CHAPTER I
INTRODUCTION

Social life of man is very much influenced by the kind of community in which he lives. Community is a self-contained group of people having a very strong social relationship with each other. Health is a major factor as well as indicator of the well being of the individual and the community. As such, health has received personal and social attention from time immemorial. All communities have their concepts of health as an integral part of their culture.

However, this vital aspect of the community is often overlooked by both planners and policy makers, while planning health programmes. A well conceived and well executed study of the attitude of the community towards health-related aspects of life, the style of living, social and religious rituals prevalent in the community, traditional health measures etc. can give results, which can directly be applied to the improvement of disease control programmes.

The major issues such a study would necessarily address itself are

1. the cultural attitude of the community towards health.
2. the traditional health practices.
3. political, social and religious patterns of the community that can be put to use in applying modern and scientific health measures.
4. how control operations are organised and put in effect?
5. the type and level of community participation needed.
(6) the possible institutional / organisational infrastructure for ensuring, application and management of control measures.

Absence of satisfactory control methods in the case of certain diseases like Malaria, Schistosomiasis, Filariasis, Trypanosomiasis, Leishmaniasis and Leprosy with hazardous public health impact has caused great concern among WHO and other agencies.

Filariasis in its eight forms afflict west, central and east Africa, Egypt, India, and Indonesia. These countries account for about two third of world's total of the infected (WHO 1984). In India about 16 million cases of chronic filarial disease exist within a total of 25 million filarial infected with a full 374 million actually exposed to the risk of infection (NFCP 1989). The most common form of the disease in India is caused by Wucheraria bancrofti and is known as bancroftian Filariasis, accounting for 99% of the cases. The other form is caused by Brugia malayi and is restricted to few pockets in our country and the largest endemic tract, is along the central coastal part of Kerala, covering an area of 1800 Sq. kms., with over 3 million running the risk of infection. The problem is markedly acute in Cherthala and Ambalapuzha Taluks of Alappuzha dist. Kerala. Cherthala was recognised as the hot bed of the disease as early as 1855 (anonymous, 1961). The topographical features and socio-economic factors of this area is conducive to the continued perpetuation of this disease. Though the control measures - for the control of vector/parasite/disease- were very simple, practical and known, many attempts made in the past by various agencies for the
control of this 'potentially' eradicable disease could not make significant impact
due to various reasons till 1986. (VCRC annual report 1987)

I. 1 Statement of the problem

Though the disease known as elephantiasis had been known to
medical science from ancient time, it was only during the 19th century, the
real cause and mode of spread was discovered. The disease has been
reported in India since 6th century B.C, Susruthan, the celebrated exponent
of Auyrveda has made a mention of the disease. In 7th century Madhavakara
described the signs and symptoms of the disease. Reference to the
prevalence of the disease in Kerala can be traced from the travelogues
memoirs of foreign travellers. Later the state physician of Cochin in 18th
century recorded that 5% of the Cochin population is affected by filariasis. In
1855 following a filariasis survey the Darbar Physician of the erstwhile
Princely state of Travancore revealed that 1/23 of the population in Cherthala
had filariasis (the figure refers only the chronic manifestations, since blood
test was unknown at that time)

Only in 1866, Wucherer discovered the micro-filaria of bancrofti worm.
The adult worm was discovered by Bancroft in 1876. Manson in 1878
discovered the role of mosquitoes in transmitting the disease. His findings
revolutionised the ideas and conceptions of the causation and control of
filariasis.

The first important official document of filariasis in the state was in the
census report of 1901. Dr. Subramanya Iyer, the then, Census
Commissioner, collected some useful statistics relating to the prevalence of
filarial disease in Travancore. The maximum incidence was noticed in Sherthallai taluk, affecting one in twenty seven of the population, followed by Ampalapuzha, taluk, both in Alappuzha district.

Later, in 1931 the Travancore Public Health Department has conducted state wide survey of filariasis, under the direction and guidance of Dr. M.O.T.Iyengar, Medical Entomologist of the department. Night blood surveys and clinical examinations were carried out in a cross-section of population, and recorded that, Burgian filariasis is rural in nature and restricted to central coastal belt, and the highest incidence is in Cherthala region. Based on the survey, control programmes were taken up in 1933, on a pilot measure in Cherthala.

On the basis of the difference in the breeding habits of mosquitoes, Iyengar recommended different measure of vector control for filariasis. For the control of Brugian filariasis, recommended the maintenance of all water collection free from pistia by regular removal and destruction of the weeds by simple and cheap indigenous method, and organized for the first time, the filariasis control organization. Under the organization, pistia-clearance has been introduced in an experimental area of 40 square miles in Cherthala. The programme has peculiar significance as biological control measure. Striking results has been obtained by a reduction in the prevalence of mansonioids in the experimental area in Cherthala. Later it has been proved as an effective measure to prevent the transmission of Brugian filariasis, by a scientific studies of Dr.Sweet, in 1937.
Filariasis control organization established by Iyengar continued for
several years. Later in 1946 additional “Pistia – clearance team were
established in Ambalapuzha, while area in Cherthala was reduced from 45
square miles to 15 square miles. The new as well as the old scheme lost
their vitality and scientific complexion and become mere formal routine
(Anonymous 1961). Apparently no effort was made to study the progress of
the measure and their effects on the incidence of filariasis, by periodic
surveys and no records were kept of mosquito prevalence or infection rate.

Although filariasis is a century old disease, particularly nothing was
done in the national level to control it. The Bhore committee report (1946)
drew attention to the wide prevalence and need of its control in India and
Union Government embarked upon the National Filariasis Control Programme
(NFCP) on 1955.

Since the formation of Kerala State more investigations have been
carried out under the National Filaria Control Programme (NFCP). Under
NFCP 61/2 control units and 2 survey unit were sanctioned for the state of
Kerala, and started functioning on 1956. The survey of NFCP unit recorded
1637 mf positive case and 888 chronic cases of filarial infection among 8,800
samples surveyed in Cherthala.

NFCP activities were mainly aimed on the control of bancroftian
filariasis due to its wide prevalence throughout the country and limited to the
bancroftian filariasis affected areas is the country. Only small scale pilot
studies were undertaken by NFCP in the brugian filariasis areas under its
scheme.
A review of the earlier control activities reveals that in spite of the intensity of the and enormity problem, no further detailed study has been made on the prevalence and control of the disease except for small scale studies in restricted areas after lyengar's period.

Unlike other communicable diseases, control of Filariasis requires sustained activities for a prolonged period. The community can provide resources in the form of facilities, man power and logistic support. This involves the community taking more responsibility and playing a greater role. The emphasis has to be on "health care by the people rather than health care for the people". For which the community has to be provided with motivation and orientation. The community has to be involved as in a form of self-help. Under the existing circumstances, a change from time limited eradication strategy to a control policy is necessary. For this, it is necessary to have an analysis of (a) the available knowledge about the community characteristics, their variability, their structure and their relationship with health infrastructure, (b) available resources to establish or improve an effective linkage with community members in order to motivate and involve them.

The concept of community oriented vector/disease control is well conceived and complemented and is capable of replacing the vertical public health programmes (WHO, 1986). At different stages of the disease control programmes - identification of problems, adoption of alternative strategies, allocation of resources, implementation and evaluation - the practical degree of
community participation vary considerably. The essential role of any agency involving in the programme would be to provide people with information that allows them to sort out the best use of time and rational organisation of priorities.

The essential relationship between health education and participation is not new. It was emphasised in the preamble to the constitution of WHO which stated "informed opinion and co-operation on the part of the public are of the utmost importance in the improvement of the health of the people."

For the effective implementation of control programmes, the community that receives the service, should be aware of the problems and should be motivated adequately. For this, health education is an imperative requirement that must go before the delivery of any specific health care services. Health education gives information, teaches skills and cultivates attitudes and values, which help an individual to be healthy.

Regarding Filariasis control, the basic sciences are continuously at work and expanding the horizon of health's knowledge. Since knowledge itself is ever increasing, behaviour also has to get itself modified continuously, to cope with the progress of knowledge. Thus it is clear that health education has to be a continuous process, engaged in preparing the community. In spite of the high literacy rate many misconception were existed among the people regarding the causation, transmission, prevention and control of Filariasis (Ambili Kumar 1989).

The international workshop on community participation in disease control programmes held at New Delhi in 1986, recognised community participation in
application of Science and Technology itself as a generic issue, a germinal point for research and a new area of science, which can contribute much to the structure and method of our planning (WHO 1986). The experience of the disease control programmes in the past reveals that enlisting participation for specific issues for a short duration can be achieved very easily. On the other hand, when community oriented health programmes depend on the commitment of the community for a continuous and sustained duration, it requires a systematic and scientific knowledge of factors which influence the acceptance and involvement of the community.

Therefore the goal of the present study is to identify the factors that influence the community participation and the role of health education in disease control programmes and evolve a working model for managing community participation in new situations.

1.2 Objectives of the study

The important objectives of the present study are:

1) To analyse the role of community organisations as social agencies in the control of Filariasis.

2) To examine the factors which influence community participation.

3) To analyse the role and effectiveness of health education in the control of Filariasis.

4) To identify the effective tools and means of health education.
5) To evolve an appropriate method for the management of community participation.

1.3 **Scope of the study**

The Vector Control Research Centre (VCRC), a national institute of Indian Council of Medical Research (ICMR), launched a Technology Mission Project (TMP), for the control of Brugain filariasis in Cherthala area of Kerala state in January 1986. The project was designed as a multisectorial action, based on community oriented programmes aimed at total elimination of transmission foci of brugain filariasis.

The base line data collected by the centre in 1986 showed that there are pockets with endemicity rate of over 20% in Cherthala in spite of the disease control programmes undertaken by various Govt. agencies for over five decades. In the pre-independence period the erst while Maharaja of Travancore, on the advice of the Durbar physician Dr. M.O.T.I yengar, started the first filaria control work in Cherthala. Moreover, the area with other parts of the state has high level of Literacy. Despite these facts, the people of the area cherished various misconceptions regarding the cause, transmission, prevention, cure and control of filariasis. Moreover the studies undertaken by VCRC in 1986, (VCRC 1986 - 87) revealed that there was a marked lack of involvement of the people, in the above mentioned control programmes. Most of them were not even aware that there existed such government run control programmes. So these programmes
were, for the most part, incapable of catching the attention of the people and of prompting the people to respond and act.

Taking cognition of this deficiency in the earlier programmes, the centre has developed a new strategy, involving simple and known technology placing all the stress on community participation (CP).

As the ultimate aim of any filariasis control programme is the liquidation of parasitemia in a population and the reduction of vector population to a tolerable limit so as to interrupt transmission, what VCRC advocated on the technology front was chemotherapy for parasite reduction and source reduction for vector control.

Chemotherapy involves selective administration and mass administration of drugs against the parasite. In selective treatment drugs are administered after parasitological /clinical screening of individuals. Such screening is carried out through Filariasis detection camps (FDC) Filariasis detection and treatment centers (FDTC) General Health camps (GHC) Filariasis Clinic (FC) and sample blood survey (SBS). On the others hand, in mass treatment, the entire population exposed to the risk of infection is treated in order to bring down the parasite load of the community in a short period. The effectiveness of chemotherapy is observable in the result that showed reduction of the incidence of the disease from 2.44% (1996) to 1.17% (89) and the absence of any new case of injection since 1986 in the age group 0-9 years (VCRC 1992).
The vector mosquito of brugain filariasis breed in association with floating water weeds, present abundantly in the water bodies of the area. Since the majority of the water bodies of the area are domestic ponds owned and maintained by individuals, physical removal of the weeds are the most cost-effective vector control measure. The centre entrusted the task of weed removal with the community itself. This was achieved by motivating the people through proper health awareness campaigns and linking an alternative income scheme by inland fish-culture. The result of the programme is a reduction in vector density by 89.9% and zero infectivity.

In fact through the scientific and systematic awareness campaigns succeeded in integrating the epidemiological and entomological techniques that already existed with the cultural and socio-economic characteristics of the community. This in turn assured the compliance of the community with the programme.

The success of this programme rests on the uniqueness of this new strategy which sought to translate research findings into actual implementation of disease control operation through the concerned community itself. That is to say the commendable success of the programme solely rested on the novel and effective concept of community participation in disease control.

This VCRC success has drawn the attention and commendation of the scientific community the world over and many publication have dealt with it. A
study of the special features attending the process of community participation, acceptance and involvement of the people with the aim of formulating a model that can be adopted and applied for the successful implementation of disease control programme is considered worth while.

An international seminar on the future research needs in lymphatic filariasis (1990), specifically suggested to carry out a detailed assessment of the economic and social impact of brugian filariasis in area under study by VCRC, and concluded their recommendation as "the side results of this study will be the development of a protocol for making such assessments that can be utilised in many places around the filarial endemic world. The development of such a protocol would be a tremendous contribution to the overall programme for filariasis control world-wide."

The role of CP in disease control is a theme that has attracted wide acknowledge and acceptance from the scientific community world over. In recent years CP has been increasingly looked upon as an inevitable element in any viable mass health programme. There are great many studies and reports in this regard from competent agencies and eminent men of learning. Most of these studies are found to enumerate the achievements that were made possible by community participation in parasitological, epidemiological and entomological aspects in programmes for the control or eradication of diseases. They also show the degree of effectiveness, both in terms of achievements and cost such studies generally confined themselves to a description of the operation in general. This
kind of approach excluded any in-depth study of the internal structure of the process of community participation and so failed in providing an understanding of the various elements and influence that go into the making of an event of effective and fruitful community participation. Any knowledge of prognostic and futuristic usefulness is mostly missing in such studies.

The area of investigation of the present study being, the successful community participation programme of VCRC for the control of filariasis, which met with overwhelming acceptance both from the communities entirety and the scientific community, and met with a matching success in terms of the target achievements, with an in-depth evaluation of the cultural, social, economical, political and religious structure and the various influence in operation, is eminently worth while and the apprehended need of the hour. The study involves the process of community participation as well as a detailed study of the state and possibilities of the means and tools. The effectiveness of the programme is evaluated both in terms of the target achieved as of the popularity it gained in promoting further and continuing action.

1.4 Methodology and study area

Five compact areas (community) with an average of 1000 households each from the operational area of Vector Control Research Centre (V.C.R.C.) for its various Filariasis control programmes were selected as the universe of study. The selection was based on certain socio-cultural characteristics. In each area
different managerial strategies employed for enlisting community participation is analysed in the study.

The first area of study is one with the highest, 'mf' rate (VCRC Annual Report 1988) (‘mf’ is microfilaria, which is the young ones of filarial worms detected by night blood examination), in Mararikulam North Panchayat of Cherthala taluk. Here the health care services were channelised through FILCO movement (Filariasis Control Movement) which is a voluntary body registered under the charitable societies act 1955, functioning to coordinate social and cultural (voluntary) organisations of the area, in the field of Filariasis control. It is characterised by the stability and acceptance attained during the course of time.

The second area similar to that of the first in all respects lies next to it, in Mararikulam South Panchayat of Ambalapuzha taluk, where the prevalence of filariasis is similar to the first area. One of the WHO project on community participation was in operation for one year in this area. The project has been reported as successful in achieving the target. Here, health care services were carried out by 'Core- groups' formed for the specific purpose (This can be viewed as neighbourhood groups) formed around potential leaders identified in the locality. (Panicker K.N., 1992).

It was observed that the agency associated with Church could involve in filariasis control activities with remarkable effectiveness. This could be so because, of the church remains as a traditional centre of co-ordination within the Christian community. The implicit faith the community places in the reliability on
the Church and the parish priest, could be put to use in the sphere of health administration as well. In this context an evaluation of the effectiveness and response pattern in a social problem of other institutions and organisations that could be deemed to have the same or similar status, operating with in other religious communities, was considered worthwhile. With this view three separate areas with the marked predominance of the respective three religious communities, Christian, Muslim and Hindu were identified and religious / social institutions holding influence on the particular community was made involved in the programme. These are in Kadakkarapally, Arookutty and Muhamma panchayats of Cherthala taluk.

The approach had an inherent handicap that, where some of such institutions like the Christian Church traditionally involved itself with similar activities, some other had only very recently ventured into such involvement and some other had history of such involvement, but weakened their identity that they held in the past as agents of social change. That is to say the agencies that could be selected, had social involvement and influence in widely varying levels and degree. However their respective responses to the problem at hand is recorded as it would come in handy for further studies which would involve means and methods of motivating all kind of institutions with all kind of social and religious colouring into the common task of effective and sound health administrations.
The impact of the study was assessed on the basis of Filariasis control measures practised by the people in these areas. Their level of knowledge regarding the causation, transmission, prevention and control of the disease and their attitude and practice towards the disease and the control programmes were studied through a Focus group discussion (FGD) and Knowledge, Attitude and Practice (KAP) survey. The results were tabulated, analysed and interpreted against the specific objectives stated for the study.

Since the study period coincided with the "Janakeeyasuthranam" Programmes of the Panchayati Raj of Govt of Kerala, Focus group discussion could combine with the committee meetings of the Panchayat. 5 FGDS were conducted in the 5 Panchayat. 10-15 participants including the Govt officials like medical officer, agricultural officer, Panchayat secretary, Education Officer, representatives from important political parties, voluntary organisations of the localities and senior citizens constituted the group.

A standard procedure was adopted for FGDS. Pre-identified issues for discussions in the form of well framed questions pertaining to the objectives were provided for the 5 groups. All the members were requested to express their individual views on these various issues. Afterwards the group discussed the issues very deeply. The responses were recorded using a tape recorder and spot noting. These were analysed and made used for framing the pre-coded questionnaire for the interviews.
500 households 100 each from the 5 areas were selected using random sampling procedure as units of study. Using a pre-coded schedule 473 interviews were conducted for collecting primary data. The secondary data were collected from the annual reports of research organisations like, Vector control Research Centre, National Filariasis Control Programme, National Institute of Communicable Diseases, documentations of the agencies engaged in the control programmes, WHO reports and research publications and books on related topics.

Statistical methods like, Frequency tables, arithmetic means, standard deviation co-efficient of correlation etc. were used for analysing the data and interpretation of its results.

1.5 Scheme of the Study

The study is presented in 8 chapters as follows

Chapter I - Introduction:

Statement of the problem, scope of the study, objectives methodology and scheme of the study are explained in the chapter.

Chapter II- Review of Literature.

A critical appraisal of the previous research works on related topic is included.

Chapter III - Filariasis- Its Social aspects

In this chapter, filariasis is viewed as a social problem rather than a disease. The social factors which are found responsible for the discrepancy
evidenced in knowledge, attitude and practice of the community regarding filariasis control is analyzed on the basis of the two sociology theories of Filredo Parento & De Roberty.

Chapter IV - Voluntary Organisations as Social Agencies

Role of voluntary organisations in filariasis control programmes is the main theme of the chapter. The process of the formation of a mass movement, its mode of functioning and achievement, cost-effectiveness of community programmes etc are discussed.

Chapter V - Factors Influencing Community Participation

Major factors that influence participation and acceptance of the community in disease control programmes were traced, analyzed and interpreted.

Chapter VI - Health Education – Its Role in Community Participation and Disease Control Programme

Effectiveness of health education in imparting knowledge, change in attitude and practices, that were conducive for the control of filariasis programme is analyzed and interpreted. The conditions favouring the process are discussed.

Chapter VII - Tools and Means of the Health Education

Analysis of the comparative effectiveness of various tools employed in the awareness campaign used as the means to accomplish the health education and its efficacy is analyzed and interpreted.
Chapter VIII- Summary

1.6 Conclusion

The foregoing facts revealed that the scientific analysis of the VCRC's community participation strategy in disease control programmes could yield very valuable results that would stand in good stead for the health planners and workers as well as to the society at large.