MULTIPURPOSE HEALTH WORKERS IN PRIMARY HEALTH CARE

(An Inter-District Subcentre - based Study from Kerala: S. India)

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Dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master of Public Health

Achutha Menon Centre for Health Science Studies

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CERTIFICATE

This is to certify that the dissertation titled 'Multipurpose Health Workers' in Primary Health Care, being submitted by Dr.V.Mohanan Nair to the Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute of Medical Sciences and Technology, Thiruvananthapuram, in partial fulfilment for the award of Master of Public Health Degree, is a bonafide work carried out by him.

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"MULTIPURPOSE HEALTH WORKERS" IN PRIMARY HEALTH CARE

(An interdistrict study of Subcentres in Kerala, South India.)

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ABSTRACT

Background: 'Multipurpose health workers' deliver the 'health care' component of Primary Health Care, by bringing services to beneficiaries' doorsteps. Prior studies have evaluated the role of Multipurpose health workers in individual health programmes rather than the 'multipurpose role' of these workers.

Objectives: Our study evaluated the 'multipurpose role' of Multipurpose health workers in three representative districts in Kerala.

Methods: We chose Palakkad, Thiruvananthapuram and Kollam districts for study to ensure adequate representation of the northern and southern parts of Kerala. These districts vary in population density, percentage of population that is rural, and availability of health care facilities. 44 Primary health centres were randomly selected from these three districts (16-21% of all primary health centres) and all 326 Multipurpose health workers (18-21% of all Multipurpose health workers) were administered structured pretested questionnaires. A subset of 90 subcentres (16%) were randomly selected (30 from each district) for household survey and detailed evaluation. 720 households (90 clusters) were studied by 'cluster coverage evaluation method'. The investigator visited these subcentres and collected data on infrastructure and activities and performed 'Work sampling'. More qualitative data was collected by Focus group discussions and personal interviews.

Analysis Proportions were compared using the Chi square test.

Results Important differences emerged in the 3 districts studied. Above 85% of subcentres in Palakkad had government buildings. Half of them in Kollam and two thirds in Thiruvananthapuram lacked decent accommodation for health workers and basic facilities. Only 36% in Thiruvananthapuram had an examination couch whereas Kollam (57%) and Palakkad(86%) fared better in this. Only a third of subcentres in Palakkad (33%) and one tenth in other districts had a functional weighing machine or haemoglobin estimation facility. Even minor curative facilities were lacking in all the subcentres. The male Multipurpose health workers were operating from the primary health centres and not from the subcentres.

Community awareness of subcentres was high (75-95%) and was related to the frequency of household visits by Multipurpose health workers. Community and workers prefer the present system of one male and one female worker. "Peoples' committees", meant for community involvement, were found non-functional. Compared to Thiruvananthapuram subcentre utilisation is high in Palakkad and Kollam. The subcentres are used mostly for immunisation (47-60%), antenatal (35-63%) and contraceptive services. While overall utilisation of subcentres is more among the poorer socio-economic groups, the immunisation and contraceptive services are utilised by all. Several national health programmes (other than Family welfare programme) are not delivered adequately by the subcentres.

Conclusions Even in Kerala, with its high achievements in health status and health care, subcentres are lacking infrastructure facilities. Our study suggests the need for strengthening subcentres by active community involvement and redefining the job responsibilities of the Multipurpose health workers to meet contemporary needs.

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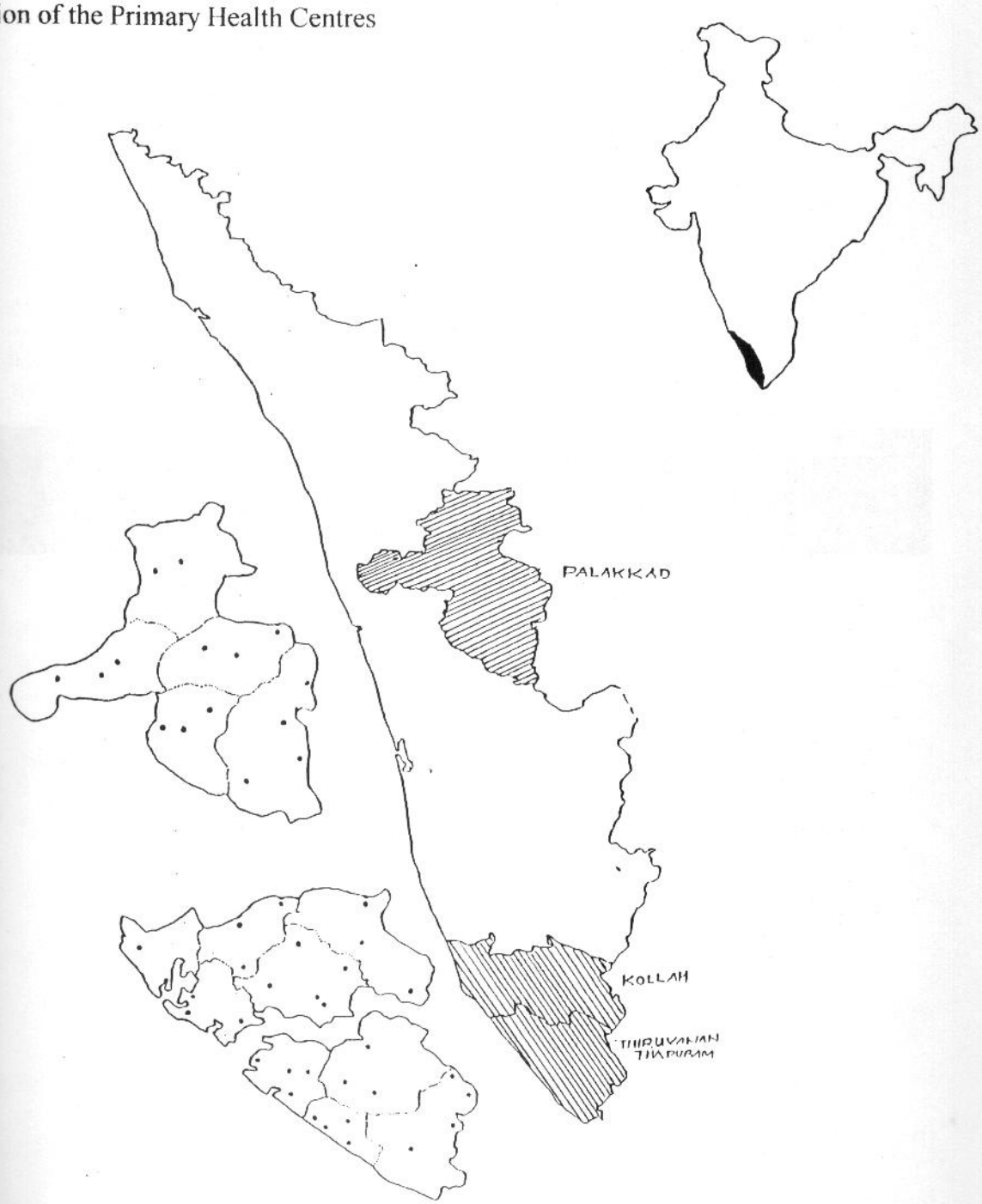


PALAKKAD, THIRUVANANTHAPURAM AND KOLLAM DISTRICTS OF KERALA, S.INDIA

INTRODUCTION

CHAPTER I

I. INTRODUCTION

Kerala, the southernmost state of the Indian subcontinent, is noted for its health achievements. This is usually acclaimed as "good health at low cost". The high literacy rate, especially among the females, the efficient public distribution system and the land reforms and ensuing equity are potential contributors to these health achievements.

I.1. 'Primary Health Care' and the formal 'health care sector'

India is a signatory to the Alma-Ata declaration, which aims at achieving 'Health for all by the year 2000 AD'. The Government of India has adopted a policy, based on 'Primary Health Care', to achieve this end. Individual states in India, including Kerala, closely follow this policy.

The Alma- Ata declaration, proclaiming the idea of Primary Health Care envisages it to be universally accessible and attainable by the combined efforts of several sectors, many of them being outside the formal health sector.

The 'Primary Health Care' has been defined thus:

"Primary Health Care is essential health care based on *practical, scientifically sound and socially acceptable methods and technology made universally accessible* to individuals and families in the communities through their full participation and at a cost that the community and country can afford in the spirit of self- reliance and determination"

"The services under this include health education, provision of safe drinking water, assurance of proper nutrition and food supply, basic sanitation, immunisation against

locally endemic diseases, basic treatment of diseases, provision of essential drugs, mental health counselling and other preventive medicine measures.

Primary health care is envisaged to:

Evolve through community development, stress self- reliance, be socially acceptable to patients and non-patients alike, be family based, accessible both geographically and economically, provide for continuity care, be functionally integrated with other community efforts and agencies, be cost-efficient with the correct technology for local circumstances, and consider the needs of high-risk or vulnerable groups".[1]

"*Several components of the primary care are incorporated in the health care system.* It forms an integral part both of the country's health system, of which it is the central function and main focus, and the overall social and economic development of the community. It is the first level of contact of individuals, the family and the community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of continuing health care process."[2]

Thus it is evident that the "Primary Health Care" has two components, viz.

1. A 'Health Care' component and
2. An 'Outside Health Care' component.

The health care component of Primary health care is expected to be achieved through the existing health care systems. This is true in almost all the countries, including India.

The 'outside health care component' has several elements like provision of safe drinking water and good nutrition, which cannot be taken care of by the formal health care sector

alone. They require joint effort by several sectors. Components requiring intersectoral co-ordination are outside the purview of this study.

I.2. Primary Health Centres, Subcentres and Multipurpose health workers in the organisational hierarchy.

In Kerala the key institutions for the delivery of primary health care are ***'Primary Health Centres'***. They, in turn, have under them, 'grass root' level institutions called ***'Subcentres'***. A 'Subcentre' is the first level of contact of the community with the formal health care system and a 'Multipurpose health worker' is the principal functionary at a subcentre. The role of Multipurpose health workers in the delivery of primary health care is being examined in this context. *The present report, thus, examines the role of subcentres and the Multipurpose health workers in the delivery of health care components of primary health care.*

I.3. Strategy in Kerala

In India, responsibility of health care is assigned to individual state governments rather than to the federal government. With in the same policy framework, different states have adopted different strategies to attain the goal of 'Health for All by the year 2000 AD'.

In Kerala also, Primary Health Centres (PHCs) are the basic institutions delivering primary health care to the rural population.

There are three types of PHCs, viz., Mini Primary Health Centres, Block Primary Health Centres, and Community Health Centres. A mini primary health centre caters to the population of a *grama panchayat*, i.e. about 30,000 people. A block primary health centre caters to the population of a 'Community Development Block', i.e., about 100,000 people and has two or three mini PHCs in its area. Community health centres are

actually upgraded block primary health centres and are envisioned to function as 'First Referral Units (FRU)' with better curative facilities compared to the block primary health centres. They are being developed by the Government to provide specialists' services to the rural population, as close to the community as possible and are expected to lessen the burden at the secondary and tertiary care levels. At present, in terms of facilities, majority of them are equivalent either to block primary health centres or sometimes even less.

I.4. How do the primary health centres differ?

The three types of primary health centres described do not differ much, in the preventive and promotive care services offered. Differences are mainly in the curative services offered by them, viz., the number of doctors, number of beds and other curative facilities. In terms of field staff and field activities they are similar. Thus, a block primary health centre or a community health centre will offer curative services to a population of 100,000 but in terms of field activities it will cater to the population of the gramapanchayat where it is situated, viz. 30,000 people. *Thus, when one is considering a study on the field staff or field work in the primary health centres, all these centres are alike in terms of selecting a sample.*

I.5. Subcentres - 'The grass root level institutions'

Subcentres are smaller units under the primary health centres, which constitute the first level of contact of the community with the health care delivery system in the state. They are supposed to enhance geographic and economic access of the rural community to the health care delivery system. A subcentre is envisaged for every 5,000 population. There are two Multipurpose health workers-a Junior Health Inspector (JHI) and a Junior Public

Health Nurse (JPHN) in each subcentre. The worker population ratio has been modified in tribal, hilly and backward areas such that these two health personnel cater to a population of 3,000 people.

The worker population ratio is not always maintained, especially in the case of JHIs. There are several reasons for this. Very often the subcentres are not sanctioned in sufficient numbers and vacancies of the health workers are not filled up in time.

I.6. 'Multipurpose health workers'- the historic evolution.

A subcentre, as mentioned earlier, is managed by two ' Multipurpose health workers'.

The workers are of two categories:

1. Male Health Workers (MHW)- In Kerala, they are known as Junior Health Inspectors (JHI) and
2. Female Health Workers (FHW), in Kerala known as Junior Public Health Nurses (JPHN). *(Several females are also working as 'Male Health Workers' in Kerala !!)*

Till about two decades back these workers were part of 'vertical health programmes'* They had different designations and performed different duties. One aspect common to all of them was that they made household visits.

The JPHNs were then known as Auxiliary Nurse Midwives (ANM). Their job responsibilities were related to the health care of women and children. Considering the reports of Chadha Committee (Government of India, 1963) and the subsequent Kartar Singh Committee (Government of India, 1973), workers in different national health programmes were integrated to constitute the category of Multipurpose health Workers.

* These programmes are administered and funded by the central government. They are implemented in all the states in a uniform pattern and have prescribed guidelines for implementation. Very often, international funding agencies are also involved in sponsoring them.

In 1982, this scheme was implemented in Kerala also. Before being integrated in to the stream of multipurpose health workers, the unipurpose workers in vertical programmes were given appropriate training. The training curriculum for new recruits to these cadres was also modified accordingly. The training is different in content and duration for JHIs and JPHNs. The JHIs are trained for a period of twelve months whereas the JPHNs undergo training for a period of eighteen months. It is mandatory for the JPHNs to register with the Nurses' and Midwives' Council of the state.

I.7. Why the present study ?

Although several studies have evaluated implementation of individual national health programmes by multipurpose health workers, none have systematically assessed the "multipurpose role" of these workers. The services to the community from subcentres, the proportion of potential beneficiaries who really receive services from health workers and the relative importance given by the workers to different national health programmes under the 'multipurpose scheme' has hitherto not been investigated. A study of this "multipurpose role" assumes specific importance in Kerala, given the plans of the State government to integrate additional vertical health programmes into general health services.

LITERATURE REVIEW

&

AN OVERVIEW OF ORGANISATION OF HEALTH SERVICES IN KERALA

CHAPTER II

II.1. LITERATURE REVIEW

Prior studies on Multipurpose and other health workers are presented in Table 1.

TABLE 1

PRIOR STUDIES EVALUATING HEALTH WORKERS

NON-INDIAN STUDIES				
AUTHOR(YR)	COUNTRY	SAMPLE	ASPECT STUDIED	COMMENTS
Mathews C et.al (1991)[3]	Cape Town	Cross-sectional survey in 4 peri-urban townships	Problems attended to by CHW and community perception about them.	Evaluated a project run by NGO and is limited by its sample size compared to present study.
PRICOR (1990)[4]	Senegal	Health workers	Performance in Malaria eradication programme.	Evaluation of only one programme.
Kuhn L,Zwarensein M (1990)[5]	Africa	Health workers	How they promote breast feeding and immunisation	Studied only one aspect of the workers
Hatch J (1983)[6]	U.S.	Health workers	Role in community oriented primary care	Limited by sample size and looked only at the leadership initiatives
Khudaibegenov A(1986)[7]	Uzbek, USSR	Middle level health workers	Their role in expanding preventive and curative services	No data from beneficiaries' part
INDIAN STUDIES				
Gandotra MM, Patel GC(1987)[8]	Gujrat	Multi-purpose health workers	Level of integration of health family welfare and nutrition programmes of the state	Study looked at the Multi purpose worker from various angles. But studied only limited aspects of their work
Talwar PP, Sharma GD(1980)[9]	U.P	Subcentres	determinants of effective sub-centre services	Does not look at the point from several perspectives.
Homan RK and Thankappan KR(1997)[10]	Kerala	Primary health centre and subcentres	performance of primary health centre and subcentres	Subcentres were only a part of the study and limited by the sample size when compared to the present study
Banerji D (1973)[11]	North Indian villages	ANMs and supervisors	Inadequacies in terms of functioning	Studied only one aspect of one category of workers
KannanK.P et.al(1991) [12]	Kerala	Households and healthcare institutions	Inadequacies in terms of functioning	Only a small part of the study is related to subcentres

It is evident from the table that only few studies are available and a majority of them evaluated one of the 'multiple' activities of the Multipurpose workers. Many of the studies are further limited by their small sample size, inadequate presentation of methods & survey instruments, and by their failure to provide a 'user perspective'. Furthermore, most of them were part of ongoing evaluation and monitoring programmes of governmental or donor agencies, with the potential hazard of a biased assessment of the functioning of the Multipurpose health workers.

Despite these limitations, these studies reported several important aspects about health workers, both in government and voluntary sectors. Some reports have highlighted the inadequacies in infrastructure and other facilities in subcentres while some others have reported that any first level of services will be utilised more by the community if the services are reliable and the facilities attractive. The inadequacies and shortcomings in the functioning of health workers have also been reported in some of these reports.

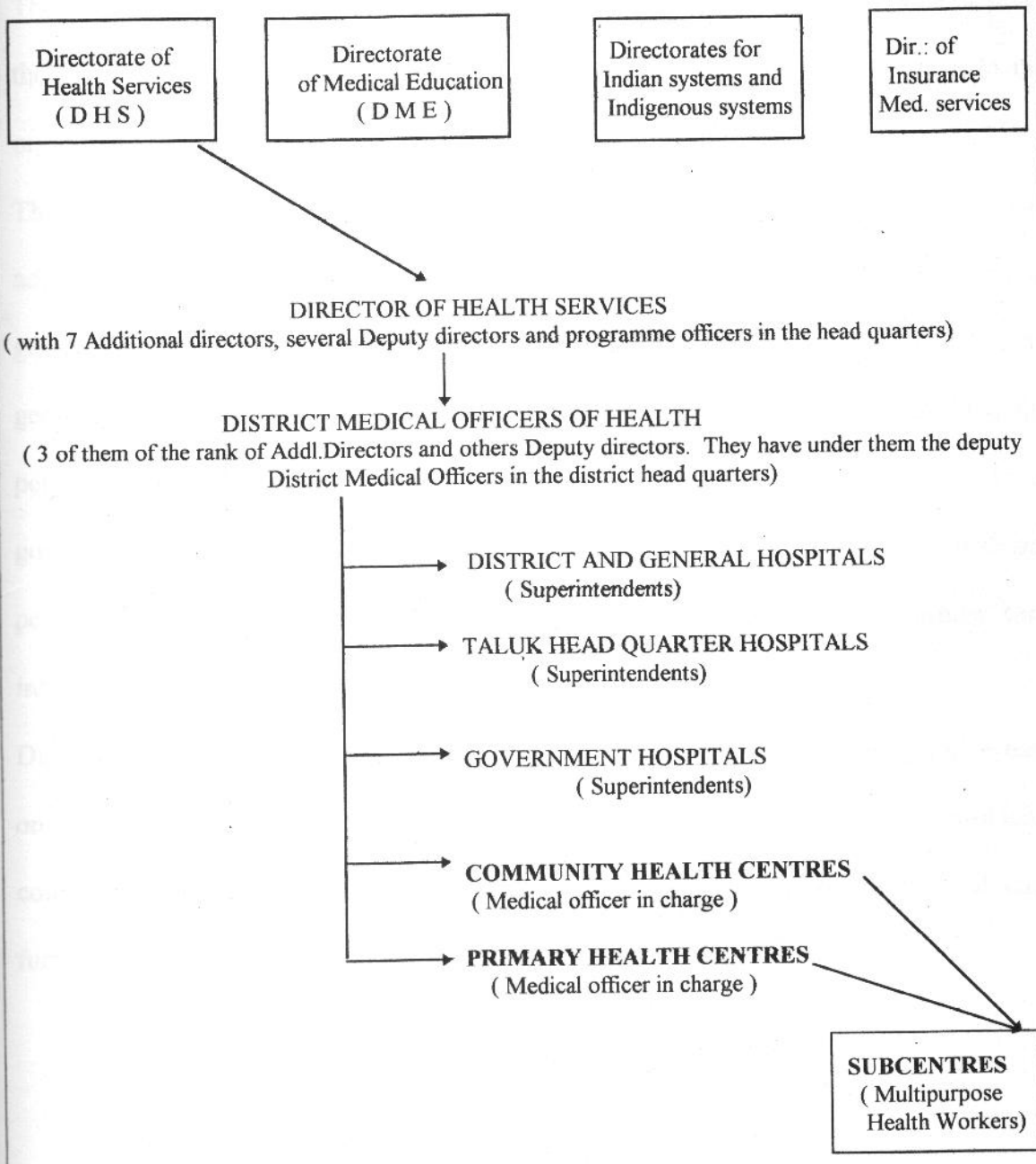
No study in Kerala had looked at subcentres and the Multipurpose health Workers in the context of national health programmes and their role in primary health care delivery.

II.2.AN OVERVIEW OF ORGANISATION OF HEALTH SERVICES IN KERALA

Kerala state is divided into 14 revenue districts, for the ease of administration. Organisation of health care delivery system also follows the same pattern, i.e., each district is administered by a District Medical Officer of Health. The government health care delivery system has several divisions, including the directorates for medical education, health services, insurance medical services and the indigenous systems of medicine.

Primary Health Centres and Subcentres in the organisational hierarchy

FIGURE 1



The care in the Allopathic medical system is rendered mainly through the institutions under the directorate of health services, through the hospitals attached to various medical colleges under the directorate of medical education and through the institutions under the directorate of Insurance medical services.

The major provider under the government sector is the Health Services. Figure1 displays the hierarchical position of the subcentres and the Multipurpose health Workers in the organisation of Kerala Health Services.

The 14 districts vary with regard to the health status of their constituent population. The access to various levels of health care varies among the districts, in part related to geographic and economic factors. Potential causes contributing to this variability in geographic and economic access include the district area, the population density, the percentage of rural population, the presence of medical schools and facilities in the government and the private sectors. Except for the districts of Idukki and Wyanad, people in all other districts have been reported to have ready access to tertiary care institutions.

Data on the health status indicators are available for the whole state. Comparative data on the health status of the individual districts is lacking. Because of this problem, comparisons at district level becomes difficult and one has to rely on official data furnished by the directorates.

OBJECTIVES

METHODOLOGY
&
ANALYSIS

CHAPTER III

III. 1.OBJECTIVES

The objectives of the present investigation were to evaluate the "*multipurpose role*" of Multipurpose health workers in providing primary health care and in the implementation of National Health Programmes in the three districts of Palakkad, Kollam and Thiruvananthapuram of Kerala state.

III.2. METHODOLOGY

III. 2.1. General

- The study is of the nature of 'Health system research' and is 'cross sectional' in design.
- It uses mainly primary data collected by field surveys, conducted for this purpose by the investigator, using questionnaires and schedules.
- The primary data was supplemented with qualitative data collected through Focus Group Discussions (FGDs) and personal interviews. The FGDs and interviews targeted the public, the community leaders, the health workers and the supervisory officials at various levels. FGDs for each of the categories were conducted separately.
- Officers at the district and the state levels had been personally interviewed, when ever possible.

- *"Work Sampling"* of the Multipurpose health Workers was done using Record Forms prepared for that purpose.

III. 2.2. Specific

A. Sampling Frame

We decided to sample 3 districts, out of 14, in Kerala state ensuring adequate representation of the northern and the southern parts (with inherent geographical and economic differences), keeping in mind the time frame of our investigation and the convenience of the investigator. The districts of Palakkad, Thiruvananthapuram and Kollam were chosen as they fulfilled the criteria detailed above. Palakkad was selected as representative of the northern districts. Further northern districts like Kannur and Kasarkode could not be selected because of the short duration of the study and because of the limited resources available. We selected Kollam district because it is representative of the southern districts. Thiruvananthapuram was selected because it is the capital of the state (and consequently a district with known good performance in health care administration) and because of its proximity to the investigator. The three districts selected for our study are compared in Table 2.

TABLE 2

CHARACTERISTICS OF THE DISTRICTS STUDIED

State/District	Rural Population (as % of total) in 1991	Density (Population per sq. kms)	Tertiary care institutions	Medical colleges
Kerala	**73.56**	**747**		
Palakkad	84.25	530	None	None
Kollam	81.11	963	None	None
Thiruvananthapuram	66.05	1341	Present	One

Source: S. C. Bhat 1997, The Encyclopaedic District Gazetteers of India Vol.2. Gyan Publishing House New Delhi

Palakkad district has low population density, while Thiruvananthapuram has a very high population density. Kollam district occupies the intermediate position in this regard.

While a third of the population in Thiruvananthapuram district is urban, only a fifth of the population is urban in Palakkad or Kollam.

Thiruvananthapuram district has well-organised secondary and tertiary care sectors. It has a Medical College, 3 national institutes in health sector, several tertiary level hospitals in the private sector and several secondary level institutions in the government and the private sectors.

In comparison, **Kollam** has no tertiary level hospitals in the government sector. It has 3 medical colleges within 70 Kms of its reach. The secondary level is relatively strong and comprises of a district hospital, 5 taluk hospitals and several hospitals in the private sector.

Palakkad district differs from the others because it has neither tertiary care institutions nor medical colleges. Secondary level health care is relatively lacking in comparison with Thiruvananthapuram or Kollam.

Despite these differences, all three districts selected have been reported to have well-organised *'primary care'* facilities under the administration of the state government.

B. Time Frame

The study was undertaken during the period from 21st December 1997 upto 28th February 1998. The information on the performance of subcentres and Multipurpose workers during the three months preceding the study dates was collected from subcentres and households. For performance in areas like immunisation and contraceptive acceptance,

the period of reference was longer. It was 6 months in the case of immunisations and 5 years in the case of contraceptive acceptance.

C. Study Sample

Since the study involved primary health centres and subcentres, permission was obtained from the Director of Health Services, Kerala. The co-operation of all officials upto the subcentres was further ensured by sharing the aims of the study through official communications. The academic intent of the study was emphasised and it was clarified that the investigation was not an official evaluation procedure. Furthermore, confidentiality of records of individual subcentres and districts were assured.

A total of 44 primary health centres, out of 247 of them available for the study in three districts, were randomly selected. This constituted **15.1%** (14/93) of all PHCs in Palakkad district, **18.1%** (15/83) in Thiruvananthapuram district, and **21.37%** (15/71) in Kollam district. No differentiation was made among mini primary health centres, block primary health centres and community health centres in the random selection because of reasons discussed in Section I.5.

This sample of 44 primary health centres, had under them 94 subcentres each in Palakkad (19.9%), and Thiruvananthapuram (20.7%) and 86 subcentres (18.3%) in Kollam districts. All these subcentres were evaluated in the present study. The list of institutions studied are included as Appendix.1.

Multipurpose health Workers in all these subcentres - both JHIs and JPHNs - were included in the study as respondents for survey questionnaires.

Middle level supervisors from the selected primary health centres, medical officers, district and state level officers were contacted for additional information on subcentres, when ever such a necessity arose.

D. Study Technique

D.1. Tools

1. Separate questionnaires were prepared, by the investigator, for JHIs and JPHNs (See Appendices 2&3). The questions were chosen and compiled in consultation with public health experts, epidemiologists and district health administrators. The questionnaires were pretested among Multipurpose health workers of two primary health centres in Thiruvananthapuram district .
2. A schedule for household survey was similarly prepared and pretested in households of a subcentre service area in Thiruvananthapuram district. This schedule was used to collect information from households in the districts studied (See Appendix 4). Coded information on household survey schedule were recorded in the Record Form (RF) prepared for this purpose (See Appendix 5).
3. A standardised schedule was prepared to collect information from the subcentres visited. Based on this schedule the subcentre facilities and documents were examined (See Appendix 6).
4. '***Work Sampling***' of Multipurpose health workers was conducted and the information recorded in work sampling sheets prepared for the study.

2. Method

The investigator met the Multipurpose health workers at their respective primary health centres. The primary health centres convene review meetings of workers on the second/third working day of every month. Workers in some of the primary health centres were met during these meetings. In other primary health centres, meetings of Multipurpose health workers were organised for this purpose, with the help of the medical officers in charge. The medical officers and the 'middle level' supervisors at the primary health centres were also present during these meetings. In these meetings, the survey questionnaires were discussed in detail and doubts, queries and fears of workers were addressed. Such meetings were held in all the 44 primary health centres selected.

1. District level officers, medical officers in charge and the senior most middle level supervisors from these primary health centres were also contacted at the monthly conference at the district head quarters. These conferences are routinely held on the fifth working day of every month. The objectives of the study and the detailed questionnaires were presented to the district officials and the officials from the primary health centres in these conferences. Separate meetings were held at each of the districts studied.
2. After this, the questionnaires were administered to the Multipurpose health workers. The Multipurpose health workers were provided with adequate time to go through their records and registers before answering the questionnaires.
3. All the primary health centres selected for study were visited and from among the subcentres under these primary health centres, 90 subcentres were selected at random for further evaluation. At least one subcentre, for every three available for

study, under a primary health centre was selected at random. The investigator visited each of the selected subcentres and collected details of the activities as specified in the standard schedule. The registers and documents maintained at the subcentres, field tour diaries of the Multipurpose health workers and the other registers maintained by them were examined in detail by the investigator. To additionally examine the authenticity of the information provided by the Multipurpose health worker in his/her response to the standard questionnaire, the investigator verified this information with the observations recorded in their registers.

4. Multipurpose health workers prepare advance tour programmes to plan their field work. They divide their work area into twenty blocks, each block to be covered in a day's work (*Day blocks*). One 'day block' was selected at random from the field area of individual subcentres visited.

5. In each day-block so selected, a household survey was conducted by the investigator. Household survey was of the pattern of *"Coverage Evaluation Survey"*. It was conducted in 30 clusters each in each of the 3 districts, each cluster comprising of atleast seven households. Households were visited sequentially till at least seven households with potential beneficiaries for any of the services rendered by the Multipurpose health workers were found. Seven to ten households were to be visited for getting at least 7 seven beneficiary households. In some of the clusters data on more than seven households were collected because the last household happened to be in a building occupied by 2 or 3 households or in a closely conglomerated dwelling place, where skipping the adjacent households in a survey had social problems. The standardised schedule prepared for this purpose was used for the

household surveys. The information obtained from the households was entered in the record forms described earlier. A total of 720 households were surveyed in three districts, viz., 233 from Palakkad district, 244 from Thiruvananthapuram district and 243 from Kollam district.

6. Separate focus group discussions were held at various places in the community, among the Multipurpose health workers, the middle level supervisors, the district officials, the local body representatives and the state level officers.
7. Personal interviews were conducted with the district and the state level officers by the investigator.
8. Qualitative data obtained from FGDs and interviews were recorded to compare with the data collected from the household surveys and the questionnaires.
9. Two workers each from both the categories were selected, at random, from each of the districts (altogether 12 workers) and were subjected to '*Work Sampling*'. The investigator followed these workers during their field work. *Randomised instantaneous observations were made every five minutes during their field work* and entries were made in record sheets prepared for this purpose. Only four workers from each district could be subjected to work sampling, mainly because of the time constraints in executing the study. Twelve half-day sessions were used for work sampling. This is a considerable portion of the total eight weeks' time available for data collection. The sample of 4 workers from each of the districts, although admittedly small, cannot be considered as a limitation because the workers were selected at random and the observations were recorded during their routine field work. The workers who were being followed were blinded as to what was being

done and only after completion of a day's work were they told that their work was being observed.

III. 3. ANALYSIS

Data collected from each of the sources were edited and entered separately in Excel Version 7 in a PC and statistical analysis was performed using SPSS version 5.

⇒ Information on similar items, obtained from different sources, were analysed for similarities and differences. Comparison of proportions were done using Chi square test and statistically significant p value of less than 0.05 was considered.

⇒ Self administered questionnaires from the health workers furnished details about infrastructure facilities and services rendered from the subcentres. This was compared with the information collected from the subset of subcentres personally visited.

⇒ This information, was also compared with details collected from household survey.

⇒ The Multipurpose health workers in their questionnaire have expressed how they are spending their field work time. This had been cross checked by work sampling.

RESULTS

CHAPTER IV

IV. RESULTS

1. Subcentre premises and buildings

Important differences emerged among the three districts when the provision of buildings for subcentres was evaluated. Table 3 summarises details regarding buildings reported by the Multipurpose health workers. While a majority of subcentres in Palakkad district are functioning in government buildings, only less than half of the subcentres in the other two districts have their own buildings.

TABLE 3

'BUILDING' DETAILS OF SUBCENTRES
(AS REPORTED BY MULTIPURPOSE HEALTH WORKERS)

BUILDING DETAILS	PALAKKAD		THIRUVANANTHA PURAM		KOLLAM	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Government building (%)	69.7*Ψ	86.42Ψ	46.42*Ψ	37.67Ψ	50*Ψ	49.32Ψ
Rented building (%)	6.06	0	7.16	11.69	5.9	2.74
Rented room (%)	3.03	4..94	21.42	29.87	38.24	42.47
Others (%)	21.21	8.64	25	20.77	5.86	5.47

* Refer to the primary health centres, where they spent the afternoons.
Ψ P value < 0.001

The reasons for these interdistrict differences is discussed later.

TABLE 4

SUBCENTRE DETAILS COLLECTED BY VISITING THEM

PARTICULARS	Palakkad N=21	Thiruvanantha puram N=22	Kollam N=28
Having Govt. Building %	90.48	36.36	39.29
Both workers present %	71.43	36.36	42.86
Only female worker %	28.57	66.64	57.14
Female W staying	90.48	9.1	17.86

The building details reported by the JPHNs in all the three districts closely agree with what was seen on visiting them (Table 4). The disparity in reports of JPHNs and JHIs emerge from the fact that JHIs are sharing primary health centre premises in afternoons, as their head quarters. Actually they are not having any subcentre accommodation in their field areas.

2.Awareness about the Subcentres

Table 5 summarises details regarding the awareness about subcentres and Multipurpose health workers, based on our household survey. It is seen that there is fairly good awareness about subcentres in all three districts, with an almost 100% awareness in Kollam district. Even the district with least awareness shows a figure of about 75%. This finding is in sharp contrast to some of the earlier studies (K.P.Kannan, K.R.Thankappan, V.Ramankutty, K.P.Aravindan 1991). Though people know about subcentres, awareness regarding the exact location of the subcentre in their area is less than the overall awareness. In all the three districts it is in the range of 60%.

TABLE 5

AWARENESS ABOUT SUBCENTRES(HOUSEHOLD SURVEY)

PARTICULARS (In percentages)	Palakkad N=263	Thiruvanantha puram N=244	Kollam N=243
Subcentre awareness	83.65	76.64	95.06
Subcentre location awareness	61.74	58.61	69.54
Visited by a health worker in3 months	63.88	75.82	77.77

More than 60% of households in all the three districts reported being visited by a Multipurpose health worker in the previous three months. This is also in contrast to that reported by earlier studies. The recall period for our study was different from the previous studies and this aspect has also to be considered in this context. The frequency of reported visit is maximum for Kollam district and the least for Palakkad district.

3. Population Characteristics

Population characteristics of the subcentres, as reported by the JPHNs and the JHIs, are in accordance with the expected. A subcentre is expected to cater to a population of about 5,000 people. It is seen that the median population catered to by a JPHN in all the three districts is around 5,000 and varies according to the population density in the respective districts.

A marginal increase is noted in the case of Kollam district (See Table 6). The number of infants, children and eligible couples, as reported by the Multipurpose health workers are commensurate with the respective populations.

TABLE. 6

POPULATION CHARACTERISTICS OF SUBCENTRES
(AS REPORTED BY MULTIPURPOSE HEALTH WORKERS)

Characteristics	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Population	8925	4810	7488	5375	6773	5668
No. of infants (%)	146(1.6)	68(1.4)	101(1.3)	63(1.2)	96(1.4)	72(1.3)
No .of children (%)	606(6.8)	344(7.2)	496(6.6)	382(7.1)	462(6.8)	391(6.9)
Target couple	345(3.9)	166(3.5)	120(1.6)	73(1.4)	166(2.5)	128(2.3)

Only in the case of 'target couples' significant differences exist among the districts studied.

4. Documentation details of the Subcentres

Except for minor variations, documentation details are similar in all the three districts. According to the workers, they maintain an area map in more than 90 % of institutions (See Table 7).

TABLE 7

DOCUMENTATION DETAILS OF SUBCENTRES
(AS REPORTED BY MULTIPURPOSE HEALTH WORKERS)

Details (In percentages)	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Area Map	93.94	97.53	96.43	90.91	100	98.63
Village Map	30.3	14.82	17.86	16.89	20.58	23.29
Subcentre committee	NA	98.77	NA	50.65	NA	60.49
Median No. of registers	5	8	5	5	5	8

According to the reports by the Multipurpose health workers only about 25% of subcentres maintain village maps.

On visiting the centres it was seen that the reported facts are more true in the case of Palakkad district. Here more than 95% of subcentres have area maps. But the difference is more pronounced in the case of village maps (See Table 8).

TABLE 8

VILLAGE MAPS AND AREA MAPS IN SUBCENTRES
(AS REPORTED BY MULTIPURPOSE WORKERS VS. FINDINGS ON VISITING THEM)

DISTRICT	Area Map		Village Map	
	Reported as present (%)	Actually present (%)	Reported as present (%)	Actually present (%)
Palakkad N=21	97.53	95.24	14.82	19
Thiruvananthapuram N=22	90.91	72.72	16.89	4.5
Kollam N=28	98.63	85.71	23.29	3.6

Maintaining a village map is very important for the activities of the Multipurpose health workers. The village map shows the location of the subcentre in relation to the primary health centre and other important landmarks of the village. It will be of use to know about the adjacent areas of the subcentre. In communicable disease outbreaks, the availability of the village map is essential to plan control strategies. A few workers are not even aware of such a tool .

One obvious discrepancy found in the case of subcentres in Kollam and Thiruvananthapuram is that around 10% of them do not have baseline information about their beneficiaries..

5. Subcentre Committees

Another finding was regarding the 'subcentre committees'. Subcentre committees (also known as 'Peoples' Committees') are constituted to ensure community involvement in the activities of the subcentres. JPHNs are assigned the responsibility of constituting these committees, which are to be comprised of local leaders and are supposed to help in planning, executing and monitoring the activities of the subcentres. For instance, under the current 'Target Free' approach for family welfare activities, goals at the individual subcentre level are decided by consensus in these committees.

TABLE 9

DETAILS OF SUBCENTRE COMMITTEES
(REPORTED BY JPHNs Vs. FINDINGS ON VISITING THEM)

DISTRICT	SUBCENTRE COMMITTEES			
	Reported as present (%)	Actually documented (%)	Median time since formation in months	No.of times met in previous 3 months
Palakkad N=21	98.7	61.91	26	1
Thiruvananthapuram N=22	50.65	18.18	15	2
Kollam N=28	68.49	35.71	2	2

It was found that there is a marked difference between the reports about these committees, obtained from the JPHNs and the actual documentation about them at the subcentres, on personal visits. Even though a majority of subcentres in all the three districts reported having subcentre committees, there was no documented evidence for the functioning of these committees in many of the subcentres visited. None of the subcentres had any evidence to suggest that the committees are helping in their day to day activities. These committees principally discussed the arrangements for the 'Pulse

Polio Immunisation', which took place, as a mass campaign, during the months of the survey. In many of the subcentres, the committees were constituted for this purpose alone. Discussions related to improving the functioning of subcentre or planning targets for family welfare activities did not take place in any of the subcentres visited.

There were some exceptions as well. Subcentres under one primary health centre in Thiruvananthapuram district have planned and executed health and morbidity surveys. In one of the subcentres in Kollam district, Hepatitis-B detection and immunisation camps were organised with community involvement. But these instances seem to be related to local factors, like the presence of a motivated health worker or a leader.

6. Activities of the Multipurpose health workers

6.A. Key National health programme activities in three months

Under the Multipurpose scheme both JHIs and JPHNs are supposed to work equally for national health programmes. None of the activities are specifically assigned to any of the categories. For example, the male worker is supposed to work with equal enthusiasm for the Child Survival and Safe Motherhood (CSSM) programme and for the National Malaria Eradication Programme(NMEP). Before 1984 male health workers were assigned responsibilities in vertical programmes to which they were attached and female workers concentrated mainly on Maternal and Child Health (MCH) activities.

6.A.1. Maternal and Child Health (MCH) services

Table 10 summarises some of these activities in subcentres. The details are enumerated in crude numbers, just to show the extent of activities. As there are no targets fixed for any of these activities, it is impossible to show them in any other form. In Palakkad, the

median number of outreach immunisation sessions in three months is one. It is expected that each subcentre should conduct at least one outreach session in a month. Similarly none of the subcentres had arranged any school immunisation sessions in the reference period of three months.

TABLE 10

SOME KEY ACTIVITIES OF MULTI PURPOSE HEALTH WORKERS
(IN THREE MONTHS OF STUDY- AS REPORTED BY THEM)

ACTIVITY	PALAKKAD	THIRUVANANTHA PURAM	KOLLAM
JPHNs			
Immunisation at the centre	1	3	3
Outreach sessions arranged	0	1	0
School immunisations arranged	0	0	0
Children reported as fully immunised	19	17	20
Fully immunised from subcentres	**9 (47%)**	**8 (47%)**	**12 (60%)**
Pregnant women detected	19	15	20
Pregnant women given service	**12 (63%)**	**7 (47%)**	**7 (35%)**
Deliveries reported in the subcentre area	13	13	16
Deliveries in subcentres	0	0	0
Domiciliary deliveries reported	0	0	0
Hospital deliveries reported	13	13	16
Mothers' meetings held	6	3	7
JHIs			
Presence at immunisation site	3	5	3
School immunisations	0	1	1
Pregnant women detected	8	8	6

Similarly, going by the population characteristics of subcentres described earlier, the number of children immunised, the number of women receiving ante-natal care, etc., seem to be below what is expected.

6.A.2. Immunisation services

Data related to immunisation activities in subcentres is recorded in Table10. At least one immunisation session is conducted in a subcentre in the reference period of three months. The outreach sessions conducted vary widely. The data also suggests that, of all the

children immunised, almost 50% are from the subcentres or from the outreach sessions arranged by the subcentres.

It is also seen from our household survey data that the government sector is the major provider for immunisation services in all the three districts (See Table11).

TABLE 11

NUMBER OF CHILDREN RECIEVED IMMUNISATION SERVICES IN THREE MONTHS-BY SOURCE (HOUSEHOLD SURVEY)

IMMUNISATION SERVICES	DISTRICTS		
	PALAKKAD	THIRUVANANTHA PURAM	KOLLAM
PULSE POLIO			
Number immunised in 3 months	123	163	120
Percentage from government sources	**100**	**99.4**	**100**
Percentage from private. sources	0	0.6	0
ALL OTHER IMMUNISATIONS			
Number immunised in 3 months	60	30	25
Percentage from government sources	**90**	**90**	**80**
Percentage from private. sources	10	10	20

6.A.3. Antenatal services

Antenatal services provided at the subcentres were found to be different from the immunisation services. These are to be viewed in the background of the facilities available at the subcentres. Facilities available at the subcentres in the three districts are compared in Table 12. Important differences exist among them. While subcentres in Thiruvananthapuram district lagged behind other two districts in all the facilities examined, subcentres in Palakkad seemed better equipped in comparison to those in Kollam (except where the availability of sphygmomanometer was evaluated). While a majority of subcentres in Palakkad district have an examination couch, only a third of them in Thiruvananthapuram district had such a facility while Kollam had an

intermediate position. Except Palakkad district, where 85% of subcentres have own buildings, majority of them don't even have the facility of an examination couch.

TABLE 12

FACILITIES AVAILABLE FOR ANTENATAL EXAMINATION IN SUBCENTRES VISITED
(PERCENTAGE HAVING THE FACILITY)

FACILITY AVAILABLE	PALAKKAD N=21	THIRUVANANTHA PURAM N=22	KOLLAM N=28
Examination couch	85.7	36.36	57.14
Weight recording	33.33	9.09	14.29
Blood pressure examination	23.8	9.09	46.43
Urine analysis for Albumin & sugar	23.8	9.09	10.34

None have the subcentres had the facility to estimate blood haemoglobin level. Notably, less than a third of subcentres in all three districts had a functioning weighing machine and a fifth had facilities for routine urine analysis. Data from the household survey show the extent of utilisation of subcentres for antenatal care. It can be seen from Table 13 that the subcentre is not utilised for this purpose in Thiruvananthapuram where as about a third of these services are provided by subcentres in the other two districts. It is also seen that the subcentres are utilised along with primary health centres, community health centres and private sources for antenatal services. Maximum utilisation of subcentres for this purpose is in Kollam and it is also found that the maximum visits offered to a pregnant woman by a JPHN is also in Kollam. Where as more than half of the pregnant women met in the study in Kollam were seen by a JPHN in preceding three months, this was true for only a quarter of them in the other two districts.

TABLE.13.

ANTENATAL SERVICES AVAILED- BY SOURCE
(DATA FROM HOUSEHOLD SURVEY)

SOURCE OF A:N SERVICES (AS % OF TOTAL)	PALAKKAD N=25	THIRUVANTHA PURAM N=22	KOLLAM N=17
Subcentre	28	0	35
Subcentre+ P.H.C/ C.H.C.	36	9	29
Total in all Government sources	60	42	59
Total in all private sources	40	54	35
Subcentres +private	4	0	0
Visited by a Multi Purpose worker	25	22	53

Maximum utilisation of private institutions for antenatal services was also found in Thiruvananthapuram district.

6.A.4. Intranatal services

In Kerala, where more than 90% of all deliveries occur in hospitals, it is no wonder that the subcentres are not reporting any deliveries (See Table 10). In all the three districts studied, more than 95% of deliveries are occurring in hospitals. The health workers are not usually called upon to conduct deliveries. A few exceptions were noted in Palakkad district (See Box No.1)

Box.No.1.

Some Different Experiences

Two subcentres in Palakkad stand apart in the study. Both of them have some common characteristics. The JPHNs are residing at both the subcentres. The JPHN's is a household name in the locality. More than 60% of deliveries in the area are being conducted at home by the JPHN in the first place and about 40% by the JPHN in the second place. Located within 10 Kms. of Palakkad town, these are not remote villages. The places are well connected to the town by roads. There are more than 5 speciality hospitals, with Obstetricians and advanced facilities, within easy reach. But, irrespective of their socio-economic status, majority of households prefer the services of JPHNs for conduction of deliveries. On interviewing, it was found that the JPHNs had been staying in the subcentres for more than 6 years and conducting deliveries all these years. No major Obstetric complication had been reported in their work. If a complications is suspected, the JPHN accompanies the patient to the hospital and arranges everything possible for her. The informants spelt out that the cost including the incentive to the JPHN incurred in getting a delivery conducted at home is less than one fifth of what is to be spent in a private hospital. Delivery at government hospitals are also costly when compared to domiciliary deliveries attended by the JPHNs. One interesting finding was that the JPHN is not having any facilities like drugs, suture materials or any other facility to conduct deliveries. She purchases all these with beneficiaries' help. It was reported that one JPHN is going to be promoted shortly (she has 22 years of service as JPHN) and people are worried about the sustenance of the services.

6.A.5. Family Welfare services

Median family welfare activities, as reported by the Multipurpose workers, were recorded. It is seen that the major contraceptive method adopted and promoted by the Multipurpose health workers is 'female sterilisation'. 'Male sterilisation' is not promoted even by the JHIs. Among the temporary methods of contraception, intrauterine devices are promoted by both the workers. Condoms are being promoted for contraception and as a tool for HIV/AIDS prevention. But it seems that this message has not yet reached the Multipurpose health workers properly. In the light of focus group discussions with the JHIs, in which they argued that males are more comfortable with the male JHIs in seeking services like condoms, it is paradoxical that the JPHNs have distributed more condoms than the JHIs. As per the report of the JHIs the median number of condoms distributed in three months in Thiruvananthapuram district is only NINE (See Table 14)

TABLE.14.

MEDIAN NUMBER OF CONTRACEPTIVE METHODS PROMOTED BY THE MULTI PURPOSE HEALTH WORKERS, AS REPORTED BY THEM (IN THREE MONTHS PERIOD PRECEDING THE SURVEY)

Contraceptive method promoted	Palakkad		Thiruvanantha puram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Sterilisation - Male	0	0	0	0	0	0
Sterilisation- Female	0	2	1	2	1	5
Intrauterine Devise insertion	1	3	1	2	1	3
Oral Pills	6	10	9	12	13	18
Condoms distributed	9	240	137	339	300	480

The values are expressed as crude numbers, because there are no 'targets fixed' to compare them with. The family welfare programmes had assigned targets, enforced from higher up, to the primary health centres and subcentres, till 1995-96. Then the programme was declared 'Target Free". In Kerala and Tamil Nadu the programme was

declared 'Target Free' one year prior to the general declaration all over the country. In the real sense, the programme was not target free, but the enforced target from higher up was removed. The workers were supposed to determine their own targets. While doing so, due consideration was to be given to the contraceptive needs of the 'target couples' in their areas. The process was initiated at the PHC levels as ***'microplanning'***.

The 'subcentre committees' were to examine the feasibility of various contraceptive methods to potential beneficiaries. They were to motivate and make them accept the most appropriate method, from a 'Cafeteria selection'. But the results of the present study show that the process remained more on paper and in official reports. None among the 71 subcentres visited in three districts had shown any evidence of such meetings. Neither did the contraceptive acceptors in the households surveyed report any such approach from the subcentres, nor was there any evidence to show that these meetings were held in the subcentres. At present, targets for each method are different for individual subcentres and to quote a common figure is difficult. For example, if we go by 'pre-target free' standards, a JPHN was required to promote at least 6-7 sterilisations, 8-10 intrauterine devise insertions and distribute around 1000 pieces of condoms in a period of three months. If one compares 'achievements' shown in Table 14, with these figures, it is obvious that the activities are far from satisfactory.

TABLE 15

CONTRACEPTIVE ACCEPTANCE BY ELIGIBLE COUPLES AS PERCENTAGE PROMOTED BY MULTIPURPOSE HEALTH WORKERS IN THREE MONTHS PERIOD PRECEDING THE HOUSEHOLD SURVEY

DISTRICT	Number accepted any contraceptive method	Number promoted by a Multipurpose worker	Percentage promoted by Multipurpose worker
PALAKKAD	295	233	79
THIRUVANANTHAPURAM	177	63	36
KOLLAM	134	79	59

The household survey results shown in Table 15 show that promotion of contraceptive methods by the Multipurpose health workers is the highest in Palakkad district, lowest in Thiruvanathapuram district with Kollam occupying a middle position.

6.A.6. National Malaria Eradication Programme (NMEP)

TABLE 16

ACTIVITIES OF MULTIPURPOSE HEALTH WORKERS UNDER THE NATIONAL MALARIA ERADICATION PROGRAMME IN THREE MONTHS PRECEDING THE SURVEY, AS REPORTED BY THEM -EXPRESSED IN MEDIAN NUMBERS)

Activity	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Fever cases seen /treated	63	0	65	13	96	1
Blood smears collected	63	0	65	13	96	0
Presumptive treatment given	61	0	65	6	92	7

Table 16 displays the activities of the Multipurpose health workers under the National Malaria Eradication Programme (NMEP). Under this programme, the Multipurpose health workers collect blood smears during their house visits (*Active Surveillance*) and from all the patients with fever attending the primary health centres (*Passive Surveillance*), targeted to include not less than 6% of the outpatients attending primary health centres. The programme also envisages measures like 'contact smear collection' and DDT spraying in an area of one sq. km around a smear positive malaria case.

It is reported that the JHIs collect blood smears and administer presumptive treatment (with Chloroquin) as stipulated in the programme. Even though the median population served by JHIs decreases from Palakkad through Thiruvananthapuram to Kollam, the

median number of blood smears collected shows a reverse trend (Kollam being the first to be followed by Thiruvananthapuram and Palakkad).

In Palakkad district JPHNs were not collecting blood smears for Malaria surveillance. In Thiruvananthapuram, it was reported that a median of 13 smears are being collected by JPHNs and 6 patients were administered presumptive treatment even though it is mandatory to administer presumptive treatment to all the patients from whom blood smears are collected. In Kollam district there is no report of JPHNs collecting blood smears. But it is reported that a median of 6 patients are administered presumptive treatment. This has either to be false reporting or JPHNs are administering treatment without collecting blood smears. Both in Kollam and Thiruvananthapuram several JPHNs have reported administering presumptive treatment with Chloroquin without collecting blood smears for examination.

Our household survey indicated important differences compared to information furnished by the Multipurpose health workers.

TABLE 17

SERVICES RENDERED BY MULTIPURPOSE HEALTH WORKERS UNDER THE NATIONAL MALARIA ERADICATION PROGRAMME IN THREE MONTHS PRECEDING THE SURVEY - EXPRESSED AS MEDIAN - (HOUSEHOLD SURVEY)

SERVICE DETAILS	PALAKKAD N= 263	THIRUVANATHA PURAM N= 244	KOLLAM N = 243
Households with fever cases	124	118	136
Number of fever cases	187	179	201
Visited by any health worker %	0	10	0
Blood smear collected %	0	3	0
Presumptive treatment given %	0	3	0

Our household survey revealed that none of the patients with fever during the reference period of survey were either visited by a health worker, or had blood smears taken in Palakkad and Kollam districts. Fewer than 6% of patients with fever were visited by a

Multipurpose health worker in Thiruvananthapuram district; of these less than 1% were subjected to blood smear examination or administered presumptive treatment. These observations were corroborated during the 'work sampling' undertaken by the investigator in all three districts. In Palakkad district, a JHI was seen collecting blood samples, but he had neither Chloroquine nor any antipyretic to be given to the patients with fever.

During FGDs, workers themselves revealed that work in NMEP is not progressing as expected. Several reasons were cited by them. Important ones for not collecting blood smears included nonavailability of lancets (broad needles used for pricking), reluctance of the community to undergo the test (for fear of contracting HIV infection) and subsidence of fever by the time a Multipurpose health worker visited a household (due to short lived nature of many febrile episodes). In the case of JHIs, there is an additional problem of inaccessibility, since they are not having accommodation at their field areas. District and state level officers are sceptical about the reports sent from subcentres on smear collection and presumptive treatment. But they cannot act for want of data substantiating this belief. ***The present finding from the household surveys emphasises the need for coverage evaluation surveys to further evaluate this programme.***

6.A.7. National Tuberculosis Control Programme

The Tuberculosis control programme is being implemented in Kerala as per the guidelines of the National Programme. In Thiruvananthapuram district, the revised strategy is being implemented (Revised National Tuberculosis Control Programme-RNTCP). In all the three districts this programme is integrated into the general health services.

TABLE 18

ACTIVITIES OF MULTIPURPOSE HEALTH WORKERS INTHE NATIONAL TUBERCULOSIS CONTROL PROGRAMME IN THREE MONTHS PRECEDING THE SURVEY- AS REPORTED BY THEM (EXPRESSED AS MEDIAN)

Activity	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Suspected TB cases detected.	2	0	2	0	0	0
Sputum samples collected	0	0	0	0	0	0
Sputum samples got examined	0	0	0	0	0	0

Surveillance measures depend fully on the work by the multipurpose workers. But, no work practically is going on in these districts according to information furnished by workers themselves (See Table 18).

The Multipurpose health workers are supposed to refer patients, with history of cough and expectoration lasting for more than two weeks, to the nearest centre with facility for sputum examination. This is not found to be done. In the districts where the RNTCP is being implemented, workers are supposed to collect sputum samples from patients and get them examined. But none of the workers have reported regarding any such activity. This is once again supported by the data collected from the households (See Table 19).

TABLE 19

NTBCP (RNTCP) SERVICES RECEIVED BY POTENTIAL BENEFICIARIES IN THREE MONTHS PRECEDING - EXPRESSED AS MEDIAN- (HOUSEHOLD SURVEY).

	PALAKKAD N= 263	THIRUVANANTHA PURAM N=244	KOLLAM N = 243
Households having beneficiaries (%)	32.7	45.08	53.91
Total number of patients*	98	122	145
Number of patients seen	0	0	1

* In none of these patients sputum either samples were collected & examined or tuberculosis detected, except in Kollam where one sputum sample was examined.

Even in Thiruvananthapuram district, where revised programme is being implemented, out of 122 subjects in 244 households surveyed, who qualify to be investigated under this

programme, none were seen or asked to provide sputum samples for examination. The informants in households are unaware of such a facility and in none of the districts studied did the community know that facilities for the detection and the treatment of tuberculosis were available at the subcentres and the primary health centres. During work sampling, we came across some patients with tuberculosis. They were getting treatment either from a government hospital or a TB Centre. None of the Multipurpose health workers knew any details about these patients. It was also noticed that complaints of persistent cough by patients were ignored by the Multipurpose health workers.

Focus group discussions with Multipurpose health workers revealed their feeling that they were forced to take up this additional work, without any additional remuneration. Another point raised about the RNTC programme in the FGDs concerned the operational aspects. In districts where RNTCP is being implemented, the treatment programme is being controlled by an official, ('treatment organiser') posted for this purpose. The workers think that these officials are neither qualified nor competent enough to run the programme.

6.A.8. Acute Respiratory Infection (ARI) Control Programme

The ARI control programme is a component of the CSSM programme and is being implemented through the subcentres. The programme aims at reducing morbidity and mortality due to respiratory infection in 'underfive' children and prescribes simple guidelines for detection of pneumonia. Under this programme Multipurpose health workers screen children with suspected ARI and administer Co-trimoxazole empirically to those with an increased likelihood of pneumonia (suspected based on simple clinical pointers such as an increased respiratory rate).

Exhaustive training is given to the Multipurpose health workers, mainly JPHNs, under the CSSM programme and they are provided with Co-trimoxazole. It is seen that Co-trimoxazole is available with a majority of the subcentres, even when other essential drugs or facilities are lacking. The programme had been implemented with reasonable success in several other parts of our country. The government took up these examples to replicate the programme all over the country. Thus the programme came to be implemented in Kerala also.

It is evident from our data that the programme is not being implemented with much enthusiasm in any of the districts studied.

Table 20 presents the performance of Multipurpose health workers in ARI control programme.

TABLE 20

ACTIVITIES OF THE MULTIPURPOSE HEALTH WORKERS IN ARI CONTROL PROGRAMME IN THREE MONTHS PRECEDING THE SURVEY - AS REPORTED BY THEM (EXPRESSED AS MEDIAN)

Activity	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
ARI cased detected	0	0	2	0	0	0
Pneumonia cases diagnosed	0	0	0	0	0	0
Pneumonia cases referred	0	0	0	0	0	0

The workers have reported that they did not detect or treat any case of ARI in underfive children during the reference period. In Thiruvananthapuram district workers reported detecting two cases but did not mention about any treatment or referral.

TABLE 21

ARI CONTROL SERVICES RECEIVED BY CHILDREN REPORTING ARI, IN THREE MONTHS , FROM MULTIPURPOSE HEALTH WORKERS - EXPRESSED AS MEDIAN . (HOUSEHOLD SURVEY)

	PALAKKAD N= 263	THIRUVANANTHAPURAM N=244	KOLLAM N = 243
Households having beneficiaries (%)	28.89	41.39	31.28
Total number of patients *	87	129	96
Number of patients seen by Multipurpose health workers	1	1	0

* None of these patients were either seen or treated except one case each in Palakkad and Thiruvananthapuram districts

Our household survey suggested that the failure to detect ARI in children did not indicate a very low frequency of ARI in the community. Around 30% of the households in Palakkad and Kollam and 41 % of the households in Thiruvananthapuram districts reported ARI episodes during the three months' reference period. None of them were offered any service by the Multipurpose health workers (See Table 21). ***Our study emphasises the need for further evaluation of ARI control programme in the state.***

6.A.9. Acute Diarrhoeal Diseases (ADD) Control Programme

The Acute Diarrhoeal Diseases Control Programme, another component of the CSSM programme, aims at reducing morbidity and mortality, due to diarrheal diseases among the 'underfive' children. It uses the strategy of prompt detection of diarrhoea cases and correction of dehydration, if any, with domiciliary oral rehydration therapy using Oral Rehydration Salt (ORS) and Home Available Fluids (HAF).

TABLE 22

ACTIVITIES OF MULTIPURPOSE HEALTH WORKERS IN ADD CONTROL PROGRAMME IN THREE MONTHS PRECEDING THE SURVEY - AS REPORTED BY THEM (EXPRESSED AS MEDIAN)

Activity	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
ADD cased detected	6	11	5	10	3	15
ORS Packets distributed	10	1	7	2	6	0

It is evident from Table 22 that Multipurpose health workers are involved in detection and management of ADD cases. However, there is a discrepancy in the median number of cases detected and the number of ORS packets distributed. The data suggests that ORS packets are not supplied to some children with diarrhoea and ORS is provided to some without diarrhoea. It can be argued that all diarrhoea cases do not require ORS and majority can be treated using HAF. But, it is instructed in the programme to supply ORS packets to all the cases detected.

A median of around 6 diarrhoea cases in three months period, in an 'underfive' population of about 500, suggests underreporting. The details collected in our household survey are displayed in Table 23 and confirm this fact.

TABLE 23

ADD CONTROL SERVICES RECEIVED BY CHILDREN, REPORTING ADD IN THREE MONTHS, FROM THE MULTIPURPOSE HEALTH WORKERS - EXPRESSED AS MEDIAN (HOUSEHOLD SURVEY)

	PALAKKAD N= 263	THIRUVANANTHA PURAM N=244	KOLLAM N = 243
Households having beneficiaries (%)	9.13	6.15	7.41
Total number of patients	26	15	22
Number of patients seen by Multipurpose health workers	5(19%)	0	0
Number of patients treated with ORS	5(19%)	0	0
Cases referred	0	0	0

Compared to ARI, ADD episodes are less frequent as per the data obtained from the household survey. The proportion of ADD cases seen and treated by the Multipurpose health workers, in all three districts, are less compared to the frequency of episodes detected. Except in Palakkad, no patients with ADD are seen to be treated at the household level by the Multipurpose health workers.

One important aspect regarding the programme is awareness about the ORS. In all the three districts evaluated, the awareness about ORS is above 50%. The awareness is maximum in Thiruvananthapuram, minimum in Palakkad, with Kollam occupying an intermediary position. Table 24 shows the prevalent awareness in the community regarding ORS based on our household survey. A majority of informants who are aware of ORS think that it is available at the primary health centres. Almost an equal number of them think that it is available at the chemists' shop.

TABLE 24

AWARENESS REGARDING ORS, EXPRESSED AS PERCENTAGE OF TOTAL (HOUSEHOLD SURVEY)

	PALAKKAD	THIRUVANANTHA PURAM	KOLLAM
ORS AWARENESS	55.5	70.9	63.79
WHERE IS ORS AVAILABLE ? (as % of informants)*			
Subcentres	44.2	25.4	21.3
Health worker	8.2	4	1.9
Anganwadi	29.9	14.5	3.9
Primary health centre	49.65	45.1	39.4
Chemist's shop	39.5	32.4	34.8
Private hospitals	1.4	0.6	0.6

* Percentage values do not add up to 100 , as the same informant knew that ORS is available from several sources, and all the responses were accounted.

In Palakkad 44.2 % of informants know that it is available in the subcentres. But this awareness is less in Kollam and Thiruvananthapuram, even though the overall awareness about the use of ORS (when compared to Palakkad) is higher in these districts .

These findings are consistent with earlier studies which tried to evaluate the programme in these districts (Joseph VJ, Rajamohanan B 1995)

Multipurpose health workers and ORS

Even in Palakkad, only less than 10% of informants are aware that ORS is available with the Multipurpose health workers visiting their households. This figure is less than 5% in

Thiruvananthapuram and less than 2% in Kollam. Thus, our household survey reveals that people are more aware of ADD control services from the primary health centres, rather than from the subcentres. Despite the popularisation of Oral Rehydration Therapy (ORT), and treatment of diarrhoea, through mass media, our community based investigation suggests that people do not usually associate ORS with the Multipurpose health workers.

ORS and the Healthcare providers

One important aspect is that almost 99% of informants in all three districts identify ORS as something related to the government health care facilities. In Kerala, a sizeable part of health care is being provided by the private sector. This is so in rural areas as well. The community is more aware of the ADD control services available at the primary health centres than the provision of such facilities at subcentres or with Multipurpose health workers. This aspect needs serious consideration, as the accepted policy is to bring these services to beneficiaries' door steps.

7. Health Education activities

Data presented in Table 25 represents the health education activities by the Multipurpose health workers, as reported by them. A median of around 10 group talks in three months are being organised by them in all the three districts .

TABLE 25

HEALTH EDUCATION ACTIVITIES BY THE MULTIPURPOSE HEALTH WORKERS- AS REPORTED BY THEM (EXPRESSED IN MEDIAN NUMBERS)

Activity	Palakkad		Thiruvananthapuram		Kollam	
	JHI	JPHN	JHI	JPHN	JHI	JPHN
Group talks	15	11	14	9	13	9
IEC activities	0	0	0	0	0	0
Mothers' meetings *	NA	6	NA	3	NA	7
Percentage of time spent for health education	20	10	20	10	10	10

* Mothers' meetings are usually arranged by the JPHNs and it is not applicable (NA) for JHIs.

All of them have reported that no Information, Education and Communication (IEC) activities are being conducted at the subcentre level. The proportion of time spent by the Multipurpose health workers for health education activities follow the same pattern in Palakkad and Thiruvananthapuram districts. In Kollam district, it is seen that the JHIs spend less time for health education activities compared to their counterparts in Palakkad and Thiruvananthapuram districts.

The household survey revealed that in Palakkad, at least one member from about 18.3% of households has attended a health education session in the subcentre. In comparison only 6.56% of the households in Thiruvananthapuram and 11.52 % of the households in Kollam reported attending health education sessions. Thus, commensurate with the time spent (as reported by workers) more impact is achieved in the community in Palakkad than in other two districts.

7.A.Type of Health Education offered

It was observed that majority of the informants attending health education sessions did not remember the subject discussed there. In almost all of these sessions no audio-visual

aids were used. All were in the form of classes by a health worker or by some other official from the health department.

In the sessions they remember, topics of discussion were either related to maternal and child health, breast feeding or diseases like AIDS and Malaria. Once in a while it was about environmental sanitation or about drinking water and diarrhoeal diseases. However, in subcentre activities, the element of health education is not getting the desired importance, according to the information from our household survey. Poor coverage of beneficiaries and minimum use of IEC activities in health education point towards the need for reorganising these activities.

8. Perception of the Multipurpose health workers about the Scheme

The Multipurpose health workers feel that supervising authorities pursue some health programmes with excessive zeal. This often results in enforced targets for some programmes. The example they cite is the Family Welfare programme. Until it was declared 'target free' in 1995, this programme had 'enforced target'. The programme was given maximum priority and emphasis over the others. Enforced target and incentives for 'good work' were common in those days. A worker was usually praised or punished according to the 'achievements' he/ she made in this programme. During monthly review meetings at the primary health centres Multipurpose health workers used to be reviewed based on assigned targets in this programme.

Achievements in other programmes were not acknowledged and 'low achievers' in FW were issued warnings. Cash awards and citations followed FW achievements. For their FW achievements, medical officers were offered seats for postgraduate medical studies. The ultimate result was that the programme fared better than others.

JHIs are still reviewed for their achievements in National Malaria Eradication Programme (NMEP), which has an assigned target even now. The ultimate result is that the programmes which do not have an assigned target tend to be ignored by the Multipurpose health workers.

9. How do the Multipurpose health workers utilise their field work time ?

Table 26 summarises the perception of the Multipurpose health workers as to what proportion of their field work time is deployed for each of the programmes and activities. It was observed that the JPHNs spent more time for the CSSM programme. To get an idea as to how much time the ARI and the ADD control components get, these two programmes were included separately from the CSSM programme.

TABLE 26

HOW THE FIELD WORK TIME IS SPENT BY THE MULTIPURPOSE HEALTH WORKERS?
(AS PERCIEVED BY THEM , AS PERCENTAGE OF TOTAL TIME)

ACTIVITY	PALAKKAD		THIRUVANANTHAPURAM		KOLLAM	
	JHIS	JPHNs	JHIs	JPHNs	JHIs	JPHNs
CSSSM*	14.9	53.2	17.6	51.1	18.3	54.4
NMEP	28.2	5.2	34.2	6.3	34.1	4.9
ARICP	5.2	9.6	5.4	9.2	9.1	7.8
ADDCP	17.2	10.9	12	11.3	12.5	10.4
TBCP	5.5	5.9	7.3	6.6	7.2	5.6
HEAL:EDN	21.8	10.9	16.3	10.3	13.2	11.5
BALANCE	7.2	4.3	7.2	5.2	5.7	5.4

* Excluding ARI and ADD components.

The JPHNs felt that they spent about 10% each of their field work time for these two individual components. They admit that less than 7% of their time is spent on the National Malaria Eradication Programme.

The JHIs report that they spent maximum time for the NMEP activities. Around 30% of their field work time is spent for this programme. The CSSM programme also claims a reasonable part of their time (around 20%). The ARI and the ADD components account for around 5% and 15% of their field work time respectively, according to their reports. But the household survey data points to the contrary. It is true that the JPHNs spent much of their time with the CSSM programme. Comparatively, no time is spent on the NMEP, the ARICP or the ADDCP according to our household survey data. The relative contributions to the ADD and the ARI control programmes are minimal for the JHIs' also .

Another major component in field work of the JHIs is the health education activities. Fifteen to 20% of their field work time is spent on this. Here also disparities were noticed between the reported and the household survey data. So these information were cross checked with information obtained from '*WORK SAMPLING*' of these employees.

10. Work Sampling

Data obtained from work sampling is summarised in Table 27. It is commonly believed that JHIs do not play any significant role in the CSSM programme. But work sampling showed that they spent a sizeable part of their field work time in this programme. In all three districts studied, it was observed that they spent about one third of their field work time in activities related to CSSM programme.

TABLE 27

HOW MULTIPURPOSE HEALTH WORKERS SPEND THEIR FIELD WORK TIME ?
(WORK SAMPLING - TIME EXPRESSED AS PERCENTAGE OF TOTAL)

ACTIVITY	PALAKKAD		THIRUVANANTHAPURAM		KOLLAM		ALLDISTRICTS	
	JHI	JPHN	JHI	JPHN	JHI	JPHN	JHI	JPHN
CSSM	31	60.8	28.6	53.9	35	44.8	31.5	53.1
TBCP	0	0	0	1.3	0	0	0	0.4
NMEP	11.4	0	11.7	0	9.6	0	10.9	**0**
Communicable diseases:	8	0	1.5	0	3.6	0	4.4	0
Health education	1.4	1.4	0	2.4	7.3	0	2.8	1.3
Sanitation/water	8	0	19.8	0	8.4	0	12.1	0
Social talk	1.4	5.3	1.5	3.6	4.8	0	2.6	3
Collect household details	12	9.5	19.7	17.2	8.4	21.3	13.4	16
Walking between houses	24	20.3	15.7	16.4	18.1	24.3	19.3	20.4
Others	2.8	2.7	1.5	5.2	4.8	9.6	3	5.8
Grand total	100	100	100	100	100	100	100	100

JHIs were seen collecting blood smears only in Palakkad district. Even here, no service was seen to be administered to the beneficiaries. In other districts, during work sampling, in at least 5 households, there were fever cases and none of them were given any service. Similarly in households having persons with chronic cough, no advise was seen to be given. During work sampling, two patients volunteered that they had tuberculosis in the past and had only incomplete treatment. They were also not given any specific advise by the Multipurpose health workers. No JPHN in any of the three districts was involved in any activity related to NMEP. They neither collected blood smears, nor administered presumptive treatment. This is in sharp contrast to what they reported regarding their time allocation (See Table 26). Similar was the case with some of the components of the CSSM programme. ADDCP and ARICP were seen to receive no attention of the Multipurpose health workers (See Table 28). Even in households, where there were beneficiaries for these programmes, the workers tend to neglect them.

TABLE 28

FIELD WORK TIME OF MULTIPURPOSE HEALTH WORKERS SPENT ON SOME INDIVIDUAL COMPONENTS OF CSSM PROGRAMME (WORK SAMPLING; TIME EXPRESSED AS PERCENTAGE OF TOTAL FIELD WORK IN A DAY)

ACTIVITY	PALAKKAD		THIRUVANANTHAPURAM		KOLLAM		ALLDISTRICTS	
	JHI	JPHN	JHI	JPHN	JHI	JPHN	JHI	JPHN
Immunisation	13.5	14.9	15.7	22.1	14.5	16.2	14.6	17.7
Vitamin A advise/ administration	0	2.7	0	5.2	4.8	1.5	1.6	3.2
Contraception advise/follow up	13.5	20.3	12.9	11.7	14.5	20.3	13.6	17.4
ARICP	0	0	0	0	0	0	0	0
ADDCP	0	2.7	0	1.3	0	0	0	1.3

None of the workers were able to cover a full 'day block' during a day's field work.

Almost one third of field work time was spent on walking between the households.

Many obvious public health problems were not even noticed by the workers during their field work. An open pit with garbage, breeding mosquitoes, on the way of a male worker on field visit, did not attract his attention. He did not even mention the problem to the household.

Health Education advice was found to be restricted to some 'loose' advice regarding drinking water and sanitation. Comments like: 'Summer is around, it is time to put powder in well' (about chlorinating wells, using bleaching powder) and 'drink only boiled and cooled water to avoid contracting Hepatitis' were the usual way of giving health education advice.

It was observed that in all the three districts the Multipurpose health workers were collecting baseline details from several households. This included names and age of all members in those households. This was being noted down in their diaries. This may be because the worker might not have visited those households in the recent past and they may be updating their information. It is also possible that they might never have visited

some of these households and presence of the observer might have necessitated the present visit.

The time taken to reach the day-block varied in the case of JPHNs. Some of them started from subcentres, especially in Palakkad (where the JPHN resides at subcentre), and some from the PHCs. A few Multipurpose health workers, straight away went to the field from the place of their residence and returned to their subcentres in the afternoon. The JPHNs preferred visiting households having beneficiaries of the CSSM programme. During work sampling, it was noted that they skipped some houses because they knew that these households don't have children or eligible couples. On visiting the households these workers were found to be helpless in providing even minimum curative services. Very often they had only Iron tablets and ORS powder with them (the community does not know that they have ORS with them !).

11. Integrating more programmes with the general health services

Another important aspect to which attention was focused was of integrating more vertical programmes to the multipurpose scheme. Some programmes like National Leprosy Eradication Programme still remain vertical. Though specific field staff exist in programmes like the blindness control programme and the tuberculosis control programme, multipurpose health workers are also supposed to play a key role. So the question of integrating more vertical programmes to the general health services was put forward to various categories like the Multipurpose health workers, the community, the supervisors and other officials.

11.A. How do the Multipurpose health workers feel regarding integration ?

It is seen that the Multipurpose health workers are divided in their opinion about integration (See table 29) .

Majority of the JPHNs feel that more vertical programmes can be integrated to general health services, where as the JHIs are almost equally divided in their opinion regarding integration. They are more apprehensive about integrating more of vertical programmes.

TABLE 29

MULTIPURPOSE HEALTH WORKERS' OPINION REGARDING INTEGRATING VERTICAL PROGRAMMES.

(EXPRESSED AS PERCENTAGE OF WORKERS)

OPINION	PALAKKAD		THIRUVANANTHAPURAM		KOLLAM		ALLDISTRICTS	
	JHI	JPHN	JHI	JPHN	JHI	JPHN	JHI	JPHN
GOOD	21.2	51.85	53.6	32.7	44.1	67.12	38.9	50.22
NOT GOOD	69.7	34.57	35.7	53.25	14.7	21.92	40	36.8
DON'T KNOW	9.1	13.58	10.7	14.28	41.2	10.96	21.1	12.98

11.B. Why integration ?

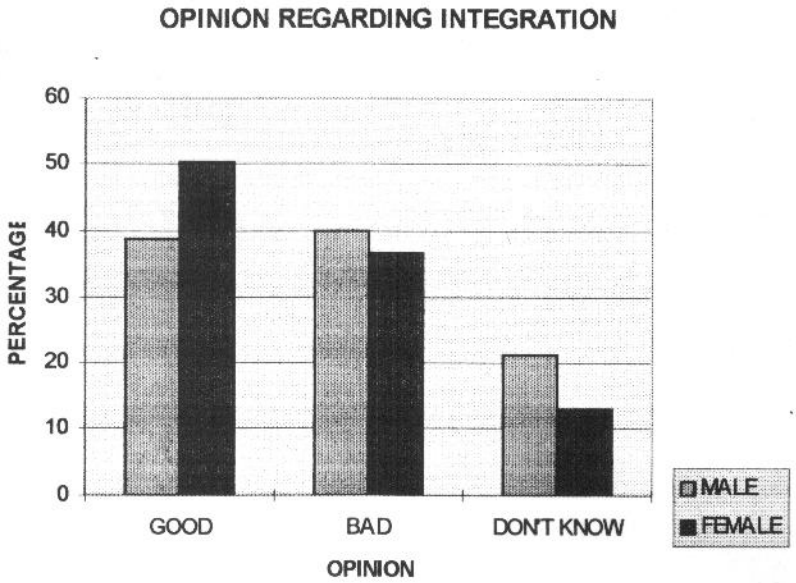
The most important reason suggested by the JPHNs for integration was that it will help in delivering more of comprehensive services to community.

11.C. Why no integration ?

About a third of the JPHNs feel that more and more programmes need not be integrated to general health services. They think that integration will immensely increase the workload. According to them, Multipurpose health workers are already overburdened. This will reflect as poor quality of work in the already existent programmes. The ultimate sufferers will be the community, they warn. Another important impediment, they feel, is that this will come in the way of their promotion prospects and career development opportunities.

Fig 2

OPINION OF MULTIPURPOSE HEALTH WORKERS REGARDING INTEGRATION OF VERTICAL PROGRAMMES TO MULTI PURPOSE SCHEME



But this difference in opinion (between the JPHNs and JHIs) regarding integration was statistically not significant (p value 0.301). Opinion among the JPHNs, the JHIs and the Multipurpose health workers in general, when considered across the districts, showed statistically significant variations (all p values <0.001).

12. Perception of Multipurpose health workers about National Health Programmes

Several health programmes are being implemented through the primary health centres. The Multipurpose health workers were asked about their perceptions regarding these programmes. The relative time allotted to every programmes by the worker is decided by several factors like enforced targets, extent of supervision for each of the programmes etc. They were asked to state the names of five national programmes in the order of importance as they see them.

The male workers feel that Malaria eradication programme is the most important and it should be given the first priority among all the national health programmes.

TABLE 30

RELATIVE IMPORTANCE ASSIGNED TO VARIOUS HEALTH PROGRAMMES BY MULTIPURPOSE HEALTH WORKERS
(EXPRESSED IN 0 - 10 SCALE)

PROGRAMME	JHI	JPHN
CSSM	2	2.8
NMEP	2.8	1.1
NMHP	0	0.1
NBCP	0	1.2
TBCP	1.4	1.3
NLEP	0.6	0.2
ARI	0.2	0.7
ADD	1.5	1.1
AIDS	0.9	0.7
OTHERS	0.6	0.8

The second programme is CSSM and a majority of them have considered ADDCP component in that programme as the third important national programme to be taken up with priority. The fourth important programme according to them was tuberculosis control programme and the fifth was considered the AIDS control programme

(See Table 30).

The JPHNs, on the other hand, think that the CSSM Programme is the most important. They give second preference to Tuberculosis control and third preference to blindness control programme. Malaria eradication programme and diarrhoeal diseases control component of the CSSM programme are given the fifth important place. Even though the ARI and the ADD control components are included in the CSSM programme, the tendency of Multipurpose health workers was to cite them as separate programmes, deserving special attention.

Another finding was that JPHNs not only consider the CSSM Programme as the most important, but did not give even half of its significance to the next programme of their preference. The JHIs distributed the significance among programmes more evenly and relative preference to different programmes was with in a narrow range.

Even though STD control programme, HIV/AIDS prevention and National Mental Health Programme figured as important in focus group discussions, when asked about five most important programmes these were not preferred to that extent by the Multipurpose health workers (except that the JHIs gave fifth preference to AIDS control).

DISCUSSION

CHAPTER V

DISCUSSION

1. Manpower and Infrastructure

The present study has examined subcentres as the first level of contact for the community with the health services and its role in bringing services related to the national health programmes to the door steps of the beneficiaries.

The subcentre is envisaged to have two Multipurpose health workers. But, many of them have only the JPHNs. Several reasons were cited for this. The JPHNs are completely sponsored by the central government and their pay and allowances are provided from there. The JHIs are to be paid by the state government and over the years when posts of JPHNs were created equal number of JHI posts were not created. Even the existing vacancies of JHIs remain unfilled for months or years (See Table 31), with the result that the available JHIs are put in additional charge of subcentres in which JHI posts are vacant. Thus the available JHIs are forced to cater to a median population, almost double that of a JPHN.

TABLE 31

PERCENTAGE OF POSTS OF JHIs REMAINING VACANT AS ON 30.9.1997

DISTRICT	NUMBER OF POSTS	% REMAINING VACANT
Palakkad	238	36.6
Thiruvananthapuram	203	29.6
Kollam	291	29.9

Source: Achievement and progress October 1997, Directorate of Health Services, Kerala

This disparity in the numbers of Multipurpose health workers undermines the very concept of the scheme.

Subcentres at present are limited by shortage of infrastructure facilities. Except for Palakkad, in the other two districts about half of subcentres do not have any buildings of their own. During FGDs the Multipurpose health workers complained that there is no provision even for availing a rented building or room.

1.A. Why there are no buildings ?

The lack of buildings for between 15-60 % of subcentres is in part related to the Government policy of constructing structures only on land donated by the community. The donated land very often is wasteland on top of hills or in locations without much human habitation. The end result was that the subcentres were often constructed in the periphery of communities and potential beneficiaries had very poor geographic access. Even if a physical facility had been constructed for the functioning of a subcentre, the annual maintenance had not been done for several years and there is often neither electricity nor provision for drinking water. It was also observed that the median time since any maintenance had been done in government subcentre buildings was 66 months (range:3 months to 13 years). The limited geographic access leads to bypassing of subcentres, and the beneficiaries go straight to the primary health centres. In many instances, the primary health centres are located nearer to people and have better connectivity than the subcentres. This defeats the very idea of the subcentre being the first level of contact with the health services.

1.B. What makes Palakkad different ?

Palakkad has the highest percentage of government accommodation for subcentres. One of the reasons for this is the India Population Project III (IPP III). The project, a soft loan

from the World Bank, had the broad objective of reducing fertility and mortality by improving Maternal and Child Health (MCH) services in the project districts and to increase the coverage and quality of Health and Family Welfare services through better facilities, training and management [13]. The project was operational in 4 districts of Idukki, Wyanad, Malappuram and Palakkad. A total of 568 subcentres were constructed under the project, out of which 208 were in Palakkad district. The construction of subcentres was done by the Kerala Health Research and Welfare Society (KHRWS) and construction works were completed with in the stipulated project period. Even these subcentres were built in a fixed pattern and did not consider the geographical and climatic details of different places.

1.C. Does a Subcentre accommodate two Multipurpose health workers ?

It can be seen that there is disparity in the reporting of accommodation facility by the JHIs and the JPHNs. Even in those subcentres constructed by the government there is no facility for the accommodation of JHIs. Subcentre building has a treatment facility (where patients are examined) and a residential component (for the stay of the JPHN). The clinic or office at the subcentre part does not have separate portions for the JHIs and the JPHNs. Majority of the JPHNs and the JHIs are young. Median age of JHIs in all the districts is 30 years and, that for the JPHNs is 34 years. There are several newly recruited JPHNs and a good number of them are unmarried. During discussion with the Multipurpose health workers, it was revealed that the JHIs usually do not share the office space in subcentres. In the afternoon JPHNs and JHIs are supposed to remain in the subcentres. Because of reasons described above, this usually is not possible for the JHIs.

If the JHIs attempt to remain in subcentres in the afternoons it will ultimately lead to a situation where a JHI and a JPHN will be left alone in a subcentre, usually away from places of residence. This is considered socially and culturally inappropriate. The very idea was put forward by some of the respondents of focus group discussions in the community. Many of them disapprove the idea of a male and a female being left alone in such a situation, especially in the rural set up. The ultimate result is that the JHIs move away from the subcentres to establish their own accommodation. With no provision for paying reasonable rent, it is difficult for the JHI to find an accommodation. Finally the JHI resorts to keeping his registers etc. at the primary health centres. Thus, the JHIs are usually located at the PHCs in the afternoons. *In the real situation almost none of them have any accommodation in their field areas* (in the column in the questionnaire on accommodation, the JHIs have specifically told that they are accommodated at the primary health centres). ***This once again challenges the basic concept of a subcentre with workers operating from a place within the area of residence of its beneficiaries.***

1.D. Do matters change in the present setup ?

The state has witnessed a major shift in its administrative set up by the implementation of the Panchayati Raj (the system of local self governments). The responsibility of maintaining subcentres now rests with the panchayats (the local bodies). In places where there are no subcentre buildings, not much had been done afterwards also. Though it is too early to evaluate Panchayati Raj and its contributions to the development of subcentres (given that Panchayati Raj was implemented only one and a half years ago), available information suggest that the subcentre building construction is neglected by majority of the local bodies.

1.E. Better facilities for better acceptance

The facilities available at the subcentres are grossly inadequate in all the three districts studied. This will limit the services rendered through them, both in terms of quality as well as quantity. Majority of the subcentres do not even have the facilities for essential examination of a pregnant woman. Earlier studies (Palmer.P.E.S 1991[14]) have also observed that "the first level of care will be utilised by the people if its services are reliable and its facilities are attractive". The inadequacies in terms of infrastructure facilities is one of the reasons for bypassing the subcentres.

2. Awareness about the Subcentres

The findings of this study in this regard are in sharp contrast to some of the earlier studies, and are discussed below in terms of overall awareness and awareness by subcentre location.

2.A. Overall awareness

Awareness about subcentres vary from 75% to about 100% in the three districts studied. Earlier study (K.P.Kannan et al 1991) has estimated this awareness to about 20%. But that study was not specifically aimed at examining the community awareness about subcentres. Moreover, the investigators deployed for the survey were not sufficiently competent to elicit correct response from the informants because of their limited training and skill. The manner in which a question is phrased and asked, to some extent, determines the response(Banerji D 1973)[15] ; and this aspect was the limitation in previous studies.

2.B. Awareness by location of the Subcentres

Even though 'subcentre awareness' is quite high, awareness by location of the subcentres is inadequate in all the three districts. No statistically significant relation was noted between the presence of a government building where the JPHN stays and the awareness regarding the subcentres. Awareness in Kollam district is comparable with that in Palakkad, even though the latter has very high percentage of own buildings.

2.C. Awareness about the Multipurpose health workers

But frequency of visit by a Multipurpose health worker is reported to be reasonably higher in Kollam compared to the other two districts. Findings of earlier studies differ in this aspect also. The frequency of visits by the health workers were reported at very low levels in them. One of the reasons for this, again, can be that the investigators in those studies failed to convey the correct sense of the question they asked. Community, very often, identifies a Multipurpose health worker as coming from the primary health centre and a question as 'did any one from the subcentre visit your house?' is liable to be answered in negative, though in fact it may not be.

3. Population characteristics of the Subcentres

The differences in population characteristics of the subcentres reported by the JPHNs and the JHIs have been described earlier. There is disparity in the number of target couples reported by the JHIs and the JPHNs in Palakkad district. This can be explained by the fact that the JHIs cater to a median population of about 8,000 (range: 7000 to 19000) whereas it is about 5000 (range:1600 to 7000) for a JPHN. The very low figures in the range of 1000-2000 population reported by some of the JPHNs are due to the fact that

they are posted to primary health centres (called 'indoor JPHN') for rendering curative services, and are assigned lesser number of households (about 200-250) under their care.

4. Subcentre Documentation details

Subcentres were found to vary widely regarding documentation details like maintaining correct baseline data of the community, area maps and village maps. About 10% of the subcentres were not having even baseline information and the explanation offered was that the worker has joined only recently. But this argument does not hold good in the context that they could have very well used the information collected by their predecessors, as none of these posts were vacant for long periods.

5. "Community Involvement" in the activities of the Subcentres

Subcentres are expected to function according to the consensus evolved in 'Subcentre Committees'. None of the subcentres studied did show any such phenomenon. If 'Subcentre Committee' is an indicator of 'Community Involvement', it can be concluded that community involvement is not up to the expected level in Kollam and Thiruvananthapuram districts. Thus, the *'government-sponsored community involvement'* is found to be lagging in a majority of subcentres.

6. Key activities at the Subcentres

6.A. Immunisation activities

If we take the Maternal and child health activities, it can be seen that the subcentre is playing a key role. But the extent to which subcentre is successful in bringing these services to the beneficiaries' doorsteps is doubtful. The outreach sessions organised by the subcentres in all the three districts are less frequent than expected. In many of them no outreach immunisation sessions were being organised at all. Reasons for this were discussed in focus group discussions of Multipurpose health workers. One of the reasons for low frequency of outreach sessions in subcentres under the 'mini primary health centres' is that they do not have any transportation vehicles of their own. The 'block primary health centres' which earlier catered to populations of three or four panchayats still retain transport vehicles, even though the population catered to by them at present is equal to that of a 'mini primary health centre'. Thus, the latter can conduct an outreach session only if a vehicle is provided from the former. In Kerala, the presence of a doctor is mandatory in all immunisation sessions. This once again limits the scope of conducting outreach sessions in subcentres under the mini primary health centres, which has only one doctor, who is usually busy with curative work. In some primary health centres in Thiruvananthapuram, it is seen that one of the doctors from the block primary health centre accompanies the vehicle, when it goes to a mini primary health centre for outreach immunisation sessions. This looks a very feasible arrangement which can be replicated in other districts also.

It was seen that immunisation services provided by public sector has high acceptance in the community. Over the years government system had been giving utmost priority to the maintenance of "COLD CHAIN" and proper administration of immunisations. This might have contributed to high the acceptance of these services by the community. This once again confirms the fact that the service acceptance by the community will increase, if quality of service is maintained at high levels.

6.B. Services to the pregnant women

It is true that almost 50% of pregnant women get some services from the subcentres. If the services from PHC/CHC and other government sources are also included, this figure increases further. It is not uncommon for beneficiaries attending subcentres, to attend PHCs, CHCs, Government hospitals or private hospitals simultaneously because the former is not in a position to provide all the required services.

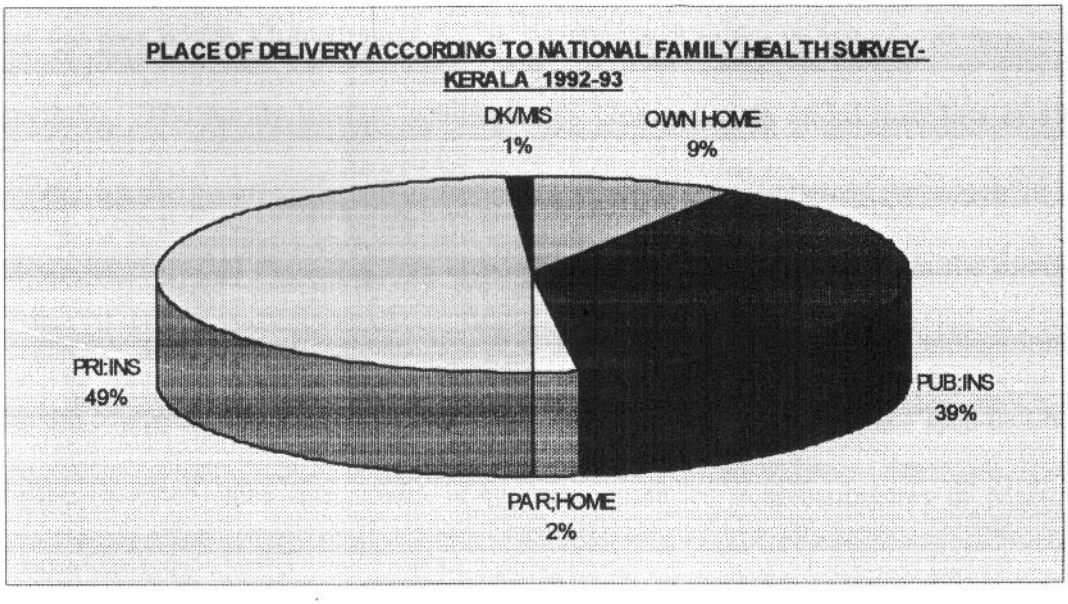
In many instances, the PHC is geographically more accessible than the subcentre. All these factors lead to lesser utilisation of the subcentre for antenatal services. It can be argued that if facilities are made available at subcentres, they will be used more by the beneficiaries. This argument is further supported by the fact that of the three districts studied, Palakkad has more facilities in this aspect and subcentre utilisation was also high here.

Another factor leading to a better utilisation of subcentre services can be the household visits by health workers. Kollam records maximum number of visits by health worker to a pregnant woman and here subcentre utilisation for antenatal services is also reasonably high.

Thus, the interplay of factors like availability of infrastructure, and field visit by health workers may be responsible for better utilisation of subcentres for ante-natal services. This aspect needs further evaluation by detailed studies, as the present study was not intended to evaluate individual services from the subcentres.

According to the National Family Health Survey (NFHS), Kerala 1992-93, more than 87% of deliveries are in hospitals (See Fig 3). Over the years the figure has increased and has reached more than 92 % by 1996 (Annual Administration Report 1996, Directorate of Health Services, Kerala.)

Fig.3



The Multipurpose health workers are not usually conducting deliveries at beneficiaries' houses. But there are exceptions (See box No 1). A majority of the subcentres neither have facilities to conduct deliveries, nor do they have the manpower. A majority of JPHNs are not residing at the subcentres (except in Palakkad) and the community is not

sure of obtaining their services from the subcentres in the case of emergencies. Moreover the 'two child norm' is well accepted and it was found during focus group discussions that people prefer institutionalised deliveries to avoid any possibility of infant and maternal mortality. The Government is also encouraging hospital deliveries. The example cited from Palakkad suggests that this policy may not be the preferred or a universal one.

6.C. Family Welfare Services

From 1994 onwards, Family welfare programme became "Target free"(vide. Section IV.6.A.2.). The government later realised the problems inherent in declaring the programme target free. The target free approach has lead to an increased laxity in work on the part of the Multipurpose health workers and in the promotion of family welfare methods. The family welfare achievements plummeted to an all time low in 1995 and 1996. So the programme was renamed as "People's Participatory Approach". Yet, our study suggests that the target free concept remains deeply engrained in the minds of all. Thus, contraceptive acceptance is still dependent, to an extent, to the motivational work by the Multipurpose health workers in Kollam and Palakkad districts. This fact has to be borne in mind when one thinks of redefining the job responsibilities of Multipurpose health workers.

It was suggested by several workers in focus group discussions that immunisation and contraceptive activities do not require much of motivation at present and these responsibilities can be taken away form the Multipurpose health workers and can be replaced by newer components like care of the elderly or mentally ill. Similar opinion

was expressed by the district and the state level officials also. But two observations strongly argue against such a change.

They are:

1. It is seen that in all the three districts subcentres are playing a role which cannot be ignored, both in immunisation as well as motivation for contraceptive acceptance.
2. Achievements in terms of contraceptive acceptance markedly plummeted when the programme was declared 'Target Free', and Multipurpose health workers developed laxity in this work.

6.D. NMEP services

The major contribution to NMEP activities comes from the JHIs. The participation by the JPHNs need to be ensured. During FGDs it was felt that the JPHNs consider these activities outside the purview of their job responsibilities. In 1996 in Thiruvananthapuram district there were protests from the organisations of the JPHNs when it was made mandatory for them to collect blood samples. A sort of 'silent protest' still remains whereby the JPHNs 'never say no' to taking blood smears, but do not do it in practice. Discrepancies like not administering 'presumptive treatment' on collecting blood smear are to be corrected. The shortage of disposable lancets, surgical spirit (for sterilising fingertip) and cotton wool swabs was noticed during subcentre visits. One of the remedial measures suggested, in FGDs with the workers, to overcome this hurdle looked feasible. A lot of resources are being spent by the State AIDS Cell to prevent the spread of HIV/AIDS infection. If disposable lancets can be provided by the State AIDS Cell, the workers will show them to the community and will spread the message of HIV/AIDS prevention, simultaneously improving blood smears collection.

6.E. TB Control Programme services

Operational problems raised against the programme by workers in FGDs centre around the officials called 'Treatment Organiser'.. These personnel are younger, have a basic education degree and have undergone a nominal training under the programme. They are expected to supervise the Health Supervisors or the Health Inspectors (both male and female) who usually have more than 20 years' field experience. The creation of such a post has resulted in the programme being equated to a vertical programme, by the Multipurpose health workers. The supervisory staff look upon the programme as something between health workers and treatment organisers, with no role for them to play. The hierarchical structural organisation in which official with limited experience supervises Multipurpose health workers with a greater experience leads to work-site conflicts. The treatment organiser is limited both by a lack of adequate knowledge of field conditions and by the absence of facility to directly control Multipurpose health workers. Result of all this is that the programme is not being implemented the way it was supposed to. The problems with implementation of the RNTCP highlighted in our study assume specific importance in the context of increasing threat of tuberculous infection due to poverty, overcrowding and the spread of HIV infection. The TB control programme needs to be evaluated urgently as a lot of resources are being allocated for this programme and in the context of the emerging epidemic of HIV infection.

6. F. ARI Control services

The Multipurpose health workers themselves feel that the ARI control programme is not being pursued with enthusiasm. They feel that the programme is not fit for Kerala state. It might have been implemented with success in other parts of the country. Several

factors may explain the relative poor performance in ARI control activities observed in our study in contrast to its success elsewhere in the country. The high literacy rate (with its attendant preference for physician treatment rather than drug from Multipurpose health workers), an apprehension of drug reactions, and an increased access to private treatment facilities are possible explanations.

Nonetheless, our household survey suggests that a majority of beneficiaries for ARI control programme belong to the poorer socio-economic groups. Our discussion with the community revealed a significant potential utility for the programme among the poorer socio-economic strata. These sections often seek the advise of unqualified practitioners and are not apprehensive regarding drug reactions and Multipurpose health workers can exert a lot of influence on them. They usually welcome the Multipurpose health workers' visits. These visits save them from the inconveniences of going to a Primary health centre. They will administer any drug to their children, if given by the Multipurpose health workers, as they know that 'the person is coming from the hospital'. Familiarity with the worker enhances compliance further. Multipurpose health workers need to be impressed that the programme is still relevant in Kerala. The incidence of adverse reactions with the drug Cotrimoxazole, in children, need detailed evaluation.

Thus, the role of Multipurpose health workers in ARI control programme need thorough revamping. Our study underscores the need for further evaluation of the programme.

6.G. ADD Control services

Our study observed that community awareness about ORS is very high. Only around 1% of people think that the private hospitals use ORS in the management of diarrhoeal diseases. This is important in the following context. Treatment policy of Diarrhoeal

disorders has undergone a paradigm shift with the advent of ORS. Use of antimotility agents like Loperamide, bowel binding substances like Kaolin, and antibacterials like sulphaguanidine are banned in government health care facilities, by a government order. A majority of diarrhoeal episodes are caused by viruses. The treatment protocol suggested is mainly based on correction of dehydration using the Home Available Fluids (HAF) and ORS. But one argument usually raised is that the diarrhoea management is different in the government and in the private health care facilities. In the latter, it is usually argued, that antibiotics, bowel binding substances and antimotility agents are being widely used. The accepted norm of *"less of drugs and more of ORS"* in government sector is being defeated by private hospitals, whose policy is *"more of drugs and less of ORS"*, argue the Multipurpose health workers. Our household survey also substantiates this fact. Further studies are necessary to substantiate the relative use of ORS in both the Government and the private sectors. The protocols for diarrhoea management in government as well as private sectors are to be uniform, for better compliance. A very low level of awareness regarding availability of ORS with the Multipurpose health workers once again emphasises the point that community needs awareness campaigns regarding what all services are offered from the subcentres by the Multipurpose health workers .

7. Health Education activities

The Multipurpose health workers reported that they spend 10-20% of their field work time for health education activities. On work sampling it was found to be 1-3% only. The household survey showed that only 6-18% of household members attended a health education session. Health education offered from subcentres is consists of informal talk

with the beneficiaries and occasional classes arranged by a Multipurpose health worker. No audio-visual aids or other tools are used for this purpose. IEC activities are practically unheard of in the subcentres. But a lot of resources are being spent for this purpose. The proportion of resources spent for rural sector has to be reconsidered and effective IEC activities need to be planned and conducted in the subcentres. As was mentioned in section VI.H, creating awareness about services available at the subcentres through health education and IEC activities can be a good start in this direction.

8. Regarding integration of Vertical Programmes

The argument posed in favour of integrating more vertical health programmes was that the poor in the community will be benefited most by such a step. It was also suggested that the present job responsibilities are to be redefined to provide sufficient time for newly added programmes. But it was seen that the time constraint is the deterrent for good quality work even at present. So this factor has to be borne in mind while considering the integration of vertical health programmes.

The incorporation of the incoming employees from vertical programmes in to the general cadre poses a dilemma. Exhaustive training is needed to become a JPHN and the JPHNs have to have formal registration with the State Nursing Council. This will not be possible for the newly integrated workers. So, all the incoming workers will have to be accommodated as JHIs. This may be the reason for the resistance from the part of JHIs. The JHIs feel that their career development and promotion prospects will be jeopardised by integration of vertical programmes. They cite the instances of the Small Pox eradication programme and the Malaria eradication programme. When these programmes were integrated, a whole lot of law suits followed. Relative seniority of the

already existent and newly added workers was central to these legal disputes. This culminated in the prevention of regular departmental promotions of the JHIs for decades. Many JHIs had to retire from service, without enjoying their due promotion benefits.

The Multipurpose health workers are particularly receptive to the possibility of integrating vertical programmes like the National Mental Health Programme which do not have workers at present. They are happy to integrate some of the newer programmes, provided existing redundant programmes can be phased out. They feel that this will provide them with newer opportunities in the work front. At present the JHIs are concerned about their promotion prospects and career opportunities. Any step to integrate more of programmes should suitably address these concerns.

8.A.Integration for Community's benefit

The District and the State Officers have expressed the view that more vertical programmes are to be integrated for the community's benefit. They are sceptical about the present working of the JHIs. They think that the JHIs are against integration because they are interested only in their promotions and perks.

The Director of Health Services also felt the same way and opined that policy decisions are to be in the wider interests of the community. While integration gives more opportunities for better service delivery, it poses problems related to the integration of all workers as JHIs, thereby creating additional budgetary constraints for the state government.

Vertical programmes are either funded by funding agencies or come under the plan schemes of the Central government. On integration, the responsibility of paying them will fall on the shoulders of the state government.

Thus integration of vertical programmes though good from several perspectives has to be approached with much caution and only after examining all feasible alternatives.

9. Redefining the Job Responsibilities of Multipurpose health workers.

At present, the Multipurpose health workers are deeply entrenched in an established role. It is held that Kerala is fast undergoing demographic transition. Epidemiologic transition is taking place side by side, though not at full pace as in industrialised countries.

The curious phenomenon here is that infectious diseases occur along with the chronic, degenerative diseases and life style related disorders. So it is not surprising that Multipurpose health workers, in FGDs, demanded redefining their job responsibilities to avoid being 'antiquated'. Diseases of old age and mental disorders are not getting any attention of these workers now. They feel that if they concentrate more on new and emerging community concerns, their acceptance in community may go up. This idea was expressed by several groups of people from various strata of society during focus group discussions. Moreover, workers will also feel like visiting those households where there are old people. At present they do not have any service to be offered to these sections. So they conveniently skip these houses during field work.

The Multipurpose health workers can be trained to estimate blood pressure, screen for glycosuria and even to detect chronic mental problems like Schizophrenia. Such efforts

had been tried initially in some primary health centres. In one primary health centre in Thiruvananthapuram, JPHNs were assigned the responsibility of screening for high blood pressure among the 'sixty plus' population. They took up this work with great enthusiasm and the community also showed acceptance of their work. So it is possible to redefine the job responsibilities of these workers in accordance with the demographic and the epidemiologic transitions occurring in this state.

This is more so in the case of the JHIs. A large number of highly qualified young people entering this field get disheartened to find that the job is not attractive. If used properly, these workers can be an asset to the health department and the community. They are to be given sufficient opportunities to show their worth. They must not be blamed for not working, because, as the saying goes "Survey without service is futile" and these workers are compelled to do all sorts of surveys, without any service to provide.

10. Problems encountered in the study

254 JPHNs and 109 JHIs were available for evaluation in 274 subcentres. Out of them responses were obtained from 238 (93.7%) JPHNs and 95 (87.2%) JHIs. Rest of the workers were either away on leave or failed to respond. The reasons for failure to respond, it was observed, was either because the worker was not having sufficient updated information to be provided for the questionnaire or they hesitated to furnish the information lest it be used for evaluating their performance, with unpleasant consequences. Repeated assurances by the investigator that the data is only for academic research failed to convince them.

Similar experiences occurred with the subcentres visited also. Even though 30 subcentres were visited in each of the three districts only 21 in Palakkad, 22 in

Thiruvananthapuram and 28 in Kollam could be studied. In some of the subcentres the worker was on leave on repeated visits.

Locating the subcentres was a serious problem in several places. One reason was that the subcentre is known by one name and is located at a place of a different name. In Thiruvananthapuram and Kollam, where majority a of the subcentres have no buildings of their own, it was very hard to locate the 'so called subcentre', because the worker was either accommodated in a small room or was sharing the premises of a humble 'Anganwadi' (day care centres for preschool children, run by the State Social Welfare department, providing supplementary nutrition, non-formal education etc.) or a poor rural household. People who knew the JPHN very well identified her as coming from the primary health centre and not from the 'subcentre'.

Conducting a survey with out any service to offer was a problem during the household survey. In the rural set up of Palakkad and Kollam, when the investigator identified himself as a medical doctor, there were demands for examining patients, children and doubts were asked about diseases and treatments. All of them had to be patiently obliged for the smooth conduction of the household survey. Even though a part of time earmarked for data collection had to be utilised for such community demands, it provided insight in to the real needs of the community and about the community acceptance to the health personnel.

POLICY IMPLICATIONS & RECOMMENDATIONS

CHAPTER VI

VI. POLICY IMPLICATIONS AND RECCOMMENDATIONS

Based on our study of a large sample of subcentres in three different districts of Kerala, we propose the following to enable the subcentres fulfil their aim of delivering primary health care at the grass root level.

B.1.Infrastructure and maintenance

⇒ Subcentres are to be strengthened with adequate infrastructure facilities. They should have decent accommodation for JHIs and JPHNs with adequate facilities to meet at least the basic health care needs of the rural population.

⇒ The accommodation of JHIs and JPHNs need not be in government buildings. Earlier, JPHNs were conducting deliveries at households and so they were to stay in subcentres. Now more than 95% of deliveries in the state are in hospitals and subcentres play only insignificant role in conducting deliveries. The clause that the JPHNs should stay in subcentres should be reconsidered. The quality and quantity of services rendered through these centres can be improved, even if the JPHN is not staying there. A majority of subcentres are being bypassed by the community which directly approaches the primary health centres even for minor ailments. If workers are available at the subcentre, during the day time consistently, the community may utilise their services more frequently. This will release, to an extent, the pressure on the overworked primary health centres.

⇒ In places where there is no accommodation at present, such facility should be arranged promptly. While doing so, it should be ensured that subcentres have at least the minimum facilities for examining a pregnant woman in privacy and other basic facilities for conducting a full fledged antenatal examination. Moreover the geographic accessibility for all the beneficiaries to the subcentres has to be ensured.

⇒ The local self governments, the present administrative authorities responsible for subcentres, should be made aware of these centres and the role they play in the health care of the rural population. Arranging accommodation for newly created centres and the maintenance of existing ones are to be undertaken by them expeditiously.

2.Staffing pattern

⇒ The present system of having two workers, one male and one female should continue. The subcentre concept, with equal number of male and female workers, has to be made practicable. The JHIs' posts lying vacant should be filled up.

3.Training and promotion prospects of the Multipurpose health workers

⇒ There should be uniformity in the training and the registration of both the categories of Multipurpose health workers.

⇒ The government training schools should be able to train adequate number of workers for the state, to check the influx of candidates trained outside the state. Since the health problems and the health scenario in the field situations in this state are entirely different from any other states, it will be better to provide field experience to the trainees in Kerala itself.

⇒ Registration should be made compulsory for the JHIs also. The registering authority should be vested with the responsibility of setting and ensuring proper academic standards.

⇒ The career development opportunities and the promotion prospects of the Multipurpose health workers should be suitably enhanced to boost the morale of these workers. The promotion prospects of the two categories should be unified. The JHIs should also undergo additional training before qualifying themselves for promotion to supervisory posts. Only those JHIs, who qualify after six months' training need be considered for promotion.

4.Job Responsibilities of the Multipurpose health workers

⇒ The job responsibilities of both the categories of workers need redefining. While doing so, the opinion of the workers regarding their perception about community's needs should also be considered.

⇒ The household visits should have an element of service in addition to the present survey component. The workers can be assigned the responsibility of checking blood pressure, detecting glycosuria and administering drugs etc., and trained accordingly.

⇒ The provision of basic facilities, to treat minor ailments and for routine antenatal checks, will increase the utilisation of subcentres and will reduce the work load at the primary health centres .

⇒ The middle level supervisors including the medical officers should have facilities to visit the field areas for supervising activities. The medical curriculum should be modified in such a way that the doctors get the training for field work during their undergraduate medical education.

⇒ The number of registers to be maintained by these workers should be restricted to a minimum and the registers maintained thus should be comprehensive. The present system of newer registers adding up to the existing ones should change.

⇒ Sufficient registers and records should be supplied to subcentres. At present there is severe shortage of them. The local bodies can help in this matter.

⇒ The data flow from subcentres to higher ups needs to be restricted to the most essential. Only required data be collected from the subcentres and the collected information should be analysed and appropriate feed back made available to the Multipurpose health workers.

5.Integration of vertical programmes

⇒ When national health programmes are being implemented, there should be provision for modifying them to the context in which it is being done. Otherwise they may not serve the purpose. The best example is ARI control programme, which had been totally neglected by the Multipurpose health workers in Kerala.

⇒ While considering integration, the present beneficiary and area characteristics should be borne in mind. The present system of day blocks is good. It needs revamping by reducing the number of households to be visited in a day. The number of households to be visited by the JHI and the JPHN should be the same. Both of them visiting the same day block, one in clockwise and the other in anticlockwise direction to meet at the centre, in the after noon is worth implementing in all the districts. For this, the number of JHIs and JPHNs are to be made equal.

⇒ When vertical programmes are being integrated, the workers in those programmes should be brought into the general pool, only after providing sufficient training. In

their case also registration should be made mandatory to ensure quality of services. Their experience in vertical programmes can be considered for promotion to higher grades and for monetary benefits. For the purpose of promoting to the supervisory posts in the Multipurpose worker scheme, their service after entering the scheme need only be considered .

CONCLUSIONS

CHAPTER VII

VII. CONCLUSIONS

The multipurpose workers and the subcentres still have a decisive role in the delivery of primary health care in the districts studied. Subcentres, the first level of contact of community with the health services, are inadequate in infrastructure and other facilities. The awareness about these institutions in the community is adequate. But this awareness is more about the workers rather than about the institutions.

Awareness regarding subcentres was found to be independent of variables like the presence of own building or the stay of JPHN in it. It was found to be more dependent on household visits by the Multipurpose health workers.

Multipurpose health workers are supposed to do 'multipurpose work', giving due importance to different components. But this message does not seem to have reached them properly. The JPHNs attach more importance to programmes associated with women and children and JHIs are more occupied with Malaria eradication work and public health activities. They have no facilities to render services at the beneficiaries' doorsteps. This suggests the need to redefine the job responsibilities of these Multipurpose health workers. While doing so, emerging problems and evolving risk groups, like the mentally ill and the old aged, should deserve special consideration.

The middle level supervision in the system needs to be strengthened.

The present system of having one male and one female worker is the most preferred combination by the workers and the community. Some programmes need immediate evaluation at the community level. The question of integrating more of vertical programmes has to be viewed more seriously. Even in the present system of 'day blocks', the worker is not in a position to visit all households in the prescribed time. When more of programmes are going to be integrated, the population and the area to be served will have to be redefined accordingly. Another option suggested is to limit the services of the subcentres to the poorer sections only. But these options are liable to meet with problems. The workers generally are against integrating more vertical programmes into the general health services. They are more afraid of their promotion prospects and career opportunities. The integration of vertical programmes is favoured by the community and the higher officials. Even though several programmes are being implemented through subcentres the JPHNs consider the CSSM programme to be the most important while the JHIs consider the NMEP programme as the most important. Household survey and work sampling provide evidence that some components of the CSSM programme (like the ARICP and the ADDCP) are not receiving desired attention of the Multipurpose health workers. The JHIs are not having any accommodation facility in subcentres and the very idea of a subcentre having two workers is at stake now. In the context of implementation of Panchayati-Raj (the local self governments) and handing over of subcentres to them, steps are to be taken by the local bodies to provide decent accommodation and adequate facilities. This will help the workers to render services at the door step of the beneficiaries with more ease.

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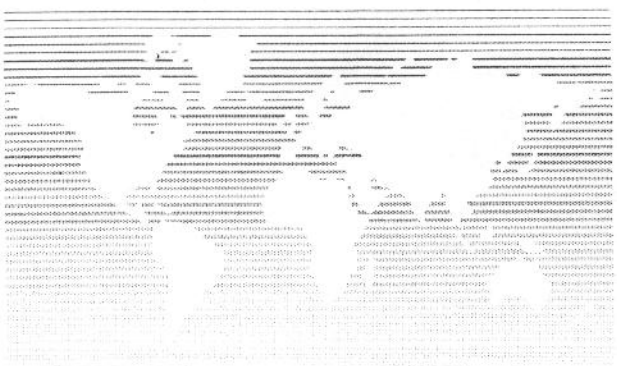

APPENDICES

APPENDIX 1

LIST OF INSTITUTIONS STUDIED

PRIMARY HEALTH CENTRES

(All the 274 subcentres under these primary health centres were included in the study)

Palakkad District

Sl. No	Code No.	Primary Health Centre	Taluk
1	101	Kuzhalmannum	Alathur
2	102	Peringottukurissy	Alathur
3	103	Puthupariyaram	Alathur
4	104	Kongad	Palakkad
5	105	Kottapadom	Mannarkad
6	106	Alanalloor	Mannarkad
7	107	Katampazhipuram	Ottappalam
8	108	Sreekrishnapuram	Ottappalam
9	109	Kottapuram	Ottappalam
10	110	Mundoor	Palakkad
11	111	Pallassana	Chittoor
12	112	Koduvayoor	Chittoor
13	113	Nanniyode	Chittoor
14	114	Perumatty	Chittoor

Thiruvananthapuram District

15	201	Vilavoorkal	Neyyattinkara
16	202	Kadakampally	Thiruvananthapuram
17	203	Thiruvallam	Thiruvananthapuram
18	204	Poozhanadu	Neyyattinkara
19	205	Vellarada	Neyyattinkara
20	206	Kunnathukal	Neyyattinkara
21	207	Vizhinjam	Neyyattinkara
22	208	Mukkola	Neyyattinkara
23	209	Pullampara	Nedumangad
24	210	Vamnapuram	Nedumangad
25	211	Kesavapuram	Chirayinkil
26	212	Navayikulam	Chirayinkil
27	213	Bharathannoor	Nedumangad
28	214	Puthukurichi	Chirayinkil
29	215	Cherunniyoor	Chirayinkil

Kollam District

30	301	Chavara	Karunagappally
31	302	Oachira	Karunagappally
32	303	Nilamel	Kottarakkara
33	304	Chadayamangalam	Kottarakkara
34	305	Sooranadu south	Kunnathoor
35	306	Kalakkodu	Kollam
36	307	Eravipuram	Kollam
37	308	Kundara	Kollam
38	309	Thrikkaruva	Kollam
39	310	Velinalloor	Kottarakkara
40	311	Pooyappally	Kottarakkara
41	312	Alayamon	Pathanapuram
42	313	Pathanapuram	Pathanapuram
43	314	Mylam	Kottarakkara
44	315	Edamulackal	Kottarakkara

SUBSET OF 90 SUBCENTRES VISITED AND HOUSEHOLD SURVEY CONDUCTED

Sl. No	Code No.	Sub Centre	Primary Health Centre
Palakkad District			
1	101001	Kannannnoor	Kuzhalmannom
2	101002	Nochully	Kuzhalmannom
3	101003	Kalappetty	Kuzhalmannom
4	102001	Peringottukurissy	Peringotttukurissy
5	102002	Maniyampara	Peringotttukurissy
6	102003	Muduppullithara	Peringotttukurissy
7	103002	Vallikode	Puthupariyaram
8	103003	Kavilpad	Puthupariyaram
9	104001	Kongad	Kongad
10	104002	Manikkassery	Kongad
11	104003	Muchery	Kongad
12	105001	Bheemanadu	Kottapadom
13	105002	Kompam	Kottapadom
14	105003	Kottappadom	Kottapadom
15	106001	Chirattakkulam	Alanalloor
16	106002	Edathanattukara	Alanalloor
17	106003	Karkidamkunnu	Alanalloor

18	107001	Pullundassery	Katampazhipuram
19	107002	Chundekkad	Katampazhipuram
20	108001	Mannampatta	Sreekrishnapuram
21	108002	Easwaramangalam	Sreekrishnapuram
22	109001	Attassery	Kottappuram
23	109003	Kavunda	Kottappuram
24	111001	Pallavoor	Pallassana
25	111003	Thaloor	Pallassana
26	112001	Kakkayoor	Koduvayoor
27	112002	Ethanoor	Koduvayoor
28	113001	Kannimari	Nanniyode
29	113002	Thathamangalam	Nanniyode
30	114004	Perumatty	Perumatty

Thiruvananthapuram District

31	201001	Choozhattukotta	Vilavoorkal
32	201002	Pottayil	Vilavoorkal
33	202002	Oruvathilkotta	Kadakampally
34	202003	Oolankuzhy	Kadakampally
35	203002	Thiruvallam	Thiruvallam
36	203003	Pachalloor	Thiruvallam
37	203004	Vandithadom	Thiruvallam
38	205001	Koothali	Vellarada
39	205002	Kallimoodu	Vellarada
40	205003	Kathippara	Vellarada
41	205004	Kiliyoor	Vellarada
42	206002	Kunnathukal	Kunnathukal
43	206003	Pullanthery	Kunnathukal
44	207001	Mangalathukonam	Vizhinjam
45	207002	Kattachalkuzhy	Vizhinjam
46	207006	Vizhinjam	Vizhinjam
47	208002	Mathippuram	Mukkola
48	208003	Township	Mukkola

49	208004	Kottappuram	Mukkola
50	209001	Thempamoodu	Pullampara
51	210001	Vamanapuram	Vamanapuram
52	210002	Nellanad	Vamanapuram
53	210003	Venjaramoodu	Vamanapuram
54	211001	Karimpalode	Kesavapuram
55	212002	Chittayikode	Navaikulam
56	212003	Kudavoor	Navaikulam
57	212004	Vettiyara	Navaikulam
58	213001	Pangode	Bharathannoor
59	213002	Vandikidakkkumpoika	Bharathannoor
60	214001	Anakkapilla	Puthukurichy
61	215004	Mudiyakode	Cherunniyoor
62	215005	Cherunniyoor	Cherunniyoor

Kollam District

63	301008	Vettamukku	Chavara
64	301009	Panayannarkavu	Chavara
65	301010	Kollaka	Chavara
66	301011	Parimanam	Chavara
67	302001	Valiyakulangara	Oachira
68	302002	Changankulangara	Oachira
69	303001	Nilamel	Nilamel
70	303002	Cherttukuzhi	Nilamel
71	303003	Kaithode	Nilamel
72	303008	Darpakkad	Nilamel
73	304004	Vellooppara	Chadayamangalam
74	304005	Akkonam	Chadayamangalam
75	305004	Thrikkunnapuzha	Sooranad South
76	305005	Inchakkad	Sooranad South
77	306002	Main centre	Kalakkode

78	306003	Poothakkulam	Kalakkode
79	307001	Thekkevila	Eravipuram
80	307002	Eravipuram	Eravipuram
81	308001	Mulavana	Kundara
82	309002	Prakkulam	Thrikkaruva
83	309003	Ashtamudi	Thrikkaruva
84	310001	Velinelloor	Velinelloor
85	310002	Kalavayal	Velinelloor
86	311002	Maruthamonpally	Pooyappally
87	312002	Anakkulam	Alayamon
88	312003	Channapetta	Alayamon
89	313002	Edathara	Pathanapuram
90	314001	Mylam	Mylam

APPENDIX 2

Multipurpose Health Workers" in Primary Health Care - an inter district Subcentre based study from Kerala.

(Primary Health Centre based study in Thiruvananthapuram Kollam and Palakkad districts of Kerala by Dr.V.Mohanan Nair, MPH scholar, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram)
(The information requested are all for academic research purpose and will be kept strictly confidential)

Questionnaire (Male worker -JHI)

Dist. Code:

PHC code :

Subcentre Code:

Date of survey :

1. Name of Subcentre :

2. Name of Health Worker (Optional) : Age:

3. (a) Date from which working in the present cadre ? | | | |

   (b) Date from which working in the present sub centre | | | |

4. Please furnish the following details regarding your subcentre :

   (a) Where is it housed ? | |

   { 1. In government building 2. In rented building 3. In a rented room

   4. Others (specify) }

   (b) Total Population : | |

   Males: | | Females : | |

(c) Number of children under one year of age as on 30.11.1997. : | |

   (Please include all children born between 1.12.1996 and 30 .11.1997)

   * Number of children under 5 years of age as on 30.11.1997. : | |

   (Please include all children born between 1.12.1992 and 30.11.1997)

* Number of Eligible Couples :

* Number of Target Couples :

6. Do you have an area map ? :
(1.Yes 2. No 3. Don't Know)

7. Do you have a village map ? :
(1.Yes 2. No 3. Don't Know)

8. How many registers do you maintain ?
Please furnish their names below:

9. How many Immunisation clinics were conducted in your area in the past three months ?

10.How many immunisation sessions were arranged in schools in the last three months ?

11.In how many immunisation sessions in the area during the last three months were you present ?

12. How many pregnant women had been detected and referred to the female worker by you during the past three months ?

13. Please furnish the number of contraceptive acceptors, promoted by you in the past three months.

M	F			
Sterilisations		IUDs	Oral Pills(No.of strips)	Condoms

14. (i) How many cases of diarrhoea in children had been detected by you during the past three months ?

ii)How many ORS packets had been distributed by you in the past three months? (Please do not count the ORS supplied to depots)

15. How many cases of Acute Respiratory Infection (ARI) in children were detected by you during the last three months ?

(a) How many children were diagnosed by you to have Pneumonia ?

(b) How many of them were given Cotrimoxazole ?

(c) How many of them were referred to PHC/Hospital ?

16. How many patients with cough and other respiratory symptoms in the last three months were refereed by you to the PHC/ hospital to rule out Tuberculosis?

17.(i) How many blood smears were collected by you for 'Malaria Surveillance' during the last three months ?

(ii) How many of them were given presumptive treatment with Chloroquin ?

(iii) How many smear positive Malaria cases occurred in your area during the last three months ?

(iv) Out of them how many were on blood smears collected by you ?

18. How many group talks were organised by you during the past three months ?

What were the subjects discussed in the group talks (Please specify)

19. How many other activities for health education and Information ,Education and Communication (IEC) were conducted in your area during the last three months ?

What were they ? (Specify) Eg: Filmshows, folkarts, drama etc.

20. How many public health problems were handled by you during the last three months ?

What were they ? (Specify) Eg. Hotel/market/industrial premises inspections, disputes regarding latrines and drinking water sources etc.)

21. What are major activity can you remember in which you were involved in the last three months ?

(Specify)

22. Out of the 100% time spent on your field work what percentage, do you think , is spent on each of the following activities ?

1. C.S.S.M Programme
(Including Maternal and Child Health, Family Welfare as well as Immunisation) ☐

2. National Malaria eradication Programme ☐

3. Acute Respiratory Infection control Programme ☐

4. Acute Diahrroeal Diseases Control Programme ☐

5. National Tuberculosis Control Programme ☐

6. Health Education activities ☐

7. All other programmes (specify) ☐

23. What is your opinion regarding integrating more of vertical programmes to the MPW scheme ? (1. It is good 2. It is not good 3. Don't know) ☐

If your answer is 1 or 2 please furnish your reasons for thinking so.

23. Please list 5 National programmes ,now being implemented through the subcentres , in the order of importance as you see them.

APPENDIX 3

"Multipurpose Health Workers" in Primary Health Care - an inter district, Subcentre based study from Kerala.

(Primary Health Centre based study in Thiruvananthapuram Kollam and Palakkad districts of Kerala by Dr.V.Mohanan Nair, MPH scholar, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram)
(The information requested are all for academic research purpose and will be kept strictly confidential)

Questionnaire (Female worker- JPHN) [ ]

Dist. Code: [ ]

PHC code : [ ][ ][ ]

Subcentre Code: [ ][ ][ ][ ][ ][ ]

Date of survey :

1. Name of Subcentre :

2. Name of Health Worker (Optional) :

3. (a) Date from which working in the present cadre ? [ ][ ][ ]

(b) Date from which working in the present sub centre [ ][ ][ ]

4. Please furnish the following details regarding your subcentre :

(a) Where is it housed ? [ ]

{ 1. In government building 2. In rented building 3. In a rented room

4. Others (specify) }

(b) Total Population : [ ]

Males: [ ] Females : [ ]

(c) Number of children under one year of age as on 30.11.1997. : [ ]

(Please include all children born between 1.12.1996 and 30.11.1997)

(d) Number of children under 5 years of age as on 30 .11.1997. :

(Please include all children born between 1.12.1992 and 30.11.1997)

(e) Number of Eligible Couples as on 30.11.1997 :

(f) Number of Target Couples as on 30.11.1997 :

6. Do you have an area map in your subcentre

(1.Yes 2. No 3. Don't Know)

7. Do you have a village map in your subcentre

(1.Yes 2. No 3. Don't Know)

8. Is the " Peoples' Committee " formed in your subcentre ?

(1.Yes 2. No 3. Don't Know)

If the answer is 'Yes' -

(i) When was it formed ?

(ii) Number of times the committee met during the past 3 months ?

9. How many registers do you maintain in your centre ?

Please furnish the names of the registers maintained:

10. How many Immunisation clinics were conducted in your centre in the last three months ?

(a) How many immunisation clinics were conducted in your field area in the last three months ?

(b) How many immunisation sessions were arranged in schools in the last three months ? ☐

(c) How many children under one year of age got fully immunised in your area during the last three months ? ☐

(Fully immunised means one dose of BCG, 3 doses each of DPT/OPV and one dose of Measles vaccines and children in your area includes all children who got immunised from all sources including private .)

(d) How many of them were immunised from the subcentre or from field sessions arranged from subcentre ? ☐

11. How many pregnant women had been detected by you during the last three months ? ☐

(a) How many antenatal cases had been registered in your subcentre clinics during the last three months ? ☐

(b). Please furnish the following information regarding deliveries in your subcentre area during the last three months.

(i) Deliveries conducted at the subcentre ☐

(ii) Deliveries conducted at the residence of the woman ☐

(iii) Deliveries in hospitals (both government and private) ☐

(iv) Total number of deliveries in the area (i+ii+iii) ☐

12. Please furnish the following details of contraceptive methods promoted by you during the last three months.

Sterilisations		IUDs	Oral Pills(No.of strips)	Condoms
M ☐	F ☐	☐	☐	☐

13. How many mothers' meetings were arranged by you during the last three months ? ☐

14. (i) How many cases of diarrhoea in children(under five) had been detected by you during the last three months ? ☐

(ii)How many ORS packets had been distributed by you in the last three months? (Please do not count the ORS supplied to depots) ☐

15. How many cases of Acute Respiratory Infection (ARI) in children were detected by you during the last three months ? ☐

(a) How many children were diagnosed by you to have Pneumonia in the last three months ? ☐

(b) How many children were given Cotrimoxazole during the last three months? ☐

(c) How many children with Pneumonia were referred to the PHC/Hospital during the last three months ? ☐

16. How many patients with cough and other respiratory symptoms were referred by you to the PHC/ hospital to rule out Tuberculosis in the last three months? ☐

17. (i) How many blood smears had been collected by you from the field for 'Malaria surveillance' during the past three months ? ☐

(ii) How many patients were given presumptive treatment with Chloroquin ? ☐

(iii) How many smear positive Malaria cases were reported in your area during the past three months ? ☐

(This has to include all cases including the ones diagnosed elsewhere, but staying in your area)

(iv) Out of them how many were on blood smears collected by you ? ☐

18. How many group talks were organised by you during the past three months ? ☐

What were the subjects discussed in the group talks ?

19. What other activities had been conducted in your area for health education or Information Education and Communication activities (IEC) during the past three months ? (Eg. Street dramas, Folk arts, Kathaprasangam etc.)

20. Out of the 100% time spent on your field work what percentage, do you think , is spent on each of the following activities ?

1. C.S.S.M Programme ☐
(Including Maternal and Child Health, Family Welfare as well as Immunisation)

2. National Malaria eradication Programme ☐

3. Acute Respiratory Infection control Programme ☐

4. Acute Diahrroeal Diseases Control Programme ☐

5. National Tuberculosis Control Programme ☐

6. Health Education activities ☐

7. All other programmes (specify) ☐

21. What is your opinion regarding integrating more of vertical programmes to the MPW scheme ? ☐

(1. It is good 2. It is not good 3. Don't know)

If your answer is 1 or 2 please furnish your reasons for thinking so.

22. Are you staying in the subcentre ? (1. Yes 2. No) 

If the answer is 'no' , where are you staying ? (specify the distance from the subcentre)

23. Please list 5 National programmes ,now being implemented through the subcentres , in the order of importance as you see them.

APPENDIX 4

"Multipurpose Health Workers" in Primary Health Care - an inter district, Subcentre based study from Kerala.

(Primary Health Centre based study in Thiruvananthapuram and Palakkad districts of Kerala by V.Mohanan Nair, MPH scholar, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram)

(The information requested are all for academic research purpose and will be kept strictly confidential)

Schedule (Household survey)

Date of survey :

1. District Code:
2. Primary Health Centre Code:
3. Subcentre Code:
4. House No. and Address :
5. Name of informant :

(a) Age (b) Sex : M /F

(c) Educational status :

(1. Illiterate 2. Up to 5 years of schooling 3. 5- 10 years 4. College 5. Graduate 6. Post Graduate 7. Technically qualified 8. Professional 9. Others)

6. (a) Do you have a subcentre in your locality ?

(1. Yes 2. No 3. Don't Know)

(b). Do you know where it is located ?

(Answer has to be confirmed with correct location)

(1. Yes 2.No 3. Don't Know)

7. (a) Did any Health worker from the Subcentre visit your house during the past three months ?

(1. Yes 2. No 3. Don't know)

If the answer is 'Yes" -

(b) Who was it ? (1. Male worker 2. Female Worker 3. Both of them)

8 (a). Number of children in the household under one year of age (Born after 31.12.1996)

(b). Number under five years in the household (including the under one) :

9. Was any child in your household given any immunisation -

(I) during the past three months ?

(II) If 'no' during past six months ?

(1. Yes 2. No 3. Don't Know)

(a) What was the immunisation given ?

(1.OPV 2. DPT 3. BCG 4. Measles 5.Others)

(I)

(II)

(b).From where was the immunisation given ?

(Use one box for one child)

(I)

(II)

(1. From the Subcentre 2. From an outreach session
3. From Primary/community Health Centre
4. Other Government hospitals 5. Private Hospital)

(c). How many children were given Vitamin A solution by a health worker during the past six months ?

10.(a) Number of pregnant women in the household

If there are pregnant women,

(b). Are they getting antenatal check ups ?

(Use one box for one pregnant woman)

(1. Yes 2. No 3. Don't Know)

(c). Where are they getting their antenatal check ups from ? *

(1. From the Subcentre 2. From the PHC/CHC
3. From Govt. Hospital 4. From Private hospital
5. Any others)

* Here all the responses are to be entered. For example , if the first pregnant woman in the household is getting check ups from Subcentre as well as from a private hospital the first column will have entries as 1& 4

(d). If they are getting check ups from the subcentre - what all services are they getting ?

(Use one box for one pregnant woman)

1. Getting Vitamin tablets 2. Getting treatment for minor ailments 3. Urine is examined 4. Blood is examined
5. Blood Pressure is checked 6. Get injections 7. Get routine check up of pregnancy 8. Was referred to PHC/ CHC
9. Was referred to other hospitals 10. Don't Know.

e). Was the pregnant woman visited in her home in the past three months by the health worker ?

(1. Yes 2. No 3. Don't Know)

11. (a) Was there any child birth in the household during the last three months ?
(1. Yes 2. No 3. don't know)

If the answer is 'Yes'-

(b) Was it a normal delivery ?
(1. Yes 2. No 3. Don't Know)

(c). Where was the delivery conducted ?

(1. At home 2. At the subcentre 3. In the PHC /CHC
4. In a government hospital 5. In private hospital
6. Don't Know)

(d). If the delivery was at home, who conducted the delivery ?

(1. Member of Household 2. Dai 3. Health worker
4. Any others 5. Don't know)

(e). How many times did the health worker visit the woman after her delivery ?

12. (a) Are there eligible couples in the household ? (The term eligible couple is described to the informant)
(1. Yes 2. No 3. Don't know)

If the answer is 'yes' ,
(b) number of eligible couples

(c) Contraceptive methods accepted by each, if known
(1. Female Sterilisation 2. Male sterilisation 3. IUD
4. Oral Pills 5.Condoms 6. Others)

(d). Was the contraceptive advise given by the health worker ?
(1. Yes 2. No 3. Don't Know)

13. (a)How many members in the household had fever in the past three months ?
(b). What did they do ?
1. Took household remedies 2.Took medicines from a chemist's shop
3. Took Ayurvedic medicines 4.Took Homoeo medicines
5. Attended a Subcentre 6. Attended a PHC/ CHC
7. Attended a government hospital 8. Attended a private hospital
9. Others

* Here all the responses are to be entered.

(c). Was the person visited by a health worker in his home ?
(1. Yes 2. No 3. Don't Know)

(d). Was blood collected by the worker for examination?
(1. Yes 2. No 3. Don't know)

14. (a)Was anyone in the household diagnosed to have Malaria in the past six months ?
(1. Yes 2. No 3. Don't Know)

If the answer is 'yes'

(b) Where was the diagnosis made ?
1. From a private hospital/private lab
2. From the PHC/CHC
3. From blood smear collected by a health worker
4. Others

(c). What was done after the diagnosis ?

1. Was treated in the Primary/Community Health Centre
2. Was referred to hospital
3. Took medicines given by the health worker
4. Took household remedies
5. Took Ayurvedic treatment
6. Took Homoeo medicines
7. Others

15.(a) How many members in the house hold had cough lasting for more than 2weeks in the past three months ?

(b) Was the person seen by a health worker ?
(1. Yes 2. No 3. Don't Know)

(c). Was sputum collected for examination ?
(1. Yes 2. No 3. Don't Know

(d) Was a diagnosis of Tuberculosis made ?

If the answer is 'yes'

(e) What was done ?
(1. Medicines wee given by the health worker 2. Was referred to the PHC 3. Was referred to hospital 4. Nothing was done
5. Don't Know)

16. (a)How many children in the household had cough and fever during the last three months ?

(b) Were they seen by a health worker ?
(1. Yes 2. No 3. Don't Know)

(c). Whether a diagnosis of Pneumonia was made by the health worker ?
(1. Yes 2. No 3. Don't Know)

(d). If 'yes' what was done ?
(1. Was given some tablets 2. Was referred to the PHC
3. Was referred to the hospital 4. Don't know what was done)

17. (a) How many children in the household had diarrhoea during the last three months ?

(b) Whether seen by a health worker ?
(1. Yes 2. No 3. Don't Know)

(c) If Yes, What advise was given ?

(1. to give home available fluids 2. was given ORS
3. Was given ORS and explained the way to give it
4. No advise was given 5. don't know)

(d). Do you know what is O.R.S ?

(The informant is expected to know that ORS is the powder used for preparing drinking fluid in Diahrroeal disease and not the expansion and contents etc.)

(1. Yes 2. No 3. Don't Know)

(e). Where is it available ?

18.(a) Did any one from the household attend any group talk, health education class or any other programme organised by the health worker ?

(1. Yes 2. No 3. Don't Know)

(b)If the answer is 'yes' What was it ? (Specify)

19. What services do you get from the health workers ?

Survey conducted by :

Signature :

Time taken :

APPENDIX 5

"Multipurpose Health Workers" in Primary Health Care
- an inter district Subcentre based study from Kerala.

(Household survey)

Date:

1. 2. 3.

4. 5. a. b. c.

6.a. b. 7. a. b. 8.a. b.

9. I. II. a. I .II c.

b.I b.II

10. a b. c. d.

e.

11. a. b. C. d.

e.

12. a. b. c. d.

13.a. b. c.

14.a. b. c.

15.a. b. c. d.

e.

16. a. b. d.

17. a. b. c. d.

e.

18.a. b.

19.

Survey conducted by : **Signature :** **Time taken :**

(Any additional information furnished is shown overleaf)

APPENDIX 6

Details collected by visiting the subcentres

1.District 2. PHC : 3.. Subcentre:

4. Where is it housed ? 1. Govt. Building 2. Rented Building 3. Rented room 4. Others

5. Nature of workers ? 1. Male worker only 2.Female worker only 3. Both workers

6. JPHN Staying ? 1. Yes 2. No

7. Does the male worker use the SC as his office ? 1. Yes 2. No

8. When was the last maintenance done ? (Duration in months)

9. Total service of JPHN (months)

10. Service of the JPHN in the present sub centre (months)

11. Area map ? 1. Yes 2. No.

12. Base line data displayed ? 1. Yes 2. No.

13. Evidence for SC level committee ? 1. Yes 2. No

14. Number of kits ?

15.Number being used ?

16.Number of registers ?

17. Registers or documents present for :

1. Pregnant women 2. Family Welfare 3. Immunisation 4. NMEP 5. NBCP

2. TBCP/RNTCP 7. ADDCP 8. ARICP .

18.Facility for :

a. Examination of ante natal ? (cot and a latrine facility) 1. Yes 2. No

b. Taking weight ? 1. Yes 2. No

c. Blood Pressure ? 1. Yes 2. No

d. Blood Hb ? 1. Yes 2. No

e. Urine analysis 1. Yes 2. No

19 .Do entries in the registers match with the tour diary of the worker ?(giving special emphasis to follow up visits of contraceptive acceptors) 1. Yes 2 . No.

20. Available medicines (excluding vaccines, vitamin A and Folifer) ? 1. ORS 2.Paracetamol 3. Cotrimoxazole 4. Other antibacterial 5. Others

21. How are CSSM card counterfoils kept ? 1. Just kept , but not stacked 2.Kept stacked, but not displayed 3.Stacked monthwise and displayed. 4.Not kept in the centre.