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**MEDICAL MANPOWER (ALLOPATHIC)**  
**IN**  
**KERALA** 2

*ISSUED BY*  
**BUREAU OF ECONOMICS AND STATISTICS**  
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FOREWORD

Medical and public Health facilities are given very high priority in the Development schemes of Kerala. The state has to provide cheap medical relief to the people and prevent occurrence of communicable diseases besides giving proper health education to the masses. Family Planning and Welfare Measures also have assumed great importance in this state. Medical education has also made rapid progress here during the last two decades. The four Medical colleges and the Auxiliary Institutions provide the required medical Man Power in the state.

This paper gives a general out-line of the progress made in the Health Services sector of the state along with the development of Medical Education. An attempt has also been made in this study to assess the total requirements and estimated supply of various medical and para medical personnel till 1981 based on the data collected from the Directorate of Health Services, Medical colleges and other sources.

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MEDICAL MAN POWER IN KERALA

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## I. INTRODUCTION

1.1 In a welfare state like INDIA, providing the people with adequate Medical and Health amenities becomes one of the most important functions of the Government. These amenities include, among other things, provision of cheap medical relief, prevention of communicable diseases, family planning and health education. If per capita expenditure on health is reckoned as one of the criteria for judging the achievements in this field, then Kerala has made considerable progress. The per capita expenditure on health services in the state rose from Rs.9.87 in 1973-74 at the end of the Fourth Five Year Plan to Rs.11.23 in 1974-75 during the first year of the Fifth Five Year Plan. The per capita expenditure in Kerala is above the All India average for 1973-74 and 1974-75 and at the same time it is below the rates of many other states as may be seen from the following table.

Sl. No.	State	1973-74	1974-75
1.	Andhra Pradesh	7.30	8.24
2.	Assam	6.42	7.28
3.	Bihar	3.38	4.87
4.	Gujarat	9.27	10.35
5.	Haryana	..	11.08
6.	Himachal Pradesh	17.00	17.47
7.	Jammu & Kashmir	15.90	15.40
8.	Kerala	9.87	11.23
9.	Madhya Pradesh	7.69	8.29
10.	Maharashtra	11.88	12.02
11.	Manipur	12.08	14.92
12.	Meghalaya	19.55	20.17
13.	Karnataka	8.90	10.13
14.	Nagaland	55.17	50.33
15.	Orissa	6.87	7.94
16.	Punjab	13.85	13.98
17.	Rajasthan	9.67	11.06
18.	Tamil Nadu	..	9.78
19.	Tripura	11.12	12.86
20.	Uttar Pradesh	5.31	5.64
21.	West Bengal	8.97	9.83
	All India	7.90	8.81

The norms prescribed by the Mudaliar Committee remain yet to be achieved in several respects. The phenomenal increase in population and the financial constraints are the two main reasons for the short fall in achievements.

### 1.2 Mudaliar Committee Report (1961)

The Health, Survey and Planning Committee set up by the Government of India in 1961, prescribed the following norms to be achieved by the end of the Fourth Five Year Plan:-

Doctor	-	One doctor for 3000 to 3500 of the population
Dental Surgeon	-	One doctor for 3000 to 3500 of the population
Nurse-Midwife	-	One for 2000 of the population by 1981
Auxiliary Nurse-Midwife	-	One for 5000 of the population by 1976
Pharmacist	-	One for every three doctors
Bed strength	-	One for every thousand of population
Medical Colleges	-	One for every 50 lakhs of the population

Kerala with a population of 2.13 crores (1971) has four Medical Colleges. At the end of 1974-75 there were 881 Medical and public Health Institutions in the state with a total bed strength of 25,312. Hence the target fixed for 'bed strength' has also been achieved. Under the other items the targets have not been attained.

### 1.3 National Strategy on Health

The National strategy on health formulated by the Ministry of Health and Family planning has laid down among other things, the following objectives:-

- i. Establishment of one primary Health Centre for every 30,000 and one sub centre for every 5000 of the population.
- ii. Upgrading about 2000 primary Health Centres, to 25 bedded rural hospitals with doctors in charge of medicine, surgery, Obstetrics and Gynaecology with laboratory and 'X' RAY plant.
- iii. Increasing the number of beds in hospitals in rural areas.
- iv. Provision of a minimum package of health services covering curative and preventive medicine, mother and child health care, family planning and health education to the population.

~~Future requirements of medical and para medical personnel~~ have to be worked out based on the Mudaliar Committee recommendations. This has been attempted to in section IV of this paper. It may also be necessary to take into account the National Policy on health laid down by the Ministry of Health and Family Planning.

1.4 Unemployment among Doctors

Employment among the Doctors, as in the case of Engineers was not a problem in the past. With the growth of medical institutions in the state coupled with the incapacity of the state to provide employment avenues to the new Doctors due to inadequate of finance has already paved the way for unemployment a large number of Doctors. The number of Doctors in the live register of the Employment Exchanges during the years 1966-1975 is a clear indicator of a malady that is going to assume serious proportions in the years to come.

Number of Job Seekers in the Live Register of Employment Exchange

<u>Year</u>	<u>No. in the live register</u>
1966	19
1967	20
1968	48
1969	185
1970	281
1971	405
1972	671
1973	902
1974	726
1975	809

In the present study, efforts are made to highlight the salient features of the medical education, administration and employment (supply and demand) of medical and para medical personnel in the state.

It is well known that a Doctor should have certain minimum financial resources if he has to establish his own practice without waiting for employment in the Government or other private institutions. The solution to the problem of unemployment among doctors rests with the provision of the required finance and steps

to attract the experienced doctors to the rural areas by giving attractive perquisites and they may be the steps in the right direction instead of reducing the intake capacity of the colleges.

## II. MEDICAL EDUCATION IN KERALA

2.1 The first Medical College in Kerala was established in Trivandrum in 1951 prior to the reorganisation of states. During the second Five Year Plan, the second Medical College was established at Calicut and during the Third Five Year Plan two more Medical Colleges were established one at Kottayam and the other at Alleppey. Kerala with a population of 2.13 crores (1971) has now four Medical Colleges. It has thus achieved the norm of one College for 50 lakhs of population proposed by the Mudaliar Committee. With the establishment of these colleges the supply of Medical man power in the state has considerably increased. The intake capacity, courses offered etc. in these colleges vary and these details are given in the following paras.

### 2.2 Courses offered in the Medical colleges

All the four Colleges in Kerala coach up students for the M.B.B.S. Degree course. Post-graduate degree courses are also being conducted in the three Medical Colleges at Trivandrum, Kottayam and Calicut. B.Pharm course is being conducted in Trivandrum Medical College only. There is also a Dental College at Trivandrum with an intake capacity of 30 students per year.

In the beginning only M.B.B.S. courses were conducted in these colleges. Later on new courses like B.D.S., M.D., M.S. etc. have been introduced in these colleges. The names of the courses introduced, the year of introduction, duration and admission capacity are given in Appendix - I.

In addition to these certain other courses are also proposed to be introduced during the Fifth plan period in the Medical college, Trivandrum, the details of which are given below:-

Name of course	Duration	Admission capacity
1. D.T.C.D. (Diploma in Tuberculosis and Chest Diseases)	2 years	4
2. M.S. Laryngology and Otology	3 years	2
3. M.S. Psychiatry	3 years	2

2.3 Admission Policy for Degree Courses

The minimum qualification prescribed for admission to the M.B.B.S. course is a pass in the Pre-degree examination with Physics, Chemistry and Biology with at least 50 % marks in each of the optional subjects. The selection is based on the total marks secured in the optional subjects. A fixed number of seats are set apart for graduates in Science subjects prescribed for Medicine. Relaxation of 5 % marks is allowed to candidates belonging to Scheduled Castes/Tribes and educationally backward classes. Thirty five per-cent (35 %) of the total number of seats is reserved for the above communities as detailed below:-

Scheduled Caste/Tribe	10 %
Ezhava	9 %
Muslim	8 %
Other backward Hindus	5 %
Latin Catholic other than Anglo Indians	2 %
Other Christians	1 %
Total	35 %

Preference is also given to candidates having special proficiency in sports and games. Performance at Inter-state, Inter-Collegiate and Inter-University level will only be considered for awarding marks for proficiency in sports. The selection of candidates for all the four medical colleges is done at the Trivandrum Medical College and then the candidates are assigned to each college. The number of candidates admitted in 1975 for the main courses in the four Medical Colleges are given below:

Medical colleges

Name of course	Trivandrum	Calicut	Kottayam	Alleppey	Total
M.B.B.S.	185	179	80	80	524
B.D.S.	30	..	..	..	30
B.Pharm	25	..	..	..	25



## 2.4 Duration of the course and Subjects taught

M.B.B.S. course covers a duration of 4  $\frac{1}{2}$  years in three semesters of 1  $\frac{1}{2}$  years each while the B.D.S. and B.Pharm courses are for 4 years each. Securing the degree (M.B.B.S.) after 4  $\frac{1}{2}$  years' academic course, the students have to undergo 1 year compulsory Rotating House surgery. The subjects taught for each year for the M.B.B.S., B.D.S. and B.Pharm. courses are given in Appendix - II.

## 2.5 Fees and other items of expenditure

The total tuition fee for the degree courses are given below:-

M.B.B.S.	Rs.1800/-
B.D.S.	Rs.1440/-
B. Pharm.	Rs.1440/-

No library fee or fee for practical is realised from the students. But the students have to remit Rs.15/- per year at the time of joining, for sports and games. In addition to the tuition fees mentioned above, examination fees at the rates given below are realised from the candidates appearing for the three degree courses.

* M.B.B.S.	Rs.330/-
* B.D.S.	Rs.200/-
* B.PHARM.	Rs.540/-

The tuition fees realised in the colleges at Calicut, Kottayam and Alleppey are also the same as given above with slight difference in the amount of fees realised for items other than tuition fees. Similarly there is slight difference in the examination fees realised in the other colleges.

All the four colleges have attached hostels. The number of rooms available in the four colleges are given below:-

\* For the whole course

Name of College	No. of hostels for			No. of rooms available for		
	Gents	Ladies	Total	Gents	Ladies	Total
M.C. Trivandrum	3	1	4	291	130	421
M.C. Calicut	5	3	8		660*	660
M.C. Kottayam	1	1	2	50	50	100
M.C. Alleppey	2	2	4	110	26	136

The mess charges are realised at the rate of Rs.150/- per mensem from the students in each college. But room rent, lighting etc. are realised at Rs.20/- p.m. in the Medical College, Trivandrum and @ Rs.14/- p.m. in the other colleges.

## 2.6 Examinations

The standards of pass and the percentage of marks required for the same are as follows:-

Pass	-	50 %
Second Class	-	50 %
First class	-	60 %

The examinations are conducted in the conventional pattern with written, practical and viva-voce.

The students who come out successful in the examination for M.B.B.S. have to spend one year for House Surgeoncy. During this period they are paid a stipend of Rs.250/- p.m.

## 2.7 Nursing Education

In the Medical College, Trivandrum there is a college of Nursing coaching students for the B.Sc. degree in Nursing. Only students who have passed pre-degree examination in Science are admitted to this course which has a duration of 4 years. The admission capacity is only 25. The General Nurses Training certificate courses are held in the schools of Nursing attached to important hospitals in the private and public sectors. This course is conducted for a duration of 3½ years. The minimum qualification for admission to the course is a pass in the S.S.L.C. examination. There are nine schools of nursing in the

Public sector - one each attached to the Medical College, Trivandrum and Calicut and the remaining seven schools attached to the District Hospitals. - These schools can train 250 nurses every year. But admissions are limited to the actual requirements and availability of funds. Apart from the above nine schools of nursing there are three A.N.M. Training centres also under the state.

In the private sector also there are 17 schools of Nursing attached to important private hospitals. These schools have an intake capacity of 275 students. Thus the total intake capacity of the institutions in the private and public sector come to 525. Allowing a reasonable margin for failures and drop-outs the state can coach up about 450 nurses every year. But due to migration of nurses in large numbers to outside the state and even outside the country there is a short supply of qualified nurses.

## 2.8 Pharmacy course

There are Degree and Diploma courses in Pharmacy. B.Pharmacy course is conducted only in the Medical College, Trivandrum. But Diploma course in Pharmacy is conducted in all the four colleges. The minimum qualification prescribed for the Degree course is the same as that for the M.B.B.S. course and for Diploma course it is a pass in S.S.L.C.. The duration of the degree course is 4 years and that of Diploma is only one year. The total intake capacity for Diploma course in all the four medical colleges is 260 per year and for the Degree course it is 25.

According to the Bhole Committee Report there should be one pharmacist for every three Doctors. Allowing 10 % for failures and dropouts the out-turn from the four Medical Colleges will be only about 236 or 240. This is approximately 50 % of the estimated out-turn of Doctors from the four Medical Colleges against 33 1/3 % recommended by the Bhole Committee. The Pharmacy course was started in the Medical College, Alleppey only during the year 1973-74. There will be an initial shortage in the stock of pharmacists compared to the stock position of Doctors. Therefore the present intake capacity for this Diploma course has to be continued for some more time to meet this initial shortage and future requirements of qualified Pharmacists in the state.

### III. Utilisation of Medical Man Power

3.1 There are Institutions both in the public and private sector providing employment opportunities to the qualified Doctors and para-medical personnel coming out of the colleges and schools in the state. But a significant proportion of these persons migrate to other states in India and seek employment even out side India. Precise figures of such migration are not available. Those who continue to stay in the state take up employment either under Government or in private Institutions. A good number of Doctors are also unemployed as seen from the live register of the employment exchange. Statistics of Doctors who have set up independent practice are not available. The state has not so far achieved the norm of one Doctor for 3000 population recommended by the Mudaliar Committee. The non-achievement of the above goal in spite of the availability of large number of Doctors, based on the unemployment register, may be due to the limited employment opportunities in the private and public sectors and the migration of Doctors out-side the state.

#### 3.2 Distribution of Medical Man Power

As in other states one of the peculiarities in the distribution of Medical Man power is the sharp difference between the number of persons employed in urban areas and the number of persons working in rural areas. The over all availability of beds in hospitals for the state of Kerala, the number of beds available per lakh of population in the rural and urban areas are given below.

	Total population (in lakhs) mid- year (74-75)	Total No. of beds (1974-75)	No. of beds per lakh of popu- lation
For the whole state	23.45	25312	109
For cities and towns	37.74	17328	451
For rural areas	194.71	7984	41

It is true that the Medical Institutions in the urban areas serve the rural population as well to some extent. But the need to strengthen the medical man power in the rural areas

has to be stressed. This may be done by giving all possible attractions such as free furnished accommodation, special allowance to doctors, free travel facilities, educational allowances to the children etc.

### 3.3 Utilisation of Medical Personnel in the Teaching Institutions

For each important branch of medicine taught in the Medical colleges there is a Director with a Professor under him. Under the Professor there are a number of Associate/Assistant Professors and Tutors. The staff pattern in the colleges are given below.

Name of Medical College	Director	Professor	Associate Professor	Assistant Professor	Tutor
Trivandrum	10	24	44	82	132
Calicut	5	16	37	58	126
Kottayam	3	14	18	37	96
Alleppey	-	13	16	35	86

The scale of pay of the teaching staff are as follows:

Director	-	Rs. 1050-1550 plus allowances	
Professor	-	Rs. 1050-1550	"
Associate Professor	-	Rs. 950-1450	"
Assistant Professor	-	Rs. 710-1200	"
Tutor	-	Rs. 510-995	"

The Directors and Professors must have a Post Graduate Degree on the subject with at least 10 years teaching experience.

Professor/Associate professor must have a Post Graduate Degree with 5 years teaching experience and three years experience for the Assistant Professor. The Tutors must be Graduates in medicines.

In the Medical college, Trivandrum principal/directors spent about 10 hours for teaching. The average working time spent by the other teaching staff in the Medical colleges are given below:

Professor	-	12 hours a week	
Associate Professor	-	15	"
Assistant professor	-	18	"
Lecture/tutor	-	18	"

### 3.4 Medical Man power in the public Sector

The net work of Medical Institutions under the Health Services Department and Medical Colleges provide medical aid and medicines to the public. There were 874 medical institutions (Allopathic) in the state at the commencement of the fifth five year plan as detailed below.

Government Hospitals	-	122
Government Dispensaries & T.B. Clinics	-	581
Primary Health Centres	-	163
Secondary Health Centre	-	1
Grant-in-aid Institutions	-	6
Subsidised Rural Dispensaries	-	NA
Medical college Hospital centre	-	1
		-----
Total	-	874
		=====

The strength of medical personnel in the public sector as on 1-4-1974 is given below:

Category	public sector
Doctors	2719
Dental surgeons	66
Nurses	3246
Pharmacists (A & B)	1394
A.N.Ms.	1622

The state government continues to be the main employer of the medical and para medical personnel. A major portion of these personnel are utilised in the Health Services Department. The main activities of the Health Services Department on a functional basis are (1) Control of communicable diseases (2) Family Planning (3) Employees State Insurance Scheme (4) Food Administration. The department also has a state Health Education wing besides its own Medical Stores and Transport Organisation. The public Health Laboratory and the Government Analysts Laboratory are also functioning under the Directorate of Health Services.

### 3.5 Control of Communicable Diseases

Under this unit come the schemes for the control and eradication of infectious diseases like small pox, Malaria, Leprosy, Filariasis, Tuberculosis etc. For each of these schemes there is an Assistant Director of Health Services at the Directorate with medical and para-medical staff at the lower levels. The staff pattern for these schemes is given below:

#### Staff Pattern

#### Control of communicable diseases

#### 1. N S E P (Small pox)

Assistant Director of Health Services	-	1	Rs. 850-1450	Attached to D.H.S. Prirvandrur
Health Inspector	-	1	Rs. 405-660	
Para Medical Assistants	-	20	Rs. 405-660	Staff under the district
Vaccination supervisor	-	108	Rs. 285-550	
Basic Health Worker	-	400	Rs. 230-335	

#### 2. Leprosy Control Programme (NLCP)

Asst. Director of Health Services	-	1
District Medical Officer	-	1
Medical Officers	-	5
Leprosy Health Visitors	-	25
Non-medical supervisor/ Circle supervisor	-	9

#### 3. Malaria

Asst. Director Health Services	-	1
Asst. District Medical Officers	-	11
Medical Officers	-	143
Entomologist	-	1
District Laboratory Technicians	-	11
Laboratory Technicians	-	143
Health Supervisors	-	33
Health Inspectors	-	300
Basic Health workers/ Health Assistants	-	1887
Insect Collectors	-	2

Filaria control

Assistant Director	-	1	0	
Assistant Entamologist	-	1	0	Attached to D.H.S.
Laboratory Assistant	-	2	0	

Sherthalai Filaria control unit (Technical only)

Assistant Entamologist	-	1	
Filaria supervisor	-	1	
Filaria Research Assistant	-	1	
Maistry	-	4	
Field workers	-	21	

T.B. Tuberculosis

Asst. Director of H.S.	-	1	
Director, State T.B. centre	-	1	
supervising Medical officer- B.C.G. Campaign	-	1	
District T.B. Officers	-	10	
Laboratory Technicians			
Health Visitors			
X-Ray Technician/Radiographer			
X-Ray Attender			

Cholera Control

Medical Officer	-	1	0	
Health Inspector	-	1	0	
A.N.Ms.	-	2	0	This is a Cholera combat team for the whole state
Auxiliary-Health workers	-	2	0	
Laboratory Technician	-	1	0	
Driver	-	1	0	
Last Grade Employee	-	1	0	

The duties and responsibilities of these staff have been laid down in detail and their performance is watched through periodical returns received by the supervisory Officers.

3.6 Family planning programme

Family planning is considered as one of the key factors for the success of the national plans for the economic development and social progress. The population problem is very acute in Kerala which has a high density of population among the Indian states. This is quite evident from the population figures of the various states in India.



Name of state	Area (Sq.K.M.)	Population 1971 census (Lakhs)	Density
Andhra Pradesh	276814	435.03	157
Assam	78523	149.58	190
Bihar	173876	563.53	324
Gujarat	195984	266.87	136
Haryana	44222	100.37	227
Himachal Pradesh	55673	34.60	62
Jammu & Kashmir	222236	46.17	21
Kerala	38864	213.47	549
Karnataka	191773	292.99	153
Madhya Pradesh	442841	416.54	94
Maharashtra	307762	504.12	164
Manipur	22356	10.73	48
Meghalaya	22489	10.12	45
Nagaland	16527	5.16	31
Orissa	155782	219.45	141
Punjab	50362	135.51	269
Rajasthan	342214	257.66	75
Tamil Nadu	130069	411.99	317
Tripura	10477	15.56	148
Uttar Pradesh	294413	883.41	300
West Bengal	87853	443.12	504

The steadily increasing population besides necessitating larger expenditure on Medical and public Health amenities has adversely affected the per capita achievements of the state in other fields. Hence the economic prosperity of the state depends upon the success of this scheme and it has therefore to be accorded a very high priority among the state's plan schemes for economic development. The details of expenditure on 'Family planning' during the years from 1966-67 to 1974-75 are given below.

Year	Total expenditure on Family Planning (Lakhs of Rs.)
1966-67	88.58
1967-68	131.84
1968-69	184.72
1969-70	198.88
1970-71	227.43
1971-72	333.33
1972-73	324.27
1973-74	260.50
1974-75	253.54

Family Planning is a centrally sponsored programme and hence the progress of the scheme depends upon the central allocation of funds from year to year. The main objective of the programme is the welfare of the family as a whole by family limitation warranted by a non-stop increase in population. Family limitation is adopted by various methods such as sterilisation, I.U.C.D. insertion, distribution of conventional and oral contraceptives, tubectomy operations etc. Targets have been fixed for the whole state under each of the above items.

The programme of Family Planning covers a number of aspects such as education and motivation for Family Planning, provision of services, education and training of doctors and other personnel required for the programme, research and the production and distribution of Family Planning devices. Some parts of the programme are handled through the normal medical and health services especially those rendered through the primary health centres, voluntary organisations and private doctors. It is therefore extremely difficult to identify in precise terms the additional man power required for each of these aspects.

Government of India appointed a committee with the Secretary, Ministry of Health and Family Planning as Chairman "to review what additions and changes are necessary as a result of the greatly altered situation due to the I.U.C.D. having come to the fore front of the programme in the staffing pattern, financial provisions etc."

The committee known as the Mukherjee Committee made its recommendations in 1966. The recommendations made by the committee are the following:-

1. There should be a separate cell in the state Secretariat dealing exclusively with Family planning schemes.
2. There should be a State Family Planning Bureau for each state and a state level Implementation Committee to review the progress of Family planning schemes in the state.
3. There should be a District Family Planning Bureau for each district with three divisions, an Administrative Division, Education and Information Division and field Operation and Evaluation Division. There should also be implementation committees for each district with the District Collector as the chairman to review the progress of the scheme.
4. Family Planning in urban areas should be implemented through the Urban Family Welfare planning centres, there being one such centre for every 50,000 population.
5. In the rural areas there should be rural Family planning centres attached to the Primary Health Centres in Community Development Blocks to look-after Family Planning work.

The Secretariat Cell under a Deputy Secretary is functioning at the Secretariat to deal with all matters connected with the Family Planning programmes. The State Family planning Bureau is functioning in the Directorate of Health Services under the control of the Director of Health Services. He is assisted by an Assistant Director of Health Services (FP), Assistant Director of Health Services (MOH) and Medical Officer, I.U.D., State Mass Education and Media Officer, Demographer, Administrative Assistant and also a Senior Accountant.

Attached to each District, a District Family Planning Bureau is functioning with District Family Planning Medical Officer in charge of the District Administration. At the Block level, a Rural Family welfare Planning centre is functioning under the Medical Officer attached to each primary Health Centres

The Man Power pattern of the state Family Planning Bureau, District Family Planning Bureau, Urban Family Planning Welfare Centre and Rural Family Welfare centre are given in Appendix-III.

### 3.7 Employees State Insurance scheme

With a view to provide social security to the employees, the Employees State Insurance Scheme was introduced in Kerala during the year 1956. In the beginning it was introduced only in four districts of the state, viz. Quilon, Alleppéy, Ernakulam and Trichur. Now the scheme has been extended to all districts except Malappuram and Idukki. Under this scheme medical care is extended to nearly 2,01,000 employees and their families. In the earlier years of implementation of this scheme the families of the employees were not eligible for hospitalisation facilities. With the introduction of the full medical care from 1st May 1971 in this state which is the first state to do so in the whole country, this facility is extended to the families of the employees also.

Medical benefits under the scheme are extended through a number of full time E.S.I. hospitals and through a number of beds reserved in Government Hospitals (referred to as Referred Hospitals). Details of these hospitals and beds available as on 1974 are given below:

	No. of Hospitals	No. of beds
<u>General</u>		
I. E.S.I. Hospitals	9	695
II. Referred Hospitals	9	64
		-----
		759
		=====
<u>Maternity</u>		
I. Referred Hospitals	7	23
II. <u>T.B. Hospital</u>		
I. E.S.I. Hospital	2	124
II. Referred Hospital	1	6
		-----
		130
		=====

In addition to these there are also full time dispensaries, Panel dispensaries, part-time dispensaries and mobile dispensaries. The following are the number of hospitals and dispensaries in the state as on 1976.

	<u>number</u>
E.S.I. Hospitals	10
T.B. Annexure	1
E.S.I. Dispensaries	70
E.S.I. Mobile Dispensaries	2
Part Time Dispensaries	17

The staff pattern in a full time E.S.I. Dispensary is given below:

Insurance Medical Officer	1
Pharmacist	1
Auxilliary Nurse Midwife	1
Nursing Assistant	1
L.D. clerk	1
Health Assistant Grade II	2

There are 1 doctor type, 2 doctor type, 3 doctor type, 4 doctor type and 5 doctor type dispensaries in the state and the total number of doctors in E.S.I. scheme is 252 including one First Grade Civil surgeon and 2 Second Grade Civil surgeons.

The services of the specialists in almost all branches of medicines were made available.

statement showing the number of specialists made available in the E.S.I. Hospitals is furnished below:

	<u>Full Time</u>	<u>part Time</u>
Medicine	7	8
Obstetrics	7	5
surgeony	7	8
E.N.T.	-	5
T.B.	1	6
Eye	-	5
Radiologist	1	4
Skin & V.D.	1	2
Dental	5	3
Orthopaedics	-	3
Leprosy	-	2
Mental	-	1
	-----	-----
Total	29	52
	=====	=====

### 3.8 Food Administration:

Prevention of 'Food Adultration Act' 1954 is enforced in this State. In the Corporation and Municipalities the above Act is administered by the respective local bodies through their own staff. But in all the panchayats in the State the enforcement machinery is administered by the Director of Health Services. In the organisational set up for administration of this act the following staff are employed.

#### state level:

Food administration section under a Technical Assistant in the Directorate with clerical staff.

#### Regional level:

Regional Food Inspector with clerical staff each having jurisdiction over 3 to 4 Revenue Districts.

#### panchayat level:

Food Inspectors each having jurisdiction over 15 to 20 panchayats, assisted by the L.D.C. and Peons.

In addition to the above there is also a mobile vigilance squad consisting of one Chief Food Inspector and 2 Food Inspectors for the whole State to make surprise inspections as laid down in P.F.A. (Prevention of Food Adultration) Rules.

### 3.9 Auxiliary Units under the D.H.S.

under the Health services Directorate the following units are also functioning.

1. Government Medical stores
2. Health Transport Organisation
3. Health Nutrition unit.

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IV. Requirements and availability of Medical and Para Medical Personnel

4.1 In this section the requirements and availability of medical and para medical personnel are worked out. The requirements are based mainly on the norms suggested by the Mudaliar Committee.

4.2 Availability of doctors

The total number of doctors working in the public and private sectors as on 1-1-74 works out to 4705. The total number of doctors in the live register of the employment exchange as on 1974 is 726. Thus the total stock available in 1974 can be taken as 5431. The total number of doctors as per the Medical Council register comes to 6516 during 1974. But if the stock position is worked out based on 1961 census figures and providing for actual/anticipated out turn every year from the Colleges and 2 % depletion for deaths, retirements etc. the stock position during 1974 would be 5311 as may be seen from the following table. So the data available with the medical council cannot be utilised to assess the stock position of Doctors on a particular reference date.

STOCK OF DOCTORS DURING 1961 to 1991 (Based on 1961 census)

Year	No. of active doctors at the beginning	Out turn	Gross total	Net after allowing 2 % depletion
1961	1500	96	1596	1564
1962	1564	120	1684	1650
1963	1650	203	1859	1822
1964	1822	193	2015	1975
1965	1975	340	2315	2269
1966	2269	342	2611	2559
1967	2559	370	2929	2871
1968	2871	397	3268	3203
1969	3203	361	3564	3493
1970	3493	397	3890	3812
1971	3812	426	4238	4154
1972	4154	488	4642	4550
1973	4550	486	5036	4936
1974	4936	483	5419	5311
* 1975	5311	464	5775	5660
1977	6018	480	6498	6368
1978	6368	480	6848	6711
1979	6711	480	7191	7047
1980	7047	480	7527	7377
1981	7377	480	7857	7700
* 1976	5660	480	6140	6018

### 4.3 Requirements of Doctors

According to the Mudaliar Committee there should be one Doctor for every 3000 - 3500 of the population at the end of the IVth plan period (1974) and this target should be attained even in the rural areas. Based on this norm, the total requirements of Doctors have been worked out as follows:

Year	Population in lakhs	No. of Doctors required
1971	213.47	7116
1974	227.39	7530
1979	243.90	8330
1981	257.67	8589

The number required has been worked out on the basis of one doctor for 3000 of population.

### 4.4 Availability compared with requirements

Year	Requirements	Availability	Deficit
1971	7116	4154	2962
1974	7580	5311	2269
1979	8330	7047	1283
1981	8589	7700	889

The requirements are based on one Doctor for 3000 population. If the norm is taken as one Doctor for 3500 population the demand will be met even before 1981. But this does not mean that the entire stock of Doctors are fully employed. This is evident from the increasing number of job seekers registered with the employment exchange.

The additional requirements of doctors during the Vth plan period for the public sector alone is estimated as 650. No separate study has been conducted to estimate the requirements of doctors in the private sector.

### 4.5 Requirements and availability of Dentists

The Bhore Committee has recommended as early as in 1946, that there should be one Dental Surgeon for every 4000 of population by 1981. According to the medical council register, the number of Class Dentists registered with the council at the end



of the year 1976 is 365 and B class Dentists is 337. A Class Dentists are qualified hands and B Class Dentists are those who acquire experience by working with qualified hands.

According to 1971 census the population of Kerala was 213.47 lakhs. If there should be one Dentist for every 4000 population there should be about 5300 Dentists in the state. It is impossible to achieve such an ambitious target in the near future. It is more realistic to have a target of one Dental Surgeon for every 25000 - 30000 of population.

As in the case of Doctors the number of Dental Surgeons registered with the medical council is also on the higher side. But the number of fresh registrations every year broadly corresponds to the out turn from the Dental College, Trivandrum which has an intake capacity of 30 out of which 14 seats are reserved for students from out side the state till 1975. Later the number of seats reserved for other states have been reduced to 2.

Assuming the stock of Dental Surgeons at the end of 1976 (Medical council figures) as the basis i.e. at the beginning of 1977 and providing for annual addition of 14 new entrances upto 1979 and 25 new entrances from 1980 onwards (allowing 10 % wastage) and 2 % depletion the probable supply of Dental Surgeons can be worked out as follows:

Year	Stock at the beginning	New entrances	Total	Net stock at the end of the year after 2% depletion
1977	365	14	379	371
1978	371	14	385	377
1979	377	14	391	383
1980	383	25	408	400
1981	400	25	425	416

From the above the requirements and availability of Dental Surgeons can be summarised as follows:

Year	Population	Requirements 1/25000	Availability	Deficit
1977	241.66	966	371	595
1979	249.90	1000	383	617
1981	257.67	1030	416	614

It is clear from the above table that the supply of dental surgeons will not match the requirements worked out even at the very low rate of 1 surgeon for 25000 population.

The additional requirements of Dentists during the V Plan period for the public sector is estimated at 40 based on the programme (source D.H.S). No separate study has been conducted to estimate the additional requirements of dentists in the private sector and hence data are not available.

#### 4.5 Requirements and Availability of General Nurses.

According to the Medical Council Registers the number of Nurses registered with the council is 3542 in 1971 and 5375 in 1974. But the actual stock of nurses during 1974 both in the private and public sectors works out to 5182. There are 2 institutions in the public sector with an intake capacity of 250 per year for training Nurses. Apart from this, there are 17 schools of Nursing in the private sector with a total intake capacity of 275. Thus the total intake comes to 525 per year. Precise figures of out-turn from these schools are not available. Even the actual intake depends upon the requirements from time to time. Providing a 10% wastage on the intake capacity, the probable out-turn from these institutions may be taken as 475. But the actual out-turn during the year 1974-75 was 464 and during 1975-76 was 303. For the subsequent years an estimated out-turn of 475 is provided. Madaliyar committee has recommended a norm of 1 nurse for every 5000 of population by 1974 and one nurse for 2000 of population by 1981. In assessing the requirements of Nurses the following phased programme is adopted.

Year	Population (Lakhs)	Norm	Requirements
1971	213.47	1 : 5000	4269
1974	227.39	1 : 4100	5546
1979	249.90	1 : 2500	9611
1981	257.67	1 : 2000	12834

The availability of Nurses may be worked out as follows:

Year	stock at the beginning	Actual/probable cut-turn	Total	Stock after allowing a depletion of 2%
1974	5182	464	5646	5533
1975	5533	308	5841	5724
1976	5724	475	6199	6075
1977	6075	475	6550	6419
1978	6419	475	6894	6756
1979	6756	475	7231	7086
1980	7086	475	7561	7410
1981	7410	475	7885	7727

From the above tables, the requirements and availability of General Nurses are as follows:-

Year	Requirements	Availability	Deficit
1974	5546	5533	13
1979	9811	7086	2525
1981	12884	7727	5157

In the case of Nurses migration rate is very high, so the availability of Nurses to serve the state given above will be on the higher side. Hence the actual deficit is likely to be more.

The additional requirements of Nurses in the public sector during the V plan period is estimated at 1000 on the basis of programmes (source D.H.S). The figures relating to private sector are not available since no attempt has been made to estimate the same.

4.6. Requirements and availability of Auxiliary Nurse Midwives:

According to the Medical Council Register the number of Auxiliary Nurses and midwives registered during the years 1975 and 1976 are 1035 and 1728 respectively and the midwives for the above periods are 5711 and 6817 respectively. The registration of ANMs has started in the Medical Council only from 1975. It is seen from the above figures that about 700 fresh Registrations have been made during 1976, but the probable cut-turn per year is only 110. Hence it is presumed that many of the ANMs who have not yet registered might have registered their names during 1976.

The stock of ANMS during the year 1974 in the public and private institutions as reported by the Directorate of Health services and the Medical Colleges is 2425. This stock far exceeds the number registered in the Medical Council. Hence there will be under-registration in the Medical Council. The actual stock position as on 1974 collected from the various sources may be taken as the base for estimating the future availability.

9/ There are 3 ANM training centres with an intake capacity of 10 each and 6 ANM schools with an intake capacity of 15 each. The total intake capacity for the above institutions comes to 120 per year. Providing a 10% wastage on the intake capacity, the probable out-turn from these institutions may be taken as 110 per year. The actual out-turn during 1973-74 and 1974-75 were 97 and 105 respectively. For the subsequent years the estimated out-turn of 110 is provided. During 1974-75 one more ANM training centre has started functioning.

By about 1968 there were 18 institutions in the State imparting training to ANMS. But the number has subsequently been reduced to 9 due to non-availability of suitable equipments for giving employment to the ANMS coming out from these institutions.

Mudaliyar Committee has recommended a norm of 1 ANM for every 5000 population by 1976. According to this norm about 4700 of this category will be required by 1976.

The availability of ANMS may be worked out as follows:-

Year	Stock	Actual/anticipated out-turn	Total	Stock after allowing 2% depletion
1974	2425	97	2522	2472
1975	2472	105	2577	2526
1976	2526	110	2636	2533
1977	2583	110	2693	2639
1978	2639	110	2749	2694
1979	2694	110	2804	2748
1980	2748	110	2858	2801
1981	2801	110	2911	2853

The requirements of A.N.Ms. may be worked out as follows based on the above norm.

Year	Population in lakhs	Norm	Requirements
1976	237.37	1:5000	4747
1979	249.90	1:5000	4998
1981	257.67	1:5000	5153

From the above tables the requirements and availability may be summarised as follows:

Year	Requirements	Availability	Deficit
1976	4747	2583	2164
1979	4998	2748	2250
1981	5153	2853	2300

As in the case of nurses the migration rate of A.N.Ms. is also very high. So the availability of A.N.Ms. given above will be on the higher side. Hence the actual deficit is likely to be more.

The additional requirements of A.N.Ms. in the public sector during the Vth plan period is estimated at 125 based on schemes (source - D.H.S.). The requirements in the private sector may be more, about which no figures are available at present.

#### 4.7 REQUIREMENTS AND AVAILABILITY OF PHARMACISTS

The total stock of pharmacists both in the public and private institutions during 1974 as reported by the D.H.S. and the medical colleges comes to 2183. This stock comprises only A and B class pharmacists. According to the Medical Council Register, the number of pharmacists registered at the end of 1976 comes to 6663. This includes A, B, C & D class Pharmacists.

The availability of pharmacists has been worked out based on the stock position as on 1974 reported by the D.H.S. and Medical colleges.

Now the Pharmacy courses are being conducted in the 4 Medical Colleges. The D pharm course in Alleppey Medical College was started only during 1973-74. The intake capacity of the B pharm course is 25 per year and that of D pharm course is 205

one year. Thus the total intake capacity is 250 per year. Providing a 10 % wastage on the intake capacity the probable out turn may be taken as 210 per year. The Bhoré Committee has recommended a norm of 1 pharmacist for every 3 Doctors. Based on the above norm, the requirements of pharmacists have been worked out as follows:

Year	No. of Doctors required 1:3000 population	No. of Pharmacists required 1:3 doctor
1974	7580	2527
1975	7748	2583
1976	7912	2637
1977	8055	2685
1978	8195	2732
1979	8330	2777
1980	8461	2820
1981	8589	2863

The availability of pharmacists may be worked out as follows:

Year	Stock at the beginning	Anticipated out turn	Total	Stock after allow- ing 2 % depletion
1974	2183	210	2393	2345
1975	2345	210	2555	2504
1976	2504	210	2714	2660
1977	2660	210	2870	2813
1978	2813	210	3023	2963
1979	2963	210	3173	3110
1980	3110	210	3320	3254
1981	3254	210	3464	3395

From the above tables the requirements and availability may be summarised as follows:

Year	Requirements	Availability	Deficit/Excess
1974	2527	2345	-182
1975	2583	2504	- 79
1976	2637	2660	+ 23
1977	2685	2813	+128
1978	2732	2963	+231
1979	2777	3110	+333
1980	2820	3254	+434
1981	2863	3395	+532

It may be seen from the above table that the availability matches with requirements by the end of 1975. After 1975 there will be surplus of pharmacists and the surplus will continue to increase progressively if the present intake capacity continues.

The above figures are arrived at based on the norms suggested by the Bhore Committee. Even according to the actual availability of Doctors and Pharmacists both in the public and private institutions as on 1974, it is seen that the pharmacists are in excess. It may be noted that there is self employment opportunities for pharmacists. Every medical store requires a pharmacist and hence no unemployment problem is likely to arise among pharmacists.

The additional requirements of pharmacists during the Vth plan period in the public sector based on schemes is estimated at 150 (source - D.H.S.). The requirements in the private sector has not been estimated.

#### V. SUMMARY AND CONCLUSIONS

- 5.1 This study has been made to assess the total requirements and estimated supply of various medical and para medical personnel based on the norms prescribed by the Mudaliar Committee and Bhore Committee and information received from the Director of Health Services, Medical Colleges and other sources.
- 5.2 The Mudaliar Committee recommendation in regard to the establishment of Medical colleges has been achieved in this state as there are already four Medical Colleges.
- 5.3 The growing unemployment among doctors may apparently call for a reduction of the intake capacity of the colleges. But considering the fact that Mudaliar Committee recommendations on doctor population ratio has not been achieved in this state, such a course of action would not be justified. On the contrary more job opportunities to doctors have to be provided both in the public and private sectors to reduce the growing unemployment among them. More employment in private sector is possible if adequate financial assistance to those who wish to set up their independent practice preferably in the rural areas is made available.
- 5.4 The intake capacity for the Dentistry course has not been increased in the Medical college, Trivandrum where alone this course is now conducted in the state. The norms prescribed for

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dentists seem to be unrealistic. Even at the rate of one dentist for 25,000 population the requirements are not satisfied.

5.5 The figures relating to availability of nurses in the state are not very reliable since the rate of migration under this category cannot be precisely assessed. Here the available stock is less than the number required. As the supply is short of demand and as large scale migration continues under this category the intake capacity for the nurses course in the various institutions to be raised.

5.6 The State Government continues to be the main employer of the medical and para medical personnel in the state. The scope for setting up private practice remains very limited; future employment scope depends upon the expansion of the medical and primary health institutions in the state and encourage <sup>ment of</sup> migration of doctors to other states. It may be remarked here that the Government of India have prescribed the yard stick of one primary health centre for every 30,000 population and one sub centre for every 5000 population. The state has at present 163 primary health centres and 1761 sub centres. Based on the yard stick it is necessary to establish 600 more primary health centres and 2900 sub centres. Along with this 36 primary health centres have to be upgraded into 25 bedded rural hospitals with doctors in charge of medicine, surgery, obstetrics and gynaecology with laboratory and X-ray plant. When these schemes are implemented and the bed strength of the rural hospitals is increased, it may be possible to employ more medical and para medical staff.





APPENDIX - I

THE COURSES NEWLY INTRODUCED IN THE VARIOUS MEDICAL COLLEGES

Name of the Medical college	Name of the course	Year of introduction	Duration of the course	Admission capacity
T R I V A N D N U M	1. B.D.S. (Bachelor of Dental Surgery)	1959	4 years	30
	2. M.D. General Medicine	1959	3 years	13
	3. M.D. General surgery	1959	3 years	20
	4. M.D. Obstetrics & Gynecology	1959	3 years	8
	5. Diploma in Clinical Pathology	1959	2 years	3
	6. Diploma in Child Health	1964	2 years	6
	7. M.D. Pharmacology	1964	2 years	4
	8. M.D.S. Operative Dentistry	1966	2 years	2
	9. Diploma in Ophthalmology	1968	2 years	3
	10. Diploma in Orthopaedics	1968	2 years	3
	11. Diploma in Laryngology and Otology	1968	2 years	3
	12. M.D. Anatomy	1969	3 years	2
	13. M.D. Physiology	1969	3 years	2
	14. M.D. Bio Chemistry	1969	3 years	2
	15. M.D. Pathology	1969	3 years	6
	16. Diploma in public Health	1969	2 years discontinued	
	17. M.D.S. prosthetics	1969	2 years	2
	18. M.S. Orthopaedics	1969	3 years	2
	19. Diploma in Anaesthesia	1969	2 years	4
	20. Diploma in Medical Radiology	1969	2 years	3
	21. M.D. paediatrics	1969	3 years	3
	22. M.D.S. Orthodontia	1970	2 years	2
	23. M.S. Ophthalmology	1971	3 years	4
	24. M.D.S. periodontia	1972	2 years	Not this year
	25. M. Ch. in Paediatric Surgery	1972	2 years	2
	26. Diploma in psychiatry	1973	2 years	6
	27. Diploma in physical Medicine and Rehabilitation	1975	2 years	4
	28. M.D. Forensic Medicine	1974	3 years	2
K O T T A Y A M	1. M.D. (General Medicine)	1973	3 years	2
	2. M.S. (General surgery)	1973	3 years	1
	3. M.D. Physiology	1974	3 years	1
	4. M.D. (Anaes)	1975	3 years	2
	5. M.D. (Gynaecology)	1975	2 years	6
	6. D.A.	1975	2 years	6
	7. D.G.O.			

Name of the Medical Colleges	Name of the course	Year of introduction	Duration of the course	Admission capacity
	1. Laboratory Technician course	1962-63	1 year	8
	2. Health Inspector Training course	1964-65	1 year	57
C	3. Pharmacy Course	1967	2 years	60
A	<u>post Graduate Course</u>			
L	1. Diploma in Obstetrics and Gynaecology	1957	2 years	8
I	2. M.D. Medicine	1970	3 years	6
C	3. M.S. surgery	1970	3 years	6
U	4. M.D. Obstetrics & gynaecology	1970	3 years	4
T	5. M.D. Bacteriology	1970	3 years	2
	6. M.D. Physiology	1970	3 years	2
	7. Diploma in Dermatology and Venereology	1972-73	2 years	2
	8. M.Sc. Biochemistry	1972-73	3 years	3
	9. Pharmacology	1972-73	3 years	3
	10. Diploma in Child Health	1972-73	2 years	6
	11. Diploma in Ophthalmology	1972-73	2 years	6
	12. Anatomy (S)	1973-74	3 years	2
	13. Forensic Medicine (M.D.)	1973-74	3 years	2
	14. Diploma in Orthopaedics	1974-75	2 years	4
	15. -do- Anaesthesiology	1974-75	2 years	2
	16. Dermatology & Venereology (M.D)	1974-75	3 years	2
	17. Ophthalmology (M.S.)	1974-75	3 years	2
	18. Diploma in Clinical Pathology	1974-75	2 years	4
	19. Diploma in Laryngology & Otolaryngology	1975-76	2 years	3
	20. Orthopaedics (M.S.)	1975-76	3 years	2
	21. Social & Preventive Medicine (M.D.)	1975-76	3 years	2
ALLEPPEY	Diploma in pharmacy	1973	1 year	25

Source : Medical Colleges

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APPENDIX - II

SUBJECT TAUGHT IN EACH COURSE IN EVERY SEMESTAR/YEAR

- |                       | <u>subject</u>  |
|-----------------------|---|
| 1. <u>M.B.B.S.</u>    |   |
| 1st year (1½ years)   | 1. Anatomy<br>2. Physiology<br>3. Biochemistry  |
| 2nd year (1½ years)   | 1. Pharmacology<br>2. Pathology.<br>3. Bacteriology   |
| Final year (1½ years) | 1. Ophthalmology<br>2. Social & Preventive Medicine<br>3. Forensic Medicine<br>4. Medicine<br>5. surgery<br>6. Obstetrics & Gynaecology   |
| 2. <u>B.D.S.</u>      |   |
| 1st year              | 1. General Human Anatomy & Histology<br>2. General Human Physiology & Biochemistry<br>3. Material used in Dentistry   |
| 2nd year              | 1. Pharmacology and Therapeutics<br>2. General Pathology & Bacteriology<br>3. Oral and Dental Anatomy, Physiology and Histology.  |
| 3rd year              | 1. Oral Medicine<br>2. Oral surgery<br>3. Dental and oral pathology and Dental Bacteriology   |
| Final                 | 1. Dental prosthesis including crown and Bridge<br>2. Periodontia, Oral diagnosis and treatment planning including oral Medicine.<br>3. Operative Dentistry & Dental Radiology<br>4. Oral surgery, Exodontia and Local and General Anaesthesia.<br>5. preventive Dentistry Paedodontia and Orthodontia. |

3. B. Pharm

1st year

1. Biology I
2. Mathematics II
3. Biology II.
4. Engineering & Drawing
5. General Chemistry
6. German

2nd year

1. Pharmaceutical Engineering
2. Mathematics II
3. Human Anatomy & Physiology
4. Inorganic & Organic Pharmaceutical Chemistry
5. Analytical Chemistry

3rd year

1. Pharmaceutical Chemistry
2. Applied Biochemistry
3. Preparation pharmacy
4. Dispensing pharmacy
5. Forensic Pharmacy
6. Pharmacognosy - I
7. Microbiology
8. pharmaceutical Engineering

Final year

1. Pharmaceutical Chemistry II
2. -do- III
3. -do- Engineering
4. -do- Preparation
5. Pharmacology
6. Pharmacognosy II
7. principles of Hospital and Industrial Management

APPENDIX - III

STAFF PATTERN OF THE TECHNICAL PERSONNEL IN THE FAMILY PLANNING PROGRAMME - 1974-75

Secretariat Cell

Deputy Secretary	..	1
Assistant Grade I	..	1
Stenographer	..	1
Peon	..	1

state level organisation

Joint Director of Health Services (F.P. & M.C.H.)	..	1
Assistant Director of Health Services (F.P.)	..	1
Administrative Assistant	..	1
Medical Officer-in-charge of I.U.C.D. Programme	..	1
Chief Health Education Officer	..	1
Demographer	..	1
Social Scientist	..	1
Mass Education and Media Officer	..	1

City and District Family Planning Bureau

District Family Planning Medical Officer	..	10
Assistant Surgeon	..	12
Administrative Assistants	..	10
Mass Education and Information Officer	..	10
District Extension Officer	..	20
Operation Theatre Nurse	..	10
Family planning Health Assistant	..	21
Auxiliary Nurse/Midwife	..	11

Rural Family Welfare planning Centre

Assistant Surgeon	..	158
Block Extension Educator	..	159
Health Visitor/P.H. Nurse	..	272
Family planning Health Assistant	..	870
Auxiliary Nurse/Midwife	..	1316

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Urban Family Welfare planning Centre

Assistant surgeon	..	18
Urban Extension Educator	..	18
Welfare workers	..	18

Other Services and Supplies

Assistant professor	..	4
Senior Medical Officers	..	8
Lecturer in Health Education & Family Planning (Non-medical)	..	4
Lecturer in Paediatrics	..	4
Anaesthetists (Assistant surgeon)	..	12
Medical Officers (Male & Female)	..	24
Nurses	..	28
Nursing Assistants	..	27
Extension Educator (Male)	..	12
P.H. Nurse/Lady Health Visitor	..	12
Auxiliary Nurse Midwives	..	12

Intensive district programme

Assistant surgeon	..	2
Extension Educator	..	3
Operation Theatre Nurse	..	2

Regional Family planning Training Centre

Principals	..	2
Medical Lecturer-cum-demonstrator	..	2
Health Educator - Instructor	..	2
Health Education Extension Officer	..	8
P.H. Nurse Instructor	..	2

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