

Urban Mental Health Services in India: How Complete or Incomplete?

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ABSTRACT

The information about Urban Mental Health Services has been nearly nonexistent in India, although the developed countries have been focusing on programmes for “Healthy Cities”. The initiative taken as part of the WHO-ICMR Pilot Project on Urban Mental Health Services, with a public health perspective is being shared. The objectives of the Health Services Research (HSR) Arm of the project were to study the distribution and the availability of tertiary Mental Health Services, availability of human resources, average service load, mental health service gap, and perceptions of the users and the service providers, regarding the barriers in accessibility of mental health services, unmet service needs and strategies for improvement.

The Research Methods involved Mapping Exercises with estimation of Service Loads and Qualitative Research Methods (QRM) like In-Depth Interviews (IDIs), Key Informant Interviews (KIIs), Free Listing and Focused Group Discussions (FGDs). The results indicate uneven availability of mental health services, human resource deficit specially for non-medical mental health professionals and mental health service gap (82% to 96%). The average service load in the specialist mental health services is largely carried by the Govt. sector (half to two thirds), followed by the private sector (one third to half), with only a small portion by the NGO sector. The average mental health service load in the primary care general health services is largely carried by the private sector, with significant contribution from the non-formal service providers. The barriers to access, unmet needs and possible strategies as perceived by the community, users and service providers have been identified. The findings are discussed in the context of the mental health programmes and the public policy issues. The implications of the conclusions which suggest that Urban Mental Health Services are far from complete are highlighted.

Key words : Urban Mental Health, Health Services Research, Service Utilization Indicators, Public Health Policy.

Introduction

Urban health is likely to be one of the momentous challenge of the 21st century. The ever increasing number of people moving to urban environment; urbanization and its effects on health including mental health; the rural slant of health services, failure to adequately link urban planning to public health; barriers and accessibility to mental health services are some of the major reasons contributing to making this a different challenge. The recognition of this challenge has been rather inadequate, particularly for Urban Mental Health. The WHO-ICMR supported multi-site pilot project on Urban Mental Health Services initiated in 2001 is one

systematic effort at addressing the subject, in the context of our country.

The clinical approach on the subject is likely to point to the possibility of studying the profile of clinical problems, their treatment response, course and outcome. The social science approach leads to studying the relevance and impact of the process of urbanization on mental health. The public health approach requires that epidemiological trends, the Health Services Research (HSR) components be examined for effective health planning. All these three approaches can play a meaningful and complementary role, although the appropriate application of research methods will need to

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be employed. The WHO-ICMR Pilot Project has opted for a public health approach, with the HSR perspective as a first step in understanding the issues of urban mental health problems and the services required. This paper highlights some of the important findings on urban mental health services from the multi-site pilot phase of the project over the first two years from 2001 to 2003.

Review of literature:

Urbanization & Health

Never before have the people of our planet moved to live in cities at the rate we are witnessing in the early years of the third millennium. Half the world's population is already urbanized and estimates are that at least 60% of the world population will live in large conurbation by 2030. More people are going to live in cities, even more will live in mega-cities. Taking the size of a mega-city to be at least 10 million population, nearly three hundred million people will be living in 20 such cities by the years 2015 (APEC, 2000).

In Global trends, the average annual urban & rural growth in developing countries will be 20.3% & - 0.4% respectively by years 2020-2025 (Tabibzadeh, 1989). In India, the urban population in 1951 was 17.3%; 25.73% in 1991 & at present is estimated to be more than 30% & is expected to increase up to 56% by 2025. It is not only the proportion of change that is alarming but the rate at which it is occurring. The percentage growth of urban population in the decade from 1981 to 1991 was 36.19%. It is estimated that 80% of urban increase in the next 2 decades will occur in developing nations (Bhattacharya, 2002).

There is increasing recognition of the complex effects of urbanization on health. The nature of modern urbanization may have deleterious consequences for mental health through the influence of increased stressors and adverse events such as over crowding, pollution, poverty, slums, dependence on cash economy, rising levels of violence, poor social support etc. The conventional public health projects for the prevention or treatment of disease did not adequately take account of health risk such as poverty, urban violence and terrorism. Special problems like increasing suicide rates, alcohol and drug abuse including tranquilizer misuse are challenges to mental health professionals in the urban area (Harpham et al., 1994 & 1995). In this regard, WHO had launched the 'Healthy Cities' Programme in 1986, as a means of legitimizing, nurturing and supporting the process of community empowerment (WHO, 2000). Using community participation as the method, 'Healthy Cities'

seek to achieve the goal of health for all by reducing inequalities, strengthening health gains and reducing morbidity & mortality in cities around the world. In the late 1990's, 'Healthy Cities' focused on advocating healthy public policies and strengthening city planning for health. Evaluation studies of healthy cities have concentrated more on process than outcome (Curtice et al, 2001). Advocates of 'Healthy Cities' believe that the model has proved to be a very effective & versatile vehicle for bringing health for all to the local level (Awofeso, 2003).

Development of Mental Health Services in India

Before independence, the approach to Mental Health Care consisted largely of building lunatic asylums, which were custodial rather than therapeutic. They were designed to 'protect' the community from the mentally ill and were situated away from cities, and had high enclosures. Further development occurred during the 18th century. Mental hospitals were built in Bombay in 1745, Calcutta in 1787 and Madras in 1794. The 1st revolution in the care of the mentally ill came with the enactment of the Indian Lunacy Act (1912). The environment of the Mental Hospitals improved considerably in the last century. In 1947, there were 17 Mental Hospitals with a patient load of 10,000.

Since independence, India has been progressively developing basic mental health services infrastructure. The growth has shifted from a vertical approach to a more integrated approach since the 1970's. A paradigm shift occurred with the setting up of General Hospital Psychiatry Units (GHPUs), which brought about a qualitative change in mental health services. The next breakthrough came about in the 80's, with the increasing involvement of NGOs and the private sector in providing mental health care to the community. The Indian Mental Health Act was enacted in 1987. The National Mental Health Programme (NMHP) was started in 1982 to provide the framework for mental health services in the country, with the stated objectives of:

- ◆ Ensuring availability and access of minimum mental health care to all, particularly the vulnerable and under-privileged segments.
- ◆ Encouraging application of mental health knowledge in general health care and in social development
- ◆ Promoting community participation in mental health services development and stimulating efforts towards self-help in the community

The NMHP facilitated decentralization, provision of services

close to the population and service integration. Following the two pilot projects at NIMHANS, Bangalore and PGIMER, Chandigarh, the integration of mental health with Primary Health care has been implemented at the district level covering a population of two million between 1984 and 1990.

The current theme of mental health services is to “reach the unreached” through community outreach programmes. The District Mental Health Programme (DMHP) was started by the Government of India in 1996-97 on a pilot basis. The module developed by NIMHANS in Bellary District is being followed as model and adopted by different states for implementation. Currently, it is being implemented in 27 districts of India covering 22 state and Union Territories with a plan of extending services to 100 districts in the 10th Five Year Plan. Of these, only a handful of nodal centres (including Delhi) are urban centred and the rest are rural based. As a result, DMHP at IHBAS, Delhi required to modify its model to operate in the urban setting.

It has been estimated that about 80% of primary general health care is provided by the private sector. It has also been said that, presumably the same applies for mental health. The private mental health services are helping in sharing the patient overload and providing adequate, effective and suitable treatment but can be afforded only by the affluent. Most of the patients, at urban level are open for private sector psychiatric hospitals and seek help from them without feeling stigmatized. In recent years Non Governmental Organizations (NGO) have been involved with mental health in the country. They are mainly involved in advocacy, promotion, prevention, treatment, and rehabilitation . A few NGOs have established research foundations as well.

The major mental health services including mental hospitals, GHPU, private sector and NGOs are city based. The ‘Outreach’ programmes of Government have their targets as rural population, people residing in remote areas and to some extent the urban poor and underprivileged population. There is this tacit assumption that the cities are self sufficient regarding the mental health services and hence do not become the focus of the policy makers.

The major limitations of the NMHP and the DMHP include a heavy rural slant, contributing to the lack of attention to the urban mental health service needs, the small town and urban slum dwellers remaining largely uncatered to, despite their being particularly needy. Their only recourse remaining, the Public Health Psychiatric Services, which is

poorly organized and inadequately funded. It wouldn't be improper to say that the benefits of modern psychiatry are still not within the reach of our urban population (Desai, 2001). The strong pro-rural bias could have been possibly due to the fact that larger proportion of Indian population was residing in rural set up at the time of formulation of the above services. Also the services in the rural areas were far and few. However, in spite of these obvious reasons, the services formulated have inadvertently led to the situation of the urban mental health services being overlooked in policy and programme formulation at national and state level. This is especially relevant in the view of the changing demographic profile globally and in India. This is not to deny the fact that emphasis on rural based services and programmes is essential. On the other hand, what is being highlighted is the scarcity of manpower to run even these services.

If we examine the global scenario, we find urban-rural differences in mental health services (Murthy, 2000; WHO, 2001). In developing nations, there is a lack of adequate number of trained mental health professionals to provide specialized care as well as to support the primary health care programmes. WHO has enlisted 10 recommendations for action (WHO, 2001) and of these, three (to provide treatment in primary care, involvement of community/families & consumers, to monitor community mental health) are largely based on manpower availability, which in Indian context showcases a grim picture in current times.

There is very little information on the mental health service needs, availability, and utilization in urban areas. Public health approach to mental health requires that these service needs be identified and strategies be developed for meeting these needs. This approach necessitates that the different sectors of health care service delivery, the government, private, non-governmental and the non-formal sectors be included in the assessment of the needs and the planning of the future services (Desai, 2002).

Health Services Research (HSR)

There are many ways of studying Health Services Research indicators including utilization/accessibility, efficacy measures, impact & outcome measures. As a first step, one needs to make an assessment of availability of services in the community, the barriers/access to care, unmet needs and the utilization of service resources. Alongside, there is a need to evaluate the human resource deficit. Specifically, the ratio of manpower/human resource with regards to the availability of beds as well as to the population in a

geographically defined area needs to be calculated. Mental health services are becoming decentralized in modern times and moving into the community and thus should be largely non-inpatient based. In this context, the ratio of human resources to bed strength (often quoted in the Western literature) does not seem applicable in Indian context.

As such, HSR studies have used different concepts and definitions in studying HSR indicators. Thus need arises for an operational definition of indicators which has its subsequent application uniformly. In India, there seems to be some research on HSR indicators in general health services; however, there is need to develop the same for the mental health services including urban mental health services.

In view of this scenario, it was considered appropriate and timely to initiate a twin arm project on Urban Mental Health. The WHO- ICMR collaborative project was launched in 2001 with IHBAS, Delhi as one of the research sites and the coordinating centre of the study. The current paper highlights only a part of the findings of the project.

Objectives of the Project:

General Objective

The general objective of the pilot project was to make an assessment of mental health services and needs in three cities viz. Chennai, Delhi and Lucknow, in order to gain an understanding of the various aspects of the mental health situation in these urban settings.

Specific Objectives

The Specific Objectives of the Pilot Project were:

1. To study the utilization pattern of existing mental health care facilities in geographically defined urban areas and assess their strengths and weaknesses.
2. To study the pattern of mental health problems through
 - (a) Data available from mental health care facilities.
 - (b) Qualitative descriptive studies on mental health problems in the community.
3. To identify and develop strategies for early identification of mental health problems and to suggest necessary intervention, including appropriate services.

Objectives of this paper

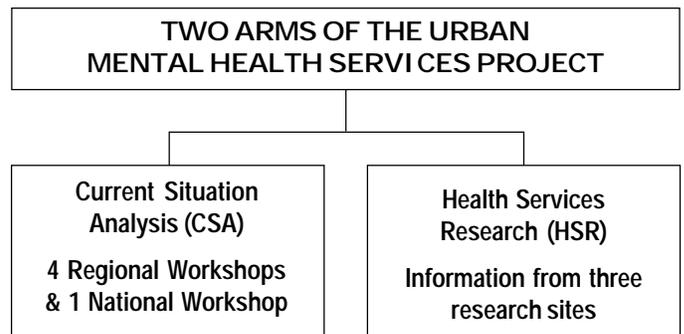
The objectives addressed in this paper are:

1. To study the distribution and the availability of tertiary mental health services.
2. To study the availability of human resources (Manpower) in specialist mental health services.
3. To assess the average service load in different sectors of tertiary specialist mental health services and primary general health care settings.
4. To study the mental health service gap, if any.
5. To study the perceptions of the users and the service providers, regarding the barriers in accessibility of mental health services, unmet service needs and strategies for improvement.

Methods

In view of the lack of information on the subject, the Pilot Project on Urban Mental Health Services supported by WHO-Country office and the ICMR was conceived with two complementary arms, viz. (A) Current Situation Analysis arm (CSA arm) and (B) Health Services Research arm (HSR arm) (Fig. 1). Although this paper highlights some of the important findings from the Health Services Research (HSR) Arm of the Pilot Project, it is pertinent to briefly describe the Current Situation Analysis (CSA) Arm of the project. This is so, due to the fact that the two arms of the project functioned in a complementary fashion. The recommendations of the CSA Arm provided some inputs for the planning of the HSR Arm and also have a bearing on the interpretation of the findings of the HSR Arm.

Fig. 1



Current Situation Analysis (CSA) Arm

The first step of the situation analysis was the interaction

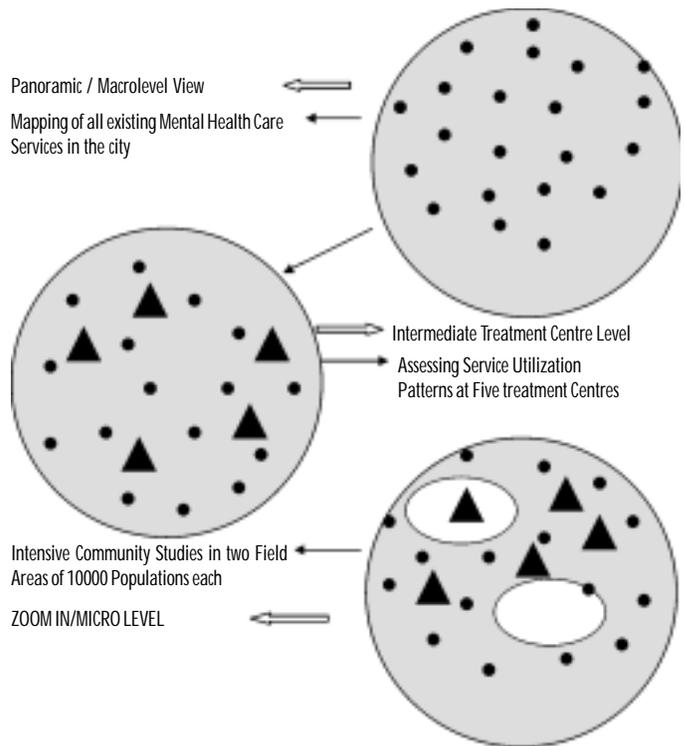
at the four Regional Workshops on the subject, held at Mumbai (14-16 December, 2001), Chennai (6-8 February, 2002), Lucknow (11-13 February, 2002) and Ranchi (15-17 February, 2002), and the National Workshop at Delhi (5 – 7 March, 2002), focusing on the three themes (1) Current and projected needs, (2) Availability and utilization of services, (3) Strategies for unmet needs.

The Regional Workshops, each with about 30 participants, were aimed at generating information on the existing mental health care services in urban settings in the country through small group interactions. The psychiatrists and the mental health professionals working in the different states in each region, shared their perspective and opinions, as well as published and unpublished information available on the above three themes, related to mental health service needs of the urban populations. Current situation report from each state was presented by two participants, one from government/academic sector and the other from private/NGO sector, with the explicit purpose of obtaining multiple inputs from different sectors. This was followed by sessions to synthesize the information gained from different states on the three themes. The reports of the Regional Workshops formed one of the important inputs for the National Workshop held at IHBAS, Delhi from 5th – 7th March 2002 with the objectives of (1) evolving a status document of the existing mental health care services, their utilization, profile of mental health problems seen at those services, identify unmet needs and the strategies for tackling the unmet needs, and (2) formulating recommendations for research activities and priorities for the HSR Arm in the project and the subject of Urban Mental Health in general(Desai et al,2003).

Health Services Research (HSR) Arm

The HSR Arm operated through the three sites at Chennai, Delhi and Lucknow with the research activities being carried out at three levels for each city. The activities at each level have been complementary to each other and occurred simultaneously (Fig. 2). The research activities at each level, while being directed towards specific objective, were planned so as to be supplemented by each other and the collated information providing a holistic view of the mental health scenario at the three urban settings. The research activities were carried out in the three cities in identical fashion, with uniform tools and methods. The field research staffs of all the three sites were trained in a three day workshop at IHBAS by the investigators of all the three centres and the field methods and tools were finalized.

Fig. 2.
Research Activities at 3 levels of Urban Mental Health Project Programme Action Plan



Level 1

Mapping of Specialized Mental Health Services in the City

The first level of research activity involved comprehensive mapping of the specialized mental health services in the city in order to get a “panoramic view” (Macro level) of the existing scenario. In order to prepare a list of the existing specialized mental health services in the entire city, various agencies and individual professionals were contacted. A specifically designed semi-structured questionnaire was developed covering information on the range of services provided, and the average service load in these services, particularly the number of new patients registered per month. Detailed information on the different categories of mental health professionals viz. psychiatrists, clinical psychologists, psychiatric social workers and psychiatric nurses was also elicited and recorded. The questionnaire was discussed amongst the three research teams, as well as with some of the individuals and agencies identified and revised suitably. The questionnaire was mailed to the agencies, in all the sectors, with a request to provide the information. This was followed by telephone call and/or personal contact by the investigators/field staff and repeat

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mailing of the questionnaire as and where required. The agencies which failed to provide information after adequate efforts were visited by the research staff and information was obtained with the cooperation of the agencies. The information obtained was scrutinized and verified by the research staff and the investigators of each research site. The scrutinized information was placed on a Mapping Service Grid.

Level 2

Research Activities at Five Treatment Centres

This intermediate level was primarily targeted at understanding the pattern of utilization of services, especially the barriers. The method involved carrying out In-depth Interviews (IDIs) for 100 patients and their family members for understanding the utilization pattern and their perception about the unmet needs, as well as the strategies to meet these needs in 5 different types of mental health care settings (2 private settings, 2 government settings and 1 NGO). The chief clinician/ administrative head of each of these treatment centres was requested to join as a collaborator. Delhi and Lucknow included the outreach service of the District Mental Health Programme, as one of the treatment centres. The IDI Questionnaire was designed to elicit the above information. Three service providers from each of the five treatment centres were also requested for In-depth Interviews (IDIs) on similar lines. The diagnostic profile of the cases reaching these treatment centers was compiled. This information has been collected to obtain the distribution of Severe Mental Disorders (SMDs), Common Mental Disorders (CMDs), and others. The information on the diagnostic profile and its distribution was collected from the available records and scrutinized at each of the treatment centers, by the field staff. As such, the information was available from different treatment centers for different time frames viz. six months, one year or two years for logistic reasons like availability and adequacy of records. This information was uniformized for all the centres by calculating the average monthly service load.

Level 3

Research Activity in Two Community Field Areas

One of the activities in the community field areas included complete mapping of all the general health services (formal and non-formal) at the primary care level, with the average mental health service load, in terms of the estimated

proportion of cases with psychiatric disorders, from amongst the newly registered cases. This provided the average mental health service load in the primary care level general health services for the two field areas of approximately 20,000 population. This could be extrapolated, with some limitations, to the city's population.

In addition, the research activities in the Community Field Areas also included assessment of the community perception of the availability and utilization of the mental health services in the city. This was carried out using Qualitative Research Methods (QRM), (Bellack, 1998 and Coriel, 1997) which are described below.

Field Methods and Tools

Focus Group Discussions (FGDs) – FGDs were aimed at generating insights into target population's beliefs on key mental health issues through discussion between 8-12 people guided by a trained moderator. The FGD, ideally ranging between 45 min – 75 min were audio recorded (wherever possible) and transcribed for analysis purposes.

FGDs were conducted with general practitioners, school teachers, local influencers and house wives. FGD mainly focused on to assess: (a) the community's understanding and concepts of mental health problems; (b) the existing mental health services provided and their pattern of utilization to be addressed in terms of 3A's namely accessibility, availability, affordability; (c) the community's views regarding the existing services, the level of satisfaction, the barriers in availing mental health services; (d) predominant unmet need pertaining to the mental health issues (as perceived by the community); (e) strategies for meeting the same/suggestions for improvement.

In Depth Interviews (IDIs) - The semi-structured In Depth Interviews (IDIs) comprising of a series of appropriately worded and sequenced questions with certain precoded responses (to facilitate evaluation of data) was directed at eliciting subjective information on key issues in mental health in both the treatment centres and the field areas across the three centres. The IDI questionnaire has 2 versions: A (Patient) and B (Informant) depending on the status of the respondent. Similar IDI questionnaire was also developed for the service providers at the treatment centres.

Key Informant Interview (KII) - KII was directed at eliciting descriptive and analytical information from individuals holding prominent position in the community and

having good communication skills. This method was primarily planned to generate general as well as specific information pertaining to mental health problems in urban areas, the felt needs, the caregivers, existing mental health services and their utilization. KII was conducted with local influencers, local GP's, resident welfare association office bearers and municipal councillors. The themes for KII were (a) The community understanding about mental health problems, (b) The existing mental health services provided and their pattern of utilization, (c) The community's views regarding the existing services, the level of satisfaction, the barriers in availing services etc., (d) The prevalent help seeking patterns and pathways of reaching service providers, (e) Felt needs pertaining to the mental health issues, (f) Strategies for meeting the same/suggestions for improvement.

Free Listing (FL) - This qualitative tool was used for eliciting free responses of a specific mental health issue in the form of structured statement. Free listing responses were elicited by respondents in the field areas on the two major domains of mental health issues – 'unmet needs' and 'barriers in service utilization'.

The stimulus for the same was given by the following structured questions: What in your opinion are the significant/important 'mental health problem' specific to urban settings?

Estimation of the Health Service Utilization Indicators

Human resource deficit was estimated by calculating the total number of mental health professionals in all the sectors in the city and the required number of professionals as per the recommendation of the National Workshop on Urban Mental Health Services.

The average monthly service Load in the tertiary specialist mental health services was calculated for the three sectors viz. Government, Private and NGO sectors by the total number of new cases registered, as noted from the mapping exercise of these services for the entire city.

The average monthly mental health service Load in the primary care general health services was calculated based on the estimate of new cases of mental health problems seen in these services in the two community field Areas of approximately 20,000 population. This was extrapolated to the population for the entire city, with the obvious limitation of generalizability of the finding from the two field areas.

The calculation of the Relative Mental Health Service Gap

was based on the above estimates of monthly service load in all the tertiary mental health services, multiplied by twelve against the expected proportion of the population who can be presumed to be in need of mental health services. This was done with the expected prevalence of 10% for all mental health problems, based on the meta analysis of the Indian epidemiological studies by Reddy & Chandrashekhar (1998). As such,

“a” = Total Average Monthly Service Load in the Tertiary Specialist Mental Health Services

“X” = Total Number of Persons Expected to be in need of Mental Health Services

“Relative Mental Health Service Gap” is the deficit of people who can be expected to need services but are not reaching specialist mental health services, expressed in percent.

$$\text{Relative Mental Health Service Gap} = \frac{X - (a \times 12)}{X} \times 100$$

Results

The HSR Arm of the Project was carried out at 3 research sites i.e. Chennai, Delhi and Lucknow, with the coordinating centre at Delhi. The information and data collected from three research sites are presented alongside each other for easy comparison.

Distribution and Availability of Specialist Mental Health Services

The mapping exercise for this purpose was carried out at all the three research sites with a success rate of more than 95%. The distribution and availability of services is not uniform or evenly distributed in Chennai and Delhi, but seem more so in Lucknow. In Chennai and Delhi, the economically and developmentally better planned zones seem to have larger number of services available (Table 1, 2 & 3).

The availability of beds is higher in Chennai and Lucknow (2.5 for 10,000 population and 2 for 10,000 population) as compared to Delhi (0.5 for 10,000 population) (Table 4a). This can be compared to the information available for different WHO regions of the world, which ranges from 0.33 in the South East Asia Region (SEARO) to 8.7 in the European Region (WHO, 2001a) (Table 4b).

Table 1

ZONE WISE DISTRIBUTION OF SPECIALIZED MENTAL HEALTH SERVICES IN THE CITY OF CHENNAI

Chennai	Population	Govt. Psy. Hospitals	Govt. GHPU	Pvt. Psy. Hospitals	Pvt. GHPU	Ind. Chamber Practitioners	NGO's	Total
North	Approx. 39 lacs	1	3	2	1	2	4	13
Central	Approx. 34 lacs	1	1	1	2	6	1	12
South	Approx. 38 lacs	-	2	1	-	2	4	9
West	Approx. 18 lacs	-	-	-	1	2	7	10
Total	Approx. 129 lacs	2	6	4	4	12	16	44

Table 2

ZONE WISE DISTRIBUTION OF SPECIALIZED MENTAL HEALTH SERVICES IN CITY OF DELHI

Zone	Population (in Lac)	Govt. Psy. Hospitals	Govt. GHPU	Pvt. Psy. Hospitals	Pvt. GHPU	Ind. Chamber Practitioners	NGO's	Total
North West	28	-	2	1	-	12	-	15
West	21	-	3	1	-	6	-	10
South West	17	-	-	-	-	9	2	11
South	22	-	2	2	2	6	4	16
N. Delhi	1.7	-	3	-	-	6	-	9
Central	6.4	-	1	2	1	4	-	8
North	7.8	-	1	-	1	3	-	5
North East	17	1	2	-	-	4	-	7
East	14	-	-	2	-	11	1	14
Total	137-9	1	14	8	4	61	6	95

Table 3

ZONE WISE DISTRIBUTION OF SPECIALIZED MENTAL HEALTH SERVICES IN CITY LUCKNOW

Zone	Population (in Lac)	GHPU	Pvt. Psy. Hospitals	Pvt. GHPU	Ind. Chamber Practitioners	NGO's	Total
1	2.5	1	1	-	2	-	4
2	2.7	-	-	-	3	-	3
3	5.5	-	1	1	3	3	8
4	5.1	-	3	-	1	4	8
5	3.9	1	-	-	2	-	3
6	5	1	-	1	4	1	7
Total	24.7	3	5	2	15	8	33

Table 4a

AVAILABILITY OF BEDS / 10,000 POPULATION

	Chennai	Delhi	Lucknow
Beds /10,000 population	2.5	0.5	2.0

Table 4b.

AVAILABILITY OF BEDS / 10,000 POPULATION

WHO Region	Median number of Psychiatric Beds per 10,000 population
Africa	0.34
Americas	3.30
Eastern Mediterranean	0.79
Europe	8.70
South East Asia	0.33
Western Pacific	0.98
World	1.60

N = 183

(Source: Atlas - Country Profiles on Mental Health Resources 2001, WHO)

Human Resource Deficit

As described earlier, the available human resource in terms of the professionals in mental health has been calculated.

The Human Resource Deficit has been calculated in accordance with the recommendations of National Workshop 2002. As evident in Table 5a, there is alarming deficit of clinical psychologists and psychiatric social workers. This is in spite of the flexibility adopted in the definition by also including the partly qualified professionals working in mental health settings. The deficit in available nurses is also remarkable. The noteworthy aspect is of variable, but sizable deficit even for psychiatrists in the three cities viz. 60% in Chennai, 36% in Delhi and 22% in Lucknow.

Average Monthly Service Load in Specialist Mental Health Services across Sectors

As described earlier, this is derived from the mapping of specialized mental health services.

Table 6 presents the percentage break-up of Average Monthly Service Load in the three sectors viz. Government (which include Govt. Psychiatric Hospital & GHPUs), Private (which includes Pvt. Psychiatric nursing homes/hospitals, Pvt. GHPUs and individual practice) and NGOs. The service load in the NGO sector is low, uniformly across the three cities. In Lucknow, the service load is almost equally shared by Government and the private sector. In Chennai and Delhi, the Government Sector carries approximately two third of the service load.

Table 5a

MENTAL HEALTH RESOURCES (MAN POWER)

Mental Health Professionals (as per recommendations)		Chennai			Delhi			Lucknow		
		A	B	C	A	B	C	A	B	C
Psychiatrists (1 per 50,000 population)		103	260	157 (60%)	176	276	100 (36%)	39	50	11 (22%)
Clinical Psychologist (1 per 25,000 population)	Qualified Clinical Psychologists (DMSP, M. Phil)	011	520	508 (97%)	71	552	474 (86%)	5	100	78 (78%)
	Psychologists Working in Mental Health Services	001			78			22		
Psychiatric Social Workers (1 per 25,000 population)	Qualified PSW (M.Phil)	021	520	491 (94%)	33	552	512 (93%)	1	100	60 (69%)
	Working in Mental Health Services	029			40			—		
Psychiatric Nurses* (1 per 25,000 population)		121	520	399 (76%)	231	552	321 (58%)	55	100	45 (45%)

A = Availability; B = Requirement according to population; C = Deficit (%)

*Nurses working in Mental Health Settings where a small proportion of them are qualified in Psychiatric Nursing.

◆ The other specialists i.e. Neurologists, neurosurgeons etc are also providing Mental Health Services, but are not included in the table.

Table 6

PERCENTAGE BREAK-UP OF SERVICE LOAD IN SPECIALIST MENTAL HEALTH SERVICES ACROSS SECTORS

Sectors	Percentage break of Service Load		
	Chennai	Delhi	Lucknow
Government	64%	67%	46.3%
Private	34%	30%	50%
NGOs	2%	3%	3.7%

Average Monthly Mental Health Service Load in Primary Care General Health Services across Sectors

Table 7 shows the percentage break-up of service load in primary General Health Services across four sectors. Government sector in the primary care level, General Health Services, carries a relatively small proportion of service load, in Chennai and Delhi. The service load carried by the private sector (GPs and Family Physicians) ranges from 46% in Lucknow and 47% in Chennai to 62% in Delhi. The non-formal sector at the primary care level carries a sizeable proportion of the service load, in Chennai and Delhi. The NGO sector seems to carry a small service load at this level of health services.

Table 7

PERCENTAGE BREAKUP OF SERVICE LOADS IN PRIMARY CARE GENERAL HEALTH SERVICE ACROSS SECTOR

Sectors	Percentage break of Service Load		
	Chennai	Delhi	Lucknow
Government	11.23%	8.52%	42.5%
Private	47.2%	60.2%	46.2%
NGOs	10.8%	*	3.4%
Non-formal services	30.6%	31.2%	7.9%

* There is no NGO working in two field areas studied in Delhi.

Mental Health Service Gap

The Relative Mental Health Service Gap is large in each of the three cities: 96% in Chennai, 92% in Delhi and 82% in Lucknow (Table 8).

Table 8

MENTAL HEALTH SERVICE GAP

Chennai (population = 12997370)	Delhi (population = 138030870)	Lucknow (population = 2500000)
12,99,737-48,000 = 1251,737 (96%)	13,80,308-1,09,008 = 12,71,300 (92%)	2,50,000-44,436 = 2,05,564 (82%)

Diagnostic Profile:

The information available reliably from Delhi and Lucknow indicates that one third to one half of the patients reaching the treatment centres do so for Common Mental Disorders (CMD) (Table 9).

Table 9

DIAGNOSTIC PROFILE CATEGORIZATION

	Chennai*	Delhi	Lucknow
Severe Mental Illnesses	-	3,000 (39%)	1600 (38%)
Common Mental Disorders	-	3,800 (50%)	1556 (37%)
Other disorders	-	800 (10%)	1000 (24%)

* Reliable information is not available.

Barriers to Accessing Mental Health Services:

This information regarding the barriers in availing mental health service has been accounted as reported by patients and informants from the In-Depth Interviews (IDIs) administered to them at treatment centres.

As Table 10 and 11 indicate the major barriers to access are, financial and transport related problems in all the three cities, as elicited from those reaching the treatment centres as well as those in the community. On the other hand, the service providers perceive that the important barriers, besides the financial problems, are stigma and lack of awareness.

Unmet Service Needs

The Service Providers at the treatment centres, as well as the general community in the field areas agree about the overall lack of mental health services, but the service providers also seem to highlight the lack of sub-specialty services like rehabilitation services, child mental health services and substance use services. The service providers in most agencies perceive lack of professionals or human resource deficit as an important issue (Table 12, 13).

Table 10.

COMMUNITY PERCEPTION ABOUT BARRIERS FROM OTHER SOURCES (KII, FGD, FREE LISTING)

Community perception about barriers	Chennai	Delhi	Lucknow
Free listing	<ul style="list-style-type: none"> ◆ Financial problem, no proper social support for the affected. ◆ Afraid to admit patients in Govt. mental hospitals, no proper medicines for the mentally ill. ◆ Lack of awareness 	<ul style="list-style-type: none"> ◆ Lack of awareness ◆ Expensive treatment / Finance related problems ◆ Social stigma 	<ul style="list-style-type: none"> ◆ Lack of awareness ◆ Lack of services ◆ Night accommodation for the patient's coming from outside the city
Key Informant Interviews (KII)	<ul style="list-style-type: none"> ◆ Govt. hospitals not clean and hygienic, quality of drugs is not good, long queues in every department therefore very time consuming. ◆ Negligence of caregivers, no social support for chronic patients. ◆ Private specialized Mental health service providers are very difficult to approach, especially due to cost. 	<ul style="list-style-type: none"> ◆ Social stigma ◆ Lack of awareness ◆ Expensive treatment/ Finance related problems/ Long term treatment 	<ul style="list-style-type: none"> ◆ Long term treatment ◆ Social stigma ◆ Lack of awareness
Focus Group Discussion (FGD)	<ul style="list-style-type: none"> ◆ No proper medicines, in-human treatment, giving shock treatment, in Govt. hospitals and hygiene in GPU's & GGHPU needs to be improved. ◆ Financial reasons, no social support for patients who are chronic, poverty. ◆ Lack of good hospitals 	<ul style="list-style-type: none"> ◆ Social stigma ◆ Lack of awareness ◆ Misconception about mental health problems ◆ Long term treatment 	<ul style="list-style-type: none"> ◆ Long term treatment ◆ Social stigma ◆ Lack of awareness

Table 11.

SERVICE PROVIDER PERCEPTION ABOUT BARRIERS IN AVAILING MENTAL HEALTH SERVICES

Perception of service providers about barriers	Chennai	Delhi	Lucknow
According to Practitioners of Modern Medicine	<ul style="list-style-type: none"> ◆ Lack of financial support - 52% responses ◆ Social stigma -30% responses ◆ Lack of awareness -18% responses 	<ul style="list-style-type: none"> ◆ Social stigma -38% responses ◆ Financial problems -22% responses ◆ Lack of awareness -12% responses 	<ul style="list-style-type: none"> ◆ Lack of awareness -68% responses ◆ Financial problems -46% responses ◆ Social stigma - 35% responses
According to Practitioners of Alternative System of Medicine	<ul style="list-style-type: none"> ◆ Stigma - 50% ◆ Private Psychiatric treatment, Unaffordable, Inadequate treatment-30% ◆ Unaware of the illness -20% 	<ul style="list-style-type: none"> ◆ Social stigma - 40% responses ◆ Financial problems -35% responses ◆ Logistics (Staff behaviour, big rush) -25 % responses 	<ul style="list-style-type: none"> ◆ Lack of awareness -73% responses ◆ Financial problems -46% responses ◆ Social stigma - 38% responses
According to Non-formal Service Providers	<ul style="list-style-type: none"> ◆ Social stigma 45% Respondents view ◆ Financial problems - 40% Respondents view ◆ Logistic (Staff behaviour, big rush) - 10% Respondents view 	<ul style="list-style-type: none"> ◆ Social stigma 45% Respondents view ◆ Financial problems - 40% Respondents view ◆ Logistic (Staff behaviour, big rush) - 10% Respondents view 	<ul style="list-style-type: none"> ◆ Social stigma 55% Respondents view ◆ Financial problems - 30% Respondents view ◆ Logistic (Staff behaviour, big rush) - 15% Respondents view

Table 12

COMMUNITY PERCEPTION ABOUT UNMET NEEDS OF MENTAL HEALTH SERVICES

Community perception about unmet needs of mental health services	Chennai	Delhi	Lucknow
Key Informant Interviews	<ul style="list-style-type: none"> ◆ Lack of awareness programme ◆ Govt. Hospital to step up their facilities ◆ Stigma 	<ul style="list-style-type: none"> ◆ Lack of awareness programme ◆ Lack of specialists ◆ Lack of mental health services/counseling services 	<ul style="list-style-type: none"> ◆ Lack of specialists ◆ Lack of services ◆ Night accommodation for the patient's coming from the outside the city
Focus Group Discussions	<ul style="list-style-type: none"> ◆ Govt. should respond to the needs of Psychiatric patients–like services of lunatics, benefits, enhancing and equipping Govt. Hosp. With modern facilities ◆ Lack of awareness of service availability ◆ Measure to be taken to curb loss to follow up and discontinuous treatment 	<ul style="list-style-type: none"> ◆ Lack of mental health services ◆ Lack of specialists ◆ Lack of awareness 	<ul style="list-style-type: none"> ◆ Lack of mental health services ◆ Lack of specialists ◆ Lack of awareness

Table 13

SERVICE PROVIDER PERCEPTION ABOUT UNMET NEEDS OF MENTAL HEALTH SERVICES

Service provider perception about unmet needs of MHS	Chennai	Delhi	Lucknow
According to Specialized Mental Health Service Providers from Mapping of City.	<ul style="list-style-type: none"> ◆ Adequate Man Power & Service Utilization - 23% ◆ Treatment service needs e.g.: public education, counselling services – 22% ◆ Rehabilitation services (after care services) – 19% 	<ul style="list-style-type: none"> ◆ Adequate Man Power & Service Utilization 53% ◆ Treatment service needs e.g.: public education, counselling services – 30% ◆ Special group needs (De-addiction issues homeless mentally ill, domestic violence) – 17% 	<ul style="list-style-type: none"> ◆ Adequate Man Power & Service Utilization 55% ◆ Treatment service needs e.g.: public education, counselling services–15% ◆ Maximum utilization of existing services – 35%
According to service providers at treatment centres	<ul style="list-style-type: none"> ◆ Rehabilitation of mentally ill persons: 'Psychoses, especially chronic schizophrenia – 40% ◆ Reasonable cost, acute care hospitalization, lunatics are not attended, psychological health of students / adolescents/old age – 34% ◆ Alcohol and drug de-addiction centres – 26% 	<ul style="list-style-type: none"> ◆ Services for the children with psychiatric problems – 26% ◆ Alcohol and drug de-addiction services – 20% ◆ Service for mentally retarded patients – 12% 	<ul style="list-style-type: none"> ◆ Inadequate mental health services – 38% ◆ Treatment needs (Public education)– 27%
According to practitioners of Modern Medicine	<ul style="list-style-type: none"> ◆ Lack of MHS – 60% ◆ Lack of awareness - 30% ◆ Belief on faith healers - 20% 	<ul style="list-style-type: none"> ◆ Lack of MHS 36% ◆ Lack of Specialists 26% ◆ Lack of general awareness 20% 	<ul style="list-style-type: none"> ◆ Lack of MHS 42% ◆ Lack of Education -28%
According to Practitioners of Alternative System of Medicine	<ul style="list-style-type: none"> ◆ Lack of awareness - 50% ◆ Trained counsellors to be posted in different service centres -35% ◆ Open more specialized service centres in local areas - 15% 	<ul style="list-style-type: none"> ◆ Lack of MHS - 40% ◆ Lack of Specialists 30% ◆ Lack of general awareness 20% 	<ul style="list-style-type: none"> ◆ Lack of MHS - 38% ◆ Treatment needs (public education)-27%
According to Non-formal Service Providers	<ul style="list-style-type: none"> ◆ Lack of MHS 33% responses ◆ Night Accommodation for patients coming from outside Chennai - 25% response 	<ul style="list-style-type: none"> ◆ Lack of MHS 33% responses ◆ Night Accommodation for patients coming from outside Delhi - 25% response 	<ul style="list-style-type: none"> ◆ Lack of MHS 38% responses ◆ Lack of education - 27% of received responses

Strategies for Improvement

Here again, a large part of the perception is on similar lines across service providers and general community. Some of the commonly suggested strategies are awareness campaigns and increasing the number of services (Table 14, 15).

Discussion

As highlighted in the review of literature, there is lack of information on the subject of urban mental health, especially in the developing countries like India. The development of mental health services in different sectors has been, like in the general health sector, predominantly rural based. Indeed, the public policy and public health concerns have been usually for the rural areas, and understandably so. As such, the community outreach services and the national health programmes have tended to have a rural slant in the conceptualization and operation. The increasing movement towards the urban areas and the changing demography requires that the urban health services and the urban mental health services be also paid attention to. The tacit assumption of the health service needs being adequate, if not complete, in the urban areas is worth scrutinizing (Desai, 2001 and Desai & Shah, 2002). As a first step, with the public health approach, the attempt made and reported here, has been of studying the Health Service Utilization indicators, specifically Mental Health Service Gap, if any, and Human Resource Deficit. There have been no studies of this nature in large parts of the world, so the techniques and the methods used in this study have been innovative. It is appropriate to discuss some aspects of the method before discussing the results and their implications.

Discussion of the Methods

CSA Arm:

The complementary nature of assessment of information from the Current Situation Analysis (CSA) Arm and the Health Services Research (HSR) Arm is noteworthy in view of the fact that there is near total lack of systematic information on the subject. The broad range of participation from all parts of the city, at the Workshops carried out as part of the CSA Arm, with the objectives and the purpose being similar to the objectives of the HSR Arm has lent a useful supporting base for the information obtained during the research activities of the HSR Arm, which could be carried out only at a limited number of sites.

Research Sites:

The three research sites were identified, with the purpose of obtaining information from cities of different profiles. The geographical consideration has also been coupled with the size of the city, so as to be able to gain as broad a base for the information as possible.

Research Activities:

The three levels of research activities carried out have ensured that the information is comprehensive and exhaustive. The mapping exercises, both at the first level for the city and at level three for the community field areas, have been meticulous and with a success rate of more than 98%. This has helped in obtaining reliable information required for the calculation of the service load as well as the service gap.

The choice of the five treatment centres for the activities at level two, was also done with the different sectors and the socio economic strata in mind, so as to be able to obtain broad based information. The elicitation of information from the users as well as the service providers about the perception of the mental health services provides a more holistic view, and allows for understanding differences in perception, if any.

Field Methods and Tools:

The Qualitative Research Methods employed require that the rigorousness in use of these methods and the tools employed is high. The principal author has been formally trained in the use of QRM and the field research staff of all the three research sites were trained in the use of the field methods, as well as the use of the instruments at a training workshop. The correct application of the field methods was also further ensured by review meetings held with the field staff and the investigators of all the three research sites, as well as visits to the research sites by the principal author.

Estimation of the Health Service Utilization Indicators:

The estimation of the Average Service Load and the Human Resource Deficit has been meticulous and as comprehensive as possible. The mathematical formula for the estimation of the Relative Mental Health Service Gap has been sound.. In the absence of a technique for estimation of the service gap, the formula evolved and utilized here has been

Table14.

COMMUNITY PERCEPTION ABOUT STRATEGIES FOR IMPROVEMENT OF MENTAL HEALTH SERVICES FROM OTHER SOURCES

Strategies for improvement of mental health services	Chennai	Delhi	Lucknow
Key Informant Interviews (KII)	<ul style="list-style-type: none"> ◆ New medicines to be researched and medicines banned abroad should not be prescribed in India, Govt. to set up institutions like IMH in other parts of Tamil Nadu and also local dispensaries within Chennai. ◆ More awareness to the public using all available medias, public health centres to create more awareness on mental health in their local areas and have psychiatric units in their centres. 	<ul style="list-style-type: none"> ◆ Free medical services ◆ Increase number of mental health services and specialists ◆ Organize seminars, camps and other educative programmes 	<ul style="list-style-type: none"> ◆ Increase awareness by camps/media/public meetings ◆ Increase the number of services and specialists ◆ Free medical facility
Focus Group Discussions (FGD)	<ul style="list-style-type: none"> ◆ Doctors not to treat the mentally ill patients with dislike, medication to be good, privatize most govt. hospital. ◆ Employment opportunities to be open to mentally ill, employment opportunities for women so that their economic stability can be used to curb alcoholism of their spouses, fresh air and good environment. 	<ul style="list-style-type: none"> ◆ Increase awareness by media/public meetings. ◆ Increase number of mental health services and specialists ◆ Educate the people about yoga & meditation. 	<ul style="list-style-type: none"> ◆ Increase awareness by media/public meetings. ◆ Increase number of mental health services and specialists ◆ Educate the people about yoga & meditation.

innovative, although incomplete.

“Absolute Mental Health Service Gap” is the deficit of people who can be expected to need services, but are not reaching any health services, expressed in percent. This could not be done, since not all the required information was available in the Pilot Phase.

Absolute Mental Health Service Gap - The calculation of the absolute mental health service gap will require information on “b” (Total average Monthly Mental Health Service Load in the Primary Care General Health Services) and the proportion of patients in need of mental health services who reach the secondary or tertiary care level/non-mental health medical specialists, designated as ‘c’. An accurate calculation of the Absolute Mental Health Service Gap will be, as noted below:

$$\frac{X - (a \times 12) + (b \times 12) + (c \times 12)}{X} \times 100$$

Thus, the methods employed in this study have been adequate and reliable lending credence to the findings of the study and setting out robust baseline information. As

such, the conclusions drawn in this paper, from public health approach are highly relevant and useful for policy planning.

Discussion of the Results:

The distribution and availability of specialist mental health services, in the three cities, has been found to be uneven. The distribution and availability has been found to be more uniform in Lucknow, than in Chennai & Delhi. The relatively uniform distribution of the services in Lucknow can be understood in terms of the size of the city, as well as the gradient of development of different parts of the city being less steep. On the other hand, in large megalopolises of Chennai & Delhi, the distribution is found to be similar to the pattern generally seen in all health services. The more affluent and well developed sections of the city get a larger share of the services with larger availability, and the economically poorer sections and the less developed sections get less of the services in their areas. The findings about the uneven distribution and availability of the services in different parts of the city assume significance in view of the finding of the current study that the major barriers to seeking care were identified to be economic problems, and transport related problems.

Table 15.

**SERVICE PROVIDER PERCEPTION ABOUT STRATEGIES FOR
IMPROVEMENT OF MENTAL HEALTH SERVICES**

Service Provider Perception about strategies	Chennai	Delhi	Lucknow
According to specialized mental health service providers from mapping of the city.	Streamlining existing services (in terms of 5 A's - <i>Availability, Awareness, Accessibility, Affordability and Acceptability</i>) - 35% Infrastructure development - 31% Planned IEC activity – 17.3%	Streamlining existing services (in terms of 5 A's - <i>Availability, Awareness, Accessibility, Affordability and Acceptability</i>)–50% Infrastructure development - 30% Planned IEC activity – 20%	Streamlining existing services (in terms of 5 A's - <i>Availability, Awareness, Accessibility, Affordability and Acceptability</i>) – 28% Infrastructure development – 46% Planned IEC activity–10%
According to service provider treatment centres.	<ul style="list-style-type: none"> ◆ Large scale awareness campaigns – 50% ◆ Increase manpower in mental health centres– 33.33% ◆ Initiate support groups–16.67% 	<ul style="list-style-type: none"> ◆ Increase awareness camp/ seminar/ educative programmes - 55% ◆ Trained & qualified Mental Health Professionals-28% ◆ Increase number of services - 10% 	<ul style="list-style-type: none"> ◆ Increase awareness by educative programmes/ media/camps - 62% ◆ Availability of drugs at Govt. – 27%
According to Practitioners of Modern Medicine	<ul style="list-style-type: none"> ◆ Creating awareness - 50% ◆ Psychiatrists to be posted in all PHC's -35% ◆ Strengthen the individual income of the patient - 15% 	<ul style="list-style-type: none"> ◆ Organize camp/ Seminar/ Educative programs - 40% ◆ Increase number of services - 22% ◆ Increase number of specialists -20% 	<ul style="list-style-type: none"> ◆ Creating awareness - 62% ◆ Organizing camps - 20%
According to Practitioners Alternative System of Medicine.	<ul style="list-style-type: none"> ◆ Awareness programmes using all mediums - 57% ◆ Will power of the patient and his relatives need to be improved -33.12% ◆ Sensitization programs for antenatal mothers – 9.88% 	<ul style="list-style-type: none"> ◆ Organize camp/ Seminar/ Educative programs - 30% ◆ Increase number of services - 30% 	<ul style="list-style-type: none"> ◆ Increase number of services - 60% ◆ Increase awareness by educative programs/ media/camps- 46%
According to Non-formal service providers.	<ul style="list-style-type: none"> ◆ To increase awareness camp/ seminar/educative programmes - 30% responses ◆ To increase the number of Mental Health Services - 20% responses ◆ To arrange the night accommodation for the patients coming from outside Chennai- 20% responses 	<ul style="list-style-type: none"> ◆ To increase awareness camp/seminar/educative programmes - 30% responses ◆ To increase the number of Mental Health Services - 20% responses ◆ To arrange the night accommodation for the patients coming from outside Delhi - 20% responses 	<ul style="list-style-type: none"> ◆ To increase awareness by educative programmes / media / camps - 24% responses

The availability of beds, it can be argued, is not a particularly relevant indicator for mental health services since a large part of it is carried out without hospitalization. Nonetheless, it remains to be one of the important health service indicators. The availability of beds in the three cities being higher than the mean for the South East Asian Region can be considered satisfactory, although the low figure for Delhi is a cause of concern. This finding of the study, coincides with the assessment of the Regional Workshop and National Workshops, that the medically based mental health services

for acute treatment are not inadequate in Indian cities. It is the other wide range of services, it was concluded, which are inadequate and need to be focused on the development.

The findings on the human resource situation are alarming, although not surprising. It needs to be noted that since there are no official guidelines for the human resource with respect to the population, the recommendations of the National Workshop on the subject of Urban Mental Health Services have been used as the reference for calculating

the deficit. These recommendations have been made with the ground level reality in India in focus and so are pegged at the lower end of the range, as compared to the international guidelines. The human resource deficit across the board, especially for the clinical psychologists and psychiatric social workers is worthy of concern. This is all the more so, considering the mental health service needs of the urban populations to be linked with the higher prevalence of Common Mental Disorders (CMDs) in epidemiological studies (Reddy & Chandrashekhar, 1998) as well as the profile of disorders reaching the treatment centres, as evidenced in this study and the need for psychosocial methods of treatment for these disorders. The deficit in the number of psychiatrists required is also striking, especially for a city like Delhi. The deficit of 60% in Chennai, 36% in Delhi and 22 % in Lucknow is an indication of how subjective impressions can be erroneous about the “adequacy” of trained manpower in the cities. The ramifications of the out migration by professionals, and specially psychiatrists as part of the recruitment drive by the National Health Trusts of UK also raise alarming concerns in view of the already existing deficits evidenced here. The lack of any clear policy directive or initiative for addressing the issues of human resources in the health sector in general, and mental health in particular, is not likely to be of any help in correcting the deficit in the near future.

The relatively small proportion of the Average Mental Health Service Load in Specialist Mental Health Services in the NGO Sector is in line with the still emerging nature of this sector. It is noteworthy that in Lucknow, the service load is almost equally shared by the Government sector and the private sector, whereas in Chennai and Delhi, two third of the service load is carried by the government sector. The fact remains that one third to half of the service load in the specialist mental health services is carried by the private sector. This finding is in line with the assertion of the role of private sector in India (Kala, 2000). This needs to be recognized, duly supported and further encouraged. At the same time, in view of the service load carried by the government sector, the need to continue to support and strengthen this sector is also emphasized. There has been no information available on this issue till date, and so these findings have important implications for policy planning.

The relatively low proportion of the mental health service load in the government sector of the primary level general health services raises serious doubts about the usefulness of the strategy of training the medical officers and other health professionals in the government sector primary care agencies, as part of the DMHP activities .It needs to be

recognized that the strategy, may have limitations in far away districts in the rural parts, but certainly has serious limitations while employing the DMHP Model in Urban areas. It also needs to be noted that the application of the DMHP Model has remained largely restricted to rural parts, and has been tried in urban areas at not more than two or three places. The need to sensitize and train the general practitioners and family physicians in the private sector primary care services in the city has been recognized variably from time to time, but requires to be more consistently accepted and acted upon. The role of the non-formal sector providers also need to be recognized and paid attention to.

The Relative Mental Health Service Gap (proportion of persons who can be expected to be in need of services, but do not reach any specialist mental health services), being in the range of 82% to 96% is another cause for concern. The calculation of the Absolute Mental Health Service Gap is certainly desirable, and can provide a more accurate estimate, but the finding of a large service gap is inescapable. This needs to be seen in the light of the findings about barriers to accessing services. The major barriers, besides economic problems and transport related problems, are lack of awareness about the services. The need to discriminate information about the types of services available is clear. The findings reported in this paper have raised important issues about the unmet needs, mainly in terms of lack of range of mental services and toward manpower, as well as strategies to improve the utilization in terms of awareness campaigns and making them more accessible. Many of these and other above reported findings match well with the conclusions and the recommendations of the National Workshop, as part of the Current Situation Analysis.

The synchrony of the conclusions of the situation analysis and the findings of the Health Services Research Arm, lead further credibility to the results and their implications.

Limitations of the study

The limitations can be considered to be that the Health Services Research Area was carried out in only three cities, and the research activities at level 2 and 3 was only in small part of the total picture. Some assumptions and extrapolations have had to be made, particularly in the calculation of the Mental Health Service Gap.

Conclusions

The following conclusions are drawn about the Urban Mental Health Services in India, with the limitation in focus

and the constraints of generalization:

- (1) The number of psychiatry beds seems adequate but is variable
- (2) There are inequities in distribution and availability of Mental Health Services in different parts of the Urban Areas.
- (3) There is a notable Human Resource Deficit, especially for non-medical mental health professionals.
- (4) In the Specialist Mental Health Services, the Govt. Sector carries between half to two thirds of the service load, and the private sector carries one third to half of the service load. The NGO sector carries between 2 to 3 percent of the service load.

In the primary care general health services, the private sector carries a large proportion (40 – 60%) of the service load, and the Govt. Sector carries a smaller proportion. The non-formal sector providers possibly carry one third of the service load

- (5) There is a huge Mental Health Service Gap (82 – 96%) as far as Specialist Mental Health Services are concerned.

In summary, Urban Mental Health Services in India are far from being complete, and require to be attended to for gaps to be fulfilled.

Implications

The findings reported in this paper have important and far reaching implications in terms of the need for:

- (1) Assistance and facilitation of the development of mental health services in different sectors in the Urban areas.
- (2) Reorientation of the National Mental Health Programme, and the DMHP Model for the needs of the urban areas.
- (3) Active policy planning and implementation for building human resource for specialist mental health services, mainly non-medical mental health professionals.
- (4) Involvement of the private and the non-formal sector of the primary care general health services for mental health service delivery.
- (5) Recognition that there is a huge mental health service gap even in the urban areas.

- (6) Working towards strategies at various levels for improving access to services, especially at the community level.
- (7) Maintaining a different focus for the research and service planning of Urban Mental Health Services, to be different in the developing countries in comparison to the developed countries.
- (8) Carrying out more Health Services Research (HSR) and public health oriented research.
- (9) Encouraging specific clinical and social service research exercises targeted at specific objectives.
- (10) Avoiding the assumption that Urban Mental Health Services are complete.

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References

APEC, Asia-Pacific Economic Cooperation (2000) Healthy futures for APEC Megacities. Vol. I Summary report of a Foresight project. The APEC Centre for Technology Foresight, National Science and Technology Development Agency, Bangkok.

Awofeso N. (2003) The Healthy cities approach – reflections on a framework for improving global health. *Bulletin of the World Health Organization* 81(3): 222-223.

Bellack A.S. & Herisen M. (1998) *Comprehensive Clinical Psychology*, Vol. III, Research & Methods. Pergamon, UK.

Bhattacharya P.C. (2002) Urbanization in developing countries. *Economic and Political weekly*, 4219-4228, October 12, 2002.

Coreil J. (1997) Health Behaviour in Developing Countries. In: *Handbook of Health Behaviour Research*, (Ed. Gochman), Plenum Press, New York Vol. 3; 179-198.

Curtice L., Springett J. & Kennedy A. (2001) Evaluation in urban settings: the challenges of healthy cities. In: *Evaluation in Health Promotion* (Eds. Rootman et al.), WHO Regional Publication, European Services No. 92, 309-334.

Desai N.G. (2001) A critical appraisal of the National Mental Health Programmes. Paper at the Symposium on World Health Report 2001: Indian Perspective, Ministry of Health & Family Welfare and DGHS, October 2001.

Desai N.G. & Shah B. (2002) Approach paper for workshop on Urban Mental Health (ICMR-WHO Project). Presented at the regional workshops at Mumbai, Chennai, Lucknow & Ranchi and National Workshop at New Delhi.

Desai N.G., Shah B., Singh R.A., Nambi S., Trivedi J.K. & Tiwari S.C. (2003) Current Situation Analysis of Urban Mental Services in India. Report of WHO-ICMR Workshops, Delhi.

Desjarlais R., Eisenberg L., Good B. & Kleinman A. (1995) *World Mental Health: Problems and Priorities in low-income countries*, New York: Oxford University Press.

Harpham T. (1994) Urbanization & mental health in developing countries: a research role for social scientists, public health professionals & social psychiatrists in *Social Sciences & Medicine* Vol. 39, No.2, Pages. 233-245.

Harpham T. & Blue I. (Eds.) (1995) *Urbanization & mental health in developing countries*, Avebury Aldershot.

Harpham T. & Tanner M. (Eds.) (1995) *Urban Health in Developing Countries: Progress and Prospects*, Earthscan Publications, London.

Kala A.K. (2000) Developments in private sector psychiatry. In: *Mental health in India*. (Ed. Murthy RS), PAMH, Bangalore.

Murthy R.S. (2000) Reaching the unreached. *The Lancet Perspective*, 356: 39.

Reddy M.V. & Chandrashekhar C.R. (1998) Prevalence of Mental and Behavioural Disorders in India: A meta-analysis. *Indian Journal of Psychiatry* 40: 149-157.

Tabibzadeh I., Rossi-Espagnet A. & Maxwell A (1989) Spotlight on the cities: Improving Urban Health in developing countries: WHO.

Trivedi J.K. (2002) Urbanization and mental health: a new challenge (editorial). *Indian Journal of Psychiatry*, 44(1): 1-2.

WHO (2000) *Healthy Cities in Action: 5 Case studies from Africa, Asia, Middle East and Latin America*. WHO/UNDP-LIFE Healthy City Projects in Five Countries: An Evaluation. Development of Protection of the Human Environment, WHO, Geneva.

World Health Report (2001) World Health Organization, Geneva.

WHO (2001a) *Atlas: Country Profiles on Mental Health Resources*. World Health Organization, Geneva.