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**THE NURSING PROFESSION IN KERALA**  
**A MANPOWER STUDY**

*ISSUED BY*

**BUREAU OF ECONOMICS AND STATISTICS**  
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## FOREWORD

Man Power Planning plays a significant rôle both in the public and private sectors in the context of the Five Year Plans. Medical and public Health activities recorded steady progress in the past few years as a result of planned efforts. Health is considered as a basic factor of all human activities. Any service which helps to reduce human sufferings and pains is indeed the noblest of all services. Based on this unquestionable truth, it can be seen that the Nursing profession is an invaluable service and one of the most vital links in the Health Care system.

The present report on 'The Nursing Profession in Kerala and the supply of and demand for Nurses in the state' attempts to bring about salient features of the Nursing Profession and to estimate the future requirements, availability, deficit etc. of Nursing personnel in the state upto the year 1981.

This report is prepared by Smt. Lillykutty. K. Varghese, Research Officer, under the guidance of Shri. R. Gopalakrishnan Nair, Deputy Director, Man power Unit. It is hoped this booklet will be found useful for planning purposes.

TRIVANDRUM  
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# A REPORT ON THE 'NURSING PROFESSION' IN KERALA AND THE SUPPLY OF AND DEMAND FOR NURSES IN THE STATE.

## Introduction

With the advancement in the various branches of science, Health Services have expanded and the horizon of Nursing has also widened. Health is considered as a basic factor of all human activities. Any service which helps to reduce human sufferings and pains is indeed the noblest of all services. Based on this unquestionable truth, it can be seen that the Nursing profession is an invaluable service and one of the most vital links in the Health care system. The Nurse is busy in the general ward, in the labour room, in the operation theatre, in the paediatric wards, in the intensive care unit, speciality wards, in the rural areas etc. rendering services to the world at large from "Womb till tomb". It was "the lady with the lamp" - Florence Nightingale - with her sincere efforts and utmost patience uplifted the Nursing Profession to its present day status.

Nursing can be traced from the earliest primitive days, through ancient temple and Roman Matron, through Monastery, leper house and battle field to the city hospitals and modern institutions growing stronger and wider in its conception until today, where there is no part of the civilised world without some form of Nursing service. It is only after the second decade of the 19th century that the new Era in Nursing began. In 1860, the Florence Nightingale Nurses' Home and Training School for Nurses were opened attached to the St. Thomas Hospital in London. The School has been a model for many hospitals not only in England but all over the world.

## Nursing in Ancient India

Nursing in ancient India was remarkably advanced. It was professionally advanced, universally recognised and respected. Men did the nursing and only in special cases women were appointed. In ancient India nurse was trained in all fields of medical sciences. Miss A. Wilkinson in her pioneering work "A brief History of India and Pakistan" says that there are more details of Nursing in the old Indian records than those of any other country in the world.

The modern nursing began in India with the establishment of British rule by the East India Company. The trained Nurses Association of India (TNAI) which was formed in 1908 and

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the Nurses 'Auxiliary of the Christian Medical Association of India, formed in 1930, have done a great deal to raise the standard of Nursing. Another International Organisation for aiding the sick and suffering is the Red Cross Society. It has an extensive influence on Nursing and to-day functions under the following heads - public Health Nursing especially in Rural areas, nursing relief in time of disaster, first reserve in the Army and the Navy and the teaching of hygiene and home nursing.

#### Development of Nursing Education in Kerala.

The steady growth and advancement of the modern healing science made it necessary to find out people with more understanding knowledge and skill in the art. In 1864, when his Highness Ayilyam Thirunal Maharaja ruled in Travancore 'New Civil Dispensary' which later became 'the General Hospital' Trivandrum came into existence. At that time care of the Sick people was mainly carried out by untrained people both men and women and very little work was assigned to them. Dr. Punnen, who was the first Superintendent of the General Hospital, Trivandrum took great interest in the training of Nurses. A two year programme in Nursing and Midwifery was started in 1906 in the General Hospital, Trivandrum under the leadership of Dr. Punnen Lukose.

At that time Nursing was looked down upon in Kerala. The need for proper education was not recognised. The working and living conditions of the Nurses were not so attractive as to-day. Social restrictions and taboos have further hampered the progress of Nursing. In other states of India the conditions of working and living were better and many educated girls from Kerala turned to those centres. But some of the Nurses trained in other states also joined the state service.

The London Mission Hospital, Neyyoor was one of the pioneering Training Centres. The Medical College Hospital, Calloore with its Medical and Nurses Training Schools influenced greatly the concept of Nursing in South India. In Kottayam as far back as 1917 Religious sisters appeared in the field of nursing. Dr. D.S. Sahib, was the Superintendent of the district Hospital, Kottayam. The Superintendent felt the need for better Nurses with some sort of training. Accordingly, 4 nun-sisters were permitted to work in Hospitals. They were given 1½ years of training by the doctor himself. After an examination, all the four were awarded Certificates.

From 1928, there existed a 3 year training of Nurses in the Cochin state. In 1943, a revised Certificate Course in General Nursing and one year Midwifery was started in the school of Nursing attached to the General Hospital, Trivandrum. 33 Matriculates were admitted to the School of Nursing. In 1953, two years after the starting of the Medical College, Trivandrum, the school of Nursing was shifted to the Medical College Campus. A post Certificate Course of 10 months duration for departmental candidates below 45 years was started in the school of Nursing attached to the Medical College, Trivandrum. But this was discontinued on completion of the course of the first batch of 10 candidates because higher qualification was no more considered a requisite. In 1960, a Diploma Course in Nursing was started and recognised by the University of Kerala. B.Sc. Degree Course in Nursing was also started functioning in 1963 in the College of Nursing, Trivandrum. In the year 1972, four year Basic B.Sc. Degree Programme was started functioning in the College of Nursing, Trivandrum.

#### Development of Community Nursing in Kerala.

Community Nursing includes all activities relating to the Nursing Component of the total Community Health Programme carried out in various situations such as the home, the school, the industry, the health centre and so on. The Nurses and the Auxiliary Personnel engaged in these activities consist of Public Health Nurses, Health Visitors, Midwives and Auxiliary Nurse Midwives, all working within the frame work of the health team led by the medical Officer.

Community Nursing which is the present day nomenclature for Public Health Nursing, was in the correct sense, started in our state early in the 1950's with the establishment of the Community Development Programme on national level. Prior to this, there was no organised system for catering to the health needs of the people of the community, except in case of the Sick who were cared for in the hospitals. Delivery was considered as something unclean and untouchable. Therefore to attend to women in labour the persons available were the native Midwives. Hence the need for having qualified Midwives to attend to the mothers and new borns was widely felt.

In Kerala, Public Health Nurses hold various levels of position such as supervisors in P.H. Units, P.H. Nurses in Hospitals, for special programme, P.H. Nursing Tutors in Schools of Nursing, P.H. Nursing Instructors in Health and Family Planning Training Centres. Senior Public Health Nurses with further training

in administration and supervision are holding positions as District Public Health Nurses. It is worth mentioning here that Kerala is the first state in India to have supervisory Public Health Nurses posted at the district level. Senior Nursing Staff were deputed abroad such as America, U.K., Japan, Canada, South America etc. to secure higher qualifications and they were appointed to the higher posts. Accordingly an Assistant Director of Nursing service had been appointed in the Directorate of Health Services in June 1975 and administration in almost all matters related to the Nursing personnel in the state was entrusted with the Assistant Director.

#### supply of and demand for Nurses in Kerala

Medical and Public Health activities recorded steady progress in the past few years as a result of planned efforts. The number of medical institutions and beds have increased steadily. The per capita expenditure on Health Services for 1973-74 and 1974-75 are Rs.9.87 and Rs.11.23 respectively as against the all India figure Rs.7.90 in 1973-74 and Rs.8.81 in 1974-75. In spite of the increase in the per capita expenditure, physical achievements in several aspects such as availability of Nursing personnel, Pharmacists etc. have yet to be achieved more. The increase in population and limited financial resources may be the main hindrance for the short fall in the achievements. During the years 1973-74 and 1974-75, there were 874 and 881 medical institutions respectively with a total bed strength of 24106 in 1973-74 and 25312 in 1974-75. The bed population ratio works out to 106 per lakh of population in 1973-74 and 105 in 1974-75. It can be seen that the target for bed strength has been exceeded.

#### Stock and supply of Nursing Personnel

The register maintained by the Registrar of Kerala Government Nurses and Midwives Council is one of the source of information regarding the stock of Nursing staff in the state. The table appended below gives the number of registered Nursing Personnel in the state registered through the Kerala Government Nurses and Midwives Council (K.G.N.M.C.).

TABLE - I

Category	Years of Registration and Numbers						
	1969	1970	1971	1972	1973	1974	1975 1976
Nurses	2662	3157	3542	4127	4616	5375	6183 6933
Midwives	2407	2742	3074	3572	4327	5163	5711 6317
A.N. Midwives			- Nil -				1035 1723

Source: Register of Kerala government Nurses & Midwives Council.

But we cannot depend solely on this register since cancellations due to deaths, transfers, foreign assignments etc. have not been given effect to in the register.

Considering the recommendation of the Task Force in regard to the implementation of the Vth Five Year Plan proposals, there will be need to expand the facilities for training of doctors, Nurses, Dentists and other Para-medical staff. On the basis of the requirements indicated, the existing number under these categories has to be increased in the state of Kerala. The increase has especially to be large with respect to Nursing Personnel and Pharmacists.

An estimate made by the Central Task Force indicates that at the end of the Vth Five Year Plan even assuming that the training programmes are implemented fully, there will be a deficit of 12,000 Nurses in the country as a whole. There would be a more than proportionate short-fall in Kerala as our stock is initially low. It is in this perspective that the task force has framed the proposals for the Vth Plan. Though we have achieved the target of 1 bed for 1,000 population by 1969-70 there is some imbalance in the requirements of Nurses which needs correction during the Vth plan.

The requirement of Nurses may be assessed on the basis of Nurse population ratio which depends on the level of medical facilities. The Health survey and Planning committee (Medical Committee in 1961) has recommended the following norms.

- Doctor - One doctor for 3000 to 3500 of the population.
- Dental surgeons - -do-
- Nurse & Midwife - One for 2000 of population by 1981
- Auxiliary Nurse Midwife - One for 5000 of population by 1976



- Pharmacist - One for every three Doctors
- Bed - strength - One for every 1000 of population
- Medical colleges - One for every 50 lakhs population

The supply of the Nursing Staff is catered at present by the 9 Government and 21 Private Nursing schools and one college of Nurses (for imparting training courses to General Nurses). But in 1974-75, there were 10 Government and 17 Private hospitals giving training courses to Nurses. (vide list of training centres providing courses for General Nurses in 1975-77)

A. Government Institutions

1. college of Nursing, Trivandrum
2. school of Nursing, Trivandrum
3. -do- Quilon
4. -do- Alleppey
5. -do- Kottayam
6. -do- Ernakulam
7. -do- Trichur
8. -do- Palghat
9. -do- Kozhikode
10. -do- Cannanore

B. private Institutions

- |     |   | District  |
|-----|---|-----------|
| 1.  | School of Nursing, Holy Cross Hospital, Kottiyam.     | Quilon    |
| 2.  | School of Nursing, Benzegar Hospital, Quilon.         | -do-      |
| 3.  | -do- S.N.T. Medical Mission Hospital, Quilon.         | -do-      |
| 4.  | -do- Thiruvalla Medical Mission Hospital, Thiruvalla. | Alleppey  |
| 5.  | -do- Sacred Heart Hospital, Shertalai.                | -do-      |
| 6.  | -do- Pushpagiri Hospital, Thiruvalla.                 | -do-      |
| 7.  | -do- St. Thomas Hospital, Manganacherry.              | Kottayam  |
| 8.  | -do- Caritas Hospital, Kottayam.                      | -do-      |
| 9.  | -do- M.M. Hospital, Mangalam.                         | -do-      |
| 10. | -do- J.H.M. Hospital, Bharananganam.                  | -do-      |
| 11. | -do- T.S.D.M. Hospital, Kangazha.                     | -do-      |
| 12. | -do- St. Mary's Hospital, Manaroad, Kottayam.         | -do-      |
| 13. | -do- M.M. Mission Hospital, Kolencherry, Ernakulam.   | Ernakulam |
| 14. | -do- Lourdes Hospital, Ernakulam.                     | -do-      |

15.	School of Nursing,	Lisie Hospital, Ernakulam.	Ernakulam
16.	-do-	Little Flower Hospital, Ankamaly.	-do-
17.	-do-	St. Joseph's Hospital, Kothamangalam.	-do-
18.	-do-	Samaritan Hospital, Kizhakambalam (via), Alwaye.	-do-
19.	-do-	Jubilee Mission Hospital, Trichur.	Trichur
20.	-do-	Nirmala Hospital, Calicut.	Kozhikode
21.	-do-	Malique Deenar Hospital, Kasargode.	Cannanore

Out of this, 3 schools, Sacred Heart Hospital, Sberthalail St. Mary's Hospital, Manarcaud and St. Joseph's Hospital, Kothamangalam have started functioning only during the year 1975-76. The training schools trained on an average 525 Nurses every year, 250 in the Government sector and 275 in the private sector. The minimum qualifications for the students admitted for general Nursing are S.S.L.C. for Certificate courses and pre-degree with science as special subjects for Basic B.Sc. degree course. In almost all schools, hostel accommodation is given to the students admitted for the training courses. In the Government schools, students are given stipends. But in some private schools, students give fees. In the college of Nursing students are admitted as in the case of other University Education courses. In this connection it may be pointed out that no students were admitted in the Government Training Schools from the year 1972 to 1975 due to lack of accommodation facilities. During the year 1976, 20 male candidates have been also selected for training in General Nursing in the public sector. Moreover 68 candidates from the scheduled caste/tribes have been admitted in the college of Nursing, Trivandrum. One School of Nursing is proposed to be started in Idukki district also.

Categories of Nursing Staff in position in the Government Allopathic Institutions in Kerala

		<u>Scale of pay</u>
1.	Assistant Director of Nursing Service	600-1200
2.	Nursing superintendent (Gazetted)	495-835
3.	-do- (Non-gazetted)	410-715
4.	Head Nurses	330-575
5.	Nursing Tutors	330-575
6.	Staff Nurse	285-550

7. District Public Health Nurses	-	410-715
8. Public Health Nursing Tutors	-	328-538
9. Public Health Nurses	-	330-575
10. Health Visitors	-	330-515
11. Auxiliary Nurse Midwives	-	255-455

The strength of Nursing Staff as on 1-4-1975 is given below

	Government	(General Nurses)
Superintendent of Nursing Service	-	1
(The post has since been upgraded as Assistant Director of Nursing Service on 18-6-1975)		
Nursing Superintendent (Gazetted)	-	2
do (Non-gazetted)	-	43
Nursing Tutors	-	33
Head Nurses	-	501
staff Nurse	-	2506
District Public Health Nurses	-	11
Public Health Nurses	-	136
Public Health Nursing Tutors	-	9
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Total		3242
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Private Total		1936
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Grand Total		5178
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#### Estimation of Requirements and Availability of General Nurses

The actual intake capacity in our state, both Government and private sector, per year accounts to 525, 250 in Government and 275 in the private Institutions. After allowing 10 % wastage on the intake capacity, the probable out-turn works out to  $525 \times \frac{90}{100} = 472.5 = 475$  approximately. But the actual cut-turn during the year 1974-75 was 464 and 308 in 1975-76. For subsequent years, an estimated out-turn of 475 can be accepted. But Mudaliary Committee has recommended a norm of 1 Nurse / 5,000 population by 1971 and 1 Nurse / 2,000 population by 1981.

The projected population of Kerala (Mid-year) from 1971-1981 are as follows

1971	-	213.47 lakhs (1971 census figures)
1972	-	217.36 " (estimated)
1973	-	222.35 "
1974	-	227.39 "

1975	-	232.45 Lakhs	(Estimated)
1976	-	237.37	" "
1977	-	241.66	" "
1978	-	245.84	" "
1979	-	249.90	" "
1980	-	253.84	" "
1981	-	257.67	" "

Table - 2

The Total Requirement may be estimated in the following phased manner

Year	Population (in lakhs)	Norm	Requirement
1971	213.47 (actual)	1:5000	4270
(Vth Plan starting) 1974	227.39 (estimated)	1:4100	5546
(Vth Plan ends) 1973	249.90 (do)	1:2600	9611
1981	257.67 (do)	1:2000	12884

Table - 3

Availability can be worked out as follows

Year	Stock at the beginning	Actual/anticipated out-turn	Total	Stock after allowing 2% depletion
1974 (3212 + 1973)	5178 (actual)	464	5642	5530
1975	5530 (do)	308	5838	5722
1976	5722 (estimated)	475	6197	6073
1977	6073 (do)	475	6548	6417
1978	6417 (do)	475	6892	6756
1979	6756 (do)	475	7231	7087
1980	7087 (do)	475	7562	7411
1981	7411 (do)	475	7886	7727

From the above Tables (2 + 3), availability and requirements during the years, 1974, 1979 and 1981 may be rearranged as shown below

Table - 4

Year	Requirement	Availability	Deficit or shortage
1974	5546	5530	16
1979	9611	7387	2524
1981	12384	7727	5157

The table above reveals that if the norms of the Mudaliar Committee are accepted the total requirement of General Nurses at the end of the Fifth Plan will be much higher than the availability. It is well known that, every year a large number of Nursing Personnel is migrating to other states in India as well as foreign countries to take assignments and the immigrants will always be less than the migrants. Hence the actual deficit will be more than the figure shown in Table - 4.

At this juncture, it may be pointed out that the additional requirement of General Nurses according to the scheme-wise details of development programmes to be implemented at the end of the Vth plan has been estimated as 1,000 including replacement needs due to retirement. But the figure relating to requirements in the private sector is not available. But in 1975 and 1976, more schools of Nursing have been started functioning in the private institutions and more students have been admitted. In addition to these, admissions have been increased in the Government sector also. If the number of admissions continues like this, the gap between the requirement and the availability will be bridged to a certain extent. However acute shortage will be experienced at the end of the Fifth Plan.

#### Auxiliary Nurse Midwives and Midwives

As part of the National Community Development programmes, public Health Units were established during the first half of 1950's in order to cater to the health needs of the rural population. Maternal and child health (M.C.H.) programme was given prime importance. In order to prepare a suitable training field in M.C.H. a project was started by the state Government with the

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assistance of W.H.O. and UNICEF. All the Midwives posted in the various centres were given orientation in domiciliary midwifery in order to equip them better for their work in the M.C.H. service in the community. Then the need of qualified Nursing Personnel to supervise the midwives/Auxiliary Nurse Midwives was evidently felt. But the number of Public Health Nurses in the state was too small to be accommodated for the purpose. Thus in line with the National Plan, the State Health authorities decided to start a Health visitor's training school in order to meet the immediate need of the time. It was started in 1956 to impart training to midwives to be qualified as Health visitors. The course was for 18 months and 37 senior Midwives were recruited for the same. In three batches 96 Health visitors were trained.

In the mean while, the need of better trained Midwives for M.C.H. work in the community was widely recognised all over the country. Therefore the Indian Nursing Council took up the responsibility of revising the curriculum for Midwives. It was then decided to replace the Midwifery course by A.N.M. course.

There are at present 10 Institutions in the state both Government and Private to impart training to Auxiliary Nurse Midwives. The names of these Institutions are given below.

	<u>Government</u>	<u>District</u>
1.	Government Hospital, Peroorkada, Trivandrum.	Trivandrum
2.	Women & Children Hospital, Thycaud, Trivandrum.	-do-
3.	Government Hospital, Palghat.	Palghat
4.	Government Hospital, Calicut.	Kozhikode
	<u>private</u>	
1.	Stree Hanakrishna Mission Hospital, Sasthamangalam.	Trivandrum
2.	S.S.N. Medical Mission Hospital, Varkala.	-do-
3.	E.N.S. Boy's Brigade Hospital, Kundara.	Quilon
4.	St. Thomas Mission Hospital, Kattanam.	Alleppey
5.	M.S.S. Medical Mission Hospital, Pandalam.	-do-
6.	S.N. Medical Mission Hospital, Sherthalai.	-do-

Of these, in the Government Hospital at Peroorkada, Harijan students are admitted and even S.S.L.C. Failed Candidates from the scheduled caste/tribes are also admitted.

Minimum qualification for the training course is S.S.L.C. for ordinary students. As per the register of K.G.N.M. Council, the number of A.N.M.s registered during the years are given below.

Year	No. of registered A.N.Ms.	Midwives
1975	1085	5711
1976	1728	6817

The registration of A.N.Ms. has been started only from the year 1975 onwards.

#### Stock

The stock of A.N.Ms. and Midwives during the year 1974 in the public as well as private sector is 2425, 1622 in Government and 803 in private Institutions. During the year 1974-75, there were 3 Government and 6 private A.N.M. Training Schools in the state with an intake capacity of 10 each in Government and 15 each in private training centres. The total intake capacity in both the sectors accounts to  $10 \times 3 + 15 \times 6 = 30 + 90 = 120$ .

Allowing 10 % wastage on the intake capacity, the probable out-turn works out to  $120 \times \frac{90}{100} = 108$  ie. 110/year approximately. But the actual out-turn during 1974 and 1975 are 97 and 105 respectively. For the estimation of requirements for the subsequent years 110 may be accepted.

Mudaliar Committee has recommended a norm of 1:5000 population by 1976. As per this norm 4747 (nearly 4750) A.N.Ms. will be required by 1976.

The requirement of Auxiliary Nurse Midwives can be estimated as follows.

Table - 5

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

Table - 6

The availability of Auxiliary Nurse Midwives can be worked out as shown below

Year	Stock	Actual/anticipated out-turn	Total	Stock after allowing 2 % depletion
1974	2425	97 (actual)	2522	2472
1975	2472	105 ( " )	2577	2525
1976	2525	110 (anticipated)	2635	2583
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

Table - 7

Requirement and availability are re-arranged as follows

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

As in the case of General Nurses, A.N.Ms. and Midwives also are in short supply.

A.N.Ms./Midwives also migrate to other states and foreign countries. Hence the availability of A.N.Ms. will be less than the figure as shown in Table - 7. Hence the gap between the requirement and availability will be more wide.

In this connection, it may be stated that the additional requirement of this category based on the programme already drawn up to be implemented by the end of the Vth year plan is estimated to be 125. As in the case of general Nurses the figure relating to requirements in private sector of this category also is not available.



Conclusion

In order to attract more people to the Nursing profession, the Mudaliar Committee has recommended that attractive stipends and free boarding and lodging may be provided to the students admitted for training courses. It is also necessary to discourage migration of Nurses from Kerala to other states and countries by making the service conditions in the state more attractive. Recently, certain improvements have been made in the service conditions of Nursing personnel by the State Governments and the Government of India. It is praise worthy to state that smt. Amina Mastaffa, the District Public Health Nurse, Alleppey was the recipient of the National Award for Nursing in 1975 and she had been given a cash award of Rs.1000/- by the State Government also. Nurses' week is also celebrated in the state in a befitting manner from 6th to 12th May every year connected with the Birth Anniversary of Florence Nightingale. In addition to these the Government of Kerala have constituted 'The Kerala Government Nurses' Welfare Fund'.

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