A CENSUS OF LONG-STAY PATIENTS IN GOVERNMENT MENTAL HOSPITALS IN INDIA

M. VENKATASWAMY REDDY

ABSTRACT

A single day census found that long-stay patients (LSP) numbering 7,307 accounted for about 48% of the total inpatient strength of 15,345 in government mental hospitals in India. A load of 2695 (37%) LSP were in two to five years duration of stay, 2782 (38%) were in five to fifteen years duration of stay, and the remaining 1830 (25%) were staying for more than fifteen years. About 11% of LSP were aged sixty years and above, majority (53%) were males, non-voluntary cases constituted 80%. and more than two-thirds (69%) were schizophrenics. The characteristics distributions associated with high rates of LSP at individual hospitals were identified. The load of LSP was decreased by 9% during the period from 1993 to 1999.

Key words: Census, long-stay patients, government mental hospitals, national indicators

Sufficient data on long-stay patients (LSP) in government mental hospitals were lacking in India, though certain informations about some individual hospitals or a small group of hospitals have been reported (Sathyavathi and Sundararaj, 1996; Bhaskaran, 1970; Gupta et al., 1980; Somasundaram et al., 1982). Two major studies (Sharma et al., 1996; NHRC, 1999) have reported number of LSP at individual hospitals. This paper is based on data collected from all government mental hospitals with the main objectives of determining the load, characteristics distributions and trends of LSP. Also, each hospital indicators were compared with the national indicators in order to identify the characteristics and trends associated with high rates of LSP at individual hospitals.

MATERIAL AND METHOD

A questionnaire was designed incorporating the number of inpatients, and the number of long-stay patients (staying for two years and above) and their characteristics distributions on duration of stay, age, gender, mode of admission and diagnoses. The questionnaire was mailed to all the government mental hospitals with a request to send the requisite information. All the hospitals have responded to the request by conducting a census on a particular day and sending the informations of their respective institutions. Most of the census were conducted during the year 1999. As the load and characteristics distributions of LSP do not grossly change during a period of six months, it could be assumed that first July 1999 is the date of census of the present study.

Presentation and analysis of observations

Thirty six mental hospitals run by seventeen state governments, the central government, and autonomous bodies funded by central/state governments, constituted the mental health delivery system by government mental hospitals in India. There were 15,345 inpatients out of which 7,307 were staying for two years and above. Hence, 48% of inpatients were LSP. The distributions of these LSP according to the five...
M. VENKATASWAMY REDDY

Basic characteristics are presented in Table 1. It can be derived from the table that 4612 (63%) of LSP have stayed for five years and above, and 1830 (25%) have stayed for more than fifteen years. About 49% of LSP were in the age group of 20-39 years, 40% were in the age group of 40-59 years and the remaining 11% were aged sixty years and above. The majority (53%) were males. The certified cases (67%), observation cases (9%) and patients with criminal records (4%) put together accounted for 80% for non-voluntary LSP. About 5% have organic psychoses, 69% were schizophrenics, 7% were affective disorders, 9% were mentally retarded and the remaining 10% included psychoses associated with either epilepsy or severe behavioural disturbances.

The number of inpatients, and the number and rate of LSP for individual hospitals are presented in Table 2. There was a wide variation in the loads of LSP among the government mental hospitals during the year 1999, ranged from 2 LSP at Calcutta IP hospital to 1848 LSP at the regional hospital Pune. The four regional hospitals in Maharashtra state constituted 3231 LSP, and accounted for about 44% of LSP in the whole country. Eleven hospitals had significantly (p<0.05) high rates of LSP when compared with the national indicator of 48%, as shown in the table. They were the hospitals at Purulia (92%), Srinagar (90%), Amritsar (76%), Pune (73%), Baroda (72%), Calcutta CPH (70%), Indore (68%), Bareilly (66%), Ahmedabad (61%), Nagpur (60%) and Kozhikode (56%).

The characteristics distributions of LSP according to the duration of stay, age and gender for individual hospitals are presented in Table 3. It can be counted that two hospitals (at Hyderabad and Nagpur) had significantly high proportion of cases staying for fifteen years and above, and also had significantly high proportion of cases aged sixty years and above. On the other hand, five hospitals (at Ahmedabad, Srinagar, Trivandrum, Pune and Calcutta LPMH) had significantly high proportion of cases in the 2-5 years duration of stay, and also had significantly high proportion of cases in the young age group of 20-39 years. Two hospitals (at Kozhikode and Varanasi) had significantly high proportion of cases in the 5-15 years duration of stay, and also had significantly high proportion of cases in the age group of 40-59 years.

The hospital at Varanasi had the highest proportion (82%) of males followed by the hospital at Srinagar (81%). On the other hand, the hospital at Kohima had the lowest proportion (22%) of males followed by NIMHANS at Bangalore (25%). Further, it can be noted that all the three hospitals in Kerala had significantly high proportion of males.

The characteristics distributions of LSP according to their mode of admission and diagnoses for individual hospitals are presented in Table 4. The NIMHANS at Bangalore had the highest proportion (98%) of voluntary (Vol.) cases of LSP followed by the hospital at Srinagar (89%). Further, the hospitals in Andhra Pradesh,
LONG - STAY PATIENTS IN MENTAL HOSPITALS

### Table 2
**NUMBER OF INPATIENTS (IP) AND NUMBER AND RATE OF LONG-STAY PATIENTS (LSP) AT GOVERNMENT MENTAL HOSPITALS**

| States & names of hospitals | P | LSP | % |
|-----------------------------|---|-----|---|
| All hospitals               | 15,345 | 7307 | 48 |
| Andhra Pradesh              |   |     |   |
| - Institute of Mental Health, Hyderabad | 386 | 71 | 18 |
| - Institute of Mental Health, Visakhapatnam | 300 | 20 | 7 |
| Assam                       |   |     |   |
| - LGB Institute of Mental Health, Tezpur | 353 | 103 | 29 |
| Bihar                       |   |     |   |
| - Ranchi Institute of Neuro-Psychiatry & Allied Sciences, Ranchi | 543 | 191 | 35 |
| - Central Institute of Psychiatry, Ranchi | 360 | 99 | 28 |
| Delhi                       |   |     |   |
| - Institute of Human Behaviour & Allied Sciences, Delhi | 140 | 44 | 31 |
| Goa                         |   |     |   |
| - Institute of Psychiatry & Human Behaviour, Panaji | 150 | 80 | 53 |
| Gujarat                     |   |     |   |
| - Hospital for mental Health, Ahmedabad | 402 | 247 | 61* |
| - Hospital for mental Health, Baroda | 181 | 131 | 72* |
| - Hospital for mental Health, Jamnagar | 55 | 8 | 15 |
| - Hospital for mental Health, Bhuj | 25 | 7 | 28 |
| Jammu & Kashmir             |   |     |   |
| - Psychiatric Diseases Hospital, Srinagar | 100 | 90 | 90* |
| Karnataka                   |   |     |   |
| - National Institute of Mental Health & Neuro Sciences, Bangalore | 364 | 56 | 15 |
| - Karnataka Institute of Mental Health, Dharwad | 296 | 84 | 28 |
| Kerala                      |   |     |   |
| - Government Mental Health Centre, Trivandrum | 774 | 305 | 39 |
| - Government Mental Health Centre, Trissur | 382 | 61 | 16 |
| - Government Mental Health Centre, Kozhikode | 685 | 381 | 56* |
| Madhya Pradesh              |   |     |   |
| - Gwalior Mansik Arogyashala, Gwalior | 192 | 38 | 20 |
| - Mental Hospital, Indore   | 157 | 107 | 68* |
| Maharashtra                 |   |     |   |
| - Regional Mental Hospital, Thane | 1744 | 835 | 48 |
| - Regional Mental Hospital, Pune | 2540 | 1848 | 73* |
| - Regional Mental Hospital, Nagpur | 786 | 470 | 60* |
| - Regional Mental Hospital, Ratnagiri | 183 | 78 | 43 |
| Nagaland                    |   |     |   |
| - Mental Hospital, Kohima   | 21 | 9 | 43 |
| Punjab                      |   |     |   |
| - Punjab Mental Hospital, Amritsar | 415 | 314 | 76* |
| Rajasthan                   |   |     |   |
| Psychiatric Centre, Jaipur  | 312 | 56 | 18 |
| Tamil Nadu                  |   |     |   |
| - Institute of Mental Health, Chennai | 1657 | 692 | 42 |
| Uttar Pradesh               |   |     |   |
| - Agra Marasik Arogyashala, Agra | 459 | 142 | 31 |
| - Mental Hospital, Varanasi | 258 | 133 | 52 |
| - Mental Hospital, Bareilly | 292 | 192 | 66* |
| West Bengal                 |   |     |   |
| - Calcutta Pavlov Hospital, Calcutta | 251 | 175 | 70* |
| - Lumbini Park Mental Hospital, Calcutta | 129 | 60 | 47 |
| - Institute of Psychiatry, Calcutta | 36 | 2 | 6 |
| - The Menta Hospital, Mankundu | 106 | 10 | 9 |
| - Berhampore Mental Hospital, Berhampore | 214 | 79 | 37 |
| - Institute for Mental Care, Purulia | 97 | 89 | 92* |
### TABLE 3
CHARACTERISTIC DISTRIBUTIONS OF DURATION OF STAY, AGE AND GENDER OF LONG STAY PATIENTS AT GOVERNMENT MENTAL HOSPITALS (FIGURES IN %)

| Hospitals at (LSP) | Duration of stay | Age (years) | Males |
|-------------------|-----------------|-------------|-------|
|                   | 2-5             | 5-15        | 15    | 20-39 | 40-59 | 60 & above | |
| All hospital (7307) | 37              | 38          | 25    | 49    | 40    | 11         | 53 |
| Hyderabad (711)    | 25              | 23          | 52*   | 25    | 28    | 47*        | 58 |
| Vishakapatnam (20) | 70*             | 25          | 5     | 55    | 40    | 5          | 65 |
| Tezpur (103)       | 51*             | 22          | 27    | 56    | 31    | 13         | 72* |
| Ranchi (191)       | 19              | 51*         | 30    | 44    | 42    | 14         | 61* |
| Ranchi CIP (99)    | 8               | 28          | 64*   | 24    | 52*   | 24*        | 54 |
| Delhi (44)         | 27              | 21          | 52*   | 50    | 39    | 11         | 52 |
| Panaji (80)        | 26              | 41          | 33    | 47    | 34    | 19*        | 53 |
| Ahmedabad (247)    | 47*             | 37          | 16    | 57*   | 35    | 8          | 77* |
| Baroda (131)       | 36              | 32          | 32    | 45    | 48    | 7          | 57 |
| Jamnagar (8)       | 68*             | 12          | --    | 62    | 38    | --         | 50 |
| Bhuj (7)           | 72              | 14          | 14    | 57    | 43    | --         | 57 |
| Srinagar (90)      | 67*             | 28          | 6      | 91*   | 9     | 9          | 81* |
| Bangalore (56)     | 32              | 36          | 32    | 48    | 36    | 16         | 25 |
| Dharwad (84)       | 10              | 41          | 49*   | 45    | 44    | 11         | 50 |
| Trivandrum (305)   | 66*             | 29          | 5     | 62*   | 34    | 4          | 66* |
| Trissur (61)       | 33              | 46          | 21    | 31    | 44    | 25*        | 56* |
| Kozhikode (381)    | 50*             | 46*         | 4     | 43    | 49*   | 8          | 67* |
| Gwalior (38)       | 37              | 55          | 8     | 61    | 39    | --         | 42 |
| Indore (107)       | 21              | 49          | 30    | 64*   | 28    | 8          | 43 |
| Than (335)         | 35              | 35          | 30*   | 42    | 44*   | 14*        | 44 |
| Pune (1848)        | 47*             | 36          | 17    | 61*   | 32    | 7          | 37 |
| Nagpur (470)       | 31              | 34          | 35*   | 42    | 42    | 16*        | 52 |
| Ratnagiri (78)     | 19              | 45          | 36*   | 50    | 41    | 9          | 69* |
| Kohima (9)         | 67              | 33          | --    | 67    | 33    | --         | 22 |
| Amritsar (314)     | 22              | 39          | 39*   | 23    | 58*   | 19*        | 64* |
| Jaipur (56)        | 39              | 46          | 15    | 46    | 43    | 11         | 45 |
| Chennai (692)      | 23              | 43*         | 34*   | 39    | 48*   | 13         | 62* |
| Agra (142)         | 16              | 42*         | 42*   | 36    | 49    | 15         | 51 |
| Varanasi (133)     | 19              | 47*         | 34*   | 32    | 53*   | 15         | 82* |
| Bareilly (192)     | 43              | 41          | 18    | 68*   | 30    | 2          | 48 |
| Calcutta CPH (175) | 16              | 73*         | 11    | 57    | 41    | 2          | 62* |
| Calcutta LPMH (60) | 53*             | 45          | 2     | 70*   | 27    | 3          | 60 |
| Calcutta IP (2)    | 50              | 50          | --    | 50    | 50    | --         | 50 |
| Mankundu (10)      | 60              | 30          | 10    | 50    | 50    | --         | 70 |
| Berhampore (79)    | 46              | 35          | 19    | 44    | 51    | 5          | 46 |
| Purulia (69)       | 16              | 10          | 74*   | 9     | 55*   | 35*        | 67* |

Assam, Bihar, Goa, Jammu & Kashmir, Karnataka and Kerala had significantly high proportion of voluntary cases. All the LSP in four hospitals (at Baroda, Jamnagar, Bhuj and Calcutta CPH) were certified cases. Six hospitals (at Calcutta IP, Jaipur, Agra, Thane, Panaji and Kozhikode) had significantly high proportion of observation (Obs) cases. Similarly, six hospitals (at Varanasi, Trivandrum, Purulia, Tezpur, Trissur and Amritsar) had significantly high proportion of criminal (Cri) patients.

Five hospitals (at Nagpur, Trissur, Ranchi CIP, Kozhikode and Baroda) had significantly high proportion of organic psychoses (OP) cases. Seven hospitals (at Kozhikode, Trivandrum, Ranchi CIP, Srinagar, Varanasi, Calcutta LPMH and Bareilly) had significantly high proportion of affective disorders (AD) cases. Six hospitals (at Indore, Chennai, Ratnagiri, Dharwad, Tezpur and
as shown in table 5.

The data on the number of LSP for the year 1993 were collected in a survey to study the summary trends of mental health delivery system by government mental hospitals (Reddy et al., 1996). This information is used to study the trends of LSP during the period from 1993 to 1999, as shown in table 5.

### Table 4

| Hospitals at (LSP)  | Mode of admission | Diagnoses |
|---------------------|-------------------|-----------|
|                     | Vol   | Cer   | Obs   | Cri  | OP  | Schi | AD  | MR  | Oth  |
| All hospitals (7307)|       |       |       |      |     |      |     |     |      |
| Hyderabad (171)     | 63*   | 17    | 9     | 4    | 5   | 69   | 7   | 9   | 10   |
| Vishakapatnam (20)  | 60*   | 40    | -     | -    | 5   | 50   | 10  | 20  | 15   |
| Tezpur (103)        | 56*   | 33    | -     | 11*  | 5   | 76   | -   | 18* | 1    |
| Ranchi (191)        | 78*   | 19    | 1     | 2    | 4   | 78*  | 4   | 6   | 8    |
| Ranchi CIP (99)     | 75*   | 25    | -     | -    | 11* | 50   | 26* | 9   | 4    |
| Delhi (44)          | 25    | 68    | -     | 7    | -   | 80   | 2   | 2   | 16   |
| Panaji (60)         | 74*   | -     | 26*   | -    | 1   | 80*  | 5   | 11  | 3    |
| Ahmedabad (247)     | 1     | 98*   | -     | 1    | -   | 91*  | 4   | -   | 5    |
| Baroda (131)        | -     | 100*  | -     | -    | 9*  | 78*  | 9   | 2   | 2    |
| Jamnagar (8)        | -     | 100*  | -     | -    | -   | 75   | 12  | 12  | -    |
| Bhuj (7)            | -     | 100   | -     | -    | -   | 100  | -   | -   | -    |
| Srinagar (90)       | 89*   | 11    | -     | -    | 2   | 72   | 25* | 1   | -    |
| Bangalore (56)      | 98*   | 2     | -     | -    | -   | 66   | 12  | 11  | 11   |
| Dharwad (84)        | 53*   | 38    | 4     | 5    | -   | 67   | 3   | 19* | 11   |
| Trivandrum (305)    | 76*   | -     | -     | 24*  | -   | 62   | 27* | 5   | 6    |
| Trissur (61)        | 44*   | 46    | -     | 10*  | 12* | 70   | 3   | 15  | -    |
| Kozhikode (381)     | 66*   | 13    | 18*   | 3    | 10* | 47   | 29* | -   | 14   |
| Gwalior (38)        | 42*   | 58    | -     | -    | 10  | 51   | -   | 29  | -    |
| Indore (107)        | 1     | 95*   | -     | 4    | -   | 45   | 1   | 33* | 21*  |
| Thane (835)         | 3     | 49    | 47*   | 1    | 1   | 59   | 7   | 7   | 26*  |
| Pune (1848)         | 2     | 95*   | -     | 3    | 5   | 75*  | 1   | 8   | 11   |
| Nagpur (470)        | -     | 99*   | -     | 1    | 19* | 62   | 2   | 14* | 3    |
| Raipur (78)         | 3     | 97*   | -     | -    | 8   | 69   | -   | 23* | -    |
| Kohima (9)          | 22    | 78    | -     | -    | -   | 89   | -   | 11  | -    |
| Amritsar (314)      | 1     | 89*   | -     | 10*  | -   | 76*  | 11  | 4   | 9    |
| Jaipur (50)         | 23    | -     | 77*   | -    | -   | 95*  | -   | 5   | -    |
| Chennai (692)       | 22    | 70    | 6     | 2    | 7   | 63   | 1   | 26* | 3    |
| Agra (142)          | 7     | 32    | 61*   | -    | -   | 97*  | 2   | 1   | -    |
| Varanasi (133)      | 2     | 40    | -     | 58*  | -   | 44   | 19* | 6   | 31*  |
| Bareilly (192)      | 6     | 94*   | -     | -    | -   | 81*  | 15* | 4   | -    |
| Calcutta CPH (175)  | -     | 100*  | -     | -    | 11  | 70   | 15  | -   | 4    |
| Calcutta LPMH (90)  | 55*   | 45    | -     | -    | 2   | 62   | 17* | 3   | 16   |
| Calcutta IP (2)     | -     | -     | 100*  | -    | -   | 50   | -   | -   | 50   |
| Mankundu (10)       | 70*   | 30    | -     | -    | -   | 100  | -   | -   | -    |
| Berhampore (79)     | 18    | 78*   | 4     | -    | 6   | 67   | 8   | 11  | 8    |
| Pune (50)           | 1     | 84*   | -     | 16*  | 1   | 87   | 2   | 6   | 4    |

Nagpur had significantly high proportion of mental retarded (MR) cases.

For the group of thirty-six mental hospitals, there were 7988 LSP during the year 1993. Thus, there was a decrease of 681 (9%) LSP during the period of seven years. It can be noted that the hospital at Thane had the highest number (182) of increase of LSP followed by the hospital at Kozhikode (151). But the highest rate of increase was reported for the hospital at Berhampore followed by the hospital at Srinagar.
Both the hospitals in Madhya Pradesh were increased the number of LSP during the period.

In conclusions, the long stay admissions are necessary only for a small group of patients who are non-responders to treatment or have several associated disabilities. For the majority, long duration of stay in the hospitals is not only a burden on the state, but more importantly detrimental to the patients and their families. The Purulia centre had the highest rate of LSP. This institute was started functioning after receiving mental patients from Alipore central jail, Calcutta. Thereafter patients from the two institutes at Ranchi were transferred to this hospital.

The long-stay patients occupied more than seven thousand valuable hospital beds consuming a significant share of meager resources which otherwise could be of immense help to many poor patients. The regional hospital at Pune had accounted for about 25% of LSP in
the country. At this hospital, patients from eleven districts were admitted and due to long distances in time and space, patients tended to cluster in the long-stay categories.

The 7307 LSP in this system represented about 0.7 per one lakh population. Based on the population projection of India (RGI, 1996), the representation for the age sixty years and above can be worked out at 1.1 per one lakh population. As in the case of general population, males were the majority in LSP in this system.

The major mental hospitals at Pune (with 1848 LSP), Thane (835) and Chennai (692) put together accounted for about 46% of the total LSP in this system. The national indicators of LSP in this system may be unduly effected by the hospital indicators in these three major hospitals. But none of the hospital indicators was significantly high in all these three hospitals, indicating the internal stability of the national indicators.

The rates of LSP were 60%, 56% and 51% for the year 1977, 1983 and 1993 respectively (Reddy et al., 1996). It was decreased to 48% for the year 1999 means that there is a linear decreasing trend of the rate in this mental health care system. This is mainly due to the implementation of national mental health policy and mental health act 1987. This has given rise to development of community mental health at district level in some of the states.

In the absence of determining the optimum indicators for LSP in this system, the national indicators may serve as optimum values. The hospital indicators and trends which were significantly high may aid in planning rehabilitation facilities and services, and sets the guidelines for discharge procedures in order to make the inpatient service more effective with the existing bed strength. This report may also serve as a baseline data for evaluating the services rendered by this system at national and individual hospital levels.

ACKNOWLEDGEMENT

The author is grateful to Dr. S. M. Channabasavanna, Professor Emeritus in Psychiatry and former Director/Vice-Chancellor of NIMHANS Bangalore for his kind encouragement and useful suggestions, and to the Directors/ Superintendents/Administrators/Officer incharge of research, at government mental institutions for conducting census and providing the requisite informations of their respective hospitals.

REFERENCES

Bhaskaran, K. (1970) The unwanted patient. Indian Journal of Psychiatry, 12, 1-12.

Gupta, S.P., Yadav, B.S., Bharadwaj, R.C. & Sharma, R.P. (1980) Psycho-social problems of long-stay mental patients. Indian Journal of Psychiatry, 22, 251-255.

National Human Rights Commission (1999) Quality assurance in mental health. New Delhi: NHRC.

Reddy, M.V., Kaliaperumal, V.G. & Channabasavanna, S.M. (1996) Mental health delivery system by government mental hospitals in India: trends during 1977-1993. NIMHANS Journal, 14, 219-222.

Registrar General of India (1996) Population projections of India and States 1996-2016. New Delhi: RGI.

Sathyavathi, K. & Sundararaj, N. (1966) Long-stay patients in mental hospitals in India. Transactions of All India Institute of Mental Health (NIMHANS), 6, 28-39.

Sharma, S. & Chadda, R.K. (1996) Mental hospitals in India: current status and role in mental health care. New Delhi: Institute of Human Behaviour and Allied Sciences.

Somasundaram, O., Jayachandran, P. & Kumar, R. (1982) Long-stay patients in a state mental hospital. Indian Journal of Psychiatry, 24, 346-351.

M VENKATASWAMY REDDY. PhD. Additional Professor of Biostatistics, National Institute of Mental Health & Neuro Sciences (NIMHANS), Bangalore - 560 029.