

IAMR Report No. 2/1966

MANPOWER SURVEY  
HEALTH AND MEDICAL MANPOWER

STOCK OF ALLOPATHIC DOCTORS IN INDIA



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INSTITUTE OF APPLIED MANPOWER RESEARCH  
INDRAPRASTHA ESTATE, RING ROAD  
NEW DELHI

and

NATIONAL INSTITUTE OF HEALTH ADMINISTRATION  
AND EDUCATION, PATIALA HOUSE,  
NEW DELHI

September, 1966

The Institute of Applied Manpower Research was set up in 1962 by the Government of India to conduct research on problems of manpower planning. The main objects of the Institute are:-

- To advance knowledge about the nature, characteristics and utilisation of the human resources in India.
- To provide a broad perspective of requirements of trained manpower for economic development in different fields with due regard to the probable impact of technological changes on the pattern of employment.
- To develop improved methods and techniques for dealing with:-

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development of the existing work

preparation for employment;

ce;

developing highly talented

and supply of manpower  
centers.

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## FOREWORD

This Working Paper sets out the results of one of a series of studies forming part of the Health and Medical Manpower Survey. This survey is one of the major projects of the Institute of Applied Manpower Research undertaken in collaboration with the National Institute of Health Administration and Education to help various planning bodies to assess the availability and further needs of Health and Medical Personnel during the Fourth and subsequent plan periods. The survey aims at a comprehensive coverage of all medical and health manpower, viz., Doctors (Allopaths, Ayurveds, Homeopaths and other), Nurses, Dentists, Pharmacists, Para-medical and Auxiliary medical personnel.

2. The scope of this survey was set out in a pamphlet entitled "Health and Medical Manpower Survey, Memorandum" (IAMR Working Paper No. 3/1964). The study commenced in August, 1964. A programme Sub-committee consisting of (i) Shri P. K. Das, Director, Institute of Applied Manpower Research, (Chairman); (ii) Shri G. Jagathpathi, Director, Directorate of Manpower, Ministry of Home Affairs; (iii) Dr. K. N. Rao, Director General of Health Services, Ministry of Health and Family Planning; (iv) Dr. N. Junglawala, Additional Director General of Health Services, Ministry of Health and Family Planning; (v) Dr. D. Bhatia, Family Planning Commissioner, Ministry of Health and Family Planning, and (vi) Shri Pitambar Pant, Chief, Perspective Planning Division, Planning Commission is responsible for laying down the design of the survey and progressing it from time to time.

3. On the basis of data collected and analysed at the Institute, a working paper was circulated in draft form to interested organisations/individuals for eliciting comments. Useful comments on this paper were received from the South-East Asia Regional Office of the World Health Organisation (New Delhi), the Medical Council of India and the Directorate of Manpower of the Ministry of Home Affairs. This report incorporates these comments as well as suggestions made by members of the Programme Sub-committee in its meeting held on 19th September, 1966.

4. Estimates of stock of "doctors" in India are not available from any one single source. There are several sources, each of which gives a partial picture of available medical manpower. This study brings together all available information on the number and distribution of doctors and an estimate has been made of the stock of doctors for the latest period together with their distribution by age, sex, rural and urban residence, etc.

5. The original draft of this working paper was prepared by Shri R. Ramalinga Iyer, a former Senior Research Officer, of the Institute under the guidance of Dr. S. Krishnaswamy Rao, Adviser to IAMR on the Health and Medical Manpower Survey and Professor of Public Health Administration National Institute of Health Administration and Education, S/Shri Y. L. Ahuja, S. K. Sinha, T. V. Ramamurthy, Rukan Singh, and J. N. Goel of the Institute of Applied Manpower Research assisted in the collection of the data from different sources and their analysis and tabulation.

6. The results set out in this paper present the best estimates that can be formed by getting together information from a number of sources each of which is affected by incompleteness in some particulars and deficiencies in others. It is believed, however, that they are good enough to be accepted as a working basis for the present.

P. K. Das  
Director

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## SECTION I

### INTRODUCTION AND SUMMARY OF FINDINGS

Estimates of the stock of 'Doctors' in India are not available from any single source. There are several sources each of which gives a partial picture of the available medical manpower. Attempts have been made earlier to arrive at the best possible estimate of the stock of doctors in India at a particular time\*. The object of this study is to bring together all the available information on the number and distribution of "Doctors" and then to arrive at a firm estimate of the stock of doctors as at the end of 1964, together with their distribution by sex, age, rural and urban residence, etc.

#### Definition of doctors:

2. In this paper the term "doctor" includes only those who have a licentiate, graduate or post-graduate degree in allopathic medicine i. e. western system of medicine; those who have diplomas or degrees in other systems of medicine are covered in a separate study. The term 'active doctors' has been used in the paper to refer to the number of doctors after making necessary adjustment for persons in the age group 60+ who are not likely to be active in the profession. In other places where the word 'active' does not occur, all the doctors irrespective of age have been taken into account.

#### Source of data:

3. Information on the number and distribution of doctors by various characteristics is available from the following sources:

1. Estimates of doctors made by the Perspective Planning Division and Health Division of the Planning Commission.
2. Census of India —1961.

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\* Planning Commission, 1951  
Perspective Planning Division, Doctors in India,  
A Statistical Study, Manpower Study No. 15.

3. Occupational pattern studies of the Directorate General of Employment and Training (D. G. E. and T.).
4. Registration data available with the All-India Medical Council and the State Medical Councils.
5. Out-turn of licentiates and graduates from Medical Educational Institutions.
6. Data on the cards maintained by the National Register Unit of the Council of Scientific and Industrial Research (C. S. I. R.).

4. The data on the stock of doctors and their distribution by State, age, qualifications, etc., available from each of these sources, excepting the National Register Unit of the Council of Scientific and Industrial Research have been analysed and an attempt has been made to arrive at the best possible estimate of the stock of doctors in India at the end of 1964 by pooling together the information available from these sources. In certain sections data for Gujarat and Maharashtra are presented together and in others they are presented separately. In Sections II-VI of the Working Paper, data available from these different sources have been tabulated and analysed. In Section VII, an attempt has been made to put together all the data and arrive at an acceptable estimate of the stock of doctors.

Perspective Planning Division Estimates:

5. The Perspective Planning Division estimated the total stock of doctors in 1956 as 71,600, based on the State Medical Registers consisting of 4,100 specialists, 29,100 graduates and 38,400 licentiates. The stock at the end of 1964, based on the total stock in 1956 after allowing for mortality and adding the net out-turn during 1957-64, is nearly 88,000. Of these about 30,000 are licentiates.

Estimates based on Census of India-1961:

6. According to the occupational classification tables of the Census of India, 1961, there were 96,458 doctors in India, consisting of 87,900 men and 8,500 women doctors. There were 10 women doctors for every hundred men doctors at the all-India level. The maximum number of women doctors per hundred men doctors was in Madras (24),

followed by Delhi (21), Maharashtra (18) and Jammu and Kashmir (15) and the least in Assam (2), West Bengal with the maximum number of doctors in any State had only 4 women doctors for every hundred men doctors.

7. At the all-India level there were 220 doctors for every million population in 1961. Of these, 200 were men doctors and only 20 were women doctors. In the urban areas there were 825 doctors consisting of 730 men and 95 women for every million population. In the rural areas, there were 88 doctors for every million population, consisting of 85 men doctors and 3 women doctors. The maximum number of doctors was in Delhi, Tripura and West Bengal.

8. A significant correlation has been noticed between doctor-population ratios and the percentage of population working in manufacturing industries and construction in districts of majority of States. This indicates that developed districts have a better availability of doctors.

9. Of the total number of 331 districts including Union Territories, in 136 districts the number of doctors per million population is less than 100. In 100 districts the ratio varies from 100-199. In 45 districts there were 200-299 doctors per million population, and in 18 it varies from 300-399. Only in 32 districts the number of doctors per million population was more than 400.

10. After allowing for mortality and adding the net-institutional out-turn during 1961-64 to the stock of doctors in 1961, it is estimated that the stock of doctors in 1964 is 108240, consisting of 95901 men and 12339 women doctors. Nearly 39% of these doctors are less than 34 years old. Only 27% of these doctors are older than 49 years. The total number of 'active' doctors is estimated as nearly 100000.

11. Of the hundred thousand active doctors about 84,000 are working as professionals, 4,000 as administrators and executives and 8600 as teachers and the balance in other activities such as trade representatives, etc.

Estimates based on Occupational Pattern Studies of D. G. E. and T.:

12. Based on Occupational Pattern Studies of Directorate General of Employment and Training, the Public Sector (1962) and Private Sector

(1961), it is estimated that there are 47,000 doctors in organised establishments of the Public and Private Sectors. Of this, 40,000 are employed in the public sector and the balance employed in the private sector.

Estimates based on Out-turn data of Medical Educational Institutions:

13. Up to 1964 the net-institutional out-turn of graduate doctors from medical educational institutions is 57,188, consisting of 46,912 men and 10,276 women. Of this 35% are in the age-group 25-29 and 31% are in the age-group 30-39. Only 10% of the total stock are aged more than 50 years of age. The number of "active" doctors among the 57,188 graduate doctors is 55,899, consisting of 45,665 men and 10,234 women. In estimating the number of active doctors, 50% of those who are aged 60 years and above have been taken as 'active doctors.

Estimates based on Registration data with Medical Council of India:

14. One of the prime functions of Medical Council of India is to compile and maintain an all-India medical register on the basis of the registration made in the State Medical Registers of the respective State Medical Councils. There are 85,000 doctors registered in the State Medical Registers at the end of 1964. Of these 85,000 were men doctors and 10,000 were women doctors. Forty per cent of these doctors were under-graduates, 57% were graduates and only 3% were post-graduates.

Conclusions:

15. The data available from the above mentioned sources on the stock of doctors were analysed. Taking into account the coverage of each of these studies and bringing the stock position uptodate by adding the outturn data of medical educational institutions for the relevant years, the conclusion arrived at is that the true stock of doctors as at the end of 1964 should be very close to the registration data of the Medical Council of India (1964) and the estimate based on updating the Census of India data (1961) with educational outturn data. Earlier registration figures of the Medical Council of India had been considered inadequate.

However of late, this coverage has improved considerably. In the absence of more detailed studies to locate whether the Medical Council registration figures cover fully the stock of doctors, it is estimated for purposes of this report that the stock of active doctors is between 95,000 and 100,000. The total stock is estimated at around 108,000 consisting of 96,000 men doctors and 12,000 women doctors. Of these, 72,000 are in the urban areas and 36,000 are in the rural areas.

16. Out of the 100,000 doctors estimated to be 'active' about 84,000 are working as professionals, 9,000 as teachers and 4,000 as administrators and the balance in other activities. Of the total number of 'active' doctors, nearly 53,000 are employed as private practitioners, 40,000 in the public sector establishments and nearly 7,000 in private sector organised establishments.

17. It is estimated that out of a total stock of 108,000 (100,000 active) doctors 57,000 (56,000 active) are graduates and 51,000 (44,000 active) non-graduates. Nearly 37% of these non-graduates are less than 40 years old and another 36% are more than 50 years old.

18. There are 227 doctors for every million population in 1964, consisting of 201 men and 26 women doctors. The maximum number of doctors per million population is in Delhi (1997), followed by Tripura (617) and West Bengal (481). There are 316 doctors per million population in Maharashtra, 382 in Punjab, 257 in Assam and 192 in Madras.

19. The availability of doctors per million population varies widely between rural and urban areas of India. At the all-India level the doctor-population ratio is 825 in urban areas and only 88 in the rural areas. This pattern of difference holds good at State levels also. For example, the urban doctor-population ratios in Andhra Pradesh, Bihar, Gujarat, Madras, Maharashtra, Uttar Pradesh are 921, 915, 589, 578, 931 and 549 and the corresponding ratios for rural areas are only 32, 85, 104, 33, 58 and 61 respectively. These figures speak for themselves of the wide disparity in the doctor service between the rural and urban areas in the country. The availability of women doctors is more acute in rural areas. The 1961 census count located only 13 per cent of women doctors in the rural areas. The doctor-population ratio of women doctor in rural areas are less than 10 in all the States of India, except Kerala (13). It is also observed that concentration of doctors is high in those districts which are more developed.

## SECTION II

### ESTIMATES OF DOCTORS MADE BY THE PERSPECTIVE PLANNING DIVISION AND HEALTH DIVISION OF PLANNING COMMISSION

20. As a part of the preparatory studies undertaken before the formulation of the Third Five Year Plan, the Perspective Planning Division of the Planning Commission took up a statistical study on Doctors in India in collaboration with the Health Division of the Planning Commission.

21. The object of the study was "to make on the basis of available information, as good an estimate as possible of the total number of Doctors in the country and their distribution by sex, age, rural and urban residence, classified under three broad types of qualifications, namely, specialists, graduates and licentiates. Some studies were also made of their employment, sector of work, functions and salaries received by them".

22. The study was based mainly on (i) the State Medical Registers maintained by the State Medical Councils; (ii) the address lists of doctors maintained by certain important Pharmaceutical firms; and (iii) the National Register of the Council of Scientific and Industrial Research. "Estimates were prepared for each item on the basis of that source which was likely to supply the most reliable information. The Medical Registers were utilised to estimate the total number of doctors whereas the number of specialists was estimated from the address lists supplied by the pharmaceutical firms. The distribution of doctors according to age, sex, salary, sectors of employment and functions performed was obtained from the National Register Unit of the Council of Scientific and Industrial Research.

23. In this study any person having a licentiate, graduate or post-graduate degree in any branch of allopathic medical science was considered to be a 'doctor'.

24. The total number of 'doctors' in India in 1956 was estimated at 71,600, based on the State Medical Council Registers. This total consisted of 4100 specialists, 29,100 graduates and 38,400 licentiates.



25. The age-distribution of this stock was determined indirectly by using the year of passing in conjunction with the average age at passing of specialist, graduate and licentiate doctors from a sample analysis of the Council of Scientific and Industrial Research cards. The average age at passing was taken as 32 for specialists, 25 for graduates and 24 for licentiates. The age-distribution of the three types of doctors as obtained by applying these average ages at passing to the distribution of doctors by year of passing is given below:—

TABLE 1

Estimated Number and Percentage of Doctors  
by Qualification and Age, India 1956

Age	Specialists		Graduates		Licentiates		Total	
	No.	%	No.	%	No.	%	No.	%
1	2	3	4	5	6	7	8	9
Below 30	-	-	9800	34	3100	8	12900	18
31 - 40	500	12	9200	32	10400	27	20100	28
41 - 50	900	22	5100	17	10100	26	16100	23
51 - 60	1300	32	3700	13	8100	21	13100	18
61 - 70	800	19	1200	4	3800	10	5800	8
Above 70	600	15	100	-	2900	8	3600	5
Total	4100	100	29100	100	38400	100	71500	100

In the light of the fact that facilities for medical education have been gradually expanding, one would expect that the largest percentages would be found among the younger age groups among specialists and graduates. The table however shows that, among specialists, the largest single group is in the age-group 51-60; among graduates however the youngest groups are the most dominant. Owing to the fact that the licentiate examination was abolished before independence (1946), the youngest group among them is also the smallest. Assuming that only about half of the doctors over the age of 60 would be still active, the number of active doctors was estimated as about 66,900 in 1956.

26. Estimates of the number of doctors residing in rural areas were arrived at on the basis of the address lists of pharmaceutical firms. The

estimates arrived at are given below:-

**TABLE 2**

**Estimated Number of Doctors Residing in Rural Areas by State of Residence - 1956**

State	Number of Doctors		% Number in rural areas
	in the State	in rural areas	
1	2	3	4
Andhra	4227	124	2.9
Assam	2884	1212	42.0
Bihar	5445	1848	34.0
Bombay	13945	103	0.7
Madhya Pradesh	2066	107	5.2
Madras	6495	331	5.1
Orissa	1342	252	18.8
Punjab	3261	101	3.1
Rajasthan	717	78	10.9
Uttar Pradesh	6702	309	4.6
West Bengal	17836	3382	19.0
Other States	6680	163	2.4
Total	71600	8010	11.1

Apparently, only 11 per cent of the total available doctors were residing in rural areas in 1956. The data on rural-urban distribution available from the State Medical Registers of Bihar and Punjab also corroborate this finding.

27. An important feature is that, in the Eastern Zone, the percentage of doctors in rural areas is many times higher than in the rest of India. Bombay has the lowest percentage.

28. The availability of doctors in the different States in 1954 is given below. This is measured by the "availability index" which is calculated by adopting the Delhi figure (642) of doctors per million population as 100.

TABLE 3Number of Doctors per Million Population and  
Availability Index in each State - 1954

Availability Index (Delhi 100)	Name of State	Doctors per million population
Below 10	Jammu and Kashmir	16
	Manipur	40
	Rajasthan	40
11 - 20	Himachal Pradesh	64
	Madhya Pradesh	72
	Orissa	84
	Uttar Pradesh	95
	Kerala	116
	Andhra	120
	Bihar	126
21 - 30	Mysore	143
	Punjab	182
	Madras	193
31 - 50	Bombay	253
	Tripura	255
	Assam	280
90 - 100	West Bengal	605
	Delhi	642
27	All India	176

The number of doctors per million population in 1954 was 176 at the All-India level. The highest number of doctors per million population was in Delhi (642) and the lowest in Jammu and Kashmir (16). In all States, except Delhi and West Bengal, the number of doctors per million population was less than 300.

29. The age-distribution of doctors in 1956 permits the calculation of rates of attrition owing to death and old age. The average annual rate of attrition due to death and retirement was estimated as 2.5%. Two per cent may be attributed to deaths and 0.5% may be due to retirement on account of old age.

30. The stock of doctors in 1964 based on Perspective Planning Division figures can be estimated by starting with the total stock in 1956, and adding (after due adjustment) the annual out-turn from medical educational institutions during 1957-1964. For this purpose, the survival rates, as obtained from the Modified Oriental table of the Life Insurance Corporation of India have been used. The resulting estimate of doctors is given below:-

TABLE 4

Estimate of Surviving Doctors at the end  
of 1964 from the Stock in 1956

Age in 1956	No. of doctors 1956		Survival Rate	No Surviving in 1964	
	Total	Licentiate		Total	Licentiate
Below 30 Years	12900	3100	0.974	12564	3019
31 - 40	20100	10400	0.958	19256	9963
41 - 50	16100	10100	0.902	14522	9110
51 - 60	13100	8100	0.762	9982	6172
61 - 70	5800	3800	0.500	2900	1900
70 +	3600	2900	0.000	-	-
Total	71600	38400	x	59224	30164

Thus, out of the estimated stock of 71,600 doctors in 1956, 59,224 should have survived up to the end of 1964. Adding to this the out-turn during the period 1957-64, the estimate of the total stock at the end of 1964 would be as follows:-

1. Estimated No. of doctors in 1956	71,600
2. No. of doctors available in 1964 from this stock	59,224
3. Out-turn during the period 1957-64	28,718
4. Survivals in 1964 from the out-turn during 1957-64	28,445
5. Total stock of doctors available in 1964 (2+4)	87,669

Thus the expected total stock of doctors in 1964 is nearly 88,000. Of these, about 30,000 are licentiates. The number of active doctors is about 81,000. Of these nearly 26,000 are licentiates.

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SECTION III  
CENSUS DATA - 1961

31. The 1961 Census (latest) enumeration was completed on 5th March, 1961 throughout the country. The detailed data on each individual were collected through the individual slip. The individual slip includes, inter alia, information relating to sex, age, educational standard, and economic data relating to occupation, industry and employment status in respect of workers.

32. Based on the data collected through the individual slip, the Census organisation has constructed the following tables, which contain information on Health and Medical Manpower. These are:-

1. C. III Part B. - Age, sex and education in urban areas only by State and District.
2. B. III Part A. - Industrial Classification of workers and non-workers by educational standards in Urban areas only.
3. B. V. Occupational Classification by sex of persons at work other than in cultivation by State and District separately for Urban and Rural areas.
4. B. VI Classification by occupational divisions of persons at work other than at cultivation by sex, broad age-group, and educational standards in Urban areas only by State and District.

33. In the first two, and the fourth, tables, data are available according to the educational qualifications of persons. In these tables 'Doctors' are defined as those who are either graduates or post-graduates or having equivalent qualifications in medicine. Licentiatees are also included in this group. No information is available from these tables separately for licentiate, graduate and post-graduate medical personnel. Moreover, these tables do not give information on rural areas. All the medical graduate and post-graduates belonging to modern and other systems of medicine have been grouped together. It is not possible to separate the graduate and post-graduates of allopathic medicine from the others in these tables. So they are used only to the extent that such data are not available from Table B. V.

34. Table B. V. gives the occupational classification of all persons at work other than at cultivation in both rural and urban areas. The occupational classification of data is made on the basis of the 'National Classification of Occupations' of the Directorate General of Employment and Training. According to this classification, doctors and other health and medical manpower fall under the two digit groups 03, 04, 05 and 09. The detailed contents of these groups are given below:-

Group (2-digit)	Sub-group (3-digit)	
03		Physicians, Surgeons and Dentists
	030	Physicians and Surgeons, Allopathic
	031	Physicians, Ayurvedic
	032	Physicians, homeopathic
	033	Physicians others
	034	Physiologists
	035	Dentists
	039	Physicians, Surgeons and Dentists n. e. c.
04		Nurses, Pharmacists and other Medical and health technicians
	040	Nurses
	041	Midwives and Health Visitors
	042	Nursing Attendants and related workers
	043	Pharmacists and Pharmaceutical Technicians
	044	Vaccinators
	045	Physiotherapists, nurses, and related technicians
	046	Sanitation technicians
	047	Opticians
	049	Medical and Health Technicians n. e. c. (excluding laboratory assistants)

05	Teachers
050	University teachers, Medicine and Surgery (050. 35)
09	Draughtsmen, science and engineering technicians n. e. c.
091	Laboratory assistants-clinical (091. 40)

35. From the above detailed code list, 'Allopathic Doctors' are identified as those coming under the following sub-groups:

- (a) 030 - Physicians and Surgeons, Allopathic
- (b) 034 - Physiologists
- (c) 039 - Physicians, surgeons and dentists n. e. c. (after adjusting for dentists who may be included in this sub-group)
- (d) 050 - Teachers, University (only those who are teachers in medical and allied subjects)

36. The detailed composition of the above-mentioned four sub-groups is as follows:-

- (a) (i) Physician, general
- (ii) Surgeon, general
- (iii) Psychiatrist physician
- (iv) Neurologist
- (v) Dermatologist
- (vi) Ear, Nose and Throat specialist
- (vii) Cardiologist
- (viii) Tuberculosis specialist
- (ix) Ophthalmologist
- (x) Venerologist
- (xi) Obstetrician
- (xii) Gynaecologist
- (xiii) Paediatrician
- (xiv) Orthopaedist
- (xv) Medical and Surgical specialists, others



- (b) Physiologists (034) consist of physiologists, medical
- (c) Physicians, surgeons and dentists, n. e. c. (039) consist of:
  - (i) Anaesthetist
  - (ii) Anatomist
  - (iii) Pathologist, Medical
  - (iv) Radiologist
  - (v) Health Officer
  - (vi) Malarialogist
  - (vii) Physicians, surgeons and dentists: others
- (d) Teachers, University (050) (those teaching medical subjects).

The number of Medical teachers in the medical colleges and universities cannot be estimated from the data available in the census because at the three-digit level university teachers of all types and subjects are pooled together under one code. So the number of teachers in medical educational institutions in 1960-61 has been taken from the publication "University Education in India".

### 37. Limitations of data

- a. Since the census is a countrywide survey conducted with the help of enumerators all of whom may not be well trained to go into the details of educational qualifications etc., of each individual person thoroughly, there may be some deficiencies in the data thus obtained. But this error cannot be estimated.
- b. In the tabulation of medical educational qualifications, those possessing a degree or a post-graduate degree in each system of medicine, like allopathic, ayurvedic etc., have not been shown separately.
- c. The detailed tabulation based on educational qualifications and age has been done only for the urban areas. Such tabulation for rural areas is not detailed enough to identify any particular manpower groups.
- d. The classification by occupation available from Table B. V. to estimate the "stock of doctors" may lead to an overestimate to the extent that medical practitioners are wrongly classified in sub-groups 030, 034 and 039. It is possible that people who are practising allopathic medicine

without a proper degree or diploma may have been included in these groups. There is also the possibility of doctors who are employed as administrators, etc., being included under "Services". If this is so, this will lead to underestimation. It is not possible to make any assessment of the degree of overestimation or underestimation of "allopathic doctors" arising from these causes.

### 38. Doctors in India in 1961

There were in all about ninety-six thousand "doctors" in allopathic medicine in India in March, 1961. This is based on the occupational classification obtained from the Census. Of this about 66,500 were classified as physicians, surgeons, allopathic; about 800 were physiologists and about 23,500 were physicians and surgeons not elsewhere classified and 5,702 were university teachers\*. The number of physicians, surgeons, dentists n. e. c. is 25,274 but for our purposes dentists have to be excluded. This was done by allocating the total number (25,274) in the ratio of physicians, surgeons allopathic (030) and dentists (034) separately in each State and Union Territory. The results are presented in the Table below:-

TABLE 5

#### Number of Allopathic "Doctors" in India in 1961

Physicians, Surgeons, Allopathic	66,454**
Physiologists	797
Physicians, surgeons n. e. c.	23,505
Teachers, university*	5,702
<b>Total</b>	<b>96,458</b>

\* This figure (5,702) is taken from "University Education in India - 1960-61".

\*\* This differs from the figure published in Part II-B (ii) - General Economic Tables + Census of India 1961 by about + 1400. As this order of difference is not likely to affect the overall estimate dimensionally, no changes in the tables are made.

39. The distribution of the total stock of doctors by States is given below:-

**TABLE 6**  
**Distribution of "Allopathic Doctors" in India - 1961**

State	Physicians Surgeons Allopathic	Physiologists	Physicians Surgeons n. e. c.	University Teachers*	Total	Percentage to total
1	2	3	4	5	6	7
Andhra	5140	16	884	715	6755	7.0
Assam	2091	1	904	115	3111	3.2
Bihar	4543	36	2450	156	7185	7.4
Gujarat	4175	13	243	306	4737	4.9
Jammu and Kashmir	303	3	51	10	367	0.4
Kerala	1931	7	1361	212	3511	3.6
Madhya Pradesh	3202	11	739	312	4264	4.4
Madras	4034	10	1296	620	5960	6.2
Maharashtra	9136	113	1948	835	12032	12.6
Mysore	2421	157	1271	409	4258	4.4
Orissa	1833	-	225	101	2159	2.2
Punjab	5309	15	1366	338	7028	7.4
Rajasthan	2177	50	307	145	2679	2.8
Uttar Pradesh	5773	155	2800	374	9102	9.4
West Bengal	10421	183	5495	817	16916	17.5
All States	62489	770	21340	5465	90064	93.4
Delhi	3154	27	1741	190	5112	5.4
Himachal Pradesh	109	-	3	-	112	0.1
Manipur	89	-	43	-	132	0.1
Tripura	389	-	329	-	718	0.7
Pondicherry	104	-	11	47	162	0.2
Nagaland	25	-	15	-	40	0.0
Other Union Territories	95	-	23	-	118	0.1
Union Territories Total	3965	27	2165	237	6394	6.6
Total	66454	797	23505	5702	96458	100.0

\* This has been taken from data available in University Education in India - 1960-61.

West Bengal and Maharashtra (the two industrially advanced states), between them, account for over 30% (30.1%) of the Stock. Uttar Pradesh, Bihar, the Punjab and Andhra account for a little less than another third of the stock (31.2%). The remaining 9 states had a little less than a third of the stock (32.1%). Zone-wise, the Central Zone has the lowest percentage of the stock (13.8%). To the East (31.1%) and to the South (21.4%), the position improves rapidly whereas towards the North (16.1%) and the West (17.5%), the position improves less rapidly.

Of the total, about 68.9% are physicians surgeons, allopathic and 5.9% are university teachers. Physicians and surgeons n. e. c. formed 24.4% this seems to be rather high. The balance are physiologists.

40. In the 1961 census, to qualify for an urban area, a place had to be either a municipal corporation or a municipal area or under a town committee or a notified area committee or a cantonment board. Other Census towns were determined on the basis of a number of empirical tests.

- (a) A density of not less than 1,000 per square mile
- (b) A population of 5000 or more
- (c) Three-fourth of the occupations of the working population should be outside agriculture and
- (d) The place should have, according to the superintendent of the State, few pronounced urban characteristics, the definitions of which, however, leave room for vagueness.

41. Of the total number of doctors in 1961, 67% were in urban areas and the balance in rural areas. Of the men doctor about 65% were in urban areas; the corresponding percentage for women doctors was 87. The distribution of doctors by urban and rural areas is given in Table 7.

42. The Rural-Urban distribution of doctors; India, States and Union Territories is given in Table 8. It is seen that in the urban areas of Andhra, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Rajasthan, Delhi and Pondicherry the percentage of men doctors is more than at the All-India Level. This group of States accounts for practically the whole of the Southern and Western parts (excepting Gujarat and Kerala) of India with Jammu and Kashmir in the very north. Similarly in Andhra, Gujarat, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Rajasthan, Delhi, Himachal Pradesh and Nagaland the percentage of

**TABLE 7**

**Distribution of Doctors by sex and urban and rural areas in different States - 1961**

State	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10
Andhra	5190	597	5787	924	44	968	6114	641	6755
Assam	710	45	755	2333	23	2356	3043	68	3111
Bihar	3332	246	3578	3555	52	3607	6887	298	7185
Gujarat	2845	291	3136	1569	32	1601	4414	323	4737
Jammu and Kashmir	256	46	302	63	2	65	319	48	367
Kerala	1041	266	1307	2013	191	2204	3054	457	3511
Madhya Pradesh	2736	337	3073	1155	36	1191	3891	373	4264
Madras	4106	1042	5148†	712	100	812	4818	1142	5960
Maharashtra	8661	1732	10393	1568	71	1639	10229	1803	12032
Mysore	2716	318	3034	1193	31	1224	3909	349	4258
Orissa	945	170	1115	988	56	1044	1933	226	2159
Punjab	3624	333	3957	2966	105	3071	6590	438	7028
Rajasthan	1805	185	1990	671	18	689	2476	203	2679
Uttar Pradesh	4630	513	5143	3768	191	3959	8398	704	9102
W. Bengal	10163	461	10624	6181	111	6292	16344	572	16916
Delhi	4244	868	5112	-	-	-	4244	868	5112
Himachal Pradesh	51	7	58	53	1	54	104	8	112
Manipur	63	5	68	62	2	64	125	7	132
Tripura	160	4	164	550	4	554	710	8	718
Pondicherry	132	7	139	18	5	23	150	12	162
Nagaland	12	3	15	25	-	25	37	3	40
Others	20	2	22	89	7	96	109	9	118
All-India	57442	7478	64920	30456	1082	31538	87898	8560	96458

**TABLE 8**

**Rural-Urban distribution of Doctors; India, States and  
Union Territories**

States	Urban			Rural		
	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7
Andhra Pradesh	84.9	93.1	85.7	15.1	6.9	14.3
Assam	23.3	66.2	24.3	77.7	33.8	75.7
Bihar	48.3	82.6	49.8	51.7	17.4	50.2
Gujarat	64.5	90.1	66.2	35.5	9.9	34.8
Jammu and Kashmir	80.3	95.8	82.3	19.7	4.2	17.7
Kerala	34.1	58.2	37.2	65.9	41.8	62.8
Madhya Pradesh	70.3	90.3	72.1	29.7	9.6	27.9
Madras	85.2	91.2	96.5	14.8	8.8	13.5
Maharashtra	84.7	96.1	86.4	15.3	3.9	13.6
Mysore	69.5	91.1	71.3	31.5	8.9	28.7
Orissa	48.2	75.2	51.6	51.1	24.8	48.4
Punjab	55.0	76.0	56.3	45.0	34.0	43.7
Rajasthan	72.9	91.1	74.3	27.1	8.9	25.7
Uttar Pradesh	55.1	72.9	56.5	44.9	27.1	43.5
West Bengal	62.2	80.1	62.8	37.8	19.9	37.2
Delhi	100.0	100.0	100.0	-	-	-
Himachal Pradesh	49.0	87.5	51.6	51.0	12.5	48.2
Manipur	50.4	71.4	51.5	49.6	28.6	48.3
Tripura	22.5	50.0	22.8	77.5	50.0	77.2
Pondicherry	88.0	58.3	85.8	12.0	41.7	14.2
Nagaland	32.4	100.0	37.5	67.6	-	62.5
Others	18.3	22.2	18.6	81.7	77.8	81.4
All-India	65.4	87.4	67.3	34.6	12.6	32.7

women doctors in urban areas is more than at the All-India level. In other words, all the States in which the urban men doctor percentage is relatively higher are also (with the addition of Gujarat, Himachal Pradesh and Nagaland) those in which the urban women doctor percentage is high. In practically every State, a large proportion of doctors is in the urban areas. The exceptions are Assam, Bihar, Kerala, Tripura and Nagaland. These exceptions are explained largely by the plantation areas of Assam, the mining areas of Bihar and the peculiar settlement pattern of Kerala. Tripura and Nagaland are small areas in which the significance of such a distribution may not be very great. If we consider an urban (rural) doctor-percentage range between 60 and 40 as indicating a fairly even urban-rural distribution, there are only two area blocks that satisfy this condition: Orissa, West Bengal, Bihar in the East and Uttar Pradesh, Punjab in the North. In the States of Assam, Bihar, Gujarat, Orissa, Punjab, Uttar Pradesh, West Bengal and in all the Union Territories except Pondicherry the percentage of men doctors in rural areas is more than in the country as a whole. The percentage of women doctors in rural areas is more than the All-India average in Assam, Bihar, Kerala, Orissa, Punjab, Uttar Pradesh and West Bengal Manipur, Tripura and Pondicherry.

43. The distribution of Urban and Rural stocks of doctors; India, States and Union Territories is given in Table 9. It is seen that 21.3 per cent of the total number of doctors in 1961 was in the southern region. The Central region had only nearly 14 per cent of the total number of doctors. The Northern region had about 16 per cent of the doctors. The Western region had 17 per cent of the total number of doctors. Nearly 32 per cent of the doctors were in the Eastern region. However, nearly 32 per cent of the women doctors were in the Southern region in 1961. The percentage number of women doctors in Central, Northern, Western and Eastern regions was 12.6%, 18.3%, 24.9% and 12% respectively. In the distribution of the urban stock, the two southern states of Andhra and Madras, the eastern state of West Bengal, the northern state of Uttar Pradesh and the western state of Maharashtra lead. There is a very high degree of (rank) correlation (0.93) between the distribution of the total stock and that of the urban stock. The corresponding figure for total and rural is 0.67.

44. The distribution of the number of women doctors per 100 men doctors is given in Table 10. In 1961, there were 9.7 women doctors for every hundred men doctors at the all-India level. The highest number of women doctors for every 100 men doctors was in Madras (24) followed by Delhi (21), Maharashtra (18) and Jammu and Kashmir (15). There

**TABLE 9**

**The Distribution of Urban and Rural stock of  
Doctors; India, States and Union Territories**

States	Urban			Rural			Total		
	Men	Wo- men	Total	Men	Wo- men	Total	Men	Wo- men	Total
1	2	3	4	5	6	7	8	9	10
Andhra	9.1	8.1	8.9	3.0	4.1	3.1	7.0	7.5	7.0
Assam	1.2	0.6	1.2	7.7	2.1	7.5	3.5	0.8	3.2
Bihar	5.8	3.3	5.5	11.8	4.8	11.4	7.9	3.5	7.5
Gujarat	4.9	3.9	4.8	5.1	3.0	5.1	5.0	3.8	4.9
Jammu and Kashmir	0.4	0.6	0.5	0.2	0.2	0.2	0.4	0.6	0.4
Kerala	1.8	3.6	2.0	6.6	17.6	7.0	3.5	5.3	3.7
Madhya Pradesh	4.9	4.5	4.7	3.8	3.3	3.8	4.4	4.4	4.4
Madras	7.1	13.9	7.9	2.3	9.2	2.6	5.5	13.3	6.2
Mharashtra	15.2	23.3	16.0	5.1	6.6	5.2	11.8	21.1	12.5
Mysore	4.7	4.3	4.7	3.9	2.9	3.9	4.5	4.1	4.4
Orissa	1.6	2.3	1.7	3.2	5.2	3.3	2.2	2.6	2.2
Punjab	6.3	4.5	6.1	9.7	9.7	9.7	7.5	5.1	7.3
Rajasthan	3.1	2.5	3.1	2.2	1.7	2.2	2.8	2.4	2.8
Uttar Pradesh	8.0	7.0	7.9	12.4	17.6	12.7	9.6	8.2	9.5
West Bengal	17.8	6.2	16.4	20.3	10.3	20.0	18.7	6.7	17.7
Delhi	7.4	11.7	7.9	-	-	-	4.8	10.1	5.3
Himachal Pradesh	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1
Manipur	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
Tripura	0.3	0.1	0.3	1.8	0.4	1.8	0.8	0.1	0.7
Pondicherry	0.2	0.1	0.2	0.1	0.5	0.1	0.2	0.1	0.2
Nagaland	-	-	-	0.1	-	0.1	-	-	-
Others	-	-	-	0.3	0.6	0.3	0.1	0.1	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



TABLE 10

Men-Women Ratio of Doctors

State	Number of women doctors per 100 men		
	Urban	Rural	Total
1	2	3	4
Andhra	11.5 (10)	0.5 (18)	10.5 (6)
Assam	6.3 (17)	1.0 (16)	2.2 (19)
Bihar	7.4 (16)	1.5 (15)	4.3 (17)
Gujarat	10.2 (12)	2.0 (13)	7.3 (14)
Jammu and Kashmir	18.0 (6)	3.2 (9)	15.0 (4)
Kerala	25.6 (1)	9.5 (3)	15.0 (4)
Madhya Pradesh	12.3 (8)	3.1 (10)	9.5 (7)
Madras	25.4 (2)	14.0 (2)	23.7 (1)
Maharashtra	20.0 (5)	4.5 (7)	17.6 (3)
Mysore	11.7 (9)	2.6 (12)	8.9 (8)
Orissa	18.0 (6)	5.7 (5)	11.7 (5)
Punjab	9.2 (14)	3.5 (8)	6.6 (15)
Rajasthan	10.2 (12)	2.7 (11)	8.2 (10)
Uttar Pradesh	11.1 (11)	5.1 (6)	8.3 (9)
West Bengal	4.5 (19)	1.8 (14)	3.5 (18)
Delhi	20.5 (4)	-	20.5 (2)
Himachal Pradesh	13.7 (7)	1.8 (14)	7.7 (13)
Manipur	7.9 (15)	3.2 (9)	5.6 (16)
Tripura	2.5 (20)	0.7 (17)	1.1 (20)
Pondicherry	5.3 (18)	27.7 (1)	8.0 (12)
Nagaland	25.0 (3)	0.0 (19)	8.1 (11)
Other Union Territories	10.0 (13)	7.9 (4)	8.2 (10)
Total	13.0	3.6	9.7

(Figures in brackets are the ranks of the States)

were 12 women doctors for every hundred men in Orissa and 8 in Pondicherry. The lowest number of women doctors per 100 men doctors was in Assam (2) and Tripura (1). West Bengal with the highest number of doctors had only 3.5 women doctors every hundred men doctors. Madras (23.7), Maharashtra (17.6), Jammu and Kashmir (15.0), Kerala (15.0), Orissa (11.7), and Andhra (10.5) had a women doctor ratio which was higher than that at the All-India level. Urban areas of Kerala (25.6), Madras (25.4), Maharashtra (20.0) Orissa (18.0) and Jammu and Kashmir (18.0) show a higher women doctor ratio than the All-India Level. Rural areas of Madras (14.0), Kerala (9.5), Orissa (5.7), Uttar Pradesh (5.1) and Maharashtra (4.5) had more women doctors per hundred men doctors than at the All-India Level. The Urban areas of the Union Territories of Delhi (20.5), Nagaland (25.0) and Himachal Pradesh (13.7) had higher women doctor ratio than the All-India average. Only the rural areas of Pondicherry (27.7) had the women doctor ratio higher than the All-India average. The lowest women doctor ratios are found in the group of eastern States - Bihar, West Bengal and Assam. This is presumably because the women doctors coming out from West Bengal have to spread themselves out in neighbouring States.

45. The actual availability of doctors for service in urban and rural areas is not brought out by the tables above. The total stock of doctors available in the country is not actually available for service. Some of them work as administrators and some, as teachers. Only a part of the time is utilised by teachers in curing or preventing disease, the other part being spent in teaching students. Some of the doctors are overaged. Also, there are quite a few doctors who, though living in urban areas, do serve the rural areas by visiting such areas and organising clinics there. Almost all the urban hospitals cater to the needs of the rural population also, because they come for treatment to these hospitals. However, the doctor population ratio given below gives an approximation to the actual 'doctor service' available in the different areas.

46. In table 11 the number of doctors available is related to the total population whom they serve. This table gives the available number of doctors per million population in the different States, separately for urban and rural areas.

**TABLE 11**

**Number of doctors per million population in Urban  
and Rural areas**

States	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10
India	730	95	825	85	3	88	200	20	220
Andhra Pradesh	826	95	921	31	1	32	170	18	188
Assam	780	49	829	213	3	215	256	6	262
Bihar	852	63	915	84	1	85	148	7	155
Gujarat	535	55	589	102	2	104	214	16	230
Jammu and Kashmir	434	78	512	21	1	22	90	13	103
Kerala	408	104	513	140	13	153	181	27	208
Madhya Pradesh	595	73	668	42	1	43	121	11	132
Madras	461	117	578	29	4	33	143	34	177
Maharashtra	776	155	931	55	3	58	259	45	304
Mysore	515	60	575	65	2	67	166	15	181
Orissa	851	153	1004	60	3	63	110	13	123
Punjab	886	81	967	182	6	189	324	22	346
Rajasthan	550	56	607	40	1	41	123	10	133
Uttar Pradesh	495	54	549	58	3	61	113	9	123
West Bengal	1190	54	1244	234	4	238	468	16	484
Delhi	1595	326	1921	-	-	-	1595	326	1921
Himachal Pradesh	85	12	97	41	1	42	77	6	83
Manipur	900	71	971	87	2	89	160	9	169
Tripura	1600	40	1640	529	4	533	682	7	689
Others	1261	92	1353	105	9	114	213	17	230

47. Andhra Pradesh (188), Bihar (155), Jammu and Kashmir (103), Kerala (208), Madras (177), Mysore (181), Orissa (123), Rajasthan (133), Uttar Pradesh (123), Himachal Pradesh (83) and Manipur (169) show a lesser number of doctors per million population than at the All-India level. In the Urban areas of Gujarat (589), Jammu and Kashmir (512), Kerala (513), Madhya Pradesh (668), Madras (578), Mysore (575), Rajasthan (607), Uttar Pradesh (549) and Himachal Pradesh (97), the number of doctors per million population is less than at the All-India level. Only in the State of Assam (215), Gujarat (104), Kerala (153), Punjab (189), West Bengal (238), and Tripura (533), the number of doctors per million

population in rural areas is more than that at the all-India level. Taking the southern region as a whole the number of doctors per million population is less than in All-India.

48. It is clear from Table 11 that there is a wide disparity between States and between rural and urban areas in each State, in the availability of doctors. Since Table 11 dealt only with the States as a whole, the complete picture of the concentration of availability of doctors in capital cities and other well developed areas and the lack of an adequate number of doctors in other areas has not been brought to light. To bring into focus the problem of non-availability of an adequate number of doctors to look after the health of the population in the under-developed areas in each State, a district-wise distribution of the nintysix thousand doctors in India is given in Appendix I to this section. In this Appendix the total number of doctors classified by sex available in each district according to the census is shown, separately for urban and rural areas.

49. On a perusal of the State-wise tables in Appendix I to this section, it is seen that there is a concentration of doctors in certain districts whereas in the others the number of doctors is very low. Arranging the districts in each State in the descending order of available number of doctors and calculating the number of doctors in the first quartile and the last quartile of the districts (starting from the highest) the picture given in Table 12 emerges.

50. The last column of the Table gives the index of concentration. If the doctors were uniformly distributed in all the districts we should expect that the percentage of doctors in the highest and lowest quartiles in each State should be the same and the difference between them should be zero and, if all the doctors were in the highest quartile, then the difference in the percentage of doctors in the two quartiles will be 100. So the difference between the percentages of doctors in the highest and the lowest quartiles of the districts can be taken to give an index of concentration. It is seen that the concentration is least in Kerala and maximum in Jammu and Kashmir, Andhra Pradesh, Maharashtra and Rajasthan. For Punjab, the index of concentration is 39. For other States, it is between 44 and 58. - The index of concentration is more than at the All-India level only in Andhra (67) and Jammu and Kashmir (69). In all States except Kerala more than 50% of the doctors were found in the first 25% of the districts in each State, arranged in descending order of the number of doctors in them. In Kerala, only 31% of the doctors are found in the first 25% of the districts. In all States except Kerala only 10% or less of the doctors are found in the lowest 25% of the districts in each State. However, in Kerala, 14% of the doctors were in the lowest 25% of the districts.

TABLE 12

Percentage of Doctors in the Highest and Lowest  
Quartile of the Number of Districts in each State

State	Total Number of Districts	Percentage of No. of Doctors		Index of concentration
		Highest Quartile	Lowest Quartile	
1	2	3	4	5
Andhra	20	70(2)	5(6)	67(2)
Assam	11	59(6)	4(7)	55(7)
Bihar	17	52(8)	8(3)	44(11)
Gujarat	17	52(8)	6(5)	46(10)
Jammu and Kashmir	9	74(1)	5(6)	69(1)
Kerala	9	31(10)	14(1)	17(13)
Madhya Pradesh	43	64(3)	6(5)	58(5)
Madras	13	52(8)	8(3)	44(11)
Maharashtra	26	72(2)	6(5)	66(3)
Mysore	19	60(5)	10(2)	50(9)
Orissa	13	57(7)	3(8)	54(8)
Punjab	19	49(9)	10(2)	39(12)
Rajasthan	26	63(4)	3(8)	60(4)
Uttar Pradesh	54	63(4)	5(6)	58(5)
West Bengal	16	63(4)	7(4)	56(6)
Total	331	68	2	66

(Figures in brackets are the ranking of each State)

- Col. (1) State.
- Col. (2) Number of Districts in each State.
- Col. (3) Percentage number of doctors in the highest quartile of the number of districts in each State.
- Col. (4) Percentage number of doctors in the Lowest Quartile of the number of districts in each State.
- Col. (5) Index of concentration which is obtained by subtracting Col. (4) from Col. (3).

51. The index of concentration assumes that the total population of the State is uniformly distributed in all the districts which is not true. A more lucid picture of the distribution of doctors in the different districts can be had by relating the number of doctors to the 1961 population in each district. The number of doctors per million population in each district in 1961 is worked out and given in Appendix II to this Section. Grouping the districts into five broad groups, according to the number of doctors per million population, the following picture emerges:

TABLE 13

Distribution of Districts by Doctors per million  
Population - 1961

(Figures in brackets are the population in 1961 in these districts in lakhs)

State	Doctor Population ratio groups						Total
	Less than 100	100-199	200-299	300-399	400-499	500 and above	
1	2	3	4	5	6	7	8
Andhra	13(200)	4(90)	2(49)	-	-	1(21)	20(360)
Assam	2(6)	3(43)	5(57)	-	-	1(13)	11(119)
Bihar	8(207)	6(200)	1(12)	-	1(29)	1(17)	17(465)
Gujarat	1(10)	7(69)	6(81)	2(24)	1(22)	-	17(206)
Jammu and Kashmir	16(23)	2(7)	1(6)	-	-	-	9(36)
Kerala	4(72)	4(80)	1(17)	-	-	-	9(169)
Madhya Pradesh	25(174)	14(116)	-	2(20)	-	2(14)	43(324)
Madras	3(96)	7(210)	2(14)	-	-	1(7)	13(337)
Maharashtra	5(56)	15(216)	3(43)	-	1(15)	2(66)	26(396)
Mysore	6(71)	8(85)	3(52)	1(25)	-	1(3)	19(236)
Orissa	6(63)	4(59)	3(53)	-	-	-	13(175)
Punjab	2(13)	3(44)	2(27)	3(18)	5(61)	4(40)	19(203)
Rajasthan	16(100)	5(51)	3(32)	2(19)	-	-	26(202)
Uttar Pradesh	30(379)	14(205)	7(118)	2(22)	-	1(13)	54(737)
West Bengal	-	1(14)	3(74)	5(76)	3(55)	4(130)	16(349)
Delhi	-	-	-	-	-	1(26)	1(26)
Other Areas*	9(19)	3(13)	3(5)	1(1)	1(3)	1(11)	18(52)
<b>Total</b>	<b>136(1489)</b>	<b>100(1502)</b>	<b>45(640)</b>	<b>18(205)</b>	<b>12(185)</b>	<b>20(371)</b>	<b>331(439)</b>

\* Each of the Union Territories except Himachal Pradesh is taken as one district.

51. The index of concentration assumes that the total population of the State is uniformly distributed in all the districts which is not true. A more lucid picture of the distribution of doctors in the different districts can be had by relating the number of doctors to the 1961 population in each district. The number of doctors per million population in each district in 1961 is worked out and given in Appendix II to this Section. Grouping the districts into five broad groups, according to the number of doctors per million population, the following picture emerges:

TABLE 13

Distribution of Districts by Doctors per million  
Population - 1961

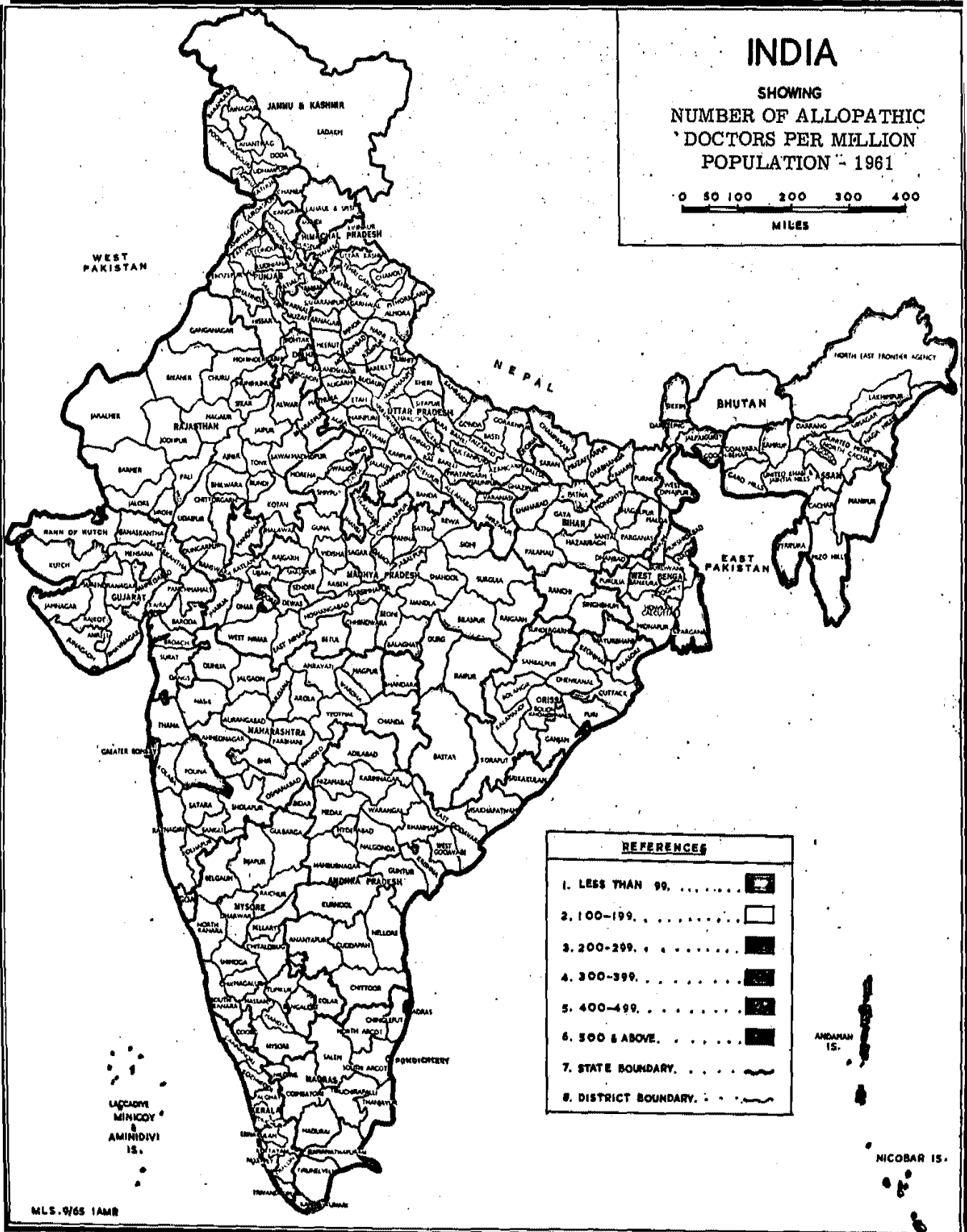
(Figures in brackets are the population in 1961 in  
these districts in lakhs)

State	Doctor Population ratio groups						Total
	Less than 100	100-199	200-299	300-399	400-499	500 and above	
1	2	3	4	5	6	7	8
Andhra	13(200)	4(90)	2(49)	-	-	1(21)	20(360)
Assam	2(6)	3(43)	5(57)	-	-	1(13)	11(119)
Bihar*	8(207)	6(200)	1(12)	-	1(29)	1(17)	17(465)
Gujarat	1(10)	7(69)	6(81)	2(24)	1(22)	-	17(206)
Jammu and Kashmir	16(23)	2(7)	1(6)	-	-	-	9(36)
Kerala	4(72)	4(80)	1(17)	-	-	-	9(169)
Madhya Pradesh	25(174)	14(116)	-	2(20)	-	2(14)	43(324)
Madras	3(96)	7(210)	2(14)	-	-	1(17)	13(337)
Maharashtra	5(56)	15(216)	3(43)	-	1(15)	2(66)	26(396)
Mysore	6(71)	8(85)	3(52)	1(25)	-	1(3)	19(236)
Orissa	6(63)	4(59)	3(53)	-	-	-	13(175)
Punjab	2(13)	3(44)	2(27)	3(18)	5(61)	4(40)	19(203)
Rajasthan	18(100)	5(51)	3(32)	2(19)	-	-	26(202)
Uttar Pradesh	30(379)	14(205)	7(118)	2(22)	-	1(13)	54(737)
West Bengal	-	1(14)	3(74)	5(76)	3(55)	4(130)	16(349)
Delhi	-	-	-	-	-	1(26)	1(26)
Other Areas*	9(19)	3(13)	3(5)	1(1)	1(3)	1(11)	18(52)
<b>Total</b>	<b>136(1489)</b>	<b>100(1502)</b>	<b>45(640)</b>	<b>18(205)</b>	<b>12(185)</b>	<b>20(371)</b>	<b>331(439)</b>

\* Each of the Union Territories except Himachal Pradesh is taken as one district.

# INDIA

SHOWING  
NUMBER OF ALLOPATHIC  
'DOCTORS PER MILLION  
POPULATION - 1961



### REFERENCES

- 1. LESS THAN 90. . . . . [Lightest shade]
- 2. 100-199. . . . . [Light shade]
- 3. 200-299. . . . . [Medium-light shade]
- 4. 300-399. . . . . [Medium shade]
- 5. 400-499. . . . . [Medium-dark shade]
- 6. 500 & ABOVE. . . . . [Darkest shade]
- 7. STATE BOUNDARY. . . . . [Thick solid line]
- 8. DISTRICT BOUNDARY. . . . . [Thin solid line]



This distribution of doctors per million population has also been plotted by districts and shown in the map on the facing page.

52. The 20 districts with 8.4% of India's population, that had 500 or more doctors per million persons are either districts with the capital cities of some states situated in them (like Delhi, Calcutta, Bombay, Madras, Hyderabad, Ambala and Tripura) or were capitals of former princely states (like Indore, Gwalior, Kapurthala and Bhagalpur) or are industrially developed areas (like Poona, Ludhiana, Nadia, Howrah, 24 Parganas and Jullunder). Coorg and Darrang are centres of plantation areas. A little over a third of India's population is served by less than 100 doctors per million persons and another third, by 100-199 doctors per million persons. 27.6% of the population have 200-499 doctors per million persons Kerala has the most even pattern of distribution of doctors.

53. The Central Zone (Uttar Pradesh and Madhya Pradesh), with 2 contiguous states in the East (Bihar and Orissa), one contiguous State in the South (Andhra Pradesh) and one contiguous state to the West (Rajasthan) have all the largest parts of their population in the ratio group 0-99 doctors per million persons. Jammu and Kashmir to the far north is also in this category. The remaining southern states of Madras, Kerala and Mysore alongwith the western state of Maharashtra show a better position with the largest parts of their population in the ratio group of 100-199 doctors per million persons. The remaining 4 states (Assam, Gujarat, Punjab and West Bengal) have the largest parts of their population in the higher ratio groups.

54. West Bengal is the only state where none of the districts has a doctor-population ratio of less than 100 per million population. Among the remaining states, Assam in the east, Punjab in the north and Gujarat in the West have the lowest parts of their population in the doctor-population ratio group 0-99. Two contiguous states in the east (Bihar and Orissa), two contiguous states in the South (Kerala and Madras) and the Northern state of Jammu and Kashmir have the lowest parts of their population in the ratio group 200-299 doctors per million population. The Central Zone (Uttar Pradesh and Madhya Pradesh) and the 2 contiguous States in the South (Andhra and Mysore) have the lowest parts of their population in the doctor population group 500 and above doctors per million persons. The two remaining states (Rajasthan and Maharashtra) have the lowest parts of their population in the ratio group 300-499 doctors per million population. Hill districts (like Uttar Kashi, Almora, Garhwal) except those which are plantation or mining areas have very low doctor population ratio.

55. In analysing the reasons for the concentration of doctors-in certain districts, two possible factors are considered. These are the total population of the district and the percentage of the total population working in manufacturing industries and construction. It is seen that in all states excepting Kerala and Andhra there is significant positive rank correlation between the doctor-population ratio in the districts and the corresponding percentage of population working in manufacturing industries and construction. The rank correlation coefficients obtained are given in Table 14. In Kerala there is an insignificant negative correlation and in Andhra and insignificant positive correlation between these two factors.

TABLE 14

Rank correlation coefficients

State	Rank correlation coefficient	Number of districts
Andhra	0.07	20
Assam	0.65	11
Bihar	0.38	17
Gujarat	0.51	17
Jammu and Kashmir	-	9
Kerala	0.22	9
Madhya Pradesh	0.65	43
Madras	0.40	13
Maharashtra	0.54	26
Mysore	0.71	19
Orissa	0.63	13
Punjab	0.46	19
Rajasthan	0.60	26
Uttar Pradesh	0.56	54
West Bengal	0.52	16

The significant correlation between the doctor-population ratio and the percentage of the total population working in manufacturing industries and construction taken together in the districts of the majority of States may be taken to indicate that the index of industrialisation of the district considerably influences the concentration of doctors. In other

words, it can be said that developed districts soon to have attracted higher doctor concentration.

Age Distribution of Doctors:

56. As has been stated earlier, the Table CIII-Part-B of the Census gives the distribution of the people in the Urban areas of India by educational level and age. In this Table, medical personnel are classified by educational level under the heading "Technical Degree or Diploma equal to Degree or Post-graduate Degree-Medicine". In this classification, the licentiate, graduate, and post-graduate "doctors" are included. This group also includes graduates and post-graduates in Ayurvedic and other indigenous system of medicine. It is not possible to separate the doctors of modern medicine from this. However, it will not be too wrong to assume that the pattern of the age distribution obtained from this table will hold good for the "allopathic doctors" alone in urban areas, since the majority of doctors in this census table will be allopathic doctors.

57. The total number of doctors according to this table in urban areas in 1961 was 49,376 whereas the total number of doctors in the urban areas was estimated as 65,000 from Table B-V. This difference may be due to the exclusion of certain types of medical personnel like physiologists, anatomists, pathologists and others, who are classified under physicians and surgeons not elsewhere classified. When these groups of occupations are excluded from the estimated total of 65,000 the balance more or less tallies with the number obtained from this table of the Census.

58. The age-distribution of the 49,376 doctors in Urban areas as obtained from the census is given below separately for men and women doctors.

TABLE 15  
Age-distribution of Allopathic Doctors 1961--  
Urban Areas

Age-Group	Men		Women		Total	
	Number	% Total	Number	% Total	Number	% Total
1	2	3	4	5	6	7
24 or less	3662	8.7	1439	19.6	5101	10.3
25-29	7087	16.9	1901	25.8	8988	18.2
30-34	6574	15.6	1394	19.0	7968	16.1
35-44	9572	22.8	1573	21.4	11145	22.6
45-59	10442	24.8	851	11.6	11293	22.9
60 and above	4679	11.1	192	2.6	4871	9.9
Age not Stated	8	0.1	2	0.0	10	0.0
<b>Total</b>	<b>42024</b>	<b>100.0</b>	<b>7352</b>	<b>100.0</b>	<b>49376</b>	<b>100.0</b>

TABLE 16

Age Pattern of Urban Doctors, 1961

State	24 or less			25 - 29			30 - 34			35 - 44			45 - 59			60 +			Total		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
Andhra Pradesh	533	213	746	503	167	670	459	154	613	741	119	860	655	55	710	195	11	206	3086	719	3805
Assam	20	5	25	92	17	109	120	17	137	190	12	202	235	4	239	79	2	81	736	57	793
Bihar	112	34	146	350	66	416	395	45	440	554	47	601	556	24	580	188	7	195	2155	223	2378
Gujarat	183	52	235	522	110	632	433	81	514	732	82	814	837	47	884	406	10	416	3113	382	3495
Jammu and Kashmir	11	8	19	37	5	42	23	11	34	28	6	34	57	4	61	5	1	6	161	35	196
Kerala	42	21	63	121	72	193	104	24	128	121	49	170	200	34	234	78	6	84	666	206	872
Madhya Pradesh	167	56	223	383	88	471	399	65	464	495	66	561	360	28	388	127	2	129	1931	305	2236
Madras	372	127	499	612	236	848	440	179	619	659	205	864	503	83	588	207	21	228	2795	851	3646
Mahaashtra	664	375	1039	1509	452	1961	1271	381	1652	1751	458	2209	1986	265	2251	1118	69	1187	8299	2000	10299
Mysoor	159	82	241	291	80	371	259	52	311	385	59	444	375	37	412	170	16	186	1639	326	1965
Orissa	64	26	90	97	38	135	91	22	113	132	15	147	142	2	144	38	1	39	564	104	668
Punjab	187	47	234	265	77	342	241	40	281	328	68	390	432	30	462	225	7	232	1678	269	1947
Rajasthan	124	35	159	173	37	210	165	19	184	269	23	292	256	22	278	99	5	104	1086	141	1227
Uttar Pradesh	415	127	542	594	122	716	714	68	782	954	133	1087	1043	97	1140	507	19	526	4227	566	4793
West Bengal	428	55	483	1155	138	1293	1082	94	1176	1631	73	1704	2163	41	2204	909	8	917	7368	409	7777
Delhi	170	173	343	337	185	522	316	135	451	485	148	633	516	68	584	286	7	293	2110	716	2826
Other Areas	11	3	14	46	11	57	62	7	69	117	10	127	124	10	134	50	2	52	410	43	453
All-India	3662	1439	5101	7087	1901	8988	6574	1394	7368	9572	1573	11145	10442	851	11293	4687	194	4881	42024	7352	49376

M - Men  
W - Women  
T - Total

TABLE 17

## Percentage Age-pattern of Urban 'Doctors'

States	Less than 24			25 - 29			30 - 34			35 - 44			45 - 59			60 +		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
Andhra Pradesh	17.3	29.6	19.6	16.3	23.2	17.6	14.9	21.4	16.1	24.0	16.6	22.6	21.2	7.6	18.7	6.9	1.5	5.4
Assam	2.7	8.8	3.2	12.4	29.8	13.7	16.3	29.8	17.3	25.8	21.0	25.5	31.9	7.0	30.1	10.7	3.5	10.2
Bihar	5.2	15.2	6.1	16.2	29.6	17.5	18.3	20.2	18.5	25.7	21.1	25.3	25.8	10.8	24.4	8.7	3.1	8.2
Gujarat	5.9	13.6	6.7	16.8	28.8	18.1	13.9	21.2	14.7	23.5	21.5	23.3	26.9	12.3	25.3	13.0	2.8	11.9
Jammu and Kashmir	6.8	22.8	9.7	23.0	14.3	21.4	14.3	31.4	17.3	17.4	17.1	17.3	35.4	11.4	31.2	3.1	2.9	3.1
Kerala	6.3	10.2	7.2	18.2	35.0	22.1	15.6	11.7	14.7	18.2	23.8	19.5	30.0	16.5	26.8	11.7	2.9	9.7
Madhya Pradesh	8.6	18.3	9.9	19.8	28.8	21.1	20.7	21.3	20.8	25.6	21.6	25.1	18.6	9.2	17.4	6.6	0.7	5.7
Madras	13.3	14.9	13.7	21.9	27.7	23.3	15.7	21.0	16.9	23.6	24.1	23.7	18.1	9.7	16.1	7.4	2.5	6.3
Maharashtra	8.0	18.8	10.1	18.2	22.6	19.0	15.3	19.1	16.0	21.0	22.9	21.5	23.9	13.3	21.9	13.5	3.5	11.5
Mysore	9.7	25.1	12.3	17.8	24.6	18.9	15.8	15.9	15.8	23.4	18.1	22.6	22.9	11.3	20.9	10.4	4.9	9.5
Orissa	11.3	25.0	13.5	17.2	36.5	20.2	16.1	21.1	16.9	23.4	14.4	22.0	25.1	1.9	21.6	6.8	1.1	5.8
Punjab	11.1	17.5	12.0	15.8	28.6	17.6	14.4	14.9	14.4	19.5	25.3	20.3	25.7	11.2	23.8	13.5	2.5	11.9
Rajasthan	11.4	24.8	12.9	15.9	26.2	17.1	15.2	15.3	14.9	24.8	16.3	23.8	23.6	15.6	22.7	9.1	3.5	8.6
Uttar Pradesh	9.8	22.4	11.3	14.1	21.6	14.9	16.9	12.0	16.3	22.6	23.5	22.7	24.6	17.1	23.8	12.9	3.4	11.0
West Bengal	5.8	13.4	6.2	15.7	33.7	16.6	14.7	23.0	15.1	22.1	17.8	21.9	29.4	10.0	28.4	12.3	2.1	11.8
Delhi	8.0	24.1	12.3	16.0	25.9	18.5	15.0	18.9	15.9	23.0	20.7	22.4	24.4	9.5	20.7	13.6	0.9	10.4
Other Areas	2.7	7.0	3.1	11.2	25.6	12.6	15.2	16.3	15.2	28.5	23.2	28.0	30.2	23.2	29.6	12.2	4.7	11.5
All-India	8.7	19.6	10.3	16.9	25.9	18.2	15.6	18.9	16.1	22.8	21.4	22.6	24.9	11.6	22.9	11.2	2.6	9.8

M - Men  
W - Women  
T - Total

TABLE 18

Distribution of Doctors by State and Age

States	24 or less			25 - 29			30 - 34			35 - 44			45 - 59			60 +			Total		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
Andhra Pradesh	1058	190	1248	996	149	1145	5911	137	1048	1468	106	1574	1296	49	1345	385	10	395	6114	641	6755
Assam	82	6	88	377	20	397	496	20	516	788	14	802	974	5	979	326	3	329	3043	68	3111
Bihar	358	45	403	1116	88	1204	1263	60	1323	1774	63	1837	1777	33	1810	599	9	608	6887	298	7185
Gujarat	260	44	304	742	94	836	614	68	682	1037	69	1106	1187	40	1227	574	8	582	4414	323	4737
Jammu and Kashmir	22	11	33	73	7	80	46	15	61	55	8	63	113	16	119	10	1	11	319	48	367
Kerala	192	47	239	556	160	716	476	53	529	556	109	665	916	75	991	358	13	371	3054	457	3511
Madhya Pradesh	336	68	404	774	107	881	810	79	889	986	81	1067	727	35	762	258	3	261	3891	373	4264
Madras	641	170	811	1055	316	1371	756	240	996	1137	275	1412	872	112	984	357	29	386	4818	1142	5960
Maharashtra	818	339	1157	1862	407	2269	1165	344	1909	2153	413	2566	2450	240	2690	1381	60	1441	10229	1803	12032
Mysore	379	88	467	696	86	782	618	56	674	915	63	978	895	39	934	406	17	423	3909	349	4258
Orissa	219	57	276	333	82	415	311	48	359	453	33	486	485	4	489	132	2	134	1933	226	2159
Punjab	731	77	808	1041	125	1166	949	65	1014	1285	111	1396	1694	49	1743	890	11	901	6590	438	7028
Rajasthan	282	50	332	393	53	446	378	28	406	614	33	647	584	32	616	225	7	232	2476	203	2679
Uttar Pradesh	823	157	980	1185	151	1336	1420	84	1504	1894	169	2063	2068	120	2188	1008	23	1031	8398	704	9102
West Bengal	948	77	1025	2566	192	2758	2403	132	2535	3612	102	3714	4805	57	4862	2010	12	2022	16344	572	16916
Delhi	340	209	549	679	225	904	637	164	801	976	180	1156	1035	82	1117	575	8	585	4244	868	5112
Other Areas	33	3	36	138	12	150	188	8	196	352	11	363	373	11	384	151	2	153	1235	47	1282
All-India	7522	1638	9160	14582	2274	16856	13841	1601	15442	20055	1840	21895	22251	1989	23240	9647	218	9865	87898	8560	96458

M - Men  
W - Women  
T - Total

59. The State-wise age pattern of the doctors in the Urban areas is given in Table 16 and the percentage distribution is given in Table 17.

60. In all the Southern States (Kerala), Madras, Mysore and Andhra Pradesh), Maharashtra in the West, Madhya Pradesh in the Centre, Orissa in the east and Delhi and Jammu and Kashmir in the north, the percentage of doctors in the age-group 29 years or less is more than that existing at the All-India level.

61. Assuming that this age pattern in each State will hold good for all the doctors in urban areas and also for the doctors in the rural areas, the age distribution of 96458 doctors is worked out and is given Table 18. A summary of this table at the All-India level is given below. 27% of the doctors are below 30 years, 39% of the doctors are below 45 years and about 34% are more than 45 years old. In the age distribution the number of old doctors predominate. In an ideal age distribution percentage of young doctors should be more than that of middle aged and old doctors:

TABLE 19

Distribution of Doctors by Age-groups

Age-Group	Men		Women		Total	
	Number	% Total	Number	% Total	Number	% Total
1	2	3	4	5	6	7
24 or less	7522	8.6	1638	19.1	9160	9.5
25 - 29	14582	16.6	2274	26.6	16856	17.5
30 - 34	13841	15.7	1601	18.7	15442	16.0
35 - 44	20055	22.8	1840	21.5	21895	22.7
45 - 59	22251	25.3	989	11.6	23240	24.1
60 +	9647	11.0	218	2.5	9865	10.2
Total	87898	100.0	8560	100.0	96458	100.0

62. The average age of doctors in the different States of India is given in Table 20. The average age of the doctor lies between 35-40 in all the States and at the All-India level. The average age of men doctors is higher than that of women doctors in all the States.

TABLE 20

Average Age of Doctors

State	Men	Women	Total
1	2	3	4
Andhra Pradesh	38	32	35
Assam	43	34	38
Bihar	41	35	38
Gujarat	42	34	38
Jammu and Kashmir	41	34	38
Kerala	42	35	38
Madhya Pradesh	38	33	36
Madras	38	34	36
Maharashtra	41	35	38
Mysore	40	34	37
Orissa	39	30	35
Punjab	41	34	38
Rajasthan	40	34	37
Uttar Pradesh	41	35	38
West Bengal	42	33	38
Delhi	42	32	37
Other Areas	45	38	42
All-India	41	34	38

63. A comparative picture of the percentage distribution of doctors and of the total population for comparable age-groups is given in Table 21. Excepting in the age group 23 - 24 (24 or less) and 45 - 59 the percentage of doctors in the other age-group is less than the percentage of population in those age-groups. This is also true in the case of men doctors. The stock of women doctors is younger than the women population.

"Active Doctors"

64. All the doctors who were alive at the time of 1961 Census would not have been "Active Doctors". In the absence of any data on the activity status of the doctors it will not be wrong to assume, as in the case of the Perspective Planning Division study, that only



TABLE 21

Percentage Age distribution of Doctors  
and India's population - 1961

Age-Group	Men		Women		Total	
	Doctor	Popu- lation	Doctor	Popu- lation	Doctor	Popu- lation
1	2	3	4	5	6	7
24 or less	8.6	5.0	19.1	4.9	9.5	5.2
25 - 34	32.3	34.5	45.3	33.9	33.5	35.1
35 - 44	22.8	24.7	21.5	25.2	22.7	24.2
45 - 59	25.3	23.0	11.6	23.7	24.1	22.2
60+	11.0	12.8	2.5	12.3	10.2	13.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

half of the doctors who were aged 60 and above would have been active. On this assumption, the number of "Active Doctors" in India in 1961 was about 92,000. The distribution of these active doctors by State and sex is given in Table 22.

65. As is to be expected the active doctor-population ratio is less than the doctor-population ratio of total stock of doctors in all the states. The pattern of distribution of active doctor-population ratio on the different states follows the same pattern as that of total stock of doctors (vide Table 23).

66. Table B. VI of the census gives the data on the classification of educationally qualified doctors by occupational divisions of persons at work. In this table also as in Table C. III Part B, data is available for the urban areas only classified by States and Districts. The occupational classification follows the pattern of Table B. V. but it is given only at the 1st digit level. For the purpose of this paper, the 9 divisions are pooled together to form 3 groups as follows:

- Group 1 - Professionals
- Group 2 - Administrators and Executives
- Group 3 - Others

Group 3 mainly consists of these doctors who work as salesmen and agents and others.

67. From Table B VI the percentage composition of these groups is given in Table 24.

68. The total estimated stock of active doctors in 1961 is 91526. Of these 5702 were teachers in educational institutions. Applying the above percentage composition to the balance, the distribution of doctors in 1961 by activity status is given in Table 25.

69. Of the 91526 "Active Doctors" in India in 1961, it estimated that about 5702 were teachers in medical educational institutions, about 79000 were professionals and about 3900 were administrators and executives. Of the 83000 men doctors nearly 71500 were professionals, whereas in the case of 8446 women doctors nearly 7500 were professionals

TABLE 22

Distribution of "Active Doctors" by States - 1961

<u>States</u>	<u>Men</u>	<u>Women</u>	<u>Total</u>
Andhra Pradesh	5922	636	6558
Assam	2880	67	2947
Bihar	6588	293	6881
Gujarat	4126	320	4446
Jammu and Kashmir	314	48	362
Kerala	2874	452	3326
Madhya Pradesh	3762	371	4133
Madras	4640	1127	5767
Maharashtra	9538	1774	11312
Mysore	3706	342	4048
Orissa	1866	226	2092
Punjab	6145	434	6579
Rajasthan	2364	200	2564
Uttar Pradesh	7899	678	8577
West Bengal	15340	567	15907
Delhi	3956	865	4821
Other Areas	1160	987	2147
All-India	83080	8446	91526
	808	188	996

**TABLE 23****"Active" Doctor population Ratio by States, 1961**

<u>States</u>	<u>Men</u>	<u>Women</u>	<u>Total</u>
Andhra Pradesh	165	17	182
Assam	243	5	248
Bihar	142	6	148
Gujarat	200	16	216
Jammu and Kashmir	88	14	102
Kerala	170	27	197
Madhya Pradesh	116	12	128
Madras	138	33	171
Maharashtra	241	45	286
Mysore	157	15	172
Orissa	106	13	119
Punjab	303	21	324
Rajasthan	117	10	127
Uttar Pradesh	107	9	116
West Bengal	439	16	455
Delhi	1487	325	1812
Other Areas	221	7	228
<hr/>			
All-India	189	19	208
<hr/>			

TABLE 24

Percentage Distribution of Doctors by  
Activity Status - 1961

	<u>Men</u>	<u>Women</u>	<u>Total</u>
1. Professional	91.6	96.5	92.2
2. Administrators and Executives	4.8	2.0	4.4
3. Others	3.6	1.5	3.4
4. Total	100.0	100.0	100.0

TABLE 25

Distribution of Doctors by Activity Status - 1961

	<u>Men</u>	<u>Women</u>	<u>Total</u>
1. Professional	71548	7445	78993
2. Administrators and Executives	3749	154	3903
3. Teachers	4971	731	5702
4. Others	2812	116	2928
5. Total	83080	8446	91526

Estimate of Doctors at the end of 1964 on the basis of  
Census of India - 1961

70. Based on the occupational data of the census of the estimate of the total stock of doctors in 1961 is 96458, comprising of 87898 men and 8560 women. The age-distribution of this stock has been worked out and given in Table 15 of this Section. The estimate of the total stock of doctors alive and those who are 'active' as at the end of 1964 can be arrived at by adding the survivors from the stock of doctors in 1961 to those who have passed from medical educational institutions during the years 1961-64.

71. The survivors from the 1961 stock have been worked out by applying the survival rates for each age-group, as obtained from Oriental Mortality Tables supplied by the Life Insurance Corporation of India, to the population of doctors in the corresponding age-groups in 1961. The survivors at end of 1964 from the stock of doctors in 1961 are estimated as 91723 consisting of 83398 men doctors and 8325 women doctors as shown in Table 26. The total out-turn of doctors from 1961-64 is 16587 consisting of 12656 men and 4031 women. The number of persons who will survive at the end of 1964 from this group is estimated as 16517 consisting of 12503 men and 4014 women. Adding the survivors from 1961 stock, and the survivors from the out-turn during 1961-64, the total stock of doctors at the end of 1964 is estimated. This estimate of stock is 108240 consisting of 95901 men and 12339 women. The estimates are given in Table 27.

TABLE 26  
Survivors at the end of 1964 from the Stock  
of Doctors in 1961

Age in 1961	Stock in 1961			Percentage surviving upto the end of 1964	Surviving in 1964		
	Men	Women	Total		Men	Women	Total
1	2	3	4	5	6	7	8
24 or less	7522	1638	9160	0.988	7432	1618	9050
25-29	14582	2274	16856	0.987	14397	2245	16642
30-34	13841	1601	15442	0.985	13637	1577	15214
35-44	20055	1840	21895	0.975	19563	1795	21358
45-59	22251	989	23240	0.923	20534	913	21447
60+	9647	218	9865	0.812	7835	177	8012
Total	87898	8560	96458		83398	8325	91723

TABLE 27

Stock of Doctors in 1964,

	Men	Women	Total
1. Stock of Doctors in 1961	87898	8560	96458
2. Survivors in 1964 from this stock	83398	8325	91723
3. Total out-turn from Medical Institutions during 1961-64	12556	4031	16587
4. Survivors in 1964 from the out-turn	12503	4014	16517
5. Total Stock of doctors in 1964 (2+4)	95901	12339	108240

\* 72. The age-distribution of this stock of doctors is given in Table 28. This has been worked out as shown in Table 26.

TABLE 28

Age-distribution of Stock of Doctors in 1964

Age	Men		Women		Total	
	No	%	No	%	No	%
28 or less	20235	21.1	5676	46.0	25911	24.0
29 - 33	14289	14.9	2233	18.1	16522	15.3
34 - 38	13617	14.2	1567	12.7	15184	14.0
39 - 48	19467	20.3	1777	14.4	21244	19.6
49 - 63	20427	21.3	901	7.3	21328	19.7
64+	7866	8.2	185	1.5	8051	7.4
Total	95901	100.0	12339	100.0	108240	100.0

It is seen that nearly 50% of the doctors are less than 35 years of age. The corresponding percentage in the case of men doctors is about 45% and for the women doctors it is about 70%. Nearly 7% of the doctors are more than 64 years of age. In para 48, the active doctors were defined as those who are below 60 years of age. It was also assumed that about half of the doctors who are aged 60 years or above will be also active. On this assumption the percentage of inactive doctors was about 5% of the total. Assuming that percentage doctors can maximum be equal to those who are 64 or over, the number of active doctors in 1964 is estimated as 100189 consisting of 88035 men doctors and 12154 women doctors.

#### Distribution of Stock of Doctors in 1964 by States

73. Without the help of a field survey to find out the actual distribution of doctors by States, it is not possible to arrive at the actual State-wise distribution. However, assuming that the State-wise distribution of the total stock of doctors in 1961 would not have changed substantially, the distribution of the stock of doctors in 1964 is worked out and given in Table 29.

#### Distribution of Active Doctors by Activity Status

74. Of the 100189 estimated active doctors in 1964, about 8600 will be teachers in educational institutions. Assuming that the distribution of the balance of the active doctors by activity status has not changed from that obtained from 1961 Census and given in Table 24, the following distribution for 1964 is obtained:

75. It is estimated that there are 100189 active doctors in 1964, consisting of 88035 men and 12154 women. Of these 84437 doctors are professionals; 4087 are administrators and executives and 8600 are teachers in educational institutions. Of the 88035 men 73770 are professionals, 3866 are administrators and executives, and 7500 are teachers. Among the 12154 women, about 10700 are professionals and 1100 are teachers.



TABLE 29  
State-wise distribution of Stock of Doctors in 1964

States	Men	Women	Total
Andhra Pradesh	6697	925	7622
Assam	3309	99	3408
Bihar	7482	432	7914
Gujarat	4795	469	5264
Jammu and Kashmir	345	68	413
Kerala	3344	654	3998
Madhya Pradesh	4222	542	4764
Madras	5275	1641	6916
Maharashtra	11189	2609	13798
Mysore	4272	506	4778
Orissa	2110	321	2431
Punjab	7198	629	7827
Rajasthan	2695	294	2989
Uttar Pradesh	9201	1014	10215
West Bengal	17859	827	18686
Delhi	4616	1246	5862
Himachal Pradesh	113	12	125
Manipur	118	10	128
Tripura	767	12	779
Pondicherry	162	14	176
Nagaland	36	3	39
Others	96	12	108
<b>Total</b>	<b>95901</b>	<b>12339</b>	<b>108240</b>

TABLE 30  
Distribution of Stock of Active Doctors by Activity Status - 1964

	Men		Women		Total	
	No.	%	No	%	No	%
Professional	73770	83.8	10667	87.8	84437	84.3
Administrators and Executives	3866	4.4	221	1.8	4087	4.1
Teachers	7500	8.5	1100	9.0	8600	8.5
Others	2899	3.3	166	1.4	3065	3.0
<b>Total</b>	<b>88035</b>	<b>100.0</b>	<b>12154</b>	<b>100.0</b>	<b>100189</b>	<b>100.0</b>

## SECTION IV

### INFORMATION AVAILABLE WITH THE DIRECTORATE GENERAL OF EMPLOYMENT AND TRAINING

76. The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, came into force in May, 1960 and was implemented in all the States in the country except in Jammu and Kashmir. According to this Act all establishments in the public sector and private employers employing 25 or more persons (50 or more persons in Maharashtra\*) in the non-agricultural sector are required to notify their vacancies to employment exchanges and render periodical (quarterly and biennial) returns concerning the employment situation in their establishments. The biennial returns from the public sector and private sector establishments are received in alternate years.

77. The survey on employment in the public sector covers the whole country excepting Jammu and Kashmir and some Union Territories. This survey was intended to cover all the public sector establishments irrespective of the number of persons employed. The public sector employment details are obtained from all Central and State Government establishments, quasi-government establishments (both Central and State Governments) and local bodies. The first survey under the Act was as on 30th September, 1960 and the second round was as on 30th September, 1962.

78. The private sector survey on employment also excluded the State of Jammu and Kashmir and certain of the Union Territories. According to the provision of the Act, all establishments employing 20 or more persons were covered except in Maharashtra where only employers employing 50 or more persons were covered. Apart from these, a part of the establishments employing less than 25 workers was also covered (Non-Act establishments) on a voluntary basis in majority of the districts. The coverage of the Survey of Non-Act establishments varied from State to State in terms of employment and geographical area. The first survey on the private sector establishments was conducted as on 30th Sept., 1961 and the second survey as on 30th Sept., 1963.

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\* From 1963 the survey covers all employees employing 25 or more persons in Maharashtra also.

79. The data based on the public sector survey of 1962 and the private sector (Act and Non-Act establishments) survey of 1961 have been used here. The data collected through these surveys were tabulated to give occupational and industrial distribution of employment by the Directorate General of Employment and Training.

80. In the analysis of the data of these surveys to arrive at the occupational pattern of employees in the different sectors, the National Classification of Occupations (N. C. O. ) prepared by the Directorate General of Employment and Training has been used. This classification is same as that used in the 1961 census. From this classification the allopathic doctors are identified as those who are classified under the following sub-groups:—

- (i) 030 Physicians and surgeons, allopathic
- (ii) 034 Physiologists
- (iii) 039 Physicians, surgeons and dentists not elsewhere classified (after adjusting for dentists who may be included in this sub-group)

The total number of doctors employed, as obtained from the public sector survey of 1962 and the private sector survey of 1961, is given below:—

TABLE 31  
Sector-wise distribution of Doctors

	Private Sector 1961			Public Sector *
	Act Establish- ments	Non-Act Establish- ments	Total	1962
Physicians and Surgeons (Allopathic)	3319	637	3956	18294
Physiologist	32	6	38	35
Physician Surgeons not elsewhere classi- fied (Excluding Dentists)	308	18	326	3934
<b>Total</b>	<b>3659</b>	<b>661</b>	<b>4320</b>	<b>22263</b>

\* Public Sector covers establishments under Central Government, State Governments, Quasi-Government, Local bodies, Public Sector Undertakings and Boards such as Tea Board, Coffee Board etc. The establishments not covered by the Public sector constitute the Private Sector.

81. The total employment of doctors given in the above table gives only the number employed in those establishments which responded to the questionnaires issued by the Directorate General of Employment and Training. The estimate also excludes those who are employed as teachers in educational institutions. The total estimate of the number of doctors in all the public sector establishments in 1962 and the private sector establishments in 1961 is worked out as below:

82. The survey on the occupational pattern in public sector in India in 1962 covered only 82.2%\* of the total number of employees. Similarly the survey on the occupational pattern in the private sector in India in 1961 covered 93.2%\*\* of employees in the Act establishments and 87%\*\* of the employees in the Non-Act establishments. By making suitable adjustment for the non-coverage, the estimates of the number of employees were arrived at and is presented in Table 32.

**TABLE 32**  
**Estimated Number of Employees in Public Sector and**  
**Private Sector Establishments**

	<u>Private Sector (1961)</u>		Total	Public Sector (1962)
	Act Establish- ments	Non-Act Establishments		
Physicians and Surgeons (Allopathic)	3560	732	4292	22,270
Physiologists	34	7	41	43
Physicians and Surgeons not elsewhere classified (Excluding Dentists)	330	21	351	4,793
<b>Total</b>	<b>3924</b>	<b>760</b>	<b>4684</b>	<b>27,106</b>

\* Occupational pattern in public sector India 1962; Directorate General of Employment and Training, Ministry of Labour and Employment.

\*\* Occupational pattern in Private Sector India 1961, Directorate General of Employment and Training, Ministry of Labour and Employment.

83. To obtain the estimate of doctors employed in the public sector and private sector (Act and Non-Act) establishments in 1964, the following methodology is adopted. The total number of employees in the public sector on 30th Sept., 1962 is estimated as 76.71 lakhs. The total employment at the end of December, 1964 in the public sector establishments is estimated as 87.57 lakhs. Assuming that the employment of doctors in the public sector will grow proportional to the total employment, the estimate given in the Table 33 is obtained. The total employment in the Act establishments in the private sector in September, 1961 was estimated as 38.2 lakhs. The corresponding figure in December, 1964 is estimated as 57.2 lakhs. The employment of doctors at the end of 1964 in the private sector Act-establishments is worked out on the assumption that the employment of doctors grows in proportion to the total employment. There were 7.8 lakh employees covered in the Non-Act establishments in September, 1961. The total employment in Non-Act establishments in December 1964 is not available. It is assumed that the growth in employment in the Act and Non-Act establishments together will follow the growth of total employment in private sector Act establishments. The estimates of employment of doctors in private and public sectors at the end of 1964 are given below:-

TABLE 33

Number of Doctors Employed in the Public Sector  
and Private Sector Establishments at the end of 1964

	No. of doctors
Public Sector	30,943
Private Sector (Act and Non-Act) Establishments	7,013
Total	37,956

84. The total number of doctors employed in the public sector and private sector establishments at the end of 1964 is 37,956. Of this 30,943 are employed in the public sector establishments and 7013 are employed in private sectors establishments. This estimate excludes those who are employed as teachers in medical educational institutions. In Section III, it was estimated that there are 8585\* doctors working as teachers at the end of 1964. Thus there are about 46,541 doctors in 1964 who are active and working in organised public sector and private sector establishments. This estimate excludes those doctors who are working as private practitioners and are self employed and also those doctors in Jammu and Kashmir State.

85. Of the 46,541 doctors employed in public and private sector establishments in all States and Union Territories except Jammu and Kashmir, 40,806 are men and the rest are women. The sector-wise distribution of men and women doctors is given in Table 34.

**TABLE 34**  
**Sex distribution of Doctors in Public and Private**  
**Sector - 1964**

	No. of doctors		Total
	Men	Women	
Public Sector	27226	3717	30943
Private Sector (Act and Non-Act establishments)	6095	918	7013
Teachers	7485	1100	8585
Total	40806	5735	46541

The state-wise distribution of doctors employed in public sector and private sector establishments arrived at in pro-fota basis is given in the Table. It is seen that the maximum employment of doctors in the public and private sectors is in Madras, followed by Uttar Pradesh and Maharashtra. West Bengal, with the largest total stock of doctors has

\* excludes teachers in Jammu and Kashmir.

only 3900 doctors employed in organised establishments in the public and private sectors.

TABLE 35

Distribution of Doctors employed in Public  
and Private Sector Establishments by States\*  
1964

States	Public Sector			Private Sector			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Andhra Pradesh	2751	384	3135	113	66	179	2864	450	3314
Assam	1105	36	1141	1156	33	1189	2261	69	2330
Bihar	3024	204	3228	599	37	636	3623	241	3864
Gujarat	1464	168	1632	360	66	426	1824	234	2058
Kerala	1279	223	1502	254	54	308	1533	277	1810
Madhya Pradesh	2541	261	2802	150	37	187	2691	298	2989
Madras	3942	970	4912	514	176	690	4456	1146	5602
Maharashtra	4201	630	4831	473	84	557	4674	714	5388
Mysore	1529	219	1748	87	40	127	1616	259	1875
Orissa	861	43	904	57	17	74	918	60	978
Punjab	1883	348	2231	249	84	333	2132	432	2564
Rajasthan	1650	182	1832	68	14	82	1718	196	1914
Uttar Pradesh	4388	462	4850	491	70	561	4879	532	5411
West Bengal	2545	118	2663	1222	49	1271	3767	167	3934
Others Areas	1548	569	2117	302	91	393	1850	660	2510
Total	34711	4817	39528	6095	918	7013	40806	5735	46541

86. The 40,000 doctors in the public sector establishments are distributed among Central Government, State Government, Quasi Government, (Central and State), Local Bodies and educational institutions as is given in Table 36.

\* Excludes Jammu and Kashmir State.

TABLE 36

Distribution of doctors employed in the Public Sector  
by type of Organisation\*

<u>Type of Organisation</u>	<u>No. of Doctors employed</u>
Central Govt.	2610
State Govt.	21424
Quasi Govt.	1275
Local Bodies	5634
Educational Institutions	8585
Total	39528

\* Excluding Jammu and Kashmir.



## SECTION V

### NET INSTITUTIONAL OUT-TURN FROM MEDICAL EDUCATIONAL INSTITUTIONS

87. An estimate of the stock of allopathic doctors can also be arrived at by cumulating the institutional out-turn of graduates and licentiates for a suitable number of years after allowing for mortality and migration. However, data on institutional out-turn of doctors for such a long period of time are available only for degree institutions i. e. in respect of graduates only. The corresponding data on licentiates are not available from any source. So the stock based on the net institutional out-turn is worked out only for graduate doctors.

88. For the purpose of arriving at the net institutional out-turn at the end of 1964, only those graduate doctors who passed from medical institutions from the year 1920 have been taken into account. Assuming the average age at passing of a graduate to be 25 years, the average age at the end of 1964 of those doctors who passed in 1920 will be 69 years. It will not be wrong to assume that all those doctors who are alive and aged more than 69 years at the end of 1964 will be 'inactive'. The institutional out-turn figures upto 1954 have been taken from the 'Manpower Studies 15-Doctors in India' prepared by the Perspective Planning Division, Planning Commission. From 1955 onwards the out-turn figures have been compiled from the records of the Directorate General of Health Services. These out-turn figures are given in Table 37.

89. In arriving at the total stock of graduate doctors at the end of 1964 allowance for mortality alone has been made. No allowance has been made for the migration of doctors that might have taken place at the time of partition to Pakistan and to other countries. Upto 1947 the average annual out-turn of doctors was only 400-600 and of these the number of Muslim doctors who migrated to Pakistan must have been comparatively small. It is assumed that the number of doctors who might have migrated will be equal to the number of doctors who have returned to India after taking their first degree in medicine from foreign countries.

90. To allow for mortality the "Modified Oriental Mortality Table (1925-35)" obtained from the Life Insurance Corporation of India, has

TABLE 37

Out-turn of Graduate Doctors — 1920-64

Year-Group	Graduates		Total
	Men	Women	
1920-24	1896	50	1946
1925-29	2408	92	2500
1930-34	1998	142	2140
1935-39	2673	209	2882
1940-44	3115	378	3493
1945-49	4179	726	4905
1950-54	7719	1537	9256
1955	2246	497	2743
1956	2170	562	2732
1957	2202	600	2802
1958	2305	554	2859
1959	2529	554	3083
1960	2704	683	3387
1961	3042	858	3900
1962	2979	967	3946
1963	3193	1066	4289
1964	3342	1110	4452
Total	50,700	10615	61315

been used. In applying this table, it is assumed that at the time of passing his first degree examination a doctor on the average, will be aged 25 years.

91. The total out-turn of graduate doctors from educational institutions in India from 1920-64 is 61,315 consisting of 50,700 men and 10615 women. The net institutional out-turn (after allowing for mortality) of graduate doctors at the end of 1964 is given below:

TABLE 38

Net Institutional out-turn of Graduate Doctors at  
the end of 1964

Men	46912
Women	10276
Total	57188

The stock of graduate doctors at the end of 1964, who are aged 69 or below is 57190 (approx.) consisting of 46910 men and 10280 women. The age-composition of this stock is given below:

TABLE 39

Age Distribution of Graduate Doctors

Age-Group	Men		Women		Total	
	No.	%	No.	%	No.	%
25-29	15476	33.0	4746	46.2	20222	35.4
30-34	11052	23.6	2672	25.9	13724	24.0
35-39	7403	15.8	1474	14.3	8877	15.5
40-44	3906	8.3	677	6.6	4583	8.0
45-49	2801	6.0	339	3.3	3140	5.5
50-54	2256	4.8	177	1.8	2433	4.3
55-59	1524	3.2	108	1.1	1632	2.8
60-64	1557	3.3	59	0.6	1616	2.8
65-69	937	2.0	024	0.2	961	1.7
Total	46912	100.0	10276	100.0	57188	100.0

92. Of the total number of estimated graduate doctors at the end of 1964, nearly 35% are aged 25-29 years. Nearly 60% of them are aged less than 35 years and 30% are aged between 35-49 years. Only 10% are more than 50 years old. In the case of the men doctors, 33% were aged 25-29 years, and 57% were aged less than 35 years. 30% of the men doctors are in the age-group 35-49 years and 13% are aged 50 years or more. Among the women doctors 46% are in the age-group 25-29 years and 72% are aged less than 35 years. 24% of the women doctors are aged 35-49 years and only 4% are aged 50 years or more.

93. The number of active doctors among the 57188 doctors is 55899 consisting of 45665 men and 10234 women. In estimating the number of active doctors, fifty per cent of those who are aged 60 and above have been taken as active.

## SECTION VI

### ALL-INDIA MEDICAL REGISTER OF THE MEDICAL COUNCIL OF INDIA

94. One of the sources of data on Medical Manpower of Allopathic Doctors is the registration data available with the Medical Council of India and the State Medical Councils.

#### Constitution and functions of Medical Council of India:

95. The first Indian Medical Council Act was passed in 1933 and the first meeting of the Medical Council of India was held in New Delhi in March, 1934. Broadly speaking the Council was constituted to establish a uniform minimum standard of higher medical education in all the provinces. The Medical Council Act, 1933 was modified in 1942, to provide for inspection of the medical colleges by visitors as well as inspectors from the medical council. A further revision of the Act was made in 1956 and this Act provides, in addition, for the maintenance of the All-India Medical Register by the Medical Council. The expenditure of the Medical Council of India is met from grants given by the Government of India.

96. The President and Vice-President of the Council are elected by the members of the Council from amongst themselves. The President and Vice-President of the Council hold office for a term not exceeding five years and not extending beyond the expiry of his term as a member of the Council. A member holds office for a term of five years from the date of his nomination or election until his successor has been duly nominated or elected whichever is longer.

97. The Council is to meet at least once in each year at such time and place as may be announced by the Council. According to the provisions of the Act, the Council shall constitute from amongst its members an Executive Committee and such other committees for general or special purposes, as the Council deems necessary to carry out the purpose of this Act and appoint a Registrar who shall act as Secretary and may also act as a Treasurer.

98. For the purpose of this Act, the medical qualification granted by any university or medical institution in India, which are included in

the First Schedule, are recognised. The medical qualifications granted by Medical Institutions outside India which are included in the Second Schedule are also recognised medical qualifications. The Council is authorised to enter into negotiations with the Authority in any country outside India which by the law of such country is entrusted with the maintenance of a register of medical practitioners for the settling of a scheme of reciprocity for the recognition of medical qualifications and in pursuance of any such scheme the Central Government may amend the Second Schedule so as to include therein the medical qualification which the Council has decided should be recognised.

99. The Council is empowered to require information as to courses of study and examination in medical educational institutions. Every university or medical institution in India which grants a recognised medical qualification is required to furnish such information as the Council may from time to time require as to the courses of study and examinations to be undergone in order to obtain such qualifications.

100. The executive committee of the Council can appoint a number of medical inspectors as it may deem requisite to attend at any or all of the examinations held by universities or medical institutions in India for the purpose of recommending to the Central Government recognition of medical qualifications. These inspectors shall report to the committee on the sufficiency of every examination which they attend and on any other matters in regard to which the committee may require them to report.

101. The Council is authorised to prescribe standards of post-graduate medical education for the guidance of universities and to advise universities in the matter of securing uniform standards of post-graduate medical education throughout India and for this purpose the Central Government may constitute from among the members of the Council a post-graduate medical education Committee. This committee shall consist of nine members all of whom shall be persons possessing post-graduate medical qualification and experience of teaching or examining post-graduate standards of medicine. Six of the members of the post-graduate committee shall be nominated by the Central Government and the remaining three members shall be elected by the Council from amongst its members. The post-graduate committee can co-opt, when necessary one or more members qualified to assist in a subject.

102. The Council is to maintain in the prescribed manner a register of medical practitioners to be known as the Indian Medical Register, which shall contain the names of all persons who are, for the time being, enrolled on any State Medical Register, and who possess any of the recognised medical qualification. Each State Medical Council is to supply copies of the State Medical Register as soon as may be, after the commencement of this Act and subsequently after the first day of April of each year to the Medical Council of India and shall inform the Council without delay of all additions to and other amendments in the State Medical Register made from time to time. The Act also provides for addition and alterations of qualifications of registrants. Each registrant is entitled to practice as a medical practitioner and to recover any expenses, charges in respect of medicines or other appliances or any fees to which he may be entitled.

103. The first Indian Medical Register has been prepared by the Medical Council of India for the year 1960. Till this time no such all India Medical Register was compiled. Only State registers existed. It contains the following information namely (i) name of the practitioner, (ii) qualifications (iii) registration number, (iv) date of registration and (v) address. The Medical Register does not contain any information on the age or year of taking the qualification which will help to ascertain the age pattern of the doctors enrolled in the register.

104. The primary source of data for the compilation of the Indian Medical Register is the State Medical Registers. In the State Medical Registers all persons who possess qualifications listed in the First and Second schedule are registered. In each of the State a fee is charged for registration. The fee charged varies from State to State. Some of the State Medical Councils have also registered at the beginning of the preparation of the register even those persons who were practising medicine for a minimum specified period of 2-5 years without having any recognised medical qualifications. This is true in the case of Travancore, Cochin Medical Register and Bombay Medical Register.

105. Generally, the State Medical Registers contain the following information regarding the doctors registered with them, namely (i) Name, (ii) qualifications and dates thereof, (iii) date of registration (iv) address, and (v) registration number. Some State registers contain data on date of birth (Travancore-Cochin Medical Register) and father's name.

Limitation of Data available from the Indian Medical Register and State Medical Registers:

106. (a) The most important defect of the Indian Medical Register and the State Medical Registers is that these are not live registers. No attempt is being made to renew the registration of doctors once registered periodically (say once in 3 years or five years) so that those who are dead those who are incapacitated to practise the profession and those who have left the country for good, are removed and also to keep the information about the registrants up-to-date.

(b) Since the registration is voluntary and a fee is charged for registration, it may be possible that all doctors who are alive and practising may not be registered, and this may lead to some under-registration.

(c) Since in each State Medical Register all Indians who possess any recognised medical qualification can be registered, there can be duplication. However, this may not be widespread and of such magnitude as to vitiate the results obtained.

(d) All the medical registers do not contain data on date of birth or year of passing, which will facilitate the calculation of the age of the stock of doctors.

107. At present, there are sixteen State Medical Councils. Some of the State Medical Councils cover part of the States as constituted after reorganisation. Some Councils cover more than one State or Union Territory. Table 40 gives the States and the corresponding Medical Councils.

108. The medical practitioners of Goa, Diu and Daman are registered with the Maharashtra State Medical Register. There is no Medical Council established in Jammu and Kashmir and this State is therefore, excluded from consideration in this section. The Indian Medical Council Act 1956 has, however, been extended to the State of Jammu and Kashmir and a proposal for the formation of a State Medical Council is under the active consideration of the Jammu and Kashmir government.

109. A total of 95319 doctors are registered with the State Medical Councils by the end of 1964 consisting of 85272 men and 10047 women. The distribution of these doctors by State Medical Councils, where they are registered is given in Table 41.

TABLE 40

Table showing the Coverage of State Medical Councils

Name of State Medical Council	State/Union Territories covered
1. Assam	Assam, Manipur, Tripura, N. E. F. A. and Nagaland
2. Maharashtra and Vidharbha	Maharashtra and Goa, Daman and Diu
3. Bihar	Bihar
4. Punjab	Punjab, Delhi and Himachal Pradesh
5. Madras	Madras and Pondicherry
6. Orissa	Orissa
7. Uttar Pradesh	Uttar Pradesh
8. Andhra and Hyderabad	Andhra Pradesh
9. Mysore	Mysore
10. Rajasthan	Rajasthan
11. West Bengal	West Bengal and Andaman and Nicobar Islands.
12. Travancore-Cochin	Kerala, Laccadives and Minicoy Islands.
13. Bhopal and Mahakoshal	Madhya Pradesh
14. Gujarat	Gujarat



TABLE 41

Distribution of Registered Doctors by State  
Council of Registration, 1964

Name of State Council	Men	Women	Total
Assam	3510	80	3590
Andhra Pradesh	2019	312	2331
Bihar	6308	449	6757
Gujarat, Maharashtra and Vidharbha	46087	2560	18647
Kerala	1646	205	1851
Mysore	3452	460	3912
Madras	12742	1543	14285
Mahakoshal and Bhopal	1370	302	1672
Orissa	1679	178	1857
Rajasthan	1114	141	1255
Punjab	5571	969	6540
Uttar Pradesh	7104	811	7915
West Bengal	22670	2037	24707
Total	85272	10047	95319

110. The Medical register contains data on the qualification of the registrants. Based on this data those registered have been classified by education groups namely, licentiates, graduates and post-graduates. Of the 95319 registered up to the end of 1964, 37637 doctors are licentiates, 55014 are graduates and 2668 are post-graduates. The distribution of these doctors by sex and qualification is given below:

TABLE 42

Distribution of Registered Doctors by  
Qualifications and Sex, 1964

	Men		Women		Total	
	No.	%	No.	%	No.	%
Licentiates	34893	40.9	2744	27.3	37637	39.5
Graduates	47924	56.2	7090	70.6	55014	57.7
Post-graduates	2455	2.9	213	2.1	2668	2.8
Total	85272	100.0	10047	100.0	95319	100.0

111. Based on the information available on year of birth of the registrants available from the State Medical Registers of Kerala, Vidharbha and Mahakoshal it has been estimated that the average age at passing of licentiates is 25 years and that of a graduate is 26 years. The average age at passing of a post-graduate is estimated at 29 years. These estimates are based on the data available for 456 licentiates, 905 graduates and 29 post-graduates.

112. Assuming that the age at passing obtained above holds true for all the registrants, the age-distribution of Doctors is obtained. The age-distribution thus obtained is given in Table 43 separately for licentiates and graduates.

**TABLE 43**

**Age-Distribution of Registered Doctors - 1964**

	Men		Women		Total	
	No.	%	No.	%	No.	%
<b>A. Licentiates</b>						
Less than 40	9390	26.9	1010	36.8	10400	27.7
40-49	8165	23.4	811	29.6	8976	23.8
50-59	8740	25.0	608	22.1	9348	24.8
60 and above	8598	24.7	315	11.5	8913	23.7
<b>Total</b>	<b>34893</b>	<b>100.0</b>	<b>2744</b>	<b>100.0</b>	<b>37637</b>	<b>100.0</b>
<b>B. Graduates*</b>						
Less than 30	15124	30.0	2867	39.2	17991	31.2
30-39	19907	39.5	3328	45.6	23235	40.3
40-49	7091	14.1	705	9.7	7796	13.5
50-59	4804	9.5	263	3.6	5067	8.8
60 and above	3453	6.9	140	1.9	3593	6.2
<b>Total</b>	<b>50379</b>	<b>100.0</b>	<b>7303</b>	<b>100.0</b>	<b>57682</b>	<b>100.0</b>
<b>C. Total</b>						
Less than 40	44421	52.1	7205	71.7	51626	54.2
40-49	15256	17.9	1516	15.1	16772	17.6
50-59	13544	15.9	871	8.7	14415	15.1
60+	12051	14.1	455	4.5	12506	13.1
<b>Total</b>	<b>85272</b>	<b>100.0</b>	<b>10047</b>	<b>100.0</b>	<b>95319</b>	<b>100.0</b>

\* Including Post-graduates.

113. Of the total number of doctors 54% are less than 40 years and 46% are above 40 years. Among the graduates nearly 72% are less than 40 years old showing that the stock of graduate doctors is comparatively young as compared to the licentiates, among whom only 28% are less than 40 years old.

114. An estimate of the total number of active doctors in 1964 based on the medical register, on the assumption that half of those aged 60 or above may not be active is worked out. On this assumption there were about 88 thousand active doctors in India excluding Jammu and Kashmir consisting of nearly fifty-five thousand graduates and thirty-three thousand licentiates.

## SECTION VII

### ESTIMATE OF THE STOCK OF DOCTORS AT THE END OF 1964— EVALUATION AND CONCLUSION

115. In this Section estimates of the stock of doctors obtained in the earlier Sections on the basis of different sources of data are evaluated and a firm estimate of the number of doctors at the end of 1964 in India is arrived at. The distribution of this stock by qualification, State, age, rural and urban areas and activity is also given.

116. Estimates of the stock of doctors in 1964 are available, from five different sources. These estimates are based on the Perspective Planning Division Study, Census of India 1961, Occupational Pattern Study of Directorate General of Employment and Training net institutional out-turn and the Medical Register of the Medical Council of India. Estimates based on these sources are given in Table 44.

**TABLE 44**  
**Estimated Stock of Doctors in 1964 from different Sources**

<u>Source</u>	<u>Estimated Stock</u>
Estimate based on Perspective Planning Division Study	87, 669
Census of India 1961	1, 08, 240
Occupational Pattern Study of the Directorate General of Employment and Training	53, 953*
Estimate based on net institutional out-turn	57, 188**
Medical Council of India	95, 319

\* Employment in Public Sector and Organised Private Sector Establishments only.

\*\* Graduates only.

117. Of the above five estimates only three are comparable. The estimate based on Occupational Pattern Study of the Directorate General of Employment and Training cover the doctors employed in the public sector and organised private sector establishments only. The estimate based on net institutional out-turn covers only the graduate medical practitioners.

118. Among the other three estimates the estimate of nearly 88 thousand doctors based on the Perspective Planning Division Study seems to be an under-estimate. This estimate is based on the estimate of stock in 1956 by adding to it the out-turn during the period 1957-64. The stock estimate in 1956 was based on the State Medical Registers maintained by the State Medical Councils. These Medical Registers were not available for the same year from all the State Medical Councils. In most of the States the year to which the registers relate was either 1953 or 1954. For some States like Assam, it was 1952. Apart from this fact not all the doctors get themselves registered in the State Medical Registers.

119. The stock of 95,319 doctors based on State Medical Council and the Medical Council of India Registers also suffers from (i) under-registration; (ii) Continuance in the register of persons who are dead or inactive. The factor (i) under-estimates the stock whereas the factor (ii) over-estimates the stock. There is a view that the registration in the Medical Council of India has improved lately.

120. An estimate of under-registration in the Medical Council Registers can be obtained as follows. Supposing that the estimate of Stock of Allopathic doctors based on the 1961 census count to be correct, the difference between the estimate based on the census and that of the registration data for the year 1964 which is about 13 thousand can be considered to be the under-registration. In percentage terms, under-registration works out, about 12% of the Stock of Doctors in 1964 based on the census data. The Planning Commission, in their study, has estimated the under-registration during 1950-53 to be 16%. It can be deduced from these figures of under-registration that the coverage of registration has improved by about 4 per cent during 1953-64.

121. The estimate of the stock of doctors in 1964 as obtained from the Census of India, 1961 is 1,08,240. This estimate also suffers from certain deficiencies, some of which will lead to over-estimation and the others to under-estimation of stock of doctors. However, we assume that these may balance each other. For the purpose of this study it has been assumed that the true figure of stock of doctors may lie anywhere between registration figure of the Medical Council of India and the estimate of active doctors based on the 1961 Census. The detailed estimates by sex, rural urban distribution etc., however, are based on the 1961 census.

122. The State-wise and sex-wise distribution of the estimate of stock of doctors in India in 1964 is given in Section IV Table 30. The total stock of doctors is 1,08,240 consisting of 95,901 men doctors and 12,339 women doctors.

123. The rural-urban distribution of the total stock of doctors at the end of 1964 is not available as such. However, assuming that the pattern of distribution as given in Table 9 would not have changed substantially, the distribution is worked out and given in Table 45. Of the total number of doctors, it is estimated that nearly 68% are in the Urban areas and 32% are in Rural areas. Among the men doctors 65% are in the Urban areas and the balance are in the Rural areas, whereas in the case of women doctors about 87% are in the Urban areas.

124. Of the stock of doctors, the total active doctors are nearly one hundred thousand consisting of 88 thousand (88%) men doctors and 12 thousand (12%) women doctors. Assuming that the pattern of distribution of active doctors by States will be the same as that in 1961 given in Table 22 the distribution in 1964 is worked out and given in Table 46.

#### Distribution by Activity:

125: Of the hundred thousand active doctors at the end of 1964, nearly 84% are working as professionals. Nearly 9% are working as teachers in medical educational institutions and 4% are working as administrators and executives. Three per cent of the doctors are engaged in activities like pharmaceutical agent etc. (See Table 31).

**TABLE 45**

**Rural-Urban Distribution of Doctors - 1964**

State	Urban		Rural			Total			
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Andhra Pradesh	5684	861	6545	1013	64	1077	6697	925	7622
Assam	772	66	838	2537	33	2570	3309	99	3408
Bihar	3620	356	3976	3862	76	3938	7482	432	7914
Gujarat	3090	422	3512	1705	47	1752	4795	469	5264
Jammu and Kashmir	278	65	343	67	3	70	345	68	413
Kerala	1139	380	1519	2205	274	2479	3344	654	3998
Madhya Pradesh	2969	490	3459	1253	52	1305	4222	542	4764
Madras	4496	1497	5993	779	144	923	5275	1641	6916
Maharashtra	9474	2506	11980	1715	103	1818	11189	2609	13798
Mysore	2968	461	3429	1304	45	1349	4272	506	4778
Orissa	1031	243	1274	1079	78	1157	2110	321	2431
Punjab	3958	478	4436	3240	151	3391	7198	629	7827
Rajasthan	1965	268	2233	730	26	756	2695	294	2989
Uttar Pradesh	5072	739	5811	4129	275	4404	9201	1014	10215
West Bengal	11105	667	11772	754	160	6914	17859	827	18686
Delhi	4616	1246	5862	-	-	-	4616	1246	5862
Himachal Pradesh	55	11	66	58	1	59	113	12	125
Manipur	59	7	66	59	3	62	118	10	128
Tripura	172	6	178	595	6	601	767	12	779
Pondicherry	142	10	152	20	4	24	162	14	176
Nagaland	12	3	15	24	-	24	36	3	39
Other Areas	18	3	21	78	9	87	96	12	108
All-India	62695	10785	73480	33206	1554	34760	95901	12339	108240



**TABLE 46**

**Distribution of total stock of Active Doctors by States - 1964**

State	Men		Women		Total	
	No.	%	No.	%	No.	%
Andhra Pradesh	6277	7.13	915	7.53	7192	7.18
Assam	3055	3.47	96	0.79	3151	3.14
Bihar	6981	7.93	422	3.47	7403	7.39
Gujarat	4375	4.97	461	3.79	4836	4.82
Jammu and Kashmir	334	0.38	69	0.57	403	0.40
Kerala	3046	3.46	650	5.35	3696	3.69
Madhya Pradesh	3988	4.53	533	4.39	4521	4.51
Madras	4921	5.59	1621	13.34	6542	6.53
Maharashtra	10106	11.48	2552	21.00	12658	12.64
Mysore	3926	4.46	492	4.05	4418	4.41
Orissa	1972	2.24	326	2.68	2298	2.30
Punjab	6515	7.40	626	5.15	7141	7.12
Rajasthan	2500	2.84	288	2.37	2788	2.79
Uttar Pradesh	8372	9.51	976	8.03	9348	9.33
West Bengal	16251	18.46	816	6.71	17067	17.03
Delhi	4190	4.76	1245	10.24	5435	5.43
Other Areas	1226	1.40	66	0.54	1292	1.29
All-India	88035	100.0	12154	100.0	100189	100.0

### Sector of Employment

126. The distribution of the hundred thousand active doctors by sectors of employment namely those employed in the public sector establishments, those employed in private sector establishments and those who are self employed (private practitioners) is worked out and given in Table 47. The number of those employed in public sector and private sector establishments is taken from Table 36 which is worked out based on the Directorate General of Employment and Training data. Those who are in private practice are estimated by sub-tracting these number of doctors from the total stock of active doctors. Of the estimated total stock of 100189 active doctors nearly fifty-three thousand are in private practice. This works out to nearly 53% of the total. Among the States the percentage of private practitioners to the total active doctors available is maximum in West Bengal (77%) followed by Punjab (64%). In Maharashtra, Mysore, Orissa and Gujarat, nearly 60% of all the doctors are employed as private practitioners. In Madras only 15% of the doctors are working as private practitioners whereas in Assam 26% are working as private practitioners. In Andhra Pradesh, Bihar, Kerala, Madhya Pradesh, Madras, Rajasthan and Uttar Pradesh the percentage number of doctors in public sector establishments is higher than at the All-India level. In Assam, Bihar, Gujarat, Kerala, Madras, and West Bengal the percentage number of doctors in the private sector establishments is higher than at the All-India level. In Assam nearly 38% of the doctors are in the private sector establishments possibly in the tea gardens. In Andhra Pradesh, Gujarat, Jammu and Kashmir, Kerala, Maharashtra, Mysore, Orissa, Punjab and West Bengal more than 50% of the doctors are engaged in private practice.

### Distribution by Qualification

127. The estimate of doctors by qualification is available from three sources, namely, Perspective Planning Division studies, Net-institutional out-turn and Medical Council of India. The estimates of graduate doctors obtained from these sources are 58 thousand, 57 thousand and 58 thousand respectively. Since the difference among the estimates is not very appreciable and since the estimates based on the net institutional out-turn suffer from the least number of limitations, this estimate is taken as the final estimate of the stock of doctors who are at least graduates in allopathic medicine. The estimate of graduate doctors at the end of 1964 is 57,188. Of the total stock of 108240 doctors, 57188 are graduates and the balance are licentiates. The stock of licentiates is 51052.

TABLE 47

## Distribution of Active Doctors by Sector of Employment

State	Public Sector Establishments			Private Sector Establishments		
	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7
Andhra Pradesh	2751 (43.8)	384 (41.9)	3135 (43.6)	113 (1.8)	66 (7.2)	179 (2.5)
Assam	1105 (36.2)	36 (37.5)	1141 (36.2)	1156 (37.8)	33 (34.4)	1189 (37.7)
Bihar	3024 (43.3)	204 (48.3)	3228 (43.6)	599 (8.6)	37 (8.8)	636 (8.6)
Gujarat	1464 (33.5)	168 (36.4)	1632 (33.7)	360 (8.2)	66 (14.3)	426 (8.8)
Jammu and Kashmir	131 (39.2)	28 (40.6)	159 (39.5)	24 (7.2)	4 (5.8)	28 (6.9)
Kerala	1279 (42.0)	223 (34.3)	1502 (40.6)	254 (8.3)	54 (8.3)	308 (8.3)
Madhya Pradesh	2541 (63.7)	261 (48.9)	2802 (61.9)	150 (3.8)	37 (6.9)	187 (4.1)
Madras	3942 (80.1)	970 (59.8)	4912 (74.9)	514 (10.4)	176 (10.8)	690 (10.5)
Maharashtra	4201 (41.6)	630 (24.6)	4831 (38.1)	473 (4.7)	84 (3.3)	557 (4.4)
Mysore	1529 (38.9)	219 (44.5)	1748 (39.6)	87 (2.2)	40 (8.1)	127 (2.8)
Orissa	861 (43.7)	43 (13.2)	904 (39.3)	57 (2.9)	17 (5.2)	74 (3.2)
Punjab	1883 (28.9)	348 (55.6)	2231 (31.2)	249 (3.8)	84 (13.3)	333 (4.7)
Rajasthan	1650 (66.0)	182 (63.1)	1832 (65.6)	68 (2.7)	14 (4.9)	82 (2.9)
Uttar Pradesh	4388 (52.4)	462 (47.3)	4850 (51.8)	491 (5.9)	70 (7.2)	561 (6.0)
West Bengal	2545 (15.7)	118 (14.4)	2663 (15.6)	1222 (7.5)	49 (6.0)	1271 (7.4)
Others Areas	1548 (28.6)	569 (43.1)	2117 (31.4)	302 (5.6)	91 (6.9)	393 (5.9)
All-India	34842 (39.6)	4845 (39.9)	39687 (39.6)	6119 (6.9)	922 (7.6)	7041 (7.0)

TABLE 47 (Contd. .)

Distribution of Active Doctors by Sector of Employment

	Self Employed			Total		
	Men	Women	Total	Men	Women	Total
	8	9	10	11	12	13
Andhra Pradesh	3413 (54.4)	465 (50.9)	3878 (53.9)	6277 (100.0)	915 (100.0)	7192 (100.0)
Assam	794 (26.0)	27 (28.1)	821 (26.1)	3055 (100.0)	96 (100.0)	3151 (100.0)
Bihar	3358 (48.1)	181 (42.9)	3539 (47.8)	6981 (100.0)	422 (100.0)	7403 (100.0)
Gujarat	2551 (58.3)	227 (49.2)	2778 (57.7)	4375 (100.0)	461 (100.0)	4836 (100.0)
Jammu and Kashmir	179 (53.6)	37 (53.6)	216 (53.6)	334 (100.0)	69 (100.0)	403 (100.0)
Kerala	1513 (49.7)	373 (57.4)	1886 (51.1)	3046 (100.0)	650 (100.0)	3696 (100.0)
Madhya Pradesh	1297 (32.5)	235 (44.2)	1532 (34.0)	3988 (100.0)	533 (100.0)	4521 (100.0)
Madras	465 (9.5)	475 (29.3)	940 (14.6)	4921 (100.0)	1621 (100.0)	6542 (100.0)
Maharashtra	5432 (53.7)	1838 (72.1)	7270 (57.5)	10106 (100.0)	2552 (100.0)	12658 (100.0)
Mysore	2310 (58.9)	233 (47.4)	2543 (57.6)	3926 (100.0)	492 (100.0)	4418 (100.0)
Orissa	1054 (53.4)	266 (81.6)	1320 (57.5)	1972 (100.0)	326 (100.0)	2298 (100.0)
Punjab	4383 (67.3)	194 (31.1)	4577 (64.1)	6515 (100.0)	626 (100.0)	7141 (100.0)
Rajasthan	782 (31.3)	92 (32.0)	874 (31.5)	2500 (100.0)	288 (100.0)	2788 (100.0)
Uttar Pradesh	3493 (41.7)	444 (45.5)	3937 (42.2)	8372 (100.0)	976 (100.0)	9348 (100.0)
West Bengal	12484 (41.7)	649 (79.6)	13133 (77.0)	16251 (100.0)	816 (100.0)	17067 (100.0)
Other Areas	3566 (65.8)	651 (50.0)	4217 (62.7)	5416 (100.0)	1311 (100.0)	6727 (100.0)
All-India	47074 (53.5)	6387 (52.6)	53461 (53.4)	88035 (100.0)	12151 (100.0)	100189 (100.0)

Age-distribution

128. Estimates of the age-distribution of the stock of doctors is available from four different sources. These are Perspective Planning Division of the Planning Commission, Census of India, 1961, Net-institutional out-turn and the Medical Council of India. A comparative picture of the estimates is given in Table 48 and Table 51 for the graduates and total doctors.

TABLE 48Comparative Percentage, age-distribution of Graduate Doctors

Age-Group	Perspective Planning Division	Net- Institutional out-turn	Medical Council of India	
			Age Group	Doctors %
Below 34	67.3)	59.4)	Less than 30	31.2
35 - 44	15.6) 82.9	23.5) 82.9	30-39	40.3
45 - 54	9.1	9.8	40-49	13.5
55 - 64	6.4	5.6	50-59	8.8
65 +	1.6	1.7	60+	6.2
Total	100.0	100.0		100.0

129. There is no appreciable difference between the percentage age-distribution obtained from the two sources Perspective Planning Division and Net-institutional out-turn. The only difference is in the age-groups "below 34" and 35-44. But when these two age-groups are put together, the percentage of the doctors in the two sources are the same. The age-distribution of graduate doctors obtained from Medical Council Register is different from the other two sources. Recasting this age-distribution, on the assumption that within each age-group the distribution

TABLE 49

Age-distribution of Graduate Doctors - Medical  
Council Register

<u>Age-group</u>	<u>Percentage of doctors</u>
34 or below	47.0
35-44	29.4
45 - 54	11.3
55 +	12.3
Total	100.0

130. Comparing this with the other two distributions we see that, the age-distribution obtained above shows the stock of doctors to be older than the other two age-distributions. This may be due to the under-registration of the young doctors who are in the age-group below 34. Accepting that the age-distribution of graduate doctors obtained from the net-institutional out-turn of graduate doctors can be taken to be correct the distribution is given in Table 39 in Section V.

131. The comparative age-distribution of total doctors obtained on the basis of the Perspective Planning Division Study, the Census of India 1961 and the Medical Council Register is given in Table 50. The age-groups followed in the three distributions are different. Assuming that the distribution of persons in each age-group will be uniform and recasting the table and using the same age-groups and the following picture emerges. (See Table 51).

132. The percentage, age-distribution based on the perspective Planning Division Study and Census of India 1961 is similar, with the only difference that the Perspective Planning Division Study shows about 6% more doctors in the age-group "below 34" where as the Census of India estimates show about 3.5% more doctors in the age-group 65+. The age-distribution obtained on the basis of Medical Register shows the stock to be older most probably because of a large prevalence of under-registration among young doctors. Of the three age-distributions, that distribution which is midway between the other two is accepted. The actual age-distribution based on the Census of India 1961 is given in Table 28 of Section III.

TABLE 50

Comparative age-distribution of total Doctors

Perspective Planning Division		Census of India 1961		Medical Council Register	
Age-group	% Doctors	Age-group	% Doctors	Age-group	% Doctors
34 or below	48.1	33 or below	39.3	below 40	54.2
35-44	21.4	34-48	33.6	40-49	17.6
45-54	16.2	49-63	19.7	50-59	16.1
55-64	11.1	64+	7.4	60+	13.1
65+	3.2				
<b>Total</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>

TABLE 51

Percentage distribution of total Doctors by age-groups

Age-group	Perspective Planning Division	Census of India 1961	Medical Council Register
34 or below	48.1	42.0	34.6
35-44	21.4	22.4	28.4
45-54	16.2	16.8	16.4
55-64	11.1	12.1	14.1
65+	3.2	6.7	6.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

133. The age-distribution of licentiate doctors is obtained by subtracting the distribution of graduate doctors from the distribution of total doctors and is given below:

TABLE 52

Age-distribution of Licentiate Doctors

Age-group	Men		Women		Total	
	Number	%	Number	%	Number	%
34 or less	10728	21.9	807	39.1	11535	22.6
35-39	7348	15.0	134	6.5	7482	14.7
40-49	12982	26.5	590	28.6	13572	26.6
50-64	12836	26.2	414	20.1	13250	25.9
65+	5095	10.4	118	5.7	5213	10.2
Total	48989	100.0	2063	100.0	51052	100.0

Doctor-Population Ratio

134. The doctor population ratio of the total available number of doctors at the end of 1964 is worked out and given in Table 53.

There are 227 doctors for every million population. This means that there are 4450 persons per doctor. There are 1997 doctors per million population in Delhi, 617 in Tripura and 481 in West Bengal. Among the States the least number of doctors are in Jammu and Kashmir and among the Union Territories the least number of doctors per million of population is in Himachal Pradesh.



TABLE 53

Doctor Population Ratio, 1964

States	Doctor per Million Population		
	Men	Women	Total
Andhra Pradesh	172	24	196
Assam	250	7	257
Bihar	148	9	157
Gujarat	210	20	230
Jammu and Kashmir	93	19	102
Kerala	179	36	215
Madhya Pradesh	119	15	134
Madras	146	46	192
Maharashtra	256	60	316
Mysore	187	22	209
Orissa	110	17	127
Punjab	351	31	382
Rajasthan	120	13	133
Uttar Pradesh	114	13	127
West Bengal	460	21	481
Delhi	1571	426	1997
Himachal Pradesh	77	8	85
Manipur	151	11	162
Tripura	608	9	617
Pondicherry	410	43	453
Nagaland	103	10	113
Other areas	88	10	98
All-India	201	26	227

APPENDIX - I

DISTRIBUTION OF DOCTORS BY DISTRICTS IN  
URBAN OR RURAL AREAS, 1961

ANDHRA PRADESH

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Kurnool	253	27	280	27	-	27	280	27	307
Mahboobnagar	60	4	64	16	-	16	76	4	80
Hyderabad	2684	197	2881	42	4	46	2726	201	2927
Medak	34	4	38	22	1	23	56	5	61
Nizamabad	30	4	34	37	5	42	67	9	76
Adilabad	34	6	40	21	-	21	55	6	61
Karimnagar	30	4	34	53	1	54	83	5	88
Warangal	58	12	70	31	1	32	89	13	102
Khamam	56	1	57	26	1	27	82	2	84
Nalgonda	40	4	44	18	6	24	58	10	68
Srika Kulam	61	4	65	69	4	73	130	8	138
Visakha Patnam	420	75	495	72	2	74	492	77	569
East Godavari	381	58	439	128	5	133	509	63	572
West Godavari	129	25	154	48	3	51	177	28	205
Krishna	281	42	323	62	2	64	344	44	388
Guntur	258	65	323	88	2	101	356	68	424
Nellore	133	21	154	31	3	34	164	24	188
Chittoor	121	23	144	22	2	24	143	25	168
Cuddapah	55	8	63	11	-	11	66	8	74
Anantpur	71	13	84	90	1	91	161	14	175
<b>Grand Total</b>	<b>5190</b>	<b>597</b>	<b>5787</b>	<b>924</b>	<b>44</b>	<b>968</b>	<b>6114</b>	<b>641</b>	<b>6755</b>

ASSAM

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Gopalpara	48	2	50	218	4	222	266	6	272
Kamrup	169	11	180	313	4	317	482	15	497
Sibsagar	33	2	35	262	-	262	295	2	297
Lakhimpur+	117	8	125	250	5	255	367	13	380
United Mikir and north									
Cachar hills	7	-	7	88	-	88	95	-	95
Mizo hills	4	1	5	12	-	12	16	1	17
Garo hills	7	1	8	15	2	17	22	3	25
United Kheri and									
Jerintna hills	70	8	78	41	8	49	111	16	127
Nowganj	54	5	59	69	-	69	123	5	128
Darrang	41	3	44	903	-	903	944	3	947
Cachar	160	4	164	162	-	162	322	4	326
Grand Total	710	45	755	2333	23	2356	3043	68	3111

BIHAR

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Patna	863	80	943	255	7	262	1118	87	1205
Gaya	210	18	228	157	2	159	367	20	387
Shahabad	157	13	170	109	-	109	266	13	279
Palamau	34	4	38	35	3	38	69	7	76
Hazaribagh	114	10	124	82	4	86	196	14	210
Ranchi	149	17	166	74	4	78	223	21	244
Dhanbad	198	7	205	134	3	137	332	10	342
Singhbhum	233	32	265	52	1	53	285	33	318
Monghyr	227	6	233	79	13	92	306	19	325
Bhagalpur	158	5	163	1053	-	1053	1211	5	1216
Saharsa	46	5	51	34	-	34	80	5	85
Purnea	158	11	169	109	-	109	267	11	278
Santhal Parganas	115	7	122	103	-	103	118	7	125
Saran	85	4	89	462	6	468	547	10	557
Champaran	97	5	102	98	1	99	195	6	201
Muzzafarpur	199	5	204	573	7	580	772	12	784
Dharbhanga	289	17	306	146	1	147	435	18	453
Grand Total	3332	246	3578	3555	52	3607	6887	298	7185

GUJARAT

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Junagadh	139	7	146	43	1	44	182	8	190
Kutch	60	4	64	136	2	138	196	6	202
Surat	299	35	334	227	9	236	526	44	570
Amreli	59	3	62	27	1	28	86	4	90
Panchmahals	83	20	103	77	4	81	160	24	184
Surendra Nagar	80	2	82	29	-	29	109	2	111
Broach	73	5	78	102	1	103	175	6	181
Kaira	178	12	190	209	7	216	387	19	406
Sabar Kantha	41	2	43	139	1	140	180	3	183
Mehsara	124	5	129	116	-	116	240	5	245
Bansas Kantha	43	2	45	45	-	45	88	2	90
Bhavnagar	127	11	138	55	-	55	182	11	193
Ahmedabad	775	82	857	98	1	99	873	83	956
Jamnagar	226	26	252	28	-	28	254	26	280
Baroda	340	20	360	170	5	175	510	25	535
Dangs	-	-	-	10	-	10	10	-	10
Rajkot	198	55	253	58	-	58	256	55	311
<b>Grand Total</b>	<b>2845</b>	<b>291</b>	<b>3136</b>	<b>1569</b>	<b>32</b>	<b>1601</b>	<b>4414</b>	<b>323</b>	<b>4737</b>

JAMMU AND KASHMIR

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Jammu	56	14	70	11	-	11	67	14	81
Poonch - Rajouri	6	1	7	2	-	2	8	1	9
Udhampur	7	1	8	7	-	7	14	1	15
Kathua	7	2	9	2	-	2	9	2	11
Doda	6	1	7	7	-	7	13	1	14
Ladakh	2	-	2	6	11	7	8	1	9
Baramulla	14	2	16	6	-	6	20	2	22
Srinagar	153	20	173	16	1	17	169	21	190
Anantnag	5	5	10	6	-	6	11	5	16
<b>Grand Total</b>	<b>256</b>	<b>46</b>	<b>302</b>	<b>63</b>	<b>2</b>	<b>65</b>	<b>319</b>	<b>48</b>	<b>367</b>

KERALA

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Cannanore	103	12	115	125	9	134	228	21	249
Kozhikode	219	50	269	271	10	281	490	60	550
Palghat	61	20	81	145	12	157	206	32	238
Trichur	64	18	82	170	9	179	234	27	261
Ernakulam	133	39	172	233	26	259	366	65	431
Kottayam	58	18	76	305	26	331	363	44	407
Alleppey	109	25	134	279	45	324	388	70	458
Quilon	34	15	49	303	22	325	337	37	374
Trivandrum	260	69	329	182	32	214	442	101	543
Grand Total	1041	266	1307	2013	191	2204	3054	457	3511

MADHYA PRADESH

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Gwalior	303	36	339	14	-	14	317	36	353
Datia	12	1	13	17	-	17	29	1	30
Bhind	16	2	18	12	-	12	28	2	30
Morena	22	3	25	21	-	21	43	3	46
Guna	21	1	22	6	-	6	27	1	28
Shivpuri	20	-	20	9	1	10	29	1	30
Chhatarpur	39	2	41	36	2	38	75	4	79
Tikamgarh	10	1	11	20	-	20	30	1	31
Panna	4	1	5	5	-	5	9	1	10
Satna	28	4	32	17	-	17	45	4	49
Shahdol	28	2	30	35	1	36	63	3	66
Rewa	33	4	37	17	-	17	50	4	54
Mandsaur	48	8	56	32	4	36	80	12	92
Sidhi	2	-	2	9	-	9	11	-	11
Ratlam	78	3	81	8	-	8	86	3	89
Ujjain	100	13	113	9	6	15	109	19	128
Jhabva	13	5	18	15	-	15	28	5	33
Dhar	34	2	36	32	-	32	66	2	68
Indore	391	73	464	12	-	12	403	73	476
Dewas	29	1	30	5	-	5	34	1	35
East Nimar	77	5	82	41	-	41	118	5	123
West Nimar	70	4	74	27	-	27	97	4	101
Shajapur	28	4	32	22	-	22	50	4	54
Rajgarh	16	3	19	1	-	1	17	3	20

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Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Sehore (Bhopal)	243	38	281	12	-	12	255	38	293
Vidisha	26	2	28	2	-	2	28	2	30
Raisen	7	2	9	5	-	5	12	2	14
Botul	29	1	30	-	-	-	29	1	30
Hoshangabad	53	6	59	26	2	28	79	8	87
Sagar	74	6	80	11	2	13	85	8	93
Domah	29	2	31	6	-	6	35	2	37
Jabalpur	313	42	355	26	1	27	339	43	382
Narsimhapur	27	2	29	10	-	10	37	2	39
Mandla	17	1	18	20	-	20	37	11	38
Chindwara	63	5	68	42	-	42	105	5	110
Seoni	12	2	14	34	1	35	46	3	49
Balaghat	26	1	27	51	1	52	77	2	79
Sarguja	25	1	26	25	1	26	50	2	52
Balaspur	106	14	120	76	3	79	182	17	199
Raigarh	27	5	32	28	1	29	55	6	61
Durg	94	13	107	114	7	121	208	40	228
Raipur	126	14	140	210	3	213	336	17	353
Bastar	17	2	19	35	-	35	52	2	54
Grand Total	2736	337	3073	1155	36	1191	3891	373	4264

MADRAS

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Madras Corporation	1481	478	1959	-	-	-	1481	478	1959
Kanya Kumari	56	8	64	47	4	51	103	12	115
Ramanathapuram	150	23	173	45	3	48	195	26	221
Tirunelveli	216	38	254	35	4	39	251	42	293
Thanjavur	313	68	381	46	1	47	359	69	428
Tiruchirapalli	286	42	328	44	3	47	330	45	375
Madurai	396	112	508	20	13	33	416	125	541
Coimbatore	344	80	424	106	16	122	450	96	546
Salem	129	14	143	129	18	147	258	32	290
South Arcot	111	24	135	59	6	65	170	30	200
North Arcot	395	119	514	89	18	107	484	137	621
Nilgiris	67	-	67	22	-	22	89	-	89
Chinglepet	162	36	198	70	14	84	232	50	282
Grand Total	4106	1042	5148	712	100	812	4818	1142	5960

MAHARASHTRA

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Sholapur	286	29	315	51	2	53	337	31	368
Dhulia	163	4	167	15	-	15	178	4	182
Ratnagiri	139	5	144	107	1	108	246	6	252
Kolaba	37	5	42	36	-	36	73	5	78
Satara	130	14	144	86	5	91	216	19	235
Sangli	101	13	114	99	4	103	200	17	217
Buldhana	78	8	86	104	2	106	182	10	192
Chanda	39	5	44	51	3	54	90	8	98
Nagpur	584	108	692	20	2	22	604	110	714
Wardha	37	-	37	40	1	41	77	1	78
Yeotmal	126	22	148	69	1	70	195	23	218
Bhandara	73	4	77	48	3	51	121	7	128
Nasik	295	107	402	61	1	62	356	108	464
Thana	141	45	186	105	19	124	246	64	310
Ahmednagar	117	22	139	116	2	118	233	24	257
Poona	1110	249	1359	41	10	51	1151	259	1410
Parbhani	51	3	54	25	-	25	76	3	79
Amravati	194	84	278	58	1	59	252	85	337
Jalgaon	175	22	197	82	4	86	257	26	283
Aurangabad	150	8	158	40	3	43	190	11	201
Kolhapur	139	21	160	100	3	103	239	24	263

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Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Akola	134	15	149	70	2	72	204	17	221
Bombay	4181	936	5117	-	-	-	4181	936	5117
Osmanabad	131	1	132	66	1	67	197	2	199
Nanded	42	1	43	48	-	48	90	1	91
Bhir	8	-	8	30	1	31	38	1	39
Grand Total	8661	1732	10393	1568	71	1639	10229	1803	12032

TABLE

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Bijapur	52	3	55	80	1	81	132	4	136
Raichur	90	4	94	7	-	7	97	4	101
Chitaldrug	90	10	100	68	1	69	158	11	169
Bidar	35	1	36	18	-	18	53	1	54
Gulbarga	103	7	110	7	-	7	110	7	117
Dharwar	307	20	327	78	1	79	385	21	406
North Kanara	26	-	26	77	1	78	103	1	104
Belgaum	177	10	187	120	2	122	297	12	309
Chikmagalur	39	6	45	47	1	48	86	7	93
Mandya	51	5	56	42	-	42	93	5	98
Shimoga	99	9	108	38	1	39	137	10	147
Hassan	30	6	36	46	-	46	76	6	82
Coorg	23	5	28	159	6	165	182	11	193
South Kanara	238	28	266	151	7	158	389	35	424
Mysore	354	52	406	54	4	58	408	56	464
Bellary	104	7	111	16	-	16	120	7	127
Kolar	85	12	97	54	3	57	139	15	154
Tumkur	61	7	68	66	1	67	127	8	135
Banglore	752	126	878	65	2	67	817	128	945
Grand Total	2716	318	3034	1193	31	1224	3909	349	4258

ORISSA

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Cuttack	287	37	324	348	32	380	635	69	704
Koraput	50	9	59	55	-	55	105	9	114
Kalahandi	14	1	15	4	-	4	18	1	19
Sambalpur	155	52	207	93	4	97	248	56	304
Baudh-Khondwals	4	-	4	19	2	21	23	2	25
Ganjam	154	16	170	49	1	50	203	17	220
Sundargarh	58	8	66	10	-	10	68	8	76
Dhen Khanal	8	2	10	18	2	20	26	4	30
Puri	122	24	146	52	7	59	174	31	205
Keon Jhar	18	-	18	186	5	191	204	5	209
Mayurbhanj	2	13	15	39	2	41	41	15	56
Balasore	50	5	55	103	-	103	153	5	158
Bolangir	23	3	26	12	1	13	35	4	39
Grand Total	945	170	1115	988	56	1044	1933	226	2159

PUNJAB

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Hissar	67	12	79	102	3	105	169	15	184
Rohtak	462	27	489	148	1	149	610	28	639
Gurgaon	48	10	58	36	-	36	84	10	94
Karnal	56	10	66	137	-	137	193	10	203
Ambala	382	56	438	299	11	310	681	67	748
Simla	66	16	82	-	-	-	66	16	82
Kangra	136	10	146	298	23	321	434	33	467
Lahaul and Spiti	7	-	7	-	-	-	7	-	7
Hoshiarpur	260	9	269	136	-	136	396	9	405
Jullundur	316	12	328	389	8	397	705	20	725
Ludhiana	313	35	348	273	11	284	586	46	632
Ferozepur	170	7	177	147	16	163	317	23	340
Amritsar	366	59	425	280	15	295	646	74	720
Gurdaspur	138	10	148	257	-	257	395	10	405
Kapurthala	82	17	99	93	7	100	175	24	199
Bhatinda	202	6	208	63	-	63	265	6	271
Sangrur	150	2	152	106	5	111	256	7	263
Patiala	293	33	326	121	4	125	414	37	451
Mahendgarh	110	2	112	81	1	82	191	3	194
Grand Total	3624	333	3957	2966	105	3071	6590	438	7028

RAJASTHAN

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Ganganagar	120	2	122	55	1	56	175	3	178
Bikaner	87	15	82	15	-	15	82	15	97
Sirohi	40	3	43	3	-	3	43	3	46
Bhilwara	17	2	19	29	1	30	46	3	49
Jalore	2	-	2	6	-	6	8	-	8
Barmer	8	-	8	2	-	2	10	-	10
Nagaur	25	3	28	5	-	5	30	3	33
Chitorgarh	26	1	27	13	-	13	39	1	40
Jhunjhunu	28	1	29	18	-	18	46	1	47
Bharat Pur	93	3	96	20	-	20	113	3	116
Jaipur	308	59	367	72	1	73	380	60	440
Jhalwar	13	-	13	6	-	6	19	-	19
Churu	44	4	48	7	-	7	51	4	55
Bundi	8	2	10	9	1	10	17	3	20
Alwar	52	7	59	49	1	50	101	8	109
Dungarpur	11	-	11	15	3	18	26	3	29
Ajmer	332	25	357	5	1	6	337	26	363
Pali	35	3	38	20	-	20	55	3	58
Kota	92	5	97	185	5	190	277	10	287
Udaipur	95	11	106	34	2	36	129	13	142
Swaimodhopur	31	1	32	15	2	17	46	3	49
Sikar	34	5	39	35	-	35	69	5	74
Tonk	17	2	19	25	-	25	42	2	44
Banswara	8	3	11	5	-	5	13	3	16
Jodhpur	152	22	174	23	-	23	175	22	197
Jaisalmer	7	-	7	-	-	-	7	-	7
Grand Total	1805	185	1990	671	18	689	2476	203	2679



UTTAR PRADESH

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Bareilly	111	24	135	57	1	58	168	25	193
Pilibhit	7	3	10	25	-	25	32	3	35
Bijnor	82	6	88	85	-	85	167	6	173
Moradabad	206	11	217	134	-	134	340	11	351
Badaun	100	1	101	20	-	20	120	1	121
Rampur	53	2	55	64	2	66	117	4	121
Shajahanpur	35	1	36	17	-	17	52	1	53
Lucknow	629	89	718	5	1	6	634	90	724
Unmao	29	1	30	25	-	25	54	1	55
Sitapur	59	7	66	13	17	30	72	24	96
Kheri	26	-	26	66	-	66	92	-	92
Hardoi	79	5	84	12	-	12	91	5	96
Rae Barely	19	2	21	36	-	36	55	2	57
Varanasi	244	22	266	99	15	114	343	37	380
Mirzapur	63	7	70	184	16	200	247	23	270
Ballia	18	2	20	138	1	139	156	3	159
Jaunpur	25	2	27	58	1	59	83	3	86
Gorakhpur	114	19	133	80	1	81	194	20	214
Deoria	14	-	14	74	2	76	88	2	90
Gazipur	7	1	8	188	11	199	195	12	207
Gonda	31	-	31	22	-	22	53	-	53
Barabanki	11	7	18	18	-	18	29	7	36
Faizabad	76	4	80	27	-	27	103	4	107
Bahraich	104	11	115	134	3	137	238	14	252
Sultanpur	17	1	18	27	-	27	44	1	45
Pratapgarh	11	1	12	60	-	60	71	1	72
Uttar Kashi	5	1	6	3	-	3	8	1	9
Chamoli	-	-	-	8	-	8	8	-	8
Tehri-Garhwal	2	2	4	5	-	5	7	2	9
Pithorgarh	-	-	-	35	1	36	35	1	36
Garhwal	12	1	13	4	-	4	16	1	17
Almora	8	-	8	4	-	4	12	-	12
Nainital	49	8	57	22	1	23	71	9	80
Jhansi	179	9	188	167	-	167	346	9	355
Jalaun	21	12	33	77	-	77	98	12	110

(Continued on Next Page)

UTTAR PRADESH (Contd.)

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Hamirpur	12	10	22	27	3	30	39	13	52
Banda	77	1	78	13	-	13	90	1	91
Basti	20	-	20	78	15	93	98	15	113
Azamgarh	30	2	32	10	1	11	40	3	43
Allahabad	227	20	247	38	13	51	265	33	298
Fatehpur	10	2	12	59	-	59	69	2	71
Aligarh	151	-	151	210	43	253	361	43	404
Mathura	154	2	156	182	-	182	336	2	338
Mainpuri	35	2	37	43	1	44	78	3	81
Agra	341	101	442	52	2	54	393	103	496
Etaha	36	5	41	-	1	1	36	6	42
Saharanpur	76	2	78	169	5	174	245	7	252
Dehradun	84	2	96	18	-	18	112	2	114
Meerut	180	25	185	353	6	359	513	31	544
Muzaffarnagar	86	3	89	306	24	330	392	27	419
Farrukhabad	20	2	22	2	-	2	22	2	24
Bulandshahr	72	8	80	184	4	188	256	12	268
Etawah	64	-	64	15	-	15	79	-	79
Kanpur	518	64	582	16	-	16	535	64	599
<b>Grand Total</b>	<b>4630</b>	<b>513</b>	<b>5143</b>	<b>3768</b>	<b>191</b>	<b>3959</b>	<b>8398</b>	<b>704</b>	<b>9092</b>

WEST BENGAL

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Calcutta	4765	352	5117	-	-	-	4765	352	5117
Birbhum	99	4	103	269	2	271	368	6	374
Jalpaiguri	248	1	249	292	2	294	540	3	543
Howrah	757	15	772	284	1	285	1041	16	1057
Burdwan	647	7	654	540	7	547	1187	14	1201
Midnapur	418	3	421	463	18	481	881	21	902
Nadia	306	-	306	570	11	581	876	11	887
Murshidabad	155	2	157	554	65	559	709	7	716
Hooghly	498	15	513	158	69	167	656	24	680
Purulia	68	4	72	122	3	125	190	7	197
24-Parganas	1530	27	1557	1699	9	1708	3229	36	3265
Darjeeling	114	26	140	51	1	52	165	27	192
West Dinajpur	185	2	187	260	1	261	445	3	448
Cooch Behar	151	1	152	320	-	320	471	1	472
Malda	88	1	89	291	4	295	379	5	384
Bankura	134	1	135	308	38	346	442	39	481
<b>Grand Total</b>	<b>10163</b>	<b>461</b>	<b>10624</b>	<b>6181</b>	<b>111</b>	<b>6292</b>	<b>16344</b>	<b>572</b>	<b>16916</b>

UNION TERRITORIES

Districts	Urban			Rural			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
<u>Delhi</u>	4244	868	5112	-	-	-	4244	868	5112
<u>Himachal Pradesh</u>									
1. Chamba	9	-	9	7	-	7	16	-	16
2. Mandi	19	2	21	11	1	12	30	3	33
3. Bilaspur	4	-	4	5	-	5	9	-	9
4. Mahabu	10	4	14	23	-	23	32	4	36
5. Sirmur	9	1	10	5	-	5	14	1	15
6. Kinnaur	-	-	-	3	-	3	3	-	3
<u>Total</u>	51	7	58	53	1	54	104	8	112
<u>Nepal</u>	-	-	-	66	5	71	66	5	71
<u>Manipur</u>	63	5	68	62	2	64	125	7	132
<u>Tripura</u>	160	4	164	550	4	554	710	8	718
<u>Pondicherry</u>	132	7	139	18	5	23	150	12	162
<u>Nagaland</u>									
1. Kohima	11	2	13	7	-	7	18	2	20
2. Mokokchung	1	1	2	2	-	2	3	1	4
3. Tuensang	-	-	-	16	-	16	16	-	16
<u>Total</u>	12	3	15	25	-	25	37	3	40
<u>Goa, Daman, Diu</u>	9	-	9	7	-	7	16	-	16
<u>Dadra, Nagar, Haveli</u>									
<u>Haveli</u>	-	-	-	3	-	3	3	-	3
<u>Laccadive Minicoy Islands</u>									
<u>Islands</u>	-	-	-	4	1	5	4	1	5
<u>Andaman and Nicobar Islands</u>									
<u>Islands</u>	9	2	11	9	1	10	18	3	21
<u>Sikkim</u>	2	-	2	-	-	-	2	-	2
<u>Grand Total</u>	4682	896	5578	797	19	816	5479	915	6394

APPENDIX II

DOCTOR-POPULATION RATIO BY DISTRICTS

(Ratio of Doctors per million Population, 1961)

ANDHRA PRADESH

S. No.	District	Men	Women	Total
1.	Karnool	147	14	161
2.	Mahboobnagar	48	2	50
3.	Hyderabad	1323	98	1421
4.	Medak	46	4	50
5.	Nizamabad	66	9	75
6.	Adilabad	55	6	61
7.	Karim Nagar	51	3	54
8.	Warangal	58	8	66
9.	Khammam	78	2	80
10.	Nalgonda	37	6	43
11.	Srikakulam	56	3	59
12.	Visakhapatnam	210	33	243
13.	East Godawari	195	24	219
14.	West Godawari	89	15	104
15.	Krishna	166	21	187
16.	Guntur	119	23	142
17.	Nellore	81	12	93
18.	Chittoor	75	13	88
19.	Cuddapah	49	6	55
20.	Anantpur	91	8	99
Total		170	18	188

ASSAM

S. No.	Districts	Men	Women	Total
1.	Gopalpara	173	4	177
2.	Kamrup	234	7	241
3.	Sibsagar	197	1	198
4.	Lakhimpur	235	8	243
5.	United Mikir North Cachar Hills	206	-	206
6.	Mizo Hills	62	3	65
7.	Garo Hills	73	10	83
8.	United Khasi-Jaintia Hills	241	34	276
9.	Nowgong	102	4	106
10.	Darrang	733	2	735
11.	Cachar	234	3	237
	Total	256	6	262

BIHAR

S. No.	District	Men	Women	Total
1.	Patna	379	30	409
2.	Gaya	101	5	106
3.	Shahabad	83	4	87
4.	Palnava	58	6	64
5.	Hazaribagh	82	6	88
6.	Ranchi	104	10	114
7.	Dhanbad	287	9	296
8.	Singhbhum	140	16	156
9.	Monghyr	90	6	96
10.	Bhagalpur	708	3	711
11.	Saharsa	46	3	49
12.	Purnea	87	3	90
13.	Santal Parganas	45	2	47
14.	Saran	153	3	156
15.	Champanan	65	2	67
16.	Muzaffarpur	188	3	191
17.	Darbhanga	99	4	103
	Total	148	7	155

GUJARAT

S. No.	District	Men	Women	Total
1.	Junagadh	147	7	154
2.	Kutch	284	9	293
3.	Surat	215	18	233
4.	Amreli	130	6	136
5.	Panch Mahals	110	16	126
6.	Surendra Nagar	165	3	168
7.	Broach†	197	7	204
8.	Kaira	196	10	206
9.	Sabar Kantha	198	3	201
10.	Mehsana	143	3	146
11.†	Banas Kantha	89	2	91
12.	Bhav Nagar	164	10	174
13.	Ahmedabad	395	38	433
14.	Jam Nagar	310	32	342
15.	Baroda	336	16	352
16.	Dangs	141	-	141
17.	Rajkot	213	46	257
Total		214	16	230



JAMMU AND KASHMIR

S. No.	District	Men	Women	Total
1.	Jammu	131	28	159
2.	Poonch Rajouri	25	3	28
3.	Udhampur	56	4	60
4.	Kathura	45	10	55
5.	Doda	50	4	54
6.	Ladakh	91	11	102
7.	Baramulla	34	3	37
8.	Srinagar	264	33	297
9.	Anantnag	17	8	25
Total		90	13	103

KERALA

S. No.	District	Men	Women	Total
1.	Cannanore	128	12	140
2.	Kozhikode	188	23	211
3.	Palghat	116	18	134
4.	Trichur	144	17	161
5.	Ernakulam	198	35	233
6.	Kottayam	210	25	235
7.	Alleppey	214	39	253
8.	Quilon	174	19	193
9.	Trivandrum	254	58	312
Total		181	27	208

MADHYA PRADESH

S. No.	District	Men	Women	Total
1.	Gwalior	488	55	543
2.	Datia	145	5	150
3.	Bhind	44	3	47
4.	Morena	55	4	59
5.	Guna	46	2	48
6.	Shivpuri	50	2	52
7.	Chhatarpur	129	7	136
8.	Tikarmgarh	67	2	69
9.	Panna	27	3	30
10.	Satna	65	6	71
11.	Shahdol	77	4	81
12.	Rewa	65	5	70
13.	Mandsaur	107	16	123
14.	Sidhi	19	-	19
15.	Ratlam	179	6	185
16.	Ujjain	165	29	194
17.	Jhabua	55	10	65
18.	Dhar	103	3	06
19.	Indore	538	97	38
20.	Dewas	78	2	80
21.	East Nimar	174	7	81
22.	West Nimar	98	4	02
23.	Shajapur	96	8	04
24.	Raj Garh	33	6	39
25.	Sehore	340	51	391
26.	Vidisha (Bhilsa)	58	4	62
27.	Raisen	29	5	34
28.	Betul	52	2	54
29.	Hoshangabad	130	13	143
30.	Sagar	108	10	118
31.	Damoh	81	5	86
32.	Jabalpur	267	34	301
33.	Narsimhapur	90	5	95
34.	Mandla	55	2	57
35.	Chindwara	135	6	141
36.	Seoni	89	6	95

MADHYA PRADESH (Contd.)

S. No.	District	Men	women	Total
37.	Balaghat	96	3	99
38.	Sarguja	50	2	52
39.	Bilaspur	90	8	98
40.	Raigarh	53	6	59
41.	Durg	111	11	122
42.	Raipur	168	9	177
43.	Bastar	45	2	47
Total		120	12	132

MADRAS

S.No.	District	Men	Women	Total
1.	Madras Corporation	861	278	1139
2.	Kanyakumari	206	24	230
3.	Ramnathapuram	81	10	91
4.	Tirunneveli	95	12	107
5.	Tanjavur	111	21	132
6.	Trichirapalli	103	14	117
7.	Madurai	129	39	168
8.	Coimbatore	127	27	154
9.	Salem	68	8	76
10.	South Arcot	57	10	67
11.	North Arcot	154	44	198
12.	Nilgiris	222	-	222
13.	Chingleput	106	23	129
Total		143	34	177

MAHARASHTRA

S. No.	District	Men	Women	Total
1.	Sholapur	181	17	198
2.	Dhulia	131	3	135
3.	Ratnagiri	135	3	138
4.	Kolaba	73	5	78
5.	Satara	151	13	164
6.	Sangli	163	13	176
7.	Buldhana	182	10	192
8.	Chanda	73	7	80
9.	Nagpur	400	73	473
10.	Wardha	122	1	123
11.	Yectmal	179	21	200
12.	Bhandara	96	6	102
13.	Nasik	192	58	250
14.	Thana	149	39	188
15.	Ahmednagar	131	14	145
16.	Poona	468	105	573
17.	Parbhani	63	2	65
18.	Amravati	205	69	274
19.	Jalgaon	146	15	161
20.	Aurangabad	124	7	131
21.	Kolhapur	150	15	165
22.	Akola	173	14	187
23.	Greater Bombay	1008	225	1233
24.	Osmanabad	134	1	135
25.	Nandad	84	1	85
26.	Bhir	38	10	48
	Total	258	46	304

MYSORE

S. No.	District	Men	Women	Total
1.	Bijapur	83	2	85
2.	Raichur	88	4	92
3.	Chitaldurg	158	11	169
4.	Bidar	80	1	81
5.	Gulbarga	85	5	90
6.	Dharwar	202	11	213
7.	North Canara	151	2	153
8.	Belgaum	150	6	156
9.	Chickmagalur	145	12	157
10.	Mandya	104	6	110
11.	Shimoga	135	10	145
12.	Hassan	85	7	92
13.	Coorg	569	34	603
14.	South Canara	249	22	271
15.	Mysore	244	34	278
16.	Bellary	132	7	139
17.	Kolar	108	11	119
18.	Tumkur	93	6	99
19.	Bangalore	327	51	378
Total		165	15	180

ORISSA

S. No.	District	Men	Women	Total
1.	Cuttack	212	23	235
2.	Koraput	70	6	76
3.	Kalahandi	18	1	19
4.	Sambalpur	165	37	202
5.	Baudh Khondmals	46	4	50
6.	Ganjam	109	9	118
7.	Sunder Garh	90	11	101
8.	Dhenkanal	26	4 <sup>f</sup>	30
9.	Puri	93	17	110
10.	Keonjhar	275	7	282
11.	Mayurbhanj	34	12	46
12.	Balasore	109	4	113
13.	Balangir	35	4	39
Total		110	13	123



PUNJAB

S.No.	District	Men	Women	Total
1.	Hissar	109	10	119
2.	Rohtak	429	20	449
3.	Gurgaon	68	8	76
4.	Karnal	129	7	136
5.	Ambala	497	49	546
6.	Simla	60	14	74
7.	Kangra	409	31	440
8.	Lahaul and Spiti	342	-	342
9.	Hoshiarpur	322	7	329
10.	Jullundur	578	16	594
11.	Ludhiana	586	46	632
12.	Ferozepur	197	14	211
13.	Amritsar	422	48	470
14.	Gurdaspur	403	10	413
15.	Kapurthala	515	70	585
16.	Bhatinda	265	6	271
17.	Sangrur	180	5	185
18.	Patiala	414	37	451
19.	Mahendargarh	354	5	359
	Total	324	22	346

RAJASTHAN

S.No.	District	Men	Women	Total
1.	Ganganagar	175	3	178
2.	Bikaner	186	34	220
3.	Sirohi	123	9	132
4.	Bhilwara	54	3	57
5.	Jalore	15	-	15
6.	Barmer	16	-	16
7.	Nagur	32	3	35
8.	Chitorgarh	55	1	56
9.	Jhunjhunu	65	1	66
10.	Bharatpur	99	3	102
11.	Jaipur	200	32	232
12.	Jhalwar	39	-	39
13.	Churu	79	6	85
14.	Bundi	51	9	60
15.	Alwar	101	8	109
16.	Dungarpur	65	8	73
17.	Ajmer	347	27	374
18.	Pali	69	4	73
19.	Kota	330	12	342
20.	Udaipur	92	9	101
21.	Swaimodhopur	49	3	52
22.	Sikar	84	6	90
23.	Tonk	86	4	90
24.	Banswara	28	6	34
25.	Jodhpur	199	25	224
26.	Jaisalmer	50	-	50
Total		116	10	126

UTTAR PRADESH

S.No.	District	Men	Women	Total
1.	Bareilly	114	17	131
2.	Pilibhit	52	5	57
3.	Bijnor	140	5	145
4.	Moradabad	172	6	178
5.	Badaun	85	1	86
6.	Rampur	167	6	173
7.	Shahajahanpur	47	1	48
8.	Lucknow	488	69	557
9.	Unneo	45	1	46
10.	Sitapur	45	15	60
11.	Kheri	73	-	73
12.	Hardoi	58	3	61
13.	Rai bareilly	42	1	43
14.	Varanasi	145	16	161
15.	Mirzapur	199	18	217
16.	Balia	117	2	119
17.	Jaunpur	49	2	51
18.	Gorakhpur	76	8	84
19.	Deoria	37	1	38
20.	Gazipur	148	9	157
21.	Gonda	25	-	25
22.	Barabanki	21	5	28
23.	Faizabad	63	2	65
24.	Bahraich	180	9	189
25.	Sultanpur	31	1	32
26.	Pratapgarh	56	1	57

(Continued on next Page)

UTTAR PRADESH (Contd.)

S. No.	District	Men	Women	Total
27.	Uttarkashi	67	8	75
28.	Chamoli	32	-	32
29.	Tehri-garhwal	20	6	26
30.	Pithoragarh	134	4	138
31.	Garhwal	33	2	35
32.	Almora	19	-	19
33.	Nainital	124	16	140
34.	Jhansi	320	8	328
35.	Jalaun	148	18	166
36.	Hamirpur	49	16	65
37.	Banda	95	1	96
38.	Basti	37	6	43
39.	Azamgarh	17	1	18
40.	Allahabad	110	14	124
41.	Fatehpur	69	2	71
42.	Aligarh	212	25	237
43.	Mathura	336	2	338
44.	Mainpuri	71	2	73
45.	Agra	211	55	266
46.	Etah	30	5	35
47.	Saharanpur	153	4	157
48.	Dehradun	266	5	271
49.	Meerut	190	11	201
50.	Muzaffarnagar	280	19	299
51.	Farrukhabad	17	1	18
52.	Buland Shahr	150	7	157
53.	Etawah	67	-	67
54.	Kanpur	224	27	251
Total		114	9	123

WEST BENGAL

S. No.	District	Men	Women	Total
1.	Calcutta	1632	120	1752
2.	Birbhum	255	4	259
3.	Jalpaiguri	400	2	402
4.	Howrah	520	8	528
5.	Burdwan	395	5	400
6.	Midnapur	203	5	208
7.	Nadia	512	6	518
8.	Murshidabad	309	4	313
9.	Hoogly	294	11	305
10.	Purulia	139	5	144
11.	24 Parganas	514	5	519
12.	Darjeeling	266	43	309
13.	West Dinajpur	337	2	339
14.	Cooch-bihar	471	1	472
15.	Maldah	310	4	314
16.	Bankura	266	23	289
	Total	468	16	484

**CHECKED**  
**2002-03**  
**UNION TERRITORIES**

S.No.	Territory	Men	Women	Total
	Delhi	1601	327	1929
<b><u>Himachal Pradesh</u></b>				
1.	Chamba	76	-	76
2.	Mandi	79	8	87
3.	Bilaspur	60	-	60
4.	Mahasu	91	11	102
5.	Sirmur	73	5	78
6.	Kinnaur	75	-	75
	<b>Total</b>	<b>77</b>	<b>6</b>	<b>83</b>
	<b><u>Nepal</u></b>	<b>200</b>	<b>15</b>	<b>215</b>
	<b><u>Manipur</u></b>	<b>160</b>	<b>9</b>	<b>169</b>
	<b><u>Tripura</u></b>	<b>622</b>	<b>7</b>	<b>629</b>
	<b><u>Pondicherry</u></b>	<b>417</b>	<b>33</b>	<b>450</b>
<b><u>Nagaland</u></b>				
1.	Kohima	180	20	200
2.	Mokokchung	25	8	33
3.	Tuen Sang	123	-	123
	<b>Total</b>	<b>103</b>	<b>8</b>	<b>111</b>
	<b><u>Goa, Daman, Diu</u></b>	<b>26</b>	<b>-</b>	<b>26</b>
	<b><u>Dadra and Nagar Haveli</u></b>	<b>52</b>	<b>-</b>	<b>52</b>
	<b><u>Laccadive, Minicoy and Aminidiv Islands</u></b>	<b>200</b>	<b>5</b>	<b>205</b>
	<b><u>Andaman and Nicobar Islands</u></b>	<b>300</b>	<b>50</b>	<b>350</b>
	<b><u>Sikkim</u></b>	<b>12</b>	<b>-</b>	<b>12</b>