged (World Mental Health Survey, India Diabetes survey, and others) and could be because of natural variation, cultural understanding and reporting of mental illness based on symptom thresholds, consequences of sociodemographic differentials and other issues. Uniform methods were adapted in the survey.

Epilepsy is an important public health problem

Epilepsy is a major public health problem in India and several studies have documented its prevalence and characteristics. Under the NMHS, epilepsy was identified using the screener instrument recommended by WHO. The prevalence of epilepsy (Generalized Tonic Clonic Seizures) was 0.3%, with nearly 2 million persons requiring care. If other variants of epilepsy are included the numbers are likely to be much higher. It is essential to note that there is considerable stigma around epilepsy requiring large scale awareness programmes as well as availability of services as it can be effectively managed with appropriate interventions in the existing health systems

## Persons with Intellectual disability need comprehensive management

In NMHS, 2015-16, the assessment of Intellectual disability was undertaken using a screener instrument. The prevalence of this condition was 0.6% in the surveyed population, resulting in nearly 4 million persons requiring care. The precise numbers and differentials of Intellectual disability needs systematic investigation through well designed studies

3. Treatment gap, disabilities and impact of mental disorders, 2016

Treatment gap for mental disorders still remains very high

Figure 20. Treatment Gap for different mental disorders (%)
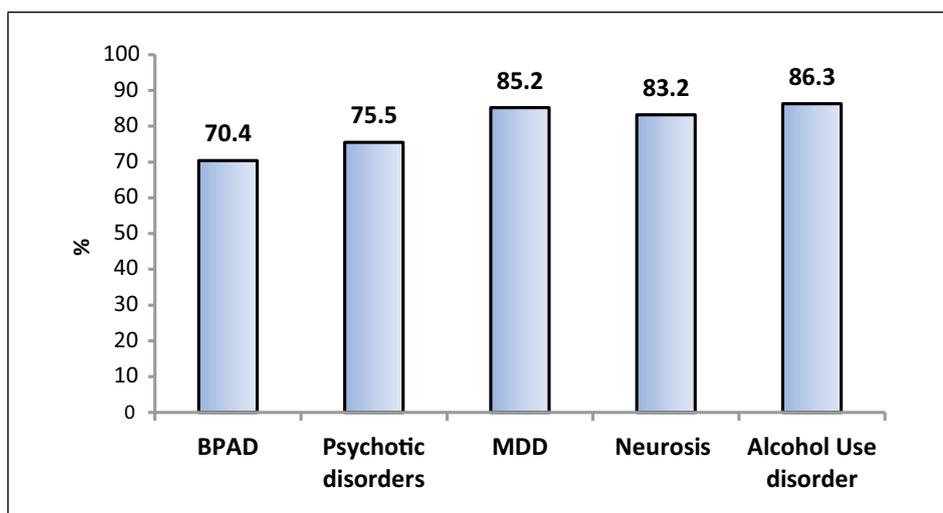
Despite prior and current efforts in enhancing mental health care delivery across the country, the study revealed that a huge treatment gap still exists for all types of mental health problems: ranging from 28% to 83% for mental disorders and 86% for alcohol use disorders. Except for epilepsy all the other mental disorders reported a treatment gap of more than 60% with the highest treatment gap being for alcohol use disorders.

Most of those identified, had not sought care or were not able to access appropriate care despite seeking. Multiple factors ranging from lack of awareness, to affordability of care, which varied between rural and urban areas, appear to critically influence these wide treatment gaps.

Three out of four persons with a severe mental disorder experience significant disability in work, social and family life

Mental morbidity among those with an illness caused high levels of disability, affecting multiple domains, mainly pertaining to work, social and family life. The proportion of disability proportion was relatively higher among individuals with bipolar affective disorders (63 - 59%), major depressive disorder (67%-70.0%) and psychotic disorders (53-59%). While persons with severe mental disorders expectedly reported disability, a significantly large proportion of people with common mental disorders also reported suffering high levels of disability. Nearly 50% of persons with major depressive disorders reported difficulties in carrying out their daily activities. In any given quarter of the year, family members of affected individuals

had missed 10-20 working days to take care of mentally ill persons. Disability and disadvantage is thus not limited to persons affected but also affects family members and care-givers. Assessment and rehabilitation to reduce disability is a crucial point of action.

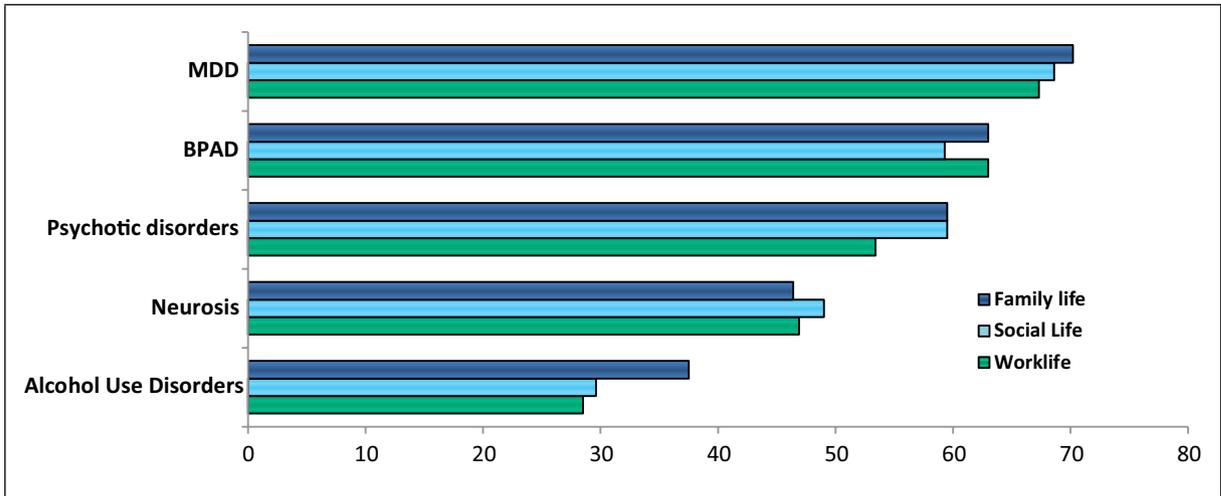Figure 21. Disability proportion among subjects with mental disorders (%)

Figure 22. Extreme disability (%) among persons with mental disorders
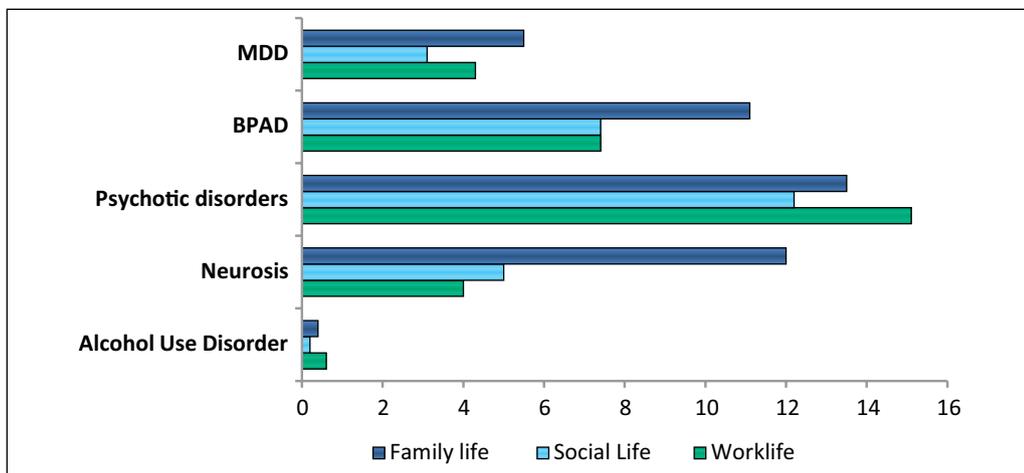
Economic burden of mental disorders is huge

Our assessment of the economic cost of care of a person with a mental disorder, mainly as out of pocket expenditure, reveals a huge burden . Families had to spend nearly INR 1000 – 1500 a month mainly for treatment and travel to access care. The hidden and intangible costs are difficult to monetize and add to this burden. In our FGDs, participants revealed that spending on treatment, whether on conventional or even cultural –religious practices, often drove families into economic crisis. Those with mental disorders reported substantial morbidity- even mortality and significant disability. Mental illnesses result in poor quality of life, decreased productivity and lower earning potentials.

The burden was reportedly higher in middle aged individuals, where disability due to mental illness significantly affected their

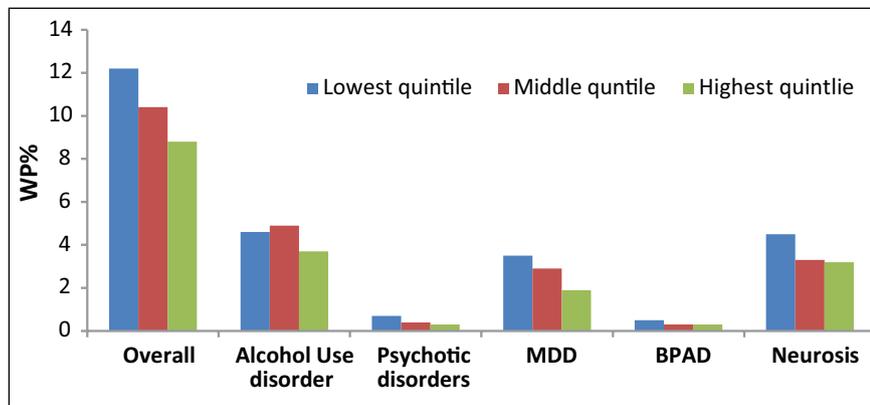productivity resulting in a sizeable economic impact in a cumulative manner to the country. Poverty and disability catalysed by poor access to care and treatment significantly affect the quality of life of persons with mental illness as well as their families.

Figure 23. Prevalence of mental disorders by median household income levels

Persons with mental disorders continue to be stigmatized

Stigma contributes to the huge burden of mental morbidity, being a road-block to treatment seeking. Nearly 80% of persons suffering from mental disorders, had not received any treatment despite the presence of illness for more than 12 months. Stigma associated with mental disorders affects access to work, education and marriage of those with a disorder and it also affects family members of those affected.

Significantly, low levels of education and income are closely linked to mental disorders

Poverty, low levels of education and working status are closely interlinked to mental disorders which in turn contribute to impoverishment. Data from the NMHS reveals that mental disorders were significantly higher in households with lesser income, poor education and limited employment. It is evident that these individuals have a greater vulnerability to mental disorders moderated by adverse social and economic determinants of health.

These factors also limit their access to and their utilisation of mental health services. Our study showed that the median out-of-pocket expenditure per month was approximately 1000 to 1500 rupees and qualitative interviews revealed that this is a big challenge. In the absence of state or insurance coverage for most families, a large proportion of payments for treatment are out-of-pocket expenses.

4. Mental Health Systems, Resources and Facilities, 2016

Purpose

The State Mental Health Systems Assessment (SMHSA) under the NMHS is a systematic and comprehensive analysis of components and sub-components of health systems that cater to the management of mental health problems at the individual state level. The SMHSA was included in the NMHS to supplement information and support mechanisms for strengthening programme implementation at the state level.

Objectives

1. Assessment of available health and health related resources for mental health activities / programmes in the 12 surveyed states.

2. Examining the status of mental health services and programmes in the surveyed states through a systems assessment framework.

Methods

• Prior to finalising the SMHSA methodology for the NMHS, mental health systems assessments were conducted in the District of Kolar in Karnataka state[14] (2013) and in the State of Tamil Nadu (2014)[15]. In both, the methodology and process was finalised and the feasibility was examined along with data collection. The results were communicated to all stake holders and experts in both places and the usefulness of a complete and comprehensive assessment was informed to all. The district and state mental health programme officials recognised the importance of this approach for programme development.

• The development of the SMHA and the DMHP proforma process began with the review of the WHO-AIMS[16] and the WHO Atlas[17]. Based on lessons learnt in Kolar and Tamil Nadu, discussions with NMHS state PIs and SMHSA co-ordinator, consultation with stake holders and domain experts, the SMHA proforma was finalised and training in data collection activities was begun (Figure 24).

• The final tool for data collection for the SMHSA included a set of ten domains and sub-domains. The focus of data gathering was on - general information about the state, health resources (number of government and non-governmental health care institutions, availability of health human resources and state health management information systems) in the state, existing mental health systems and resources (presence of mental health care facilities and human resources), mental health policy, action plan to implement the same, the state authorities responsible for mental health activities, legislation and implementation related to mental health, financing, budgetary provisions, availability of drugs, intra- and inter-sectoral collaboration, social welfare activities, engagement of civil societies in mental health programmes, Information Education Communication(IEC) activities and monitoring.

• Data for the SMHSA was obtained from multiple sources by actively involving and interacting with key persons at different

levels both within and outside the health system. The Chairperson, NTAG formally invited all concerned state health departments to participate in the SMHSA. A list of relevant data sources (eg: census documents, national health profile, state PIPs (Programme Implementation Plans), different documents in the state health departments, State Directorate of Economics and Statistics, State Crime Records Bureau, etc) was prepared by the NIMHANS team and provided to the state teams. In addition, an open search was undertaken to obtain the relevant information for the respective state. An iterative process of checking and triangulating data from various sources was also adopted to ensure that the utilised data sources were valid and authentic.

- Sensitisation cum training sessions were conducted based on specific requests during the first national collaborators' meeting or during e-discussion sessions of the fortnightly review meetings .

- Permission was obtained from the respective state health administration for data collection and collation. A state level advisory committee with representation from the health, public health and mental

health fields was constituted to ensure stakeholder participation. The Co-PI from Community Medicine or Psychiatry acted as the SMHSA coordinator and, he in tandem with the NIMHANS Epi team identified different sources of data.

- Data collection (conducted from September to March 2015) was reviewed periodically. The NIMHANS Epi-team examined and ensured the completion and reliability of the information in consultation with the state teams using an iterative process.

- Once the data status was finalised, a set of 15 quantitative indicators were developed based on the details available in the SMHSA proforma. Five morbidity indicators on the current burden of mental illness was obtained from the NMHS. A set of 10 qualitative indicators covering 10 essential domains of the mental health system, based on a scoring pattern has been developed for assessment.

- A scoring pattern for each of the indicators was developed to arrive at a composite score for each state and discussed with state teams. The score obtained for individual qualitative indicators were summed up to arrive at a composite score for that particular state. The purpose of this

Figure 24. Mental health system assessment instruments
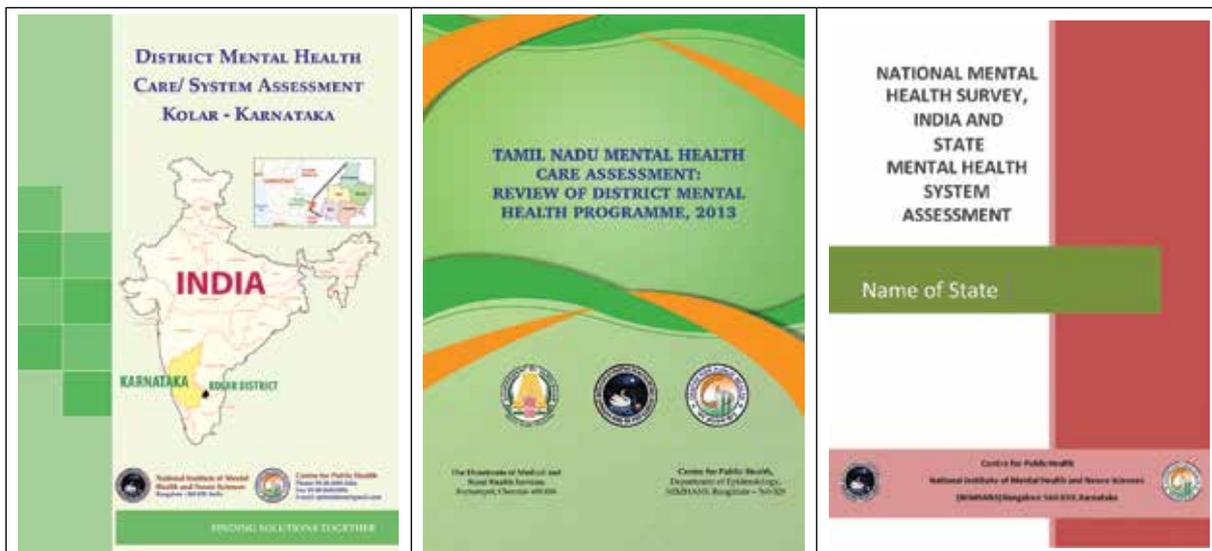
scoring was not to compare states, but to indicate the current mental health system as a whole and performance within each of the areas within the state. These scores can form the basis for future assessment of the progress made by the system. The comprehensive list of quantitative and qualitative indicators together formed the score card for each of the states.

- Based on the guidelines provided by the NMHS - NIMHANS team, a state level group was constituted to review the information provided in the proforma and the score card and to fill information gaps. The experts (15 to 20 in number) participating in the consensus meeting varied across states and often included one or more of the following: State Principal Health Secretary or representative, State NHM Director or representative, State Mental Health Programme Officer, Member-Secretary of the State Mental Health Authority, psychiatrist(s) from both the private and public sectors, public health specialists, civil society members,

legal advisors, a representative from the state IEC cell, etc. In addition, the PI was encouraged to invite any expert like the DMHP Programme Officers, heads or representatives of other departments, academicians, and researchers based on his/her discretion. A representative from the CPH, NIMHANS observed and facilitated the conduct of the consensus discussions. The group deliberated, debated and discussed issues before reaching a consensus on the different parameters of mental health systems.

- Following the state consensus meeting, the PIs of the respective states revised the contents based on discussions, collected and verified data and submitted the final version of the SMHA proforma along with the recommendations arising from the meeting. The final set of documents (duly completed SMHSA proforma and the state score card with indicator values) were again checked by the NIMHANS team and data from the final version was used to refine indicators as well as the state score card.

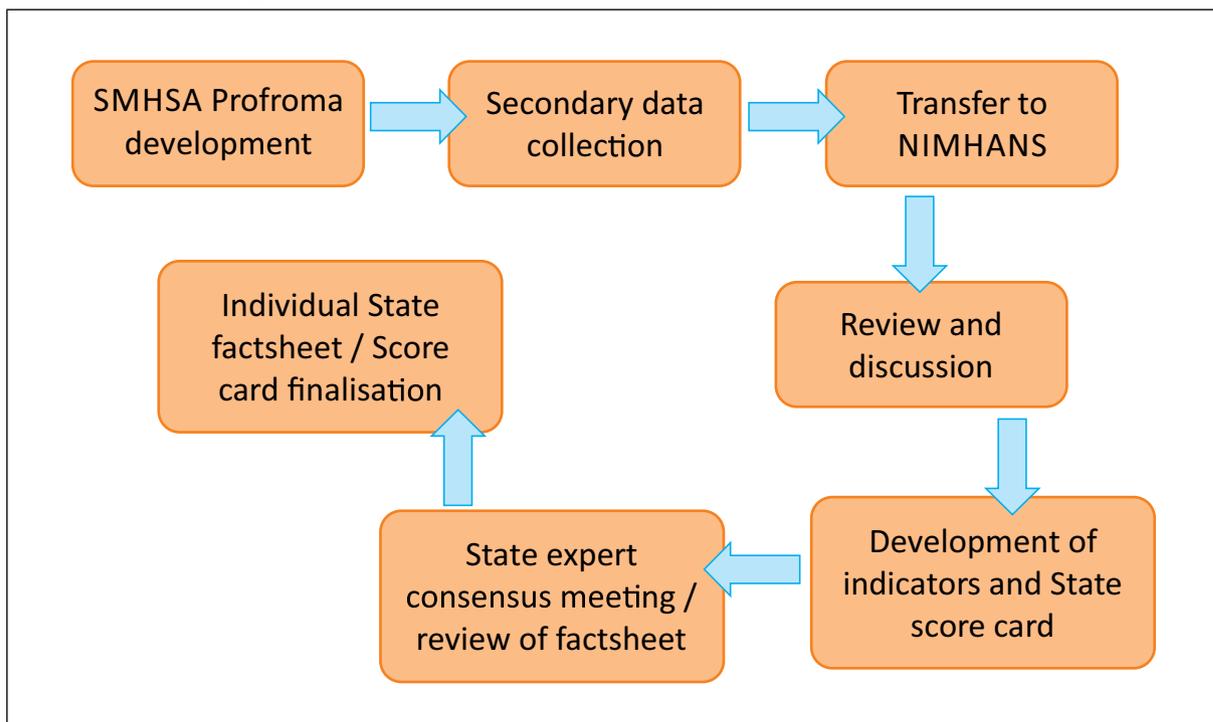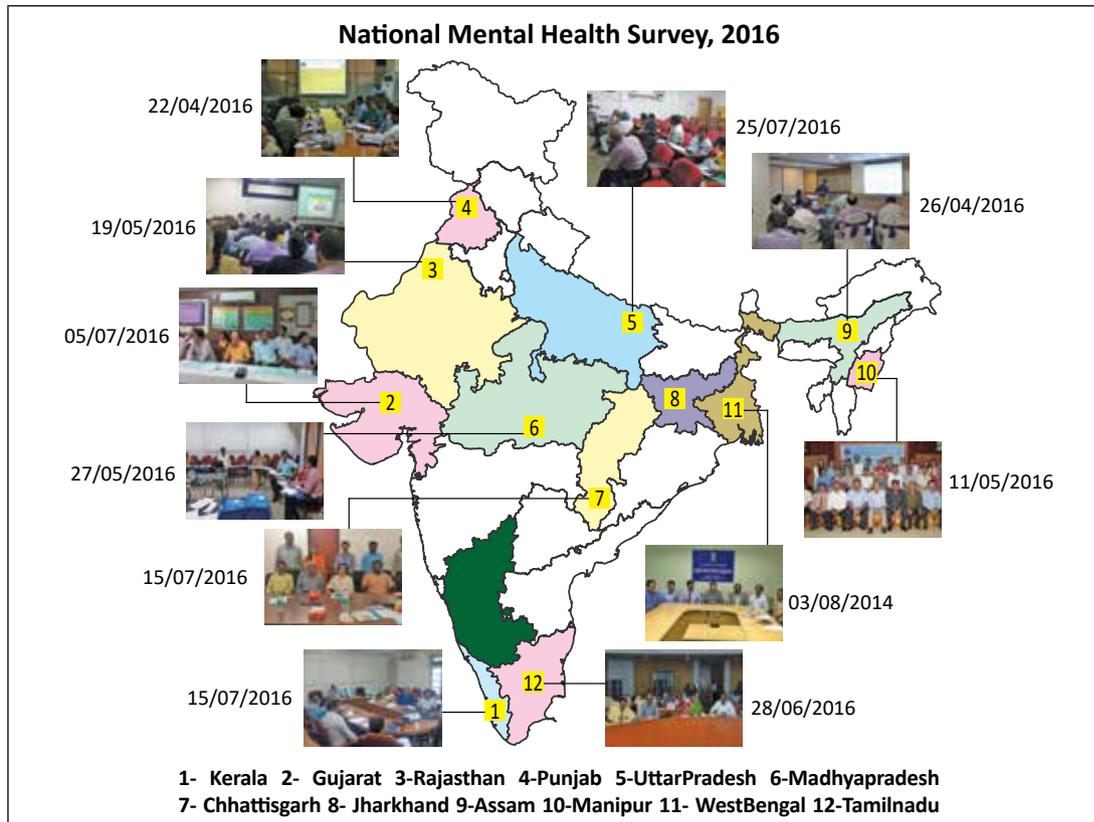Figure 25. Overview of data collection process under SMHSA

Figure 26. State expert consensus meeting

National Mental Health Survey, 2016

22/04/2016
19/05/2016
05/07/2016
27/05/2016
15/07/2016
15/07/2016

25/07/2016
26/04/2016
11/05/2016
03/08/2014
28/06/2016

**1- Kerala 2- Gujarat 3-Rajasthan 4-Punjab 5-UttarPradesh 6-Madhyapradesh
7- Chhattisgarh 8- Jharkhand 9-Assam 10-Manipur 11- WestBengal 12-Tamilnadu**

Results

The delivery of mental health care to Indian citizens is the joint responsibility of the central and state governments. Mental health services should be comprehensive (promotion, care, management and rehabilitation), integrated (within and between different sectors) and delivered to the entire population (public health approach). To deliver good quality mental health care, several activities and programme components should work effectively and efficiently together, and this is referred to as the systems approach.

Though initiated nearly 3 decades back, the programme implementation under the National Mental Health Programme has been slow. Only lately, changes have been noticed in coverage, resource allocation, and other areas. The development of the National Mental Health Policy (2014), a new Mental

Health Bill (2016), recent judicial directives, initiatives by the National Human Rights Commission[18] (2016), increase in resource allocation, expansion of the District Mental Health Programme to nearly 200 districts, establishment of new Centers of Excellence, improvement of care in mental hospitals are a few examples in this direction. However, the implementation of programmes are expected to happen at the state level in terms of access to care, availability of services, utilisation by communities and awareness about mental health issues.

In this context, the State Mental Health Systems Assessment (SMHSA) was conducted alongside estimating prevalence of mental disorders under the National Mental Health Survey. This approach is unique as it provides a dual assessment of the prevalence of

mental disorders and systems available to address the same at the state level, in the same time period. The 12 states chosen for the SMHSA were diverse with regard to their administrative and economic characteristics like the number of districts, talukas and villages, per capita income and mental health issues.

Mental Health Programmes in India are a low priority a low priority on the public health agenda

Figure 27. State Mental Health Systems Assessment: An appraisal
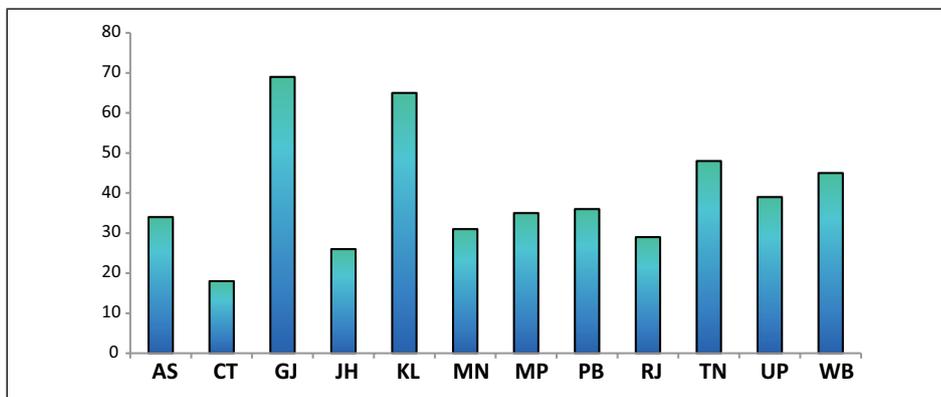
The salient point that emerged from the SMHSA assessment is that in a majority of the surveyed states, mental health programmes and activities were fragmented, dis-organised, and had a low priority during implementation. The assessment conducted across 12 states on the domains of policy / programme implementation revealed the limited reach, slow progress, partial focus and peripheral importance given to mental health. However, its is essential to highlight that few states like Gujarat, Kerala and Tamilnadu had made progress in number of areas. Apart from a lack of public health approach, the programme suffered from administrative, technical and resource constraints. A systems approach that identifies and integrates several components along with coordinated implementation mechanisms is urgently required in all states to deliver mental health care.

Vision, mission and direction are critically important in mental health programmes

Except the states of Gujarat and Kerala, no other state had a stand-alone state mental health policy with defined or specified goals, objectives and mechanisms. The state of West Bengal has a policy focusing on the rehabilitation of those with mental illness. All the other states informed that they were following the national policy and had not made any adaptations. Many of the participants in the 'state expert consensus meetings' in 11 states remarked that mental health is largely 'a psychiatrist's programme focusing mainly on the DMHP while relying on diagnosing disease and distributing drugs or at times following legal directives'. In many states, guidelines from the centre were misconstrued as policy directives. It is important for all states to have a policy as seen in other health and non-health programmes as it sets a vision, mission and direction for future activities.

A Mental Health Action Plan is decisive at the State level

Figure 28. Mental Health Action Plan in NMHS States
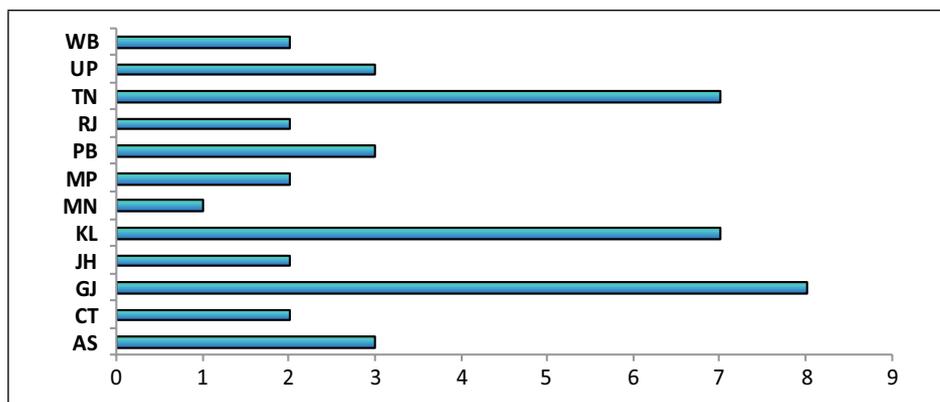
Translating a policy into action or implementing several components in mental health programmes requires the development of a state level action plan. All the states in the NMHS unanimously expressed the need for a clear action plan for mental health as none of them had a defined action plan at the time of the survey or earlier. Consequently, there were no well-defined activities taking place. A state level action plan, which clearly identifies / defines the specific set of activities for implementation, budget availability, timelines, responsible agency / designated individuals and indicators for monitoring the expected outcomes, as approved by the state authorities is the need of the hour.

Health information systems do not prioritise mental health

In all the surveyed states, health management information systems were in different stages of integration and implementation. With the predominant focus being on maternal and child health and a few other national programmes, a fully integrated system was absent. In the area of mental health, HMIS was primarily disease focused, limited in scope and coverage, and was not integrated into routine health HMIS. HMIS for monitoring at the state level was limited to providing information on the number of cases registered for treatment (mainly psychosis, neurosis, mental retardation and epilepsy) to the programme managers. Mental health was included in the existing routine HMIS only in Chhattisgarh, Gujarat, Madhya Pradesh and Punjab.

Mental health activities at the state level are not information driven

While the information available at the state level was grossly inadequate, even the available data was of limited help; decisions taken were rarely based on information. The current mental health programmes in India are hampered by the lack of valid, reliable, timely, sensitive and specific outcome indicators for mental health developed on routine data gathering methods. An inquiry into the availability of any official reports that are stand alone or include mental health elicited minimal

details. Among the states, Gujarat reported publishing periodical reports specifically covering mental health activities from both the private and government sectors during the last two years. Eight of the 12 surveyed states reported to have compiled mental health data for inclusion in the general health statistics during the last two years; however, no specific reports were available.

Existing health care facilities should be engaged for mental health care

Mental health programmes at the state level are still stand alone programmes; however, an assessment of facilities available, indicates the presence of a wide variety of institutions ranging from specialty hospitals to primary health centres, that can be engaged in the delivery of mental health care, both in the public and private sectors.

Across the states, the presence of health care facilities varied from 14.8 facilities per lakh population in Uttar Pradesh to 31.2 per lakh population in Rajasthan. A large number of private health care institutions and professionals were available in general and specialised care; however, their numbers, quality and activities are unclear and the role they could play is yet to be delineated.

Figure 29. Health care facilities in public sector (per lakh population)
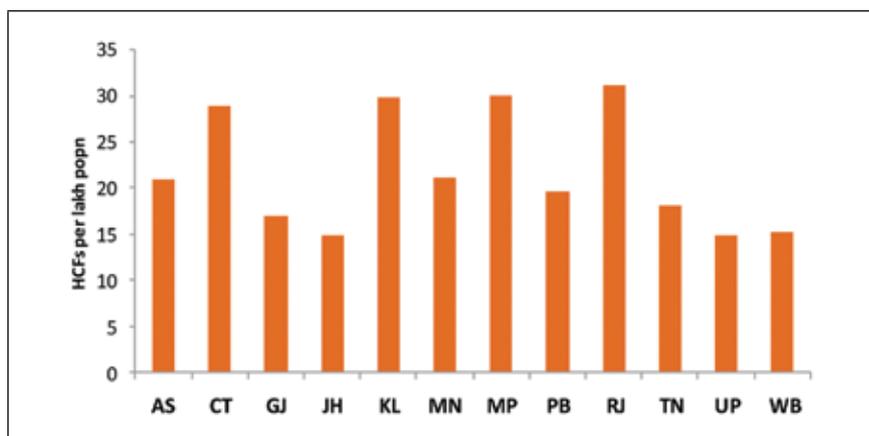
Paucity of mental health specialists continues to be worrying

The availability of psychiatrists (per lakh population) in the NMHS states varied from 0.05 in Madhya Pradesh to 1.2 in Kerala. Except for Kerala, all other states fell short of the requirement of at least 1 psychiatrist per lakh population. Kerala also had the highest number of clinical psychologists (0.6 per lakh population). The availability of psychiatric social workers was relatively low across all the NMHS states. The limited availability

of specialist mental health human resources (psychiatrists, clinical psychologists and psychiatric social workers (existing ones are also mostly in urban areas)) has been one of the barriers in providing essential mental health care to all. Information on core mental health personnel and supportive service providers from the private sector was not readily available.

Recommendations in the past have suggested the minimum human resource requirements for mental health care. While we hope this dream will be achieved, our interactions with state level officials indicated that a wide variety of professionals and peripheral health functionaries are available and they need to be engaged in mental health care activities.

Figure 30. Mental health specialist human resources in NMHS States (per lakh population)
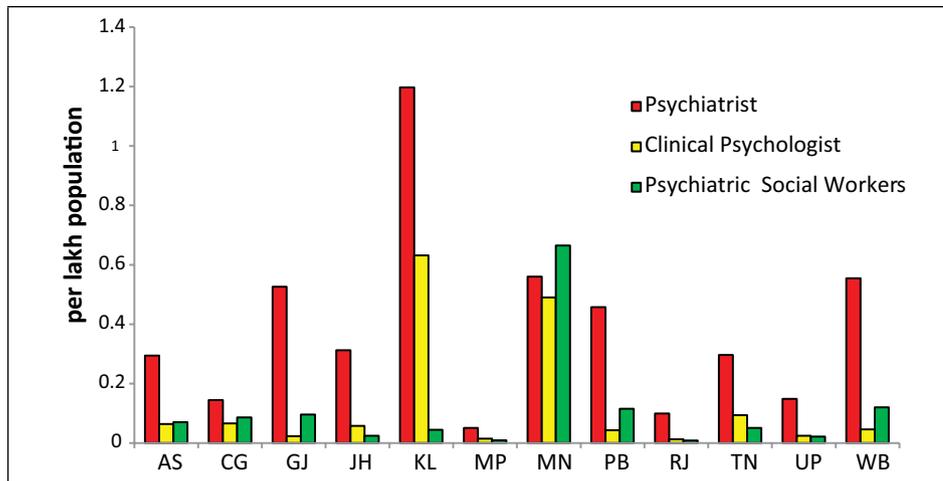
Figure 31. Mental Health Human resources in NMHS States (per lakh population)

(Mental health manpower = Psychiatrist+clinical psychologists+psychiatric social workers)
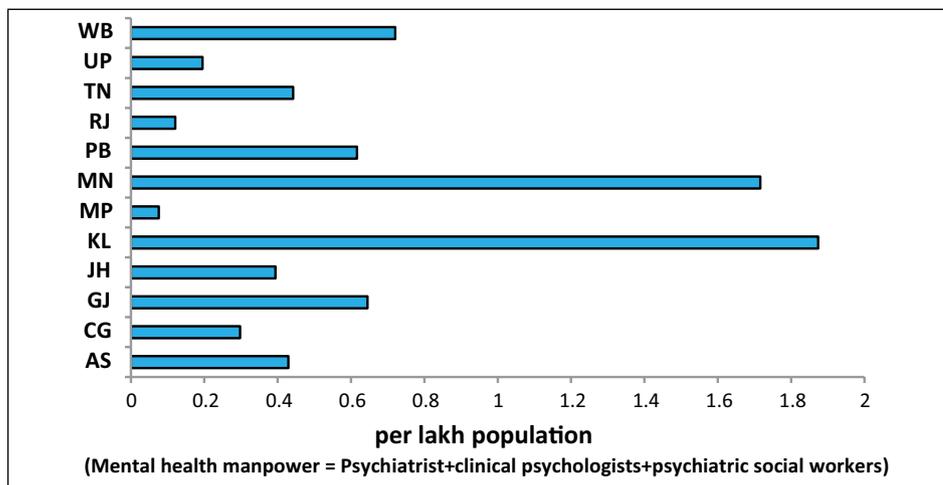
Institutional care is still limited; needs capacity building and innovative use of resources

Despite the acceptance of the fact that primary and community care is the need of the hour, some patients need institutional mental health care and rehabilitative services. There was at least one mental hospital in all the surveyed states, except in Manipur; all states have medical colleges with a psychiatric department, general hospitals with a psychiatric unit and a few have de-addiction centres. Apart from the major mental health facilities, there were 450 mobile mental units and 249 de-addiction centres providing mental health services in the 12 states. However, the existing facilities had inter-state variations, were inadequate and unevenly

distributed thereby resulting in limited care accessibility. Information on private mental health facilities was limited.

As India moves beyond mental hospitals, it is important to increase the role of medical colleges and district hospitals in delivering

mental health care. Outreach facilities should be initiated to cover not only care, but also mental health promotion and rehabilitation services. Private sector institutions should also actively engage themselves. The need for clear guidelines to achieve these aims cannot be over-emphasised.

Importance of non-specialist professionals in mental health care delivery

There is a paucity of mental health professionals (psychiatrists, psychologists and psychiatric social workers) in India. This necessitates the engagement of non-specialist professionals for mental health care. The health workforce density (per lakh population) across states ranged from 146 in Uttar Pradesh to 995 in Kerala. In five states (Kerala, Manipur, Punjab, Rajasthan and Tamil Nadu), the density of the health workforce was relatively higher. The doctor (MBBS) density (per lakh population) varied

widely across states from 64.4 in West Bengal to 5 in Chhattisgarh. With grass root level health functionaries like ASHA / USHA, ANM and health workers contributing significantly to the workforce density, there is a need to involve them in mental health programmes through the development of skill enhancing programmes. Past experiences and reviews have shown the feasibility of involving primary care doctors, health workers, general practitioners, and others and such practices need to be made the norm[19].

Coverage of DMHP still remains low

Figure 32. Coverage of DMHP in NMHS States
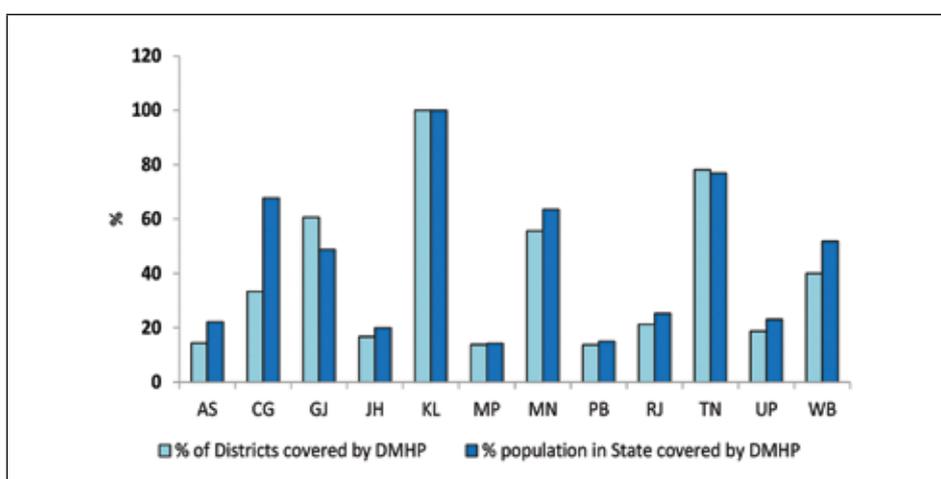
The District Mental Health Programme (DMHP) has been the implementation arm of the NMHP and has been an ongoing programme since 1996. Despite 3 decades of

implementing the NMHP, the proportion of districts covered by it ranged from 13.64% in Punjab to 100% in Kerala. Only Kerala had all the districts covered ensuring available care for

its entire population. In 2016, few more DMHP districts have been added in Tamil Nadu. Only 1/3rd of the surveyed states had more than 50% of the population covered by the DMHP. Though there has been an improvement since 2012, the reach is still limited.

Trained medical officers to deliver mental health services is abysmally low

The number of medical officers at the state and district levels trained to deliver mental health services (per lakh population) ranged from 0.1 in Jharkhand and Madhya Pradesh to 0.1 in Uttar Pradesh and 9.73 in Manipur. This is a reflection of progress or rather the lack of it, towards the integration of mental health service delivery in Primary care. Information on rehabilitation workers, special education teachers and paraprofessional counselors was not available. Wherever available, it was found to be grossly inadequate to meet the current needs.

As far as training institutions in mental health were concerned, Tamil Nadu had the maximum number of institutions (19) providing a postgraduate course in psychiatry followed by Kerala (15) and Uttar Pradesh (12). The yearly intake across institutions in the NMHS states ranged from nil to 52 per year.

A State Mental Health Authority exists in all surveyed States!

In accordance with the Mental Health Act, 1987 and following the Supreme Court directive, there has been significant progress in the setting up of a Mental Health Authority in each state. The State Mental Health Authority has a defined role for improving care in institutions and the certification of institutions. However, the delivery of mental health care in each state is the responsibility of that state's health services and some had an in-charge programme officer who had diverse roles and responsibilities with very little time left for mental health. Coordination between the mental health authority, the state department of health, medical education and welfare was found lacking in many states.

Mental health and supportive legislations need effective implementation

Though the states reported the implementation of mental health legislations to varying extents and levels, no formal or informal evaluation reports were available to examine their coverage, efficacy and effectiveness. A review of the current status of legislative implementation for care and protection of mentally ill is very much required; at times it lacked clarity or was not well understood by the implementers. The Mental Health Act, the Juvenile Justice Act and the Domestic Violence Act are a few legislations which were implemented 'to a large extent' in most states. Most states reported that they were implementing 'to some extent' human rights protection for those with mental illnesses as well as the Narcotic Drugs and Psychotropic Substances Act. Implementing legislations in a better manner needs sensitisation of key personnel, increasing public awareness and putting in place the necessary mechanisms.

Figure 33. Implementation of mental health legislations in NMHS States
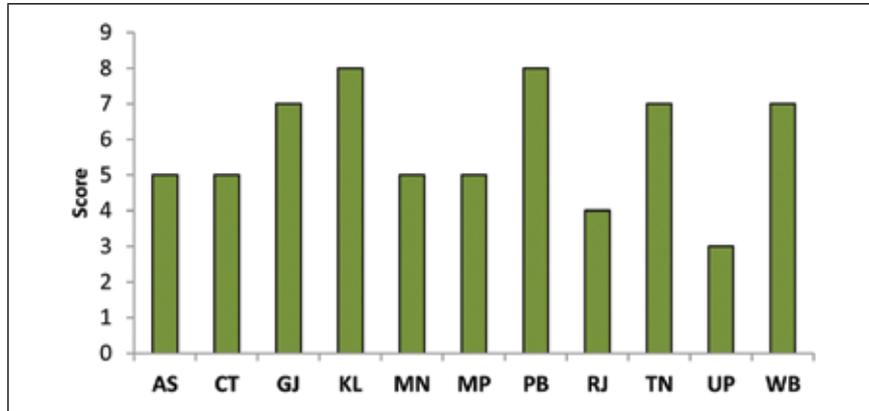
Mental health financing need to be streamlined

Financing is a pivotal and leveraging factor in translating mental health plans and policies to field level implementable programmes. Only the states of Gujarat and Kerala reported the presence of a separate budget head for mental health. The total budget available for mental health was less than 1% in most of the states. Much of the allocated budget for mental health was spent on staff salaries and the procurement of medicines. The financing of mental health care is in a state of total disarray, amidst the lack of clarity and shared responsibilities between central and state governments and several departments at the state level. The budgetary support for mental health related activities suffered from lack of activity specification, justification, timely allocation and difficulty in even utilising the available budget amidst human resource constraints. Most states were unable to utilise even the available funds due to lack of clear mechanisms and guidelines. However, some states reported that they could access and utilise funds in a need based manner.

Figure 34. Mental health financing in NMHS States
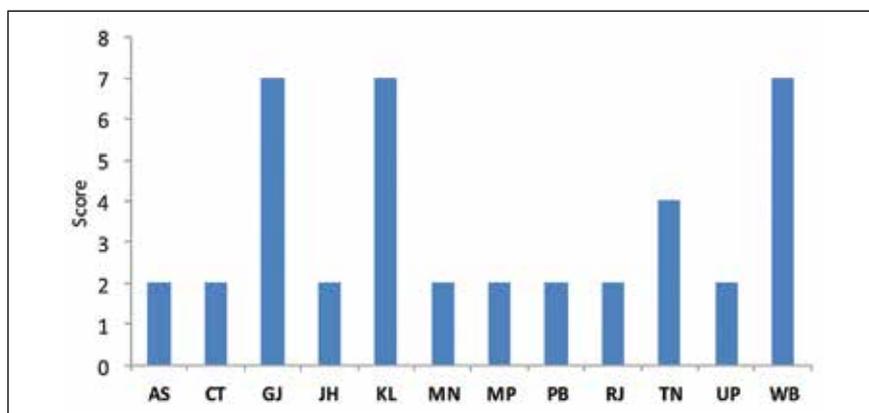
Public awareness activities are still limited in mental health

Current mental health education activities are isolated, sporadic and invisible in nature and lack focus and direction. The need for IEC activities in all states is exemplified by low mental health literacy, prevailing stigma and the huge treatment gap. IEC

activities were carried out in >50% of the districts in Kerala and Gujarat. Limited IEC activities were reported from Madhya Pradesh, Jharkhand and Uttar Pradesh. The present assessment revealed that only

posters and pamphlets were available and they too were used infrequently. Most of the other channels of communication were not used and there was no state specific plan for these activities.

Figure 35. IEC activities for mental health in NMHS States
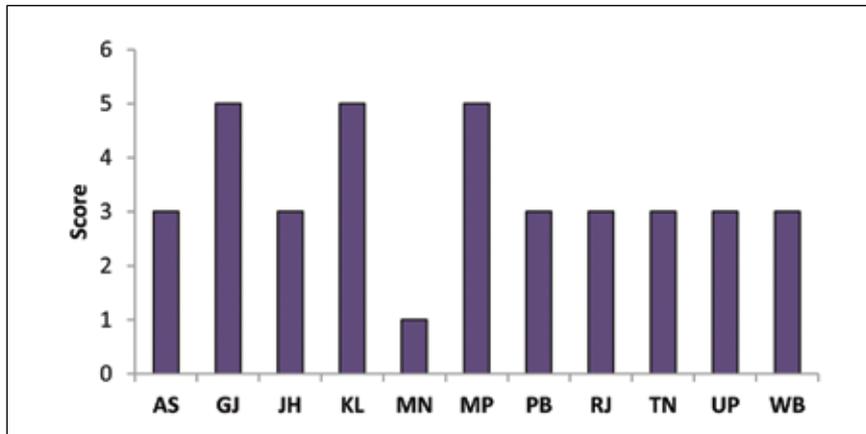
Advocacy on specific issues and awareness building in a society are vital for 'moving' programmes in the right direction and these should be evidence based. The study

has revealed that the required strategies and resources for advocacy were often a constraint and limited the exercise to an occasional event.

Interrupted drug supply continues

Figure 36. Availability of drugs for mental health care
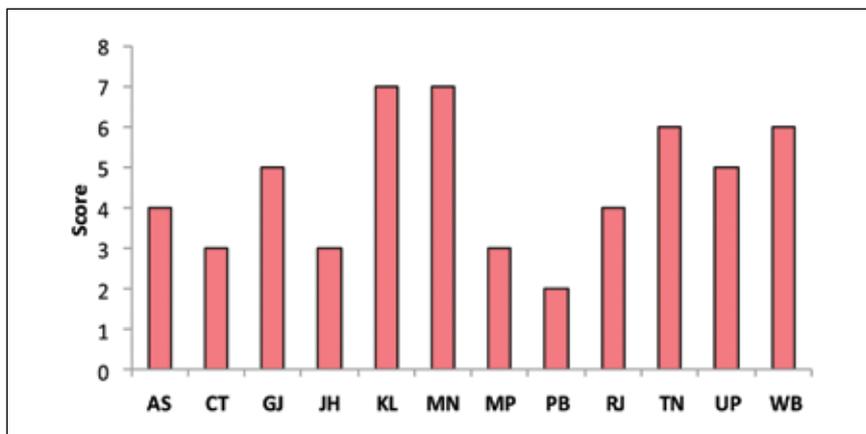
The need for the availability of drugs in a continuous and uninterrupted manner cannot be over-emphasised. All drugs listed under the essential drugs list for mental health care should be available at all levels

of the health care system and throughout the year. States like Chhattisgarh, Assam, Gujarat, Jharkhand and Rajasthan, reported the availability of mental health drugs 'always' for more than 75% of the listed

drugs. States like Madhya Pradesh and Tamilnadu had availability of nearly 68% of the listed drugs. Gujarat and Tamil Nadu reported the availability of all drugs even at the PHC level, while Rajasthan reported the availability of only select drugs like Alprazolam and Diazepam at the PHC level. Mental health drugs were available in private pharmacies in all the states. Most states reported that drug availability was better in district levels, but diminished at down below.

Collaboration within and outside the health sector is minimal

The needs of persons with mental illnesses are complex and cut across different sectors warranting the need for intra- and inter-sectoral coordination. More than 72% of the states surveyed, reported that there existed activities pertaining to intra- and inter-sectoral collaboration for mental health at the state level, but not in a defined and structured manner. Five states (Gujarat, Manipur, Kerala, West Bengal and Punjab) had collaboration with more than 50% of the health as well as the non-health sectors.

Collaboration was usually reported with departments of differently-abled people/disability, HIV/AIDS and social welfare.

Timely coordination of activities was absent and coordination between the Centre – states–districts – departments- institutions – peripheral agencies was functionally absent leading to delays in implementation. This was echoed by participants at all meetings. The reason was the lack of a designated nodal unit for mental health at the state level.

Figure 37. Intra and Inter-sectoral collaboration for mental health
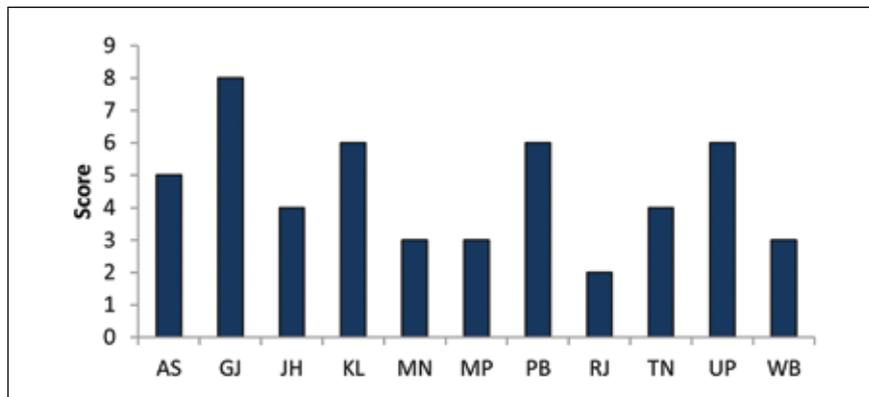
Rehabilitation programmes are minimal

Given the fact that 14% of the population above 18 years suffers from a mental health problem and nearly 50% of individuals affected with bipolar affective disorders, epilepsy, major depressive disorders and psychoses have moderate to severe disability, rehabilitation ought to be a part of

the management strategy. However, in many states, facilities (day care centres, half way homes, sheltered workshops, temporary stay facilities, etc.). and personnel (social workers, counselors, physiotherapists) were limited in number and were mainly concentrated in cities or district headquarters.

Social welfare activities for mentally disabled persons was limited to the provision of disability certificates, pensions and job reservations and even these were limited. Disability certificates issued for mental illness ranged from very low numbers in Manipur to 7.5 lakhs in Gujarat. Reservation of jobs for mentally ill persons and the preferential allotment of housing were reported only in Gujarat. Mental Health NGOs were reported to be functioning in all the states that were surveyed except in Jharkhand. Across the 12 states, nearly 69 NGOs were reported to be functioning prominently in mental health.

Programme monitoring and evaluation are totally missing

The most neglected area in mental health services delivery and its implementation (as in many other public health programmes) across states has been the monitoring of programmes, while evaluation (in its true sense) has been virtually absent or minimally present. Except for Tamil Nadu and Gujarat, none of the other states reported the presence of any mechanisms for meaningful monitoring on a regular or periodical basis.

Measurable and defined indicators, methods of data collection, specified programme officers for monitoring and review of programme components including the required support systems for monitoring activities were totally lacking. *'Sending a report is a common practice, and sometimes an administrative requirement'* said many of the participants.

Figure 38. Status of monitoring in NMHS states
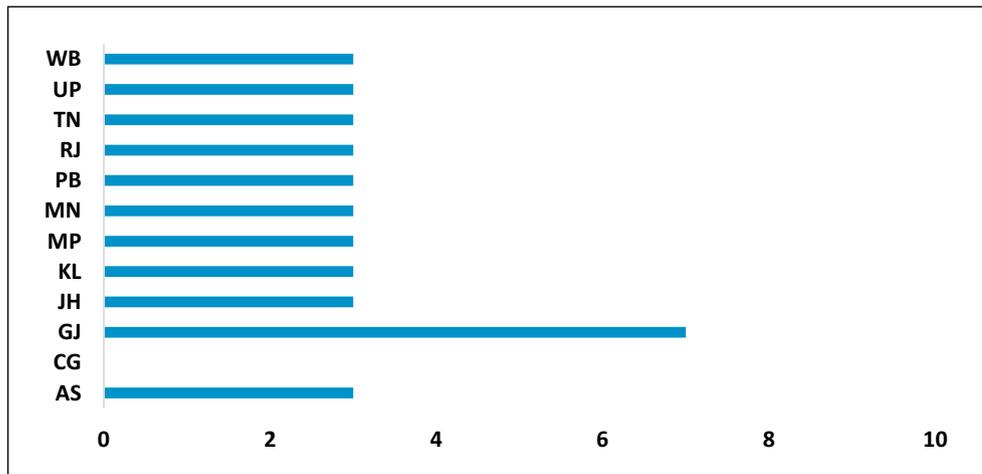
Mental health research is limited

Research programmes focusing on different priorities is required to address knowledge gaps. In most of the surveyed states, national or state research activities are largely missing. Research priorities need to be delineated by policy makers and experts, supported by national and state agencies along with use of data in programme implementation. Apart from limited research in medical colleges, operational/translational/implementation research was not present in most states, thus limiting various aspects of mental health growth.

Figure 39. Mental Health Systems Assessment in NMHS States

Assam

Jharkhand

Chattisgarh

Kerala

Gujarat

Madhya Pradesh

Manipur

Category	Value
Mental Health Policy	0
Mental Health Action Plan	2
State mental health Co-ordination mechanism	7
Budget for Mental Health	2
Training programme for mental health	5
Availability of Drugs	3
IEC materials and health education activities	5
Intra and Intersectoral collaboration	3
Implementation status of legislation	5
Monitoring	3

Tamil Nadu

Category	Value
Mental Health Policy	5
Mental Health Action Plan	7
State mental health Co-ordination mechanism	7
Budget for Mental Health	4
Training programme for mental health	2
Availability of Drugs	6
IEC materials and health education activities	3
Intra and Intersectoral collaboration	4
Implementation status of legislation	7
Monitoring	3

Punjab

Category	Value
Mental Health Policy	0
Mental Health Action Plan	3
State mental health Co-ordination mechanism	7
Budget for Mental Health	2
Training programme for mental health	2
Availability of Drugs	2
IEC materials and health education activities	3
Intra and Intersectoral collaboration	6
Implementation status of legislation	8
Monitoring	3

Uttar Pradesh

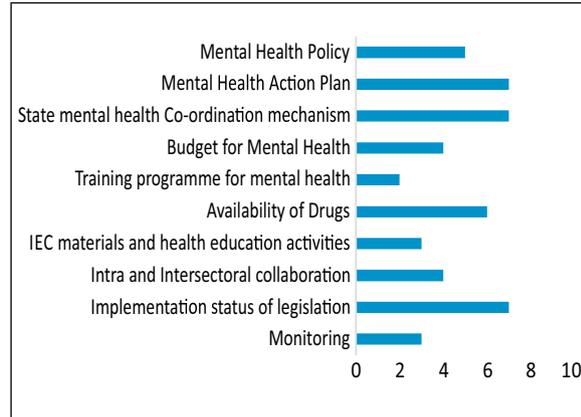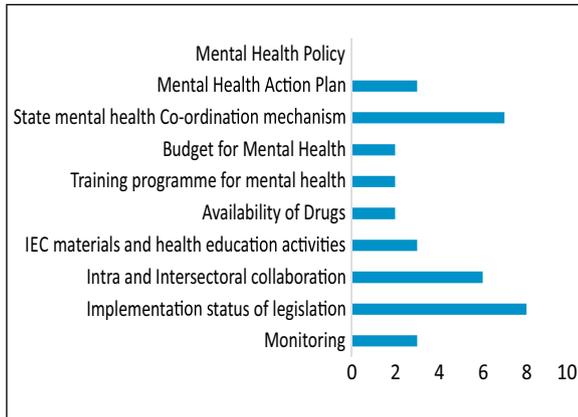| Category	Value
Mental Health Policy	5
Mental Health Action Plan	3
State mental health Co-ordination mechanism	7
Budget for Mental Health	2
Training programme for mental health	2
Availability of Drugs	5
IEC materials and health education activities	3
Intra and Intersectoral collaboration	6
Implementation status of legislation	3
Monitoring	3

Rajasthan

Category	Value
Mental Health Policy	0
Mental Health Action Plan	2
State mental health Co-ordination mechanism	7
Budget for Mental Health	2
Training programme for mental health	2
Availability of Drugs	4
IEC materials and health education activities	3
Intra and Intersectoral collaboration	2
Implementation status of legislation	4
Monitoring	3

West Bengal

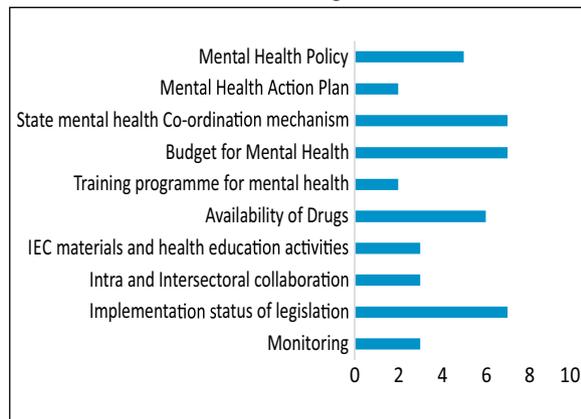| Category	Value
Mental Health Policy	5
Mental Health Action Plan	2
State mental health Co-ordination mechanism	7
Budget for Mental Health	7
Training programme for mental health	2
Availability of Drugs	6
IEC materials and health education activities	3
Intra and Intersectoral collaboration	3
Implementation status of legislation	7
Monitoring	3

Recommendations

The organisation and delivery of comprehensive and integrated mental health services in India that is socio-culturally and politically diverse and economically stratified is indeed a challenging task for policy makers ; but is definitely required. In recent times, the Mental Health Policy, the new Mental Health Bill, judicial directives, National Human Rights Commission initiatives and advocacy actions aim at improving the scenario and undeniably are the right steps in this direction.

It is well acknowledged that there is no single solution that gives complete and / or quick results. Several components and activities need to be integrated into the larger existing systems, new actions need to be promoted and implementation stringently followed. Building strong health systems that integrate mental health with the larger public health system based on evidence backed practices is the need of the hour.

Data driven policies and programmes play a key role in this process. The National Mental Health Survey, 2016, conducted across 12 states with uniform and standardised methodologies with a unique strategy of combining prevalence, health seeking and systems analysis attempts to provide the stimulus to develop a roadmap for mental health services .

An estimated 150 million persons are in need of mental health interventions and care (both short term and long term) and considering the far reaching impact of mental health (on all domains of life), in all populations (from children to elderly), in both genders,

as well as in urban and rural populations, urgent actions are required. Considering the burden among children and adolescents (not included in this survey), thousands more are in need of care.

This huge burden of mental, behavioural and substance use disorders, in India, calls for immediate attention of political leaders, policy makers, health professionals, opinion-makers and society at large. The data from the NMHS, it is hoped will inform mental health policy and legislation, help shape mental health care delivery systems in the country. Most significantly, mental health should be given higher priority in the developmental agenda of India. All policies and programmes in health and all related sectors of welfare, education, employment and other programmes should include and integrate mental health agenda in their policies, plans and programmes.

Based on the study results, interactions with stake holders, views of community respondents and a review of past lessons, to improve mental health systems in India, the following recommendations are placed herewith.

1. The existing National Mental Health Programme, and its key implementation arm, the District Mental Health programme needs significant strengthening. In consultation with entral and state stakeholders, there is an urgent need for formulating explicit written action plans, increasing compliance towards implementation by supportive supervision, enhancing mechanisms of

integration, developing dedicated - ring fenced financing, devising mechanisms for accelerating human resources development, improving drug delivery and logistics mechanisms and devising effective monitoring frameworks so as to provide the widest possible coverage to affected citizens.

2. Broad-basing of priorities and planning of services to address the triple burden of common mental disorders, substance use disorders and severe mental disorders is required through focused as well as integrated approaches .

   • Mental health should be integrated with programmes of NCD prevention and control, child health, adolescent health, elderly health and other national disease control programmes. Specific programme implementation strategies and guidelines should be provided to all state governments in relation to activities, programmes, human resources, funding as well as monitoring.

   • In particular, in all these programmes, screening for common mental disorders (depression, suicidal behaviours, substance use problems, etc.,), health promotion (through yoga and other methods) and continuity of care / referral services should be an integral component.

   • In addition, existing platforms of educational institutions and work places should be strengthened to include mental health agenda. Such programmes should first be initiated in DMHP sites based on the experiences of pilot studies and expanded in the next phase.

3. All Indian states should be supported to develop and implement a focused "Biennial mental health action plan" (covering severe mental disorders, common mental disorders and substance use problems) that includes specified and defined activity components, financial provisions, strengthening of the required facilities, human resources and drug logistics in a time bound manner. It should include implementing legislations, coordinated IEC activities, health promotion measures, rehabilitation and other activities. These action plans should indicate responsible agencies or units for each defined activity component, their budget requirements and time lines along with monitoring indicators. Monitoring and evaluation should be an inbuilt component of this action plan and could be revised once in five years to measure progress.

4. Capacity strengthening of all policy makers in health and related sectors (education, welfare, urban and rural development, transport, etc.,) at the national and state levels should be given priority. Furthermore, human resource development for mental health in health and all related sectors should be systematically planned and implemented over the next 5 years. Based on their roles and responsibilities, these strategies should focus on (i) sensitisation of policy makers and professionals in education, welfare, women and child development, law, police and others, (ii) training all existing and new state mental health programme officers in programme implementation, (iii) training all district mental health programme officers in delivery of services (iv) building skills and knowledge of doctors (modern and traditional), health workers, ANMs, ASHAs and USHAs, Anganwadi workers and others.

- The DMHP is the key implementation arm of the NMHP, currently led by a psychiatrist or a medical doctor trained in mental health. Strengthening the knowledge and skills of DMHP officers in each state, should move beyond diagnosis and drugs towards acquiring skills in programme implementation, monitoring and evaluation. Training in leadership qualities as required at the district level is essential.

5. Human resource development at all levels requires creating mechanisms by identifying training institutions – trainers – resources – calender of activities – financing at the state level.

  - In all human resource activities, creating virtual internet based learning mechanisms to successfully train and hand-hold all non-specialist health providers' needs expansion; this can achieve the task shifting to non-specialists or other disciplines of medical care.

  - Technology based applications for near-to-home-based care using smart-phone by health workers, evidence-based (electronic) clinical decision support systems for adopting minimum levels of care by doctors, creating systems for longitudinal follow-up of affected persons to ensure continued care through electronic databases and registers can greatly help in this direction. To facilitate this, convergence with other flagship schemes such as Digital India needs to be explored.

  - The existing Centers of Excellence, mental hospitals, NIMHANS, medical college psychiatry units or state training institutes should be given the responsibility of developing the requisite training calendar / programmes.

6. Minimum package of interventions in the areas of mental health promotion, care and rehabilitation that can be implemented at medical colleges, district and sub-district hospitals, and primary health care settings should be developed in consultation with state governments and concerned departments and an action plan formulated for its implementation in a phased manner.

  - In addition, focused programmes need to be developed and / or the existing programmes strengthened in the areas of child mental health, adolescent mental health, geriatric mental health, addiction management services, suicide, violence prevention and disaster management . This should start with state level and subsequently extended to the district level.

  - These activities should be developed initially within DMHP programme and expanded to non-DMHP programmes, scaled up as mental health extension-outreach activities within their districts with the involvement of local medical college psychiatry units and district hospitals. Inaccessible areas and underprivileged communities should be given priority.

7. Upgradation of existing facilities to treat and rehabilitate persons with mental illness, will require further strengthening of existing mental hospitals as mandated by the National Human Rights Commission and provided by other previous schemes of the Health ministry. This will require the creation of an accessible stepped care system of mental health care in mental hospitals, district hospitals and medical colleges

(in both public and private sector) in addition to existing public systems of care, recognizing that at present more than 85% of medical care occurs in the private non-governmental sphere.

8. Drug logistics system at state level needs strengthening in indenting, procurement at state and local levels, distribution and ensuring availability on a continuous and uninterrupted basis in all public sector health facilities. The important issue of ensuring last-mile availability of the drug logistics system needs greater attention in planning and budgeting, and should be embedded in the state mental health action plans.

9. The funding for mental health programmes needs to be streamlined with good planning, increased allocation, performance based timely disbursal, guaranteed complete utilisation and robust mechanisms for oversight and accountability. There is a need for greater apportioning in the NCD flexi pool budget and the necessary mechanisms for dedicated funding for mental health within both the central and state health budgets should be included in national and state level plans, (Ring-fenced budgeting). Furthermore, the economic impediments to health seeking needs serious attention as treatment for mental health disorders is impoverishing the families and communities[8]. To ameliorate the problems of access among the affected due to economic disparity, mechanisms such as access to transport, direct payments, payment vouchers for economically backward sections , health insurance and other schemes need to be explored. Steps to develop actuarial data on mental disorders will help private insurance companies to provide coverage for mental disorders.

10. A National registry of service providers from different disciplines (psychiatrists, psychologists, social workers, public and private mental health facilities in the area which also includes, all other resources), which is periodically updated through systematic geo mapping at the state level will encourage greater participation of public and private health care providers and promote long term mental health care. This will also benefit local communities in health care seeking. While, this is incorporated in the new mental health bill, it requires an agency to be designated for the purpose.

11. Rehabilitation, to remedy long-standing disabilities and multiple areas of negative impact suffered by affected individuals and their families requires critical attention.

   • Firstly, this requires establishing mechanisms for creating facilities and services at district and state levels (day care centers/ respite care, half way homes, etc.,) through organised approaches.

   • Secondly, it involves economic and social protection for the mentally ill through protected housing and social security / unemployment benefits for persons with SMDs (especially the wandering mentally ill), as well as protection from discrimination and neglect.

   • Thirdly, it requires the provision of facilities for re-skilling, protected employment for persons with mental illness, provision of loans or micro-finance schemes for the affected and their family members. Convergence with other flagship schemes of the government such as Skill India needs to be explored.

- Legal, social and economic protection for persons with mental illness should be ensured through existing legislative provisions (Eg: Mental Health Care Bill) and state specific legislations to guarantee mental health care to citizens should be strictly implemented. The provisions under these instruments need to be widely disseminated; people should be made aware of their rights and delivery channels strengthened. Side by side, effors should be made to empower the National Human Rights Commission, Right To Information act, citizen's advocacy groups, self-help groups of mentally ill, civil society organisations to bring in greater accountability in these activities.

12. With a high prevalence of mental disorders in urban areas and with growing urbanisation, the urban health under the National Health Mission should have a clearly defined and integrated mental health component for implementation of services (defined services in identified institutions).

    - Similarly, mental health in work places and educational institutions using life skills techniques can aim at health promotion, early detection as well as awareness programmes on mental health (for common mental disorders like depression, anxiety, stress reduction, alcohol and tobacco use, etc.,) and should be promoted at all levels; development of programme implementation guidelines, mechanisms and resources are critical requirments.

13. A National Mental Health literacy (including IEC) strategy and plan of implementation should be developed to strengthen and focus on health promotion, early recognition, care-support – rights of the mentally ill and destigmatisation.

- IEC activities should move towards creating opportunities for better care, employment, educational and income generation activities for persons with mental disorders.

- Advocacy for mental health with the active engagement of the media is critical to develop programmes for the advancement of mental health. While negative portrayal needs to be stopped, positive portrayal on creating opportunities, rights issues, rights and opportunities, recovery aspects need more coverage.

- Integrating mental health and substance use disorder recognition and management within the ambit of governmental and non-governmental schemes on social and economic development (e.g. woman and child, micro-finance etc) will broad base coverage as well as reduce stigma.

- Civil society organisations, professional bodies and the private sector should take a lead role in this activity.

14. All mental health activities, programmes, plans and strategies should be scientifically and continuously monitored at the national, state and district levels. A mental health monitoring framework with clearly defined processes, indicators and feedback mechanisms should be developed and evaluated at periodical intervals.

- All DMHP activities should be reviewed by the District Collector or equivalent (once a month) and state level activities should be reviewed by the Principal Secretary Health (at 6 monthly intervals).

- A select set of indicators should be finalised and standardised for uniform data collection and monitoring to measure service delivery components through routine systems

- Sample surveys on representative populations at should be undertaken at defined intervals to independently measure status and progress.

- As evaluation is critical in measuring the outcomes and impact, mental health programmes should be evaluated by external agencies every 5 years.

15. The research base in mental health should be strengthened with a focus on the following areas:

- Prioritised mental health questions should be included in ongoing future national surveys like NCD risk factor survey, National Family and Health Survey, NSSO and others.

- Delineating the burden and impact of mental and substance use disorders in primary care settings using uniform and standardised techniques.

- Operational research focusing on programme pitfalls and achievements, barriers and challenges, integration mechanisms and coordination challenges.

- Measuring impact of socio-economic and developmental policies and programmes on mental health of people.

- Expanding the present survey on adolescents in the 13 – 17 years group (implemented as a pilot study) to larger populations.

- Understanding the treatment gap to unfurl macro and micro level issues from both demand and supply angles.

- Identifying risk and protective factors involved in causation, recovery and outcome of different mental disorders.

- Understanding cultural perceptions and beliefs with regard to mental health for increasing the utilisation of mental health services.

- Use of m-health and e-health to develop services, databases, registries, distant care and promote convergence with other programmes.

- Comprehensive understanding of the rehabilitation needs of the mentally ill at the district and state levels along with a longitudinal follow-up of affected individuals.

- Better understanding of the economic impact of mental health disorders that include both direct and indirect costs.

- Evaluating the different strategies for mental health promotion

- National agencies like ICMR, ICSSR, DBT, DST, private sector and international agencies like WHO and other UN agencies should dedicate and enhance research funds for mental and substance use disorders.

A National Commission on Mental Health comprising of professionals from mental health, public health, social sciences, the judiciary and related backgrounds should be constituted to oversee, support, facilitate, monitor and review mental health policies – plans – programmes in a continuous manner. Such a task force that works closely with the Ministries of Health at the national and state levels can provide strategic directions for mental health care programming to ensure speedy implementation of programmes.

References

1. Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of WHO, no. 2, p. 100) and entered into force on 7 April 1948

2. Global Burden of Disease Study 2013 Collaborators Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet. 2015 Aug 22;386(9995):743-800. doi: 10.1016/S0140-6736(15)60692-4. Epub 2015 Jun 7.

3. Gururaj G, Girish N, Isaac MK. Mental, neurological and substance abuse disorders: Strategies towards a systems approach. Burden of Disease in India [Internet]. 2005 [cited 2016 Sep 30];226. Available from: http://cdrwww.who.int/entity/macrohealth/action/NCMH_Burden of disease

4. World Health Organisation. The world health report 2001 — Mental health: new understanding, new hope. World Health Organisation, Geneva, 2001

5. Ngo VK, Rubinstein A, Ganju V, Kanellis P, Loza N, Rabadan-Diehl C, et al. (2013) Grand Challenges: Integrating Mental Health Care into the Non-Communicable Disease Agenda. PLoS Med 10(5): e1001443. doi:10.1371/journal.pmed.1001443

6. Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. No health without mental health. Lancet. 2007 Sep 8;370(9590):859-77.

7. Keyes CLM (2004) The nexus of cardiovascular disease and depression revisited: the complete mental health perspective and the moderating role of age and gender, Aging & Mental Health, 8:3, 266-274, DOI: 10.1080/13607860410001669804

8. Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A., … Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine (1982)*, *71*(3), 517–528. http://doi.org/10.1016/j.socscimed.2010.04.027

9. Murthy RS. Mental health initiatives in India (1947-2010). Natl Med J India. 2011 Mar-Apr;24(2):98-107.

10. WHO. Everybody's business: strengthening health systems to improve health outcomes. WHO's framework for action. Geneva: World Health Organization; 2007

11. Izutsu T, Tsutsumi A, Minas H, Thornicroft G, Patel V, Ito A. Mental health and wellbeing in the Sustainable Development Goals. Lancet Psychiatry. 2015 Dec;2(12):1052-4. doi: 10.1016/S2215-0366(15)00457-5.

12. World Health Organization. The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research. Geneva: World Health Organization,1993. Available at http://apps.who.int/iris/handle/10665/37108

13. Gururaj G, Pradeep B S, Gopal Beri, Anjali Chauhan, Zoya Rizvi. Report of Youth Health Survey- Himachal Pradesh. Centre for Public Health. Bangalore, NIMHANS, 2014.

14. Girish N, Rajkumar N, Sunitha S, Gururaj G. District Mental Health care/ system assessment: Kolar-Karnataka. Bangalore, Centre for Public Health, NIMHANS, 2013.

15. Gururaj G, Ramasubramanian C, Girish N, Mathew V and Sunitha S. Tamil Nadu Mental Health Care Assessment: Review of District Mental Health Programme, 2013. Publication no 106, National Institute of Mental Health and Neuro Sciences, Bangalore, 2014. ISBN No: 81-86455-00-X

16. World Health Organization. World Health Organization assessment instrument for mental health systems (WHO-AIMS). Geneva, WHO, 2005 http://www.who.int/mental_health/evidence/AIMS_WHO_2_2.pdf (accessed Aug 13, 2010)

17. WHO. WHO's Mental Health Atlas 2014. Geneva, World Health Organization 2015

18. Murthy P, Kumar S, Desai N, Teja BK. Mental Health Care in India - Old Aspirations...... Renewed Hope. Report of the Technical Committee on Mental Health Constituted by the National Human Rights Commission to evaluate mental health services in India. New Delhi, National Human Rights Commission, 2016 available at http://nhrc.nic.in/Documents/Mental_Health_report_vol_I_10_06_2016.pdf and http://nhrc.nic.in/Documents/Mental_Health_report_vol_II_10_06_2016.pdf

19. Isaac MK. National Mental Health Programme: Time for reappraisal. https://mhpolicy.files.wordpress.com/2011/05/national-mental-health-programm-time-for-reappraisal.doc

Person(s) with mental disorder(s) can be creative and productive with good care, caring society and availability of opportunities

Flower made from pencil wood waste
Reproduced from work done by persons on treatment at the
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