A Study
On Community Participation in Disease Control Programmes
With Reference To
Control of Filariasis In Alappuzha District

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by

Ambili Kumar

Part-time Research Scholar
Reg. No. 1114

Under the guidance of

Dr. P. Sudarsanan Pillai

Professor and Head of the Department of Commerce
Cochin University of Science and Technology
Kochi - 682 022

Department of Applied Economics
Cochin University of Science and Technology
Kochi - 682 022

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DEPARTMENT OF COMMERCE

COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

KOCHI - 682 022

Dr. P. SUDARSANAN PILLAI
M. A., M. Com., LL. B., Ph.D.
PROF. & HEAD

No.....

Dated.....

CERTIFICATE

Certified that the thesis *"A STUDY ON COMMUNITY PARTICIPATION IN DISEASE CONTROL PROGRAMMES, WITH REFERENCE TO CONTROL OF FILARIASIS IN ALAPPUZHA DISTRICT"* is the record of bonafide research carried out by **Smt. Ambili Kumar** under my supervision and guidance. The thesis is worth submitting for the degree of *Doctor of Philosophy in Social Sciences.*

Kochi,
16.7.98.

P. Sudarsanan Pillai
Supervising Guide.

Kerala, India, Phone : Office : 0484-556030 Resi : 0484-542655
Grams : CUSAT, Kochi-22, Telex : 885-5019 CU IN, Fax : 91-484-532495

DECLARATION

I, Ambili Kumar, do hereby declare that these, " A STUDY ON COMMUNITY PARTICIPATION IN DISEASE CONTROL PROGRAMMES, WITH REFERENCE TO CONTROL OF FILARIASIS IN ALAPPUZHA DISTRICT ", is a Genuine record of research work done by me under the supervision of Dr. P. Sudarsanan Pillai, Professor and Head Of The Department of Commerce, Cochin University of Science and Technology, and has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles of any university or institution.

Cherthala

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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 inetegral 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 worlds total of the infected (WHO 1984). In India about 16 million cases of chronic filarial disease exist within a total of 25million 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 sicence 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 discribed 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 Bancrofiti 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 doccument 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 Entemologist 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 cenral coastal belt, and the highest incedence 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 Brgian filariasis, recommended the maintanance of all water collection free from pistia by regular removal and distruction of the weeds by simple and cheap indegenous 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 prevelance 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 sactioned 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 through out 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 inspite 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 Iyengar'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 in 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 heaths 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 misconceptions 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 otherhand, 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.

I.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.

I.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. More over, 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, prevension, 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 chemotheraphy 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.

Infact through the scientific and systematic awareness campaigns succeeded in integrating the epidemological 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 indepth evaluation of the cultural, social, economical, political and religious structure and the various influance 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 micro filaria ,which is the young ones of filarial worms detected by night blood examination), is 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,functionig to co-ordinate 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.

I.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 Practise of the community regarding fialariasis control is analysised 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 fialariasis control programmes is the main theme of the chapter. The process of the formation of a mass movement, its mode of functioning & 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, analysised 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 analysed 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 compaign used as the means to accomplish the health education and its efficacy is analysed and interpreted.

I.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.

CHAPTER II

REVIEW OF LITERATURE

Lymphatic filariasis in its various forms remains as a number one public health problem of considerable magnitude in many Tropical countries, including India. (WHO 1984). It has estimated that 7.44 million lymphoedma cases, 12.88 million hydrocele cases and 31.26 million parasite carriers live in India alone. This covers about 44% of the world's filariasis burden. (N.C.R.C 1997). He stresses that the disease has important socio-economic impact on individuals, families and communities.

Rajagopalan (1990) observes that the disease has never received adequate attention from health planners, inspite of its high prevalence in the country, and largely neglected by both administrators and researchers.

The disease has a very old history in India. Filariasis has been reported in India since 6th century B.C., Susrutha has mentioned the disease. In seventh century A.D. Madhavakara described the exact signs and symptoms of the disease. Reference to filariasis in Kerala is found in the travelogues and memoirs of some foreign travelers and settlers. Jocobus Canter Visscher, Dutch Chaplain, who lived in Cochin between 1717 and 1723 AD made important observations on the disease. He attributed the cause of the disease to the intake of saltpeter in drinking water.

Day, State Physician, to the Royalty of Cochin during the early part of the 18th century sheds more light on the actual prevalence of the disease in

Kerala. About 5% of the population in Cochin town were affected by filariasis at that time. Warning, who was the Durbar physician in Travancore during the middle of 19th century gives more epidemiological details. He conducted a filariasis survey in Cherthala in 1855. He found one in every 23 of the population stricken by elephantiasis and recognised the area as a hot –bed of the disease.

The first official document regarding the incidence of filariasis in the state was the census report of 1901, in which Dr.Subramonia Iyer, the census commissioner,has collected some useful statistics on filariasis in Travancore. In 1930, the Travancore public Health Department conducted a filariasis survey of Thiruvanathapuram town, on the advice of Dr W.P Jacocks of the Rockefeller Foundation. A state wide survey was done later in 1931 under the direction of M.O.T Iyengar, Medical entomologist of the department. On the basis of this study control programmes were taken up in Cherthala as a pilot measure in 1933. On the basis of the difference in breeding habits of the mosquitoes, Iyengar recommended different measures for vector control. And for Cherthala the method adopted was "Pistia clearance" – manual removal of water weeds to check the breeding of vector mosquito. This programme was very successful.

Dr. W. C. Sweet, Rockefeller representative and Honarary advisor in Health to Govt. of Tranvancore made a test survey in 1937 to asses the results of the biological control measure – pistia clearance – for vector control against

Brugian Filariasis. The results were very much encouraging. (Anonymous 1961).

During 1955 Dr. N. G. S. Raghavan of the Malaria Institute of India, surveyed Cherthala taluk and two towns, Mattancherry and Ernakulam. In Ernakulam 10.6% and in Mattancherry 21.7% of the population were the victims of filarial infection or disease. Later filariasis incidence received attention as a problem of national importance. The Union government embarked upon a National Filarial Control Programme (NFCP). This has been in progressive operation since March 1955 and in the State of Kerala from January 1956. The state has been sanctioned 6 ½ control units and 2 survey units.

Joseph et. al., (1960) carried out pilot studies on the control of filariasis due to B.malayi in Cherthala. The measures adopted included Mansonioides control by indoor residual spraying with dieldrin, physical removal of hydrophytes and parasite control by Diethyl carbamazine (DEC).

Though the disease existed in the area for centuries, majority of the population was unaware of its causes and control. VCRC (1987)[a] Unlike other disease the control of filariasis need community participation. Since the disease carrying vectors is a common threat, the whole society should be involved for its successful control. (Ambili Kumar et. al. 1989).

Dun, F.L. (1976) has emphasized the need for research on socio – cultural aspects of filariasis, because many mosquitogenic conditions are either man made or controllable by him. In fact all diseases has its cause and origin in the socio-

cultural setting as said by Malcolm (1983). Disease, disability and deformity has been man's heritage and it continues to be so, allthough its pattern is changing. The relationship between man and his environment is a dynamic one. So Sorsogan (1988) emphasized, that incorporation of social, cultural and economic factors into the designs and implementation of control programmes for and effective control of any disease or for the improvement of health status.

Health being the major constituent as well as the indicator of the well being of both individual and community as a whole, has received personnel and societal attention from the time immemorial. Health is defined as a state of complete physical mental and social well being and not merely the absence of disease or infirmity. The physical, biological and social dimensions of health has been well defined in the definition (WHO, 1970). Further attempts were to define health as a dynamic function of the environmental, social demographic and genetic determinates. Health was also perceived as a part of development and the idea of health development came into the discussions. Now the concept of sustainable development with the concern of the coming generations is also propagated. Brundland commission defines health as a sustainable state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Sustainablility should be the maintenance of the capacity of the ecosystem to support life in quantity with variety (Maurice King, 1990).

Health status can in any social setup be considered in the cultural context of the group. Health conditions of any community have got negative and positive dimensions.

Several thinkers Harrison, (1994), Nelson 1994, Jellife, 1980) of clinical medicine have discussed the socio-cultural situations of illness in society. Health has been considered as a function of environmental, cultural, demographic and economic influence prevailing in society. Though in a borad sene the environmental, demographic and economic works comprehend culture, in more specific terms attitude, beliefs, habits, rituals and related customs or practices determining the individual and collective behaviour of members contribute to the culture of the group.

The relation between the cultural factors and health was always in area of interest for many authors. (Freeman, 1963, David Mechanic 1968) even though so many have dived into the ocean of this sociological knowledge, the gems and pearls are still more to be excavated. Because the cultural traits in any society are frequently changing to replace the older ones in the causation of health and illness.

Health is a common theme in most cultures. In fact all communities have their concepts of health, as part of their culture. In some cultures health and harmony are considered equivalent, harmony being defined as being at peace with the self, the community God and Cosmos" (Park J.E, 1988). The ancient Indians and Greeks also shared this concept. Dubos conceived health in an ecological concept as a continuous adaptation and adjustment to the environment to ensure optimal function (Dubos. 1965) Health as a social concept has been explained by various scientists. Contemporary developments in social sciences revealed that health is not only a biomedical phenomenon but one which is influenced by social, psychological, cultural, economic and political issues of the people concerned. The

concept "social" gives emphasis to the group of people, interacting and sharing certain ideas. Social life is a process- a sequence of interactions between individuals and the effect of that actions on one another., and their complex interactions isolate them to social units or societies. If society is a system of social relationship between individuals, culture is the content of the relationship (Mac Iver and Page, 1987) Culture is the system of values and meanings in terms of which social behaviour takes place or the manner in which people behave. Culture is defined as the learned pattern of behaviour which is socially accepted by many and manifested in values, languages, beliefs, skills, habits, ethical judgments and practice of people. So culture is the tool and language of social activity and discovery (Susser and Watson, 1981). Contemporary developments in social sciences consider that health is not only a biomedical phenomenon but which is influenced by social, psychological, cultural, economic and political issues of the people concerned.

Henry E. Sieggerist (1987) pointed out that the mortality and morbidity rate in different cultures is different, illness behaviour is different, concept of health and disease is different, practice of different medical systems and personal behaviour responsible for health (as age of marriage) are also different, whereas Ivan Illich (1970) viewed health as a culturally shaped reaction, to socially created reality." Health designates a process of adaptation. It is not the result of instincts but an autonomous yet culturally shaped reaction to socially created reality. It designates the ability to adapt to changing environment to growing up and ageing, to healing when damaged, to suffering and peaceful expectation of death. Health is also a

process by which each person is responsible greatly to himself and partly to others. Health is a task and not comparable to physiological balance of beasts. Success in this task is the result of self awareness, self discipline and inner resources by which each person regulates his own daily rhythm and actions, diet and sexual activity. This personal activities are shaped and conditioned by the culture in which he grows up. The patters of work and leisure, of celebrations, sleep, family relations and politics". (Rodney M.Coe, 1970)

Social structure always refers to the system of culturally defined expectations with the patterned behaviour and relationships. Culture is the content of this social structure expressed as a pattern of symbols and behaviour organised around a hierarchy of goals, values (ends) and instrumental values (means) transmitted to units, folkways, mores, and law, so culture is in short the traditional behaviour patter of a group of people which is accepted by the group, overt and convert actions of a group as a whole.

Noack (1987) also considers health in a systems perspective. Living systems as a society, social organisations, human beings and animals form a hierarchy of interdependent units where the higher level system is made of lower level sub systems. Within such a hierarchy the phenomena of health can be treated as a state of dynamic balance or more appropriately as a process maintaining such a state with in any given subsystem such as an organ, an individual, social group or a community. Further, we see that habits, work and recreation are health related behaviors and healthy personal habits and unstressful work and sufficient sleep and recreation are health resources, smoking, excessive drinking, overeating, lack of

exercise, overwork, stressful and dangerous work and insufficient recreation and sleep are health risk. Positive health related values, norms, lifestyle, religious life, social integration and social ties are health resources.

It is always true that concepts of disease and medical care and health promotion do not exist in a socio cultural, institutional and political vacuum. They reflect the values, beliefs, knowledge and practices shared by lay people professional and other influential groups. Many a time positive health is an ideal concept. According to the socio medical paradigm there is a clear link between the prevalence of health or illness in any given population and socio economic and socio cultural factors The Ottawa Charter for Health Promotion (1986) reviews the concept of health over the years and emphasised as the behavioural factors instead of environmental measures in achieving true health improvement in population. This more profounds view of health while acknowledging the importance of improving lifestyles, health services and environment sees even more fundamental condtions as needing to be met if high levels of health in population are to be achieved (Ashton J. and Seymour, 1988).

Prerequisites for health

Peace

Shelter

Education

Food

Income

A stable ecosystem

Sustainable resources

Social justice

Equity

Linda J. Joanes 1994 discusses health in the social context. An influential exponent of this approach was Mck, A.W. (1986), to prescribe behaviour intersected with the perogatives of medicine. He analyses health in the cultural context. "Since health is a product of culture and social structure non health motives in constructing health need to be considered. The routine organisation and constraints of everyday setting which are affected by variables such as socio economic status, and education shape health as much as do physical parameters. Education conditions illness, behaviour in the perceptive and appraisal of symptoms and persutation of illness to medical personnel".

Fredric L. Dunn (1976) describes health in relation to culture as the capacity of the individual or group to profit from experience and to respond to insults – physical, biological, social and psychological. These copying and learning capacities varies constantly throughout the life span of the individual or group. Illness is the limitation of man's ability to respond or learn. In this sense health can never be complete but can be optimal for time and place. He describes the ecological factors as a "a causal web". It is now recognized that any human disease or disorder is the result of many factors with what may be described as a casual web, a web of determinants. These webs their extent varying with population, characteristics such as size and density include exogenous factors, biotic and non biotic endogenous factors, demographic factors and behaviour as governed

psychological social and cultural factors within any such casual web many of the determinants of disease and disorders are behavioural.

The Social and Cultural Correlates of health are described by Frederic L. Dunn (1976). Medical Anthropology most often focuses on the social and cultural correlates of behaviour or on the context of such behaviour. The point of greatest possible complementary and practical collaboration thus lies in exploring the nexus between the social and cultural correlates of this behaviour.

Doubos (1984) gives more emphasis to economic condition than to other cultural conditions. In sharp contrast to the widely accepted doctrine of specific etiology the new approach maintained that getting sick depends upon a complex interaction of many variable-one of which is the disease agent, other factors being the host's general metabolic state, immune response, political and economic environment and cultural beliefs and practices.

Park J. E. (1988) describes the income or economic status, education, occupation and the political system as the socioeconomic determinates of health status. "Socio economic conditions have been known to influence human health. For the majority of the world's people health status is determined primarily by their level of socioeconomic development, per capita gross national product, education, nutrition, employment, housing, political system of the country etc." The economic status determines the purchasing power, standard of living, quality of life, family size and education is said to be a means of acculturation.

Since the adoption of the declaration of Alma Ata on PHC, community participation has become increasingly recognized as important element in the

Tropical Disease control programmes (WHO – 1979). Attempts are made to elicit community participation, but so far no attempts has been made to evaluate the effectiveness of community participation for Tropical Disease control programme in different social and economic situation (Pitt, 1983 and C.P. Pant, et. al., 1986).

M.G.K. Menon (1986) mentions the real need of research in community participation, for him we have been talking much about it, but have not realy succeeded.

TDR's 7th programme Report mentioned the two studies completed on filariasis from Philippines and Malaysia. Both the studies underline the need for a local approach to disease control. Both studies examine the social and economic features of the community in which filariasis has been a persistent problem despite control measures. In the Philippines study (Lu – 1983) social practices and attiudes to filariasis were analysed in relation to disease transmission, treatment and prevention. One major finding of the programme was that the standard health education programme had not influenced the beliefs and behaviour.

Where as, in the a study of health behaviour among rural housedholds in Malaysia (Mohd Riji. H., 1982), perceptions of brugian filariasis were found to be based on an ancient curse of guardian spirit and so incurable.

These studies have shown widely different believes about disease causation and prevention held in apparently similar rural communities. The two villages have the same problem – the need to control filariasis, but the ways of solving it are likely to be quite different.

Filariasis can be controlled either by controlling the vector mosquitoes or chemotherpy or an integrated approach involving both the methods. However, each of these methods has some advantages and disadvantages. The mainstay of National Filaria Control Programme in India is anti-larval measures using chemicals (Rao and Sharma, 1986). Encouraging results were obtained in reducing the intensity of transmission of filariasis, through the Pistia clearance programme. (Anonymous 1961).

A five year integrated vector management strategy was launched in Pondicherry, India to control the filariasis vector, inorder to minimize the incidence of microfilariamia in the human population Rajagopal and Das (1985) described the concept and plan of action of integrated vector management strategy. Rajagopalan et al (1988) Rajagopalan and Das (1988) and Subramanion et al (1989) reported that integrated vector management (IVM) strategy against the vector yeilded far better results than the traditional control measures of National Filaria Control Programme (NFCP) in reducing the incidence of infection in humans in Pondicherry.

However, Rao and Sharma (1986) opined that implementation of IVM strategy requires skilled man-power. Rao et al (1982) compared the efficiency of different control methods and concluded that anti-larval measures for one year did not have much impact on microfilaraemia. The effects of vector control on the containment of filariasis was studied by various other workers also Iyengar 1959; Van Dijk, 1964; Webber 1977, 1979; Bushrod, 1979) Omari et. al (1972) reported that even with the near eradication of the vector, it takes more than 10 years to

bring the number of microfilaria carriers in the community to zero Galliard (1964) reviewed the filariasis control programme in Tahit suggested that chemotherapy and vector control should be combained to have effective control of filariasis Kessel (1957) and Kessel and Massal (1962) also advocated integration of chemotherapy and vector control to contain the filariasis. Kol strup et. al (1981) concluded from his studies in Tanzania that a combination of larviciding, environmental control of vector and chemotherapy can greatly reduce the transmission of filariasis.

By analysing the control measures and its potentialities Jean Mouchet and Charles Ravaonjanahary (1986) highlight the pressing need for research to implement the new policy of integrated vector control. The areas that call for attention are vector ecology and behaviour in relation to human habits and housing, anthropological, social and economic research on the conditions which facilitate or constrain the participation of rural and urban communities in rural and urban situations. Community participation can be sustained only when the community members feel the beneficial effects of the activities in which they are involved and when constraints are compatible with their way of life and their economic capabilities.

All Communities will not respond in same way. Even with in the same community, there will be variations. In mobilizing community interest and involvement in the light of such complexity and variability, the social structures and functions of different communities must be understood (WHO, 1984). There will be certain common interest among or with in the society and also some organizational arrangements centered around these interests. These will be linked in different

ways with each other in the whole societal frame work and can have strong influence in health activities.

Y.H.Bang and S.Pattanyak (1986) explain the process of a successful community based integrated control programme under the primary health care system. In their opinion failures of programme are due to the lack of operational and managerial skills rather than to technical. Therefore an organized system is needed to carry out the operations economically by non-specialist, based on a concept of self-reliance (WHO, 1983).[b]

Kalra N.L. and Y.H.Bang (1986) give some guidelines for community participation in disease vector control. Since the problem of vector revolves around man and his environment, involvement of community for its control assumes great significance. Many vertical programmes, though technically sound are frustrated for lack of public support by the community, as they are viewed as external programmes belonging to the Government. Therefore, for the success of the programmes, Individuals, families and the communities have to be progressively involved, informed and educated. Most of the countries in Soth East Asian Region have converted their time limited vertical programme into long term containment programmes, this strategy has brought about radical changes in objectives and flexibility in their approach.

Simple source reduction methods along with the use of larvivoureous fishes through community effort has also proved successful in the control of Malaria in Nadiad, Kheda dist. In Gujarat state. Here the approaches were through health education and intersectorial collaboration (V.P.Sharma and R.C.Sharma, 1986).

Long lasting involvement of the community can be secured with "Survival economy" (WHO SEARO, 1983), by linking the disease control programmes with an income generating one. Through their vector control project in Pondicherry Rajagopalan and Panicker (1984) also have found that economic incentive plays an important role in enlisting community participation.

Community participation in Aides aegypit control through educational activities has been studied in Thailand by a team of scientist (Phanthuwachida et al., 1985).

Health Education together with law enforcement provided strong supports to source reduction in a study at Singapore (Chan K.L., 1985).

The following main topics for research on role of community participation in Tropical Disease have been identified by the fourth meeting of Scietific working group on social and economic Research. The research priorities are grouped to three categories (WHO 1984)[c]

1. Analysis of factors affecting community participation for disease vector Control.
2. Evaluating the process of community participation.
3. Evaluating the impact of community participation for disease and disease vector control.

The aim of the researches are to improve the effectiveness of diseae control programme.

Dunn, (1983)[b]; Rajagopalan and Panicker, (1986) stressed the importance of community participation for the control of filariasis, community based approach is

suggested as the only solutions as it ensures action for a long period for at least 15 yrs assuming the life span of the adult worm as 15 yrs (Rajagopalan, 1981; 1990).

Mansonioide species of mosquito due to the unique behaviour of its immetures to remain attached to the roots of the aquatic weeds (Warton 1962) they are less amenable for the conventional larvicidal measures. Adulticidal applications are also not suitable due to their exophilic habit (Grass et al., 1967). So the only method available is bio-control strategy for its control (Jayasree, 1990).

The vectors of Brugian filariasis, Mansonoides live in close association with aquatic weeds in the water body like ponds, channels and canals. These are the primary water sources for domestic purposes, such as drinking, bathing, washing etc and irrigation and So have a direct bearing on the livelihood of the local population. No chemical larcides or weedicides can be used in these ponds. Hence, a judicious approach involving the community right from the beginning is absolutely essential to make any modification or alteration of the aquatic system in Shertallai (Ambili Kumar et al 1989).

C. P. Pant and Rosenfeild (1986) emphasize the need of close collaboration between vector control scientists and social scientists, for a successful long term control programme. They highlight the importance of strengthening people's involvement in the health related political process in planning, designing and implementing programme for their people.

Boonluan et. al., (1986) seek to find out the most effective methods for motivating people to realize the problem and participate in the control of Aedes aegypti. In their opinion imparting information for a short period is not sufficient. To

implement a long term control strategy, more efforts are required, as it is a matter of effecting changes in behaviour and cultural practices. The strategy of public health care is more practical when it motivates people to realise their health problem, by themselves and guides them as to how to solve it. In rural areas it is easier as people are not too busy with social activities.

Sustained efforts and judicious exploitation of community resources should surely promote efficient and cost-effective vector control (Shambu Lall Shreslta, 1986). Political/administrative set up in the villages are valuable assets and these facilities can be utilized to arrange health education and to prompt the community for actual, active and substained involvement in the different aspects of the programme. Community should become self-reliant in vector control. For that intensive health education is needed. Though most of the programmes are familiar with the inputs and benefits of health education, they effectively absorb only a small fraction of financial inputs. Therefore, it is high time to reconsider the vector control policy with more emphasis on health education and a firm integrated strategy at the community level.

For this the most essential element needed is an administrative structure for the channelisation of information, supplies, and equipments. Total commitment and effective management at each level is necessary for a successful structural development. People being the fundamental national resource, their potential can be developed through education and motivation (Robert J. Ton n 1986).

Many technical problems in vector control may not be solved simply by transferring control activities to a community. Community based vector control will

still need a referral level technical group to plan, guide, organise research and supervise.

When an integrated vector control programme is to be carried out in the present concept of public health care, the management process in the democratic approach would be more effective than the bureaucratic, because close co-operation is vital and necessary at all levels in the programmes. Soundness of management is more important than the efficacy of control techniques (Apple J.L and R.F Smith, 1979). The control programme would depend on (1) how effectively it is organized and how responsibilities are delegated and (2) how the people is motivated.An effective utilization of the control technology would depend mostly on persons who put various control resources according to operational needs. The sound management is all the more important (Y.H. Bang & S.Pattanayak, 1986).

In Guinea worm eradication programme, intensive health education, using publicity material was successfully used to impart awareness (BƏELDING, 1986).

The value of community participation has been summarised in table II. 1.

Table – II. 1

Basic reasons for having C.P.

1. More accomplished.
2. Services at lower cost.
3. Instrinsic value.
4. Catalyst for further development efforts.
5. Things done in the right way.
6. Leads to sense of responsibility.

7. Guarantees felt need involved.

8. Uses indigenous knowledge and expertise.

9. Frees populations from dependence on professionals.

10. Starting points for consideration .

Source: White 1982.

Community participation can be defined as "people engaged in a process of change directed by the selves". Then it involves, devolution and decentralization of power and decision making into local hands, into the communities, which are small groups of people often in face to face contact (Dag Hammerskjold, 1983). This community involves in a process towards self reliance, were healths reduction plays a very important role (Lu et al., 1983, WHO, 1978). Healtheducation aims at a behavioural change (Ramachadran).

Importance of health education for the control of filariasis has been highlighted by VCRC to root out the conception prevailed in the endemic area of brugia filariasis in Cherthala, Kerala, India. (VCRC 1989, and Ambili Kumrar et. al 1989) certain peculiar features of the disease and its control made health education all the more important in the area.

The facts that majority of mf carriers are asymptamatic and most patient suffering from chronic filariasis do not show 'mf' on blood examination (Pani S.P. 1989) have put, the population in utter confusion and suspecious about the reliability of the agency. More over in the therapatic side due to the side effects DEC had a lower acceptance. Rajagopalan (1990).

Rajagopal et al (1989) recorded 9.9% disease rate for sherthallai area. (VCRC 1987). The modus operandi adopted by VCRC through its Technology Mission Project (TMP) and its accomplishment are elaborately given in one of its miscellaneous publication. (VCRC 1992), Rajagopalan et. al (1989) examined the long term effects of vector control on the prevalence of Brugian infection and disease.

No clear picture is obtained from the existing literature conceening how, filarial manifestations and symptoms affective the behaviour of infected people or how they are accepted by society. The litrature available are clear solely with chronic manifestation and suggest that local perceptions of filariasis, vary not only from place to place, but also within the same communities. In general, the degree of stigma seems to be associated with the severity and visibility of the disease Lu et . al (1988). Shame associated with chronic symptoms led to poor reporting.

Muhondwa (1983) states that the disease was considered socially unacceptable and very shameful in an area of Tanzania. People with hydrocels were embarrassed about them and led restricted social lives. Similarly, in Polynesia, at least in the 1950's people suffering from filariasis hid or retired to the background because they are the laughing stock of the community (Kessel, 1951). Kessel also reported that women with elephantiasis were considered 'undesirable as wives'.

Taken together the limited literature suggests a picture of affected individuals taking part in community activities; but being recoganized as having an affliction treated differently. More severely affected people are probably more severely

restricted socially as well both from the effects of the disease and from the redicule of thers. (David .B et. al 1993).

Later stage of the disease is believed to reduce peoples productive capacity (Wegesa et al (1979), Kessel, 1957; Wijers, 1977; Muhondwa, 1983). The evidence on the economic impact of acute disease, Kessel (1957) reports a total of 150 acute attackes, leading to a lose of 450 working days. Partono et. al (1984) claim that the total number of working days lost due to filariasis were substantially reduced after treatment with DEC in Indonesia.

With in the same community the intensity of transmission and infection are different (Sasa, 1976). Transmission is not determined simply by biological and environmental factors but it is influanced by socio economic factor, through the creation or destruction of breeding sites. Moreover economic and cultural activities are known to facilitate transmission (Mak. 1986; Schwienfurth 1983; Rajagopalan (1987).

A few studies that have examined the knowledge and belief of people in Malaysia (Haliza. 1986)[a] only 9 out of 108 respondents, in an endemic area known that filariasis is transmitted by mosquito bities. In Tanzania (Muhondwa. 1983) people know that, malaria not filariasis is transmitted by mosquito. And reported that even after a technical explanation by the research team, most people did not believe that the disease is transmitted by mosquito. Some case with Tahi too. ankle injury, aggravated by bathing in sea, was most frequently mentioned as cause of filariasis in this community. (Carme et al ; 1979; Kessel, 1957).

In the Philippines (Lee et. al 1988), filariasis was attributed mainly to contact with cold water after heavy work. Only a few educated people mentioned mosquito bities as the cause. They were ignorant about detection procedure and the reasons for night blood test. Sensathesen (1991) could not find any difference in the level of knowledge between infected and non – infected individuals, but differ with educational status. (Lu et. al 1988), Muhondwa, (1983). But it was not seen in Malaysia.

Age and sex have not found to be correlated with awarness of transmission in general but, Lu et. al, (1988) ; Haliaza, (1986), report that men are better informed. In general people are aware of the chronic manifestaliones of lymphatic filariasis Lu et al ; (1988); Hafiza, (1986), People do not know how filariasis is transmitted or about the risk of developing disease. Health education and information received from medical sources does not seem to have influnced beliefs David et al 1993 specefically point out the lack of such studies from India where the disease is wide spread. They have concluded the review that the studies so far conducted in various countries; in the field, observed differences is disease within the communities can be attributed to actions, which individuals have taken to reduce or enhance their possibility of acquiring filariasis. According to the dynamic model (Srividya et. al 1991), most people with in the transmission zone of endemic communities eventually become infected, and no specefic risk factors have yet been identified that predisposes individuals to a particular type of chronic pathology. This implies that control must be aimed at communities rather than at groups or individual with in a community.

David B et. al (1993) in the review of social and economic factors and the control of lymphatic filariasis, suspects whether the priority accorded to the control of filariasis in various countries, is enough to its impact because the full spectrum of the effects of disease have not been assessed systematically. Successful programme for controlling filariasis require widespread acceptance of control measure by the population. But very little is known about the socio economic determinants of acceptance and compliance, or about the cost – effectiveness of the alternative options. Cost information, necessary to calculate the cost – effectiveness of the different option are not available. Though a number of studies on this line were reported from India (Rao et al 1980, Chandrasekharan et al 1984) generalization based on this is impossible because the lack information regarding costing methodology and items considered as costs whereas Das et al (1995) have examined the cost of night blood smear collection for the detection of mf carriers, though a study conducted in 20 villages in Tamil Nadu and estimated an average cost of collection for one blood smear as Rs. 20.6, and emphasised specifically that the greatest expenditure was incured on staff salary.

Community participation in DEC or salt delivery or in Vector Control activities could reduced the cost to the government (David B. 1993). Again in areas like India and East Africa, where filariasis remain unchecked, cost may be a deferent factor for establishing control programme. So investigation of strategies with lower costs may be appropriate and studies on these should be first priority for future research in these area (WHO 1992). At the same time control option studies which

investigate the determinates of low compliance or courage would be great value in developing strategies or to improve programmes (WHO 1993).

The technology mission project of the VCRC has recognized as a unique and successful community participation project for the control of filariasis by the Indeapth evaluation team of ICMR (VCRC 1989)[a] and WHO, (1992). The table II. 2 in the annual report of VCRC (1995) is self explanatory on the effort made by the community in Cherthala for the control of filariasis.

The need for research on community involvement in Tropical Disease Control – a working paper prepared for the 4th meeting on the Scientific Working Group on Socio Economic Research has concluded that 1) some form of community participation is essential for tropical disease control and strong case can be made for a maximum of community participation. 2) we know too little about the complexities of the community participation process in Tropical Disease control even when it does succeed. 3) we know too little of the dynamics of new forms of self reliance (WHO,1983)[c]. After reviewing the experience of Community Participation (CP) in tropical disease (TD) Control acknowledge that a computes search in DODKI Mid line and associated system produced only 21 referance onCP in TD. Among these 21 not even a single study was related with filariasis

White, again categorizes certain community characteristics favouring community participation. In Table II. 2.(WHO 1983)[b].

Table II. 2

Characteristics of Communities favouring successful CP

*rural rather than urban communities

*smaller rather than larger rural communities

*more isolated or remote communities

*more subsistence-oriented rather than commercialized communities (but they may be poorer and therefore less able or inclined to make contributions)

*more settled communities rather than those with a population changing through migration

*communities not divided among different ethnic groups

*communities not divided among castes

*communities where all families are at a similar economic level

*where there are already strong forms of organization and authority (traditional councils, Chiefs etc., or party committees in one-party states), provided they command general support.

Source : White 1982.

As stated above the ultimate goal of having community participation is to achieve self reliance. WHO ..., (1983)[9] have summarized the rationale for self reliance in thirteen hypotheses in Table II. 3

Table II. 3

Rationale for S R

1. Through SR priorities will change towards production for basic needs for those most in needs.
2. Through SR mass participation is ensured.
3. Through SR local factors are utilized much better.
4. Through SR creativity is stimulated.
5. Through SR there will be more compatibility with local conditions.
6. Through SR there will be much more diversity of development.
7. Through SR their will be less alienation.
8. Through SR ecological balance will be more easily attained.
9. Through SR important externalities are internalized or given to neighbours at the same level.
10. Through SR solidarity with others at the same level gets a solid basis.
11. Through SR ability to withstand manipulation due to trade dependency increases.
12. Through SR the military defence capability of the country increases.

13. Through SR as a basic approach today's centre and periphery are brought on a more equal footing."

Source Galtung et al – 1980

WHO expert committee on filariasis had suggested the following for further study in their 4th Report on Lymphatic filariasis (1984).

a) Identification of factors that:

(1) Influence community participation in vector control.

(2) Hinder epidemological surveys, e.g. relectance to contribute blood samples;

(3) Limit participation in chemotherapeutic control.

(4) Assessment of the cost-effectiveness of different control strategies, including comparison between the primary health care approach and specialized filariasis control programmes.

Though the need for Scientific study on Socio-economic factors regarding filariasis and its control was highlighted by WHO, Dunn has stated in 1983 that survey of the relevant literature on filariasis failed to reveal even a single comprehensive study on human factors affecting transmission and control of the disease untill 1974. In the 4th and 5th reports of its Expert Committee on filariasis (1984;1992) suggested certain specefic areas for study. One among the recommendations of the group (1992)was the need to develop and test simple and cost effective control strategies that are appropriate for, and can be sustained by the health services of different endemic countries.

Another review of literature on the studies on Community participation points out certain important factors relavent to the participation of the community in disease control programme. Importance of health education is stressed by Phanthumachinda et al (1985) in their study on Aedes aegypti, Rajagopalan et al (1988); Panicker and Ambily (1992); Panicker et al (1989) Nanda et al 1989 were also shared their experience about the usefulness of health education in enlisting community participation.

Effectiveness of health education and its role in preparing the community to accept the control programme was explained by Partono (1984)[b] in his "By the people for the people programme and he observed that the fear of abnormal stigmatized manifestation of the disease make people participate quite readily. Joshua Horn (1969) discoursed the achievement of snail destruction with massive health education and community involvement. Banes and Jen Kin (1972) spoke about the need of health education to root out mis beliefs Gruniccia (1981) explains the ineffectiveness of health education, when imparted with little personal contact.

Health education involves communications. Six form of popular communications has been recognized by WHO(1983)[b] related to, popular theatre, which can has got great potential in promoting community participation and Tropical disease control, as suggested by David P.H (1983)

Six forms of popular communication are summarised in table II. 4

Table II. 4

Six forms of popular communications

1. "Conscientization" or "agitation" theatre performed by "outside" middle-class theatre groups to raise the consciousness of the popular classes.

2. Conscientization drama workshop for peasants, workers, etc. in which the participants dramatize their situation and ways of transforming it.

3. Theatre of identity; performing arts activity by popular groups with the primary aim is the conscious promotion of identity without any overt didactic aim.

4. "Conscientization" or "agitation" theatre performed by peasant's or workers theatre groups which as no organic links to a popular movement.

5. Conscientization and organizing theatre performed by peasant's or worker's theatre groups within the framework of a popular movement.

6. Conscientization and organizing theatre performed by members of a popular movement without any specialization in theatre.

Source Kidd (WHO 1983)[b]

These theatre movements have rarely included TD related items but there is a great potential in TD control.

Type and nature of the control strategy is a major factor regarding community participation as opined by Schumacher (1992), P.H David (1983) WHO (1984) simple, practical and affordable technologies in the strategy promote community acceptance. Need of support of the governmental agency is highlighted by Y.H Bang and S. Pattanayak (1986); Broken sha et. al (1980), Fredrick.L.Golladay (1986) .

The international workshop on Community Participation in disease control programme held at New Delhi in 1986, recognized community participation in application of science and technology itself as a generic issue, a germinal point for research and a new area of science. Further, an international committee on future research needs in lymphatic filariasis VCRC (1990)[6] has recognized the socio-economic components of filariasis as the most neglected research aspects. Many authors like Panicker K.N and Sabesan.S, Rajagopalan.P.K; Narasimhame MVNL; etc. raised various issues that deserves research. The committee recommended to carry out detailed assessment of the economic and social impact of brugian filariasis in areas under study by VCRC and opined that result of the study will be the development of a protocol for making such assessments that can be utilized in many places around the filarial endemic world.

Hon. Shri H.D. Deva Gowda, Hon then Prime Minister of India, during the inaugural address on the concluding phase of the 85th year celebrations of ICMR (1996) remarked that the success of any health programme depends on the community. Without their co-operation, help and support no public health problem can be tackled and highlighted the success of the technology mission project in there words. "The well known Cherthala project in Kerala, conducted by the vector control Research Centre of ICNR located in Pondicherry, has demonstrated how a stubborn disease like elephantiasis can be controled, if the affected community participates with total involvement".

Various indices had been proposed to measure the intensity of transmission in an area Vector infection is a crude index that indicate the degree of infection in

the community (Sosa 1970). Rao (1976) classified the infectively rate into three categories namely low, medium and high. Beye and Gurian (1960) proposed annual transmission index and De Million et al (1967) proposed risk of infection index to measure the intensity of transmission. Krishna Rao et al (1981) suggested a new comprehensive entomological parameter for measuring the transmission. Walsh et al (1978) proposed annual transmission potential to measure the intensity of transmission of onchoceriosis during different months. Hate et al (1989) calculated the annual transmission potential of Wbranchrofti in Calcutta and rural area in West Bengal, India. Wattal (1976) opined that the Annual transmission index proposed by Beye and Gurian (1960) is the best available index to measure the intensity of transmission. Rao (1982) discussed the utility of various entemological and parasicological indices in the evaluation of filariasis control programme in India.

The literature review shows that a study of similar scope and range have not been conducted. The international seminar on Future Research Needs (1990)[VCRC] had recommended a study of the socio economic aspects of the VCRC programme for the control of Brugian filariasis. The WHO Expert Committee on filariasis in its 5th report has suggested to test simple and coast effective control programmes that are appropriate for and can be sustained by the health services of different endemic countries. This suggests that the area of the present study is of interest that extends beyond national bounderies.

CHAPTER III

FILARIASIS – A REVIEW OF SOCIAL ASPECTS

For the study area filariasis is a social problem rather than a public health problem. To get a clear picture on the social aspects, it is necessary to have an understanding of the nature of the disease in general. The clinical signs and symptoms and the natural history of the disease are important. The parasitological, entemological and epidemological aspects of the disease are included in the chapter along with the sociological analysis and interpretation on the prevalence and persistance of the disease in the area

III.1 Filariasis-Entemological & Epidemological aspects

Filariasis is a common term for a group of diseases caused by certain nematode worms. In India the most common form of disease is caused by Wuchereria bancrofti (W.b) and is known as Bancroftian filariasis accounting for 99% of the cases. The other form of the disease is caused by Brugia malayi and is known as Brugian filariasis. Brugian filariasis is restricted to a few rural pockets like the study area. At present the largest endemic tract of Brugian filariasis exists along the central part of the Kerala coast from Kayamkulam to Ponnani, covering an area of 1800 Sq: Kms. As it is mainly the lymphatic system of man that this parasite affects, the disease caused by this parasite is generally known as lymphatic filariasis.

Though mortality is negligible, there is a high degree of morbidity due in its acute and chronic manifestation. In the acute stages the disease manifests in the

form of lymphangitis, adenitis, filarial fever, funiculitis., epididymo-orchitis and tropical eosinophilia. In the chronic phases appears as hydrocele, chronic oedema and elephantiasis. While chronic swelling of limbs is common to both Bancroftian and Brugian forms, funiculitis, epididymo-orchitis and hydroceles are rare in the latter. A person may continue to be a microfilaria carrier without any disease manifestations for a very long period, and individuals with chronic disease on the other hand are usually negative for microfilaria.

III.1.1 LIFE CYCLE OF FILARIAL PARASITES

The adults of both *W. bancrofti* and *B. malayi*, are thread worms measuring 4 – 10 cms long. They are lodged in the lymphatic system of man. The female and male worms mate within the human body and the fertilized female liberates thousands of larvae, known as microfilariae (mf). During daytime, microfilaria remains concentrated in the capillaries and blood vessels of internal organs ,especially lungs. These are released into the blood stream and circulate periodically in the peripheral blood at night. Further development of the mf can take place only in the body of the mosquito vector. Interestingly the nocturnal (night) appearance of the mf in the blood of man synchronizes with the biting period of the vector mosquitoes and depends upon the sleeping habits of man.

The mf ingested by the mosquitoes along with the blood, sheds it's body cover and migrates to the thoracic muscle of the mosquito, where it undergoes two moultings to become the infective larvae in about 10-12 days. These infective stage larvae migrate to the proboscis (mouthparts) of the mosquito. When the infective mosquito feeds on man, these larvae are deposited on the skin near the site of the bite. A few of them succeed in penetrating the wound. Several microclimatic factors like

humidity, temperature etc., influence the successful entry of these larvae into the human body. The infective stage larvae develop into adult worms within the human body and this development takes approximately one year. Whereas the adult males live for a short period, the females can survive for long. The production of microfilaria within the body of man is dependent on the probability of the male and female worms getting lodged within the same lymphatic channel. Therefore, unless the number of vectors are high with a heavy load of mf in the population, the probability of transmission of this disease is very low. A large number of infective bites are necessary for patent microfilaraemia. Single worm single sex infections may also cause clinical symptoms but not microfilaraemia. Indirect evidence suggests that the duration between infective bite and production of microfilaria is about one and half years for W. bancrofti and 9 months to one year for B. malayi.

III.1.2 Vectors of filariasis in India

Both forms of filariasis are transmitted from man to man by female mosquitoes. While Culex quinquefasciatus is the major vector of bancroftian filariasis, brugian filariasis is transmitted by Mansonia mosquitoes.

High density of Cx. Quinquefasciatus is maintained in urban areas due to gross mismanagement of the environment. The vector mosquito has successfully exploited the environmental changes brought about by man. Deterioration of sanitary conditions has certainly helped the geometric increase in the number of breeding habitats for this vector. Even though this species can breed in any aquatic habitat, highly polluted stagnant water bodies rich in organic matter provide an ideal environment for its proper development. Hence habitats, such as pit latrines, soakage pits which are designed to collect waste water, open septic tanks, biogas

plants, non flowing drains, cesspits, choked storm water canals, etc., are the major breeding sites of this mosquito.

Mansonia mosquitoes namely M. annulifera, M. Uniformis and M. Indiana, the vectors of Brugian Filariasis, require the presence of hydrophytes (water weeds) to complet their life cycle. The larvae of these mosquitoes attach to the roots of plants like Pistia, Elchornia and Salvia for their oxygen requirement.

III.1.3 Control of filariasis :

Filariasis can be controlled by any of th following methods in isolation or in combination:

(a) Reduction of man-vector contact by Vector control;

(b) Reduction of the parasite reservoir in man by

Chemotherapeutic measures and

(c) Reduction of man- vector contact by personal protection

a) Vector Control :

Due to the difference in vectors and their ecology, the two forms of filariasis necessitate different approaches to vector control. Theoretically vector control can be achieved by directing control measures either against the adult or the immature larvae.

i. Anti-adult measures:

Adult population can be reduced by residual spraying with insecticides of choice. However residual spray is not very effective against. Cx. quinquefasciatus due to change in resting behaviour and development of resistance. Space spray at regular intervals though effective is cost prohibitive in the absence of any antilarval

measures. Any temporary suppression of population by spray can be compensated by the high reproductive potential of the vector Cx. quinquefasciatus.

ii. Anti-larval measures:

Antilarval measures are the most effective method for controlling the vectors. The fact that larvae are in confined breeding habitats, facilitate easy attack on the immature stages. Elimination, reduction or modification of breeding habitat can prevent breeding of Cx. quinquefasicatus by simple sanitary measures. Wherever breeding can not be prevented, larval control can be achieved by the use of biological or chemical larvicides.

a). Environmental management is the most cost effective method of controlling Culex vectors. Since a majority of the breeding habitats are created by bad engineering practices and are man made, permanent elimination of these habitats by better engineering practices leading to source reduction should be the first priority in controlling the vector. Similarly physical removal of weeds is the most effective and easy method of Mansonia control.

b). Biological agents such as larvivorous (Gambusi, Poecilia, (guppy), Tilapia) and phytophagous (Chinese grass carp) fishes and several microbial agents (Bacillus sphaericus) can be particularly effective against larvae.

c). A high degree of larval control can be achieved by routine application of chemical larvicides in polluted breeding habitats. These however, are not suitable for the control of Mansonioid larvae which breed in large fresh water bodies that are also used for domestic purposes.

b. Chemotherapy:

Diethylcarbamazine (DEC) is the only drug of choice available at present. This drug primarily kills microfilariae. Since in many cases mf reappears after certain period, the effect of the drug on adult worms has been doubted. Moreover, multiple doses are required over a long time, and that death of mf during treatment frequently causes unpleasant reactions in the host (side effects). These side effects are relatively more severe in Brugian filariasis. These factors frequently deter public cooperation for chemotherapy. DEC can be administered either to the entire community (mass chemotherapy) or only to microfilaria carriers (selective). Both have their own advantages and disadvantages. The choice would depend upon the size of the target population, mf prevalence, manpower and resources available and the acceptance of the community.

Mass treatment with DEC can bring down parasitic load in community within a short period, and, therefore it is recommended in a community with high microfilaria prevalence and where public participation can be assured. Administration of DEC through food medium like common salt (medical salt) is another useful method for mass chemotherapy. Community acceptance of mass chemotherapy has been a problem in Brugian filariasis control, due to severe side reactions. Selective treatment of microfilaria carriers, on the other hand, requires continuous surveillance, public acceptance (though night time survey) and the prohibitive cost involved in the venture.

The recommended dosage for treatment of parasite carriers is 6mg per kg of body weight, daily for 12 days. In some situations single dose of DEC once or twice a year can also be used as a prophylactic measure with promising results.

A new drug, Ivermectin, is now undergoing clinical trials and offers some hope in curing infected persons with a single dose treatment.

c. Personal protection:

Protective clothing, repellants, bed netting, avoidance of mosquito biting environments and screening houses are common sense elements in prevention and control. The keys to the implementation of these personal measures are health education and socio-economic development. The use of synthetic pyrethroid impregnated nets is another recent development but is yet to become operational.

III.1.4 Monitoring and long term evaluation

This should form an integral part of the control programme and should be based on repeated measurements of the vector and parasite population. The important parameters for this evaluation are man biting density (average number of female mosquitoes biting man per night), infection and injectivity rates (proportion of mosquitoes with any stage larvae and only infective larvae respectively.) of vector mosquitoes, and transmission potential (estimated number of infective bites). The parasitological indices which need to be monitored are incidence of infection (estimated number of new cases appearing in a community with a given period), prevalence of microfilaraemia (proportion of population with microfilaria in blood) and median microfilarial density (mean worm burden in infected persons)

Survey techniques in filariasis

For assessment of filariasis situation, in a given community parasilological, clinical and entomological surveys should be carried out at regular intervals.

a) Parasitological survey

Detection of microfilaria in blood is still the most reliable method of confirming filarial infection. As microfilaria appear at night in peripheral blood the survey has to be carried out at night after 8 p.m.

b) Clinical Survey

The prevalence of disease both in its acute and chronic form can be estimated by a clinical survey by medical personnel.

c) Entomological Survey

The role of vector population on the epidemology of disease can be studied by monitoring the infected and uninfected mosquito population densities. Adult density can be measured by collecting resting or biting mosquitoes.

III.2 Social aspects of filariasis

It is very special of filariasis that it is a disease, that is looked upon by a sizeable chunk of the affected population as more of a social problem than one of health. It is undeniable that the disease has social, economic and psychological ramifications. Though not fatal, filariasis effects physical deformity that can considerably affect the earning capacity of the victim. The consequent sense of inferiority has a negative influence on the psyche of the affected. In the case of youngsters their marriage prospects and avenues of social interactions are adversely affected. (Table III – I)

Table – III-1

Opinion regarding the marriage prospects of filarial patients

Sl.No.	Response	No. responded & percentage
1	Most difficult	229 (48.41)
2	Difficult	213(45.03)
3	Somewhat difficult	23 (4.86)
4	Normal	6 (1.27)
5	Don't know	2 (0.42)

Source : Survey data

The study of the area reveals that the people have a quite clear awareness of these facts. 69.56%. of them identify filariasis as a public health problem with a social stigma pinned to it; But they are not much concerned about the morbidity aspects of the problem. 16.07% even refuse to consider filariasis as a health problem. For them filariasis is a 'disease of no concern.'

In spite of the very high degree of awareness revealed in the people's response to the study, they are found lagging in matters regarding preventive and curative measures that they take up for themselves. Even the things they do as part of a collective work is, seen to be dropped, once collective enthusiasm ebbs out.

III.3 An Analysis of Social Aspects

The study area is observed to have a remarkably high level of literacy. But this high literacy level is not found proportionately reflected in the understanding the community betrays, with regard to filariasis. A great deal of misconceptions about

the disease, its causes, cure and prevention were prevalent even among the educated segment of the community of the study area (V,C.R.C 1989)

The technology mission project through their health education programme has succeeded in imparting scientific knowledge regarding the disease ,to the people of the area. The target, modus operandi and result of this project as dealt with in details in chapters VI & VII. The knowledge so imparted, has had, pronounced effect on the community in terms of the attitudinal changes it has produced. These attitudinal changes do not as readily get translated into practical action for the prevention of the disease up to the generally expected extend. As the ultimate purpose of the technology mission project is to generate such action, the causes and possible remedial measures for this failure is found to be imperatively looked into. An in-depth analysis of the prevailing situation has revealed a number of extremely note worthy social aspects that contribute to the continued presence of the disease in the area for centuries.

The project had sought to make the people of the area aware of the nature and controls of the vectors and to project deweeding of the water bodies of the area, like ponds and canals, as the single and sure preventive measure. The appended chart (Table III. I) amply evidences that the level of awareness regarding the vector is very high among the population of the area. On the other hand, When it comes to de-weeding, which is the envisaged practical result, the level of achievement is remarkably low. What seeks special attention is that, even with regard to de-weeding, the response of the population on the knowledge – awareness level is markedly positive. This positive attitude is to be seen in 61.55%

of the people. They consider deweeding is very essential to control the vector. But they fail to translate this attitude to practice, which would make them actually take-up the de-weeding, or make them do that at regular enough intervals, once they have started doing it.

Table – III-2
Pattern of de-weeding by the community

Sl. No.	Pattern	No. of people Practiced	Percentage
1	Regularly for filariasis Control	32	6.77
2	Sometimes	64	13.53
3.	Rarely	142	30.02
4.	Only once	46	9.73
5.	Never	189	39.96

Source : Survey data

This points to a situation where the awareness of the social unit is enriched, but the social will not sufficiently activated. This directs us to look upon the problem of controlling filariasis as being one with a predominant sociological thrust.

The response of the 4th group as shown in the chart demands closer attention. They did the deweeding when the control programme was intensive in their area. That is to say they fell in line with the other members of the community who were all at that point of time doing the deweeding. Here what motivated their deweeding activity was not so much of the awareness created, but an inclination to compromise with the general behavioural pattern of the community and as much of its social will is involved in the activity. It is only a small minority amounting to 6.77% of the population that continues to do the de-weeding regularly with the declared purpose of controlling filariasis.

The response of the people to filariasis detection, Night time Blood Test (NBT), Mass Drug Administration (MDA) and medicated salt reveals the same attitudinal feature. An analysis of the 236 different reasons the members of the community attributed to their undergoing night time blood test is analyzed in the following chart (Table III-3)

Table III-3

Reasons for blood test

Sl. No.	Reasons	No. of individuals Responded	Percentage
1	Shear individual interest	43	18.22
2	Social obligation and individual interest	99	41.94
3	Important persons	24	10.16
4	Sservice in proximity	50	21.18
5	Imitating others	20	8.47

Source : Survey data

Here also what is seen is a social concern that is activated among the group, but fails to be active with the individual. There is considerable disparity between the individual concern and the expected pattern of action.

As the chart shows 58.35%(table III-4)of the population knows about the asymptomatic carrier stage of the disease. That is to say that the people were well aware that the disease could remain without any symptomatic manifestation for very long period of time, making it impossible for the patient and others for realise that the patient is infected with filariasis. They also know that, NBT conducted is on one and all, the only means by which infection could be detected 54.33% is found to be convinced of the need for comprehensive NBT, 64.68% has faith in the curability of the disease in its early stages. Acceptance level of the programme among the

people of the area is found positive with 90.91% of the people and they considered the project very essential and of benefit to them. Again 67.44% consider, periodic night blood test and treatment, including mass drug administration as good means in preventing filariasis transmission in the area.

Table III-4
Knowledge of the community regarding filariasis and its control

Sl.No	Various aspects	No. responded	%
1	Transmission	447	94.5
2	Breeding place of the vector	308	65.12
3	Acute symptoms	233	49.26
4	Chronic symptoms	344	72.73
5	Asymptomatic state	276	58.35
6	Treatment	305	64.68
7	Prevention	395	83.51
8	Detection procedure of 'm.f.'	255	53.91
9	Nocturnal periodicity	257	54.33
10	Vector Control	351	74.21

Source : Survey data

Participation in the programme and intake of drug/medicated salt for prophylectic effect, also could be seen as an act of compliance than that of voluntary decision. Here a member of the community is merely falling in line with the collective welfare effort of the community as a whole, arranged and implemented by the community itself. In such a situation a member would join even if he had contrary ideas, because remaining apart would require considerable force of will and strength of personal character, So in such cases participation cannot be termed as being on individual level.

It could also be seen that participation is withdrawn, when the prodding influence either in the form of the communities collective effort or the presence and

involvement of an acceptable person or set of persons dwindles away. When the person or group of influence ceases to be present, the individual with draws from the activity. That is to say, at the individual level, the awareness created does not appear to generate effective action, without the involvement of some agency. This agency can be the society as a whole, or a set of acceptable persons or a more traditionally defined Govt. agency.

Interestingly in the Focus Group Discussions (FGDs), all the five groups are seen to acknowledge, filariasis control programme, as effective and essential. But most of the members of these groups would not go, seek and implement control measures on their own, though they would remain in the forefront and put in earnest effort in situations where control measures were arranged to be made available at a mass scale by some agency. Here again what is to be noted is the insufficiency of the motive force at the individual level.

This lack of individual concern could also be seen in the attitude that the members of the community in their personal protection measures. It is found that even when awareness level is very high the individual is not inclined to adopt any kind of simple protective measures; like using mosquito nets and repellants. This is so even with the 6.77% who are immigrants from non-endemic areas.

The basic reason for such a pattern of behaviour could be traced to a mental frame work of the community in general ,having its roots in cultural aspects of the community, which ingrains in them a kind of notion, that despite the scientific information that came to them, they believe that they are not likely to contract the disease. The very same attitude is evident in their evading the questions with a

'don't know' answer. (60.26% thinks that they have little chances of getting the infection and 29.95% evades the question pleading ignorance). On the other hand it is found that the level of their knowledge regarding the risk factors and the high degree to which they are exposed to them, is very high. The appended table bears this out.

Table III-5
Opinion on filariasis control activities

Sl.No	Programmes	No. of people responded and percentage				
		Very Essential	Essential	don't know	Not essential	Unnecessary
1	Night Blood test	325 (68.71%)	105 (22.2%)	40 (8.46%)	3 (0.63%)	0
2	De-weeding of water body	293 (61.95%)	113 (23.89%)	2 (0.4%)	62 (13.11%)	3 (0.63%)
3.	Treatment of mf+ve	333 (70.4%)	107 (22.62%)	22 (4.65%)	11 (2.33%)	0

Source : Survey data

The level of social commitment is found to be very high. Out of 473 interviewed ,169 were willing to extend all possible help to a microfilarialy positive mf^{+ve} individual / family to access treatment. In the responses received for the inquiry regarding the assumed role the individual would play in a situation where an identified mf^{+ve} is reluctant to take treatment, a distinct gradation in social obligation, among the groups could be observed. As mentioned earlier 35.73 are endowed with a high level of social commitment and they have a good deal of insight into the social threat that the mf^{+ve}, reservoir in the community poses. A second group with almost the same size (35.1%) also well aware of the

consequences of a disease carrier try to involve VCRC in the situations. In a third group (76%) we found people who believe in preaching. They would try to educate and make the victim knowledgeable about means and ways of treatment. The fourth group evinces the least concur. They think that disease and its management are the concern of the affected individual and his family. They consider this as personal matter where the society has little role to play. There is also a very small group with a very weak social bond, who by themselves would not have any concern or willingness to act, but would be blaming everything on every one else.

Highly awakened social concern can be viewed as a result of the intensive heath education campaign. The level of participation of the community in the control programmes can be viewed as resulting from the high degree of compliance of the members of the community to any collective efforts, planned, organized and implemented for their welfare, by their own fellow men. This again reveals the primary group 'Characteristic of the community, where individual line is intimate, face to face continuous interaction.

These behavioural aspects can be understood in term of two sociological theories.

1) Logical and non logical action of Vilfredo Pareto.

2) Bio – Social hypothesis of De Roberty.

The quintessence of the Pareto theory is that the equilibrium of social system depends mainly on the character of human molecules, manifested in their forms of behaviour and actions. These actions are based on certain 'drives'; the most important of which Pareto terms as 'residue'. Residue is the manifestations of

instincts and sentiments as different from instinct and sentiments themselves. This fine differentiation is crucial to the Pareto's theory, which emphasizes that the instinct and sentiments that initially trigger off a particular pattern of individual action, may not find a direct and unalloyed expression that pattern of action. On the other hand between the point of germination, at the level of instinct and sentiments, and the point of fruitation at the level of manifested actions, it undergoes a number of identifiable and unidentifiable influences attribute to such mutations. So any attempt at organizing or channelising human behavioural pattern, must have a thorough understanding of the explicit and non – explicit aspects of this process. On the level of practical social work an acknowledgement of the nature of this process or residues would be of immense help.

The individual or group may have some greatly developed residues of certain class and some other weak residues of some other class. Again with in the same society, in the course of time and by interplay of varied circumstancial influences, the distribution and manifestations of residues, among the society's human molecules may be greatly changed, leading to a change in the social system.

All human actions are the manifestations of residues. These action fall into two categories.

1) Action that is not followed by speech or verbal explanations. Common subjective process and reflex actions come under this category.
2) Actions followed by justifications and to which ideologies could be pre postulated. This category of actions are called 'derivatives' as they may be thought to be derived from logical arguments or ideologies. These

derivations are manifestations of 'residues' and therefore are much more flexible and variable than the former. So the sum residue may find expression in different derivations.

Actions and derivations are dependent on reisidues. The residues that operate within an individual may contradict one another, there by leading the individual into a state of confounded personality when illogical and self contradictory actions proceed from him.

Logical actions are those, the intented subjective purpose of which , coincides with objective results. Carried by a complex play of residues, man performs an immense number of action that are non-logical. That is action, The subjective purpose of which is quiet different from the objective results. Apart from the logico-experimental behaviour in the field of scientific performance, most of the human behaviour is essentially illogical, contradictory and inconsistant with illogical ideological connections or derivations.

An ideology is acceptable or otherwise to a society is not in terms of its truth of falsity, but on the agreement or nonagreement of it's residues. That leads one to the understanding that, any attempt to influence ideologies and opinion of an individual or group is best done through their residues. Any change in the residues will have a resultant change in the derivations / ideologies.

Pareto views derivations as minor reactions in our behaviour and indicates the impossibility of any scientific conclusions about a man or group on the corresponding speech reactions that fluctuate very much. Residues also are liable to fluctuations, but the tempo and aptitude of their fluctuations are much slower and

limited compared to derivations. Further Pareto underlines the usefulness of these non logical derivations; which are not illogical, to the society. They help in keeping the integrity of social system where unalloyed truth would have led to the disintegration. That is to say a derivation (myth, legend, ardent belief or superstitions which embellish and beautify the reality inspiring enthusiasm) may be useful to a group. On the other hand a naked truth may often be disastrous.

De Roberty considers knowledge and thought as super organic social phenomena. There are various modes of knowledge, identifiable as abstract and true concepts, scientific laws, philosophical / religious generalizations, symbols and images of arts and ethics etc. This knowledge is a product of intercerebral interactions of biological organisms and exist along with language, which is another products of long frequent inter cerebral interactions. Both of these manifestations are remarkably found only in man, the most social of animals.

A clear line of demarkations ought to be drawn between what is erroneous, fleeting individual images and their representation on the one hand, and thought and knowledge on the other, representing accurate and true ideas. Thought and knowledge are not embodiments of incidental and fragmentary individual experience. They are the incomparably richer collection of a multitude of generations, which are corrected, verified, enriched, amplified, diminished, and corrected, therby making up for the sheer inadequacy of the individual experience. Any knowledge can be accurate only so far as it is found adequate by the collective experience. So any intellectual development can proceed only from from social

interraction and therefore progress is possible only at the instance of social stimulus.

These arguments of De Roberty are corroborated by the great sociologist Derkheim. Derkheim Stress the importance and superiority of 'collective consciousness' over the individual consciousness. Collective / Social Consciousness has its own independent existence. When it affect the individual mind it functions like an external force in the form of various moral codes; religious, juridical and logical rules, empowered with the force of coercion.

III.4 Conclusion

People of the endemic area under study, lived in the region for generations, and the disease also co-existed with them for a very long time. Not being a fatal disease, the familiarity with it developed a kind of thought / knowledge regarding it. These are embodied in their residues. Health awareness campaigns provide a kind of short lived stimuli that effect a change in derivation and corresponding action for the time being. As the compaign weakens, the force of the stimuli dies out and the residue re – asserts. As a result of this the society relapses into another pattern of actions than the one the campaigners oriented it for.

Chapter IV

VOLUNTARY ORGANIZATION S AS SOCIAL AGENCIES

The public health objectives of filariasis control programme are to reduce the morbidity, to prevent future morbidity and to interrupt disease transmission. This can be achieved through chemotherapy, prevention and reduction of human vector contact; In view of the longivity of the particular parasite both chemotherapy and vector control measures adopted has to be maintained over a very long period of time. In this context any administration of drugs and instructions from outside can be of little avail, because sustaining the continuity and forcefulness of the activity would be quite impossible. This leaves, including the whole affected community to take up the task for themselves and if possible, to make it, take up the desired course of action in disease control as a part of the behavioral pattern, as the only means by which success could be reached.

Communities have the capability to deal with their own problems, if such problems are properly identified and defined for them. When this is done, the community is capable of carrying out the necessary changes wherever required. For this, potential of the community to be made use of, in tackling any problem facing them, the community must get opportunity and assistance in understanding the problem. This can be assured by involving the entire community in all levels from the very beginning. It must be identify the problem and made to partake the planning formalities like organizing and implementing of remedial measures at all levels. In the community of the study area, where the identified social/health

problem was not getting a high priority, so careful and intensive preparatory work was found necessary to get the community involved up to the desired measure.

Here the idea of tapping the potentials of voluntary organisations in the area was adopted. This proved very successful in getting the application of science, seep down to the grass root level. What the voluntary organisations promised was a delivery structure to translate scientific results to popular application. The voluntary organisations, by vertue of their special organizational infrastrure and the autonomy vested in them could respond effectively, so far, the adoptions of voluntary organizations as main channel for implementing the filariasis control programme is rational and apt.

In the study area the social scene is highly charged with a spirit of party politics. However these high level of political consciousness and involvement provide an attitude that has faith in the principle of organized efforts. As a result the number of voluntary organizations functioning in the area was remarkably high (Self 1989). This special social structure of the community facilitated the success of the filariasis control programme of the VCRC. This chapter deals with the modus operandi adopted in the project for enlisting community participation, the process of FILCO movement formation, its activities, achievements and community perception on the role of voluntary organisation in filariasis control. Besides this, a cost effective analysis of one aspect of the control programme is also included.

IV.1 Voluntary Organisation and Social Interaction

Realizing the potentials of the social agencies, VCRC has identified a number of voluntary organizations, engaged in Socio-cultural activities in their respective localities, motivated them through repeated discussions and meetings

and inculcated a filariasis control philosophy, and mobilized, and led them to organize disease control activities in their areas. This process can be viewed as a resultant of a very important social process namely the 'Social interaction'. Which is defined by Green as the mutual influences that individuals and groups have upon one another in their attempt to solve problems and their striving towards goals. And the most important condition for such social actions are contact and communication. Through these conditions individuals and groups are influenced each other, by adoption and exchange of ideas. The major means of communications are talks and discussions, language, organizations, and cultural synthesis. The social interactions can be of integrating or disintegrating in nature. Intergrating process are those of co-operation, accommodation and assimilation, where as disintegrating ones are conflict and completion. All these are inherent in a social system. According to the condition which offer different stimuli, the interaction took various forms. Hrtzler consider spontaneous co-operation as a characteristics of the rural society.

Here in the very process of identification, motivation and mobilizations, employed by VCRC a very important social process of interaction, that is co-operation came into being. In this people work together for the achievement of common goal or for the solutions of a common problem. VCRC is arranging the favorable conditions of contacts and communications needed for the social process. The co-operation extended by the agency can be explained on the following manner.

The acceptance of the capacity of the agency in shouldering a social responsibility by a reputed govt. agency like VCRC and the opportunity to work and

collaborate with them , were found encouraging for the organization. The inherent social obligation, due to the we feeling and prevailed collective consciousness, the simplicity and practical nature of the control programmes were found as other contributing factors as illustrated in Table IV - 1.

Table-IV-1

Motivations in taking up filariasis control.

Sl. Nos.	Motivating factors	No. of persons Interviewed	No. responded	%
1	Simple & Definite technology	473	247	57.93
2	Reliable support of VCRC	,,	309	65.33
3	VCRC Approval	,,	298	32
4	Sense of social obligation	,,	281	59.41
5.	Social Status improvement	,,	265	56.03

Source – Survey data.

IV. 2 FILCO (Filariasis control movement)

IV.2 .1. Formation of FILCO

Thus a few number of organizations identified, engaged in activities like deweeding through "shramadan", organizing filariasis detection camps, health education classes etc in their localities independently. Later, considering, the vastness of the breeding source, flight range of mosquito, the nature of disease transmission and its control, the need of a co-ordinated collective effort was felt.

The effort on these lines led to the formation of a mass movement called FILCO (Filariasis control movement). Originated in 1987 with 7 member organizations FILCO has grown to a gigantic mass movement with a volunteer strength of more than 12,000 from its 137 member organizations. It is a registered body under the charitable societies of act of 1955.

IV.2. 2. Objectives

- Major objectives envisaged in the bylaw of FILCO are
- To provide unified action to redeem the area from filariasis that has been continued for generations as a bane on the land.
- To prepare the population of the area to benefit from and co-operate with the VCRC of ICMR.
- Organize health education campaigns to enable the people to remove their misconceptions regarding the cause of the disease.
- Ensure peoples participation in the control programmes.
- Organize night blood examination camps for detection of filariasis.
- Persuade the infected population to undergo treatment.
- Organize shramadans to deweed ponds and other water bodies.

IV.2. 3. Administrative Frame Work

FILCO has a general body composed of 401 members,3 representatives each from 137 members organizations, a general council, represented by 137 member each form its member organisations and an executive committee of 17 elected members form the general body headed by the general convenor, convenor

and treasurer. Beside this an advisory board with a patron and two members from the VCRC are included for technical & Scientific guidance.

IV.2. 4 Major activities / achievements

IV.2. 4 a. Vector Control

(1.) Interrupting Filariasis Transmisison, through weed/Vector control. A series of 'Sharmadans' were conducted to deweed the waterbodies and thereby eliminated an area of 914500 m^2 free of mosquito vector breeding.

b. Health Care delivery

b.(1) Detection and treatment of Filariasis

b.(1) a. Filariasis Detection Camps (FDCs)

Filariasis detection camps were arranged by the member organization through out the endemic area for parasite screening, covered a population of 38021 through 251 camps and detected 351 mf^{+ves}

b.(1) b. General Health Camps

General health camps were organized by the movement in remote villages under the auspices of the VCRC to facilitate clinico-parasitological screening and treatment of filariasis. Besides filariasis, all other common ailments were also looked after in these camps. Through 18 camps 7453 people were screened and 135 mf^{+ves} treated

b.(1) c. Filariasis detection and treatment centers (FDTC)

A permanent extension programme for filariasis control, manned by trained volunteers. Blood smears collected in these centers are observed in VCRC and treatments are given at these centres itself. There are 93 such centers in the endemic area 73608 smears were collected and 645 mf^{+ve} were treated

b.(2) Mass Drug Administration (MDA)

Single low-dose administration of anti-filarial drug (DEC) 'by the people for the people' has also been implemented by member organizations in places of high filarial transmission for a drastic liquidation of parasite load in the community in a short span.

IV.2. 4. c. Awareness Campaign

Health education classes, orientation camps, exhibitions, etc. were conducted to impart knowledge on actual cause, transmission and prevention of disease. Local folk arts viz ottamthullal, Thiruvathira, Kaikottikali, street dramas etc, were made use of for disseminating the disease vector control messages.

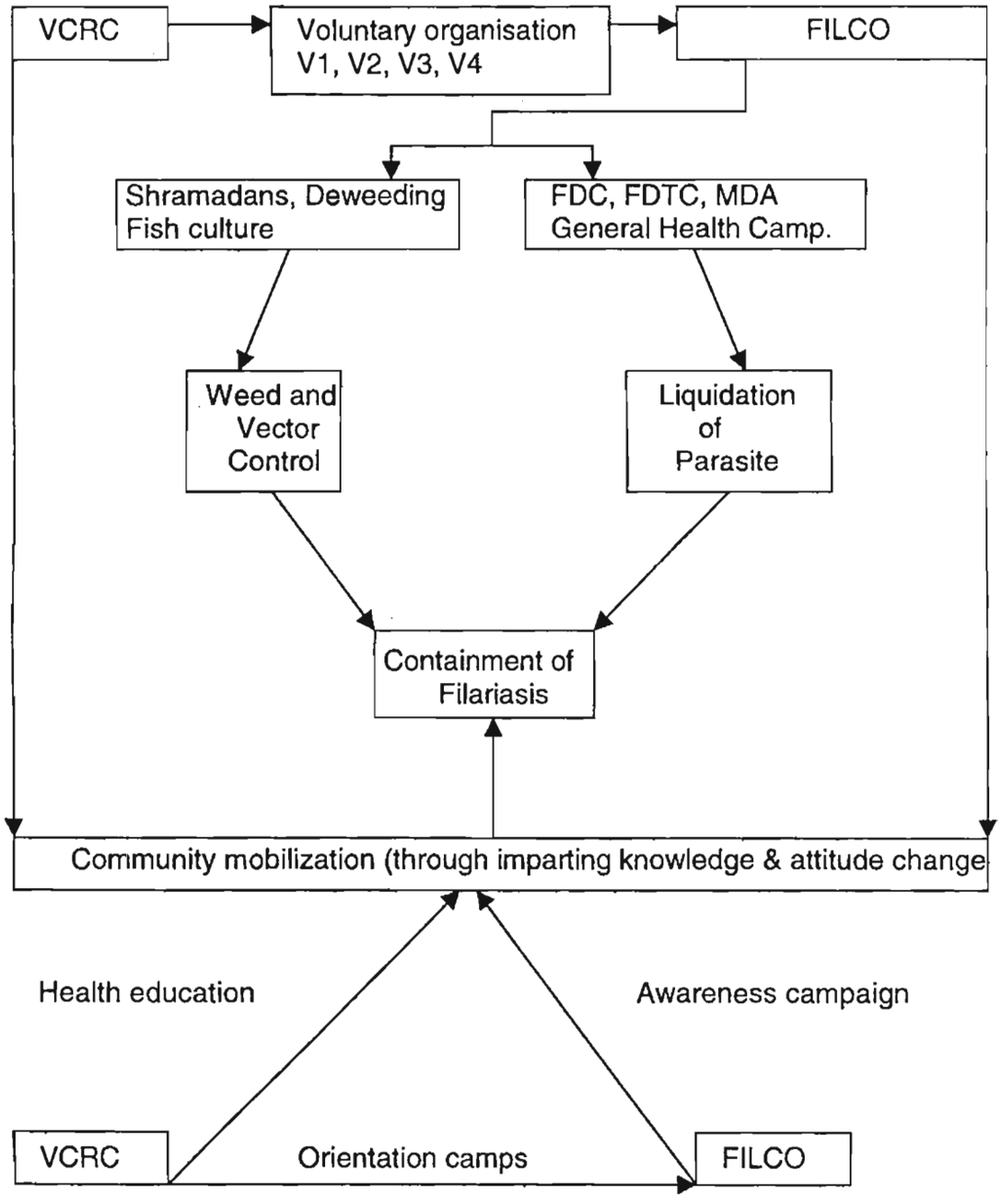
IV.2.4. d. Rural Development

Actively engaged in the propagation of inland fish culture in the local ponds after deweeding and thus converted the programme into an income generating one which boosted the local economy. Under the NABARD fish culture scheme, the FILCO movement has under taken the responsibility of pond preparation and fish seed introduction.

FILCO activities are compiled in Chart I

FILCO may be the first of its kind of an organisation to fight against a disease. Its activities are well accepted and appreciated by the scientific community internationaly. Deligates from International agencies like WHO , BBC and foreign universities visited and observed FILCO activities and placed their appreciation. In deapths evaluation teams for VCRC, visited and witnessed various activities of FILCO. In their report, the committee's concluding comments were like this "Neither

Fig. 1
Community actions in filariasis containment



Source : Ambilikumar (1989)

vector control nor Disease control can be carried out as a scientific programme without involving the people, whose health and welfare is the ultimate object. The scientific observations have to be practically extended to the field in which scientists have to motivate the people to come forward and accept the activities. The total acceptance of the VCRC programme by the people of Shertallai impressed the committee. Apart from scientific knowledge, courtesy and hard-work, the proper approach of VCRC scientists have won the confidence of the people and this committee wishes to record their tremendous appreciation to the project leader as well as staff members. (VCRC) .

The British Broad Casting Corporation has filmed FILCO activities for one of its. Serial in 'Tommorow's World' film series. National Doordarsan telecasted FILCO programmes, in the National news both in English and Hindi.

The scientific approval of the agency in the field of filariasis control programme is acknowledged in the VCRC Annual Report (1987-88). It has been stated 'mobilization of voluntary organization as means for enlisting community participation, thus proved to be an effective weapon for environmental management methods in vector control and health delivery.

IV.3. Cost-Effectiveness of FDTC

The cost-effectiveness of the particular programme is worth mentioning here. The cost components involved in parasitological screening through Filariasis Detection and Treatment Centres (FDTC) were identified. The unit cost of expenditure incured for screaning one person was calculated and compared the same with the cost incurred when Govt. agencies are involved.

The various cost components considered for calculation are 1) expenditure on training the volunteers 2) Cost of material provided other than that for smear collection like Umbrella, Torches, Torch cells etc. (materials for smear collection like glass slides, lancets, spirit, cotton etc are common for all smear collection, so not included) 3) Cost of transportation to bring the smear to VCRC office for laboratary process.

Cost incurred for smear collection through FDTC

Table –I

Items	Cost
1. Training programme	Rs, 1950
2. Miscellaneous	Rs. 3750
3. Transportation charge	Rs. 6441
Total	Rs. 12141

Total no. of smears collected through these centres= 56880

Cost of collection for one smear = 12141/56880 = Rs. 0.2134

A study of Das et. al. (1995) gives a similar analysis of cost incurred in collecting blood smear as given below, when a government agency is directly involved.

Table – 2

Heads	Cost in Rs.(%)
1. Staff salary	48077 (60)
2. Fuel & Vehicle	16964 (21)

maintenance	
3. Stationary	1500 (1.9)
4. Blood lancets & chemicals	13614 (17)
5. Computer use	500 (0.6)
Total	80655

Total number of smears collected = 3916

Average cost of collection for one smear = 80655/3916 = Rs.20.60

The expenses numbered (1) and (2) in table 2 are not applicable to FDTC programmes and the rest is common, which is around 20% of the total expence, that is Rs. 4 per smear. There for the expense for one smear for FDTC will be Rs. 4+0.21 = Rs. 4.21

The analysis shows that the cost for collection of one smear by FDTC is around Rs. 4.21, where as that when a government agency is directly involved is Rs. 20.60. The drastic difference in the above stated figures shows that FDTC programmes are highly cost effective.

IV. 4. Role of Community Organisations

Analysis of community's perception on the involvement and acceptance of these agencies is also found important. Participation of the community in filariasis control programme differ greatly in between the 5 study areas, however majority of the population consider voluntary organization can have an effective role in filariasis control as seen in the table (iv. 2)

Table IV-2

Role of voluntary organization in filariasis control

Sl.No	Type of organization	RESPONSE with %			
		Very Effective	Effective	Not Effective	Don't know
1.	Socio-cultural Arts & sports club	324 68.5%	101 21.35%	2 0.4%	47 9.94%
2.	Community organization of Church, Mosque	190 40.17%	172 36.36%	97 20.5%	14 2.94%

Source survey data

The Community identifies these agencies as their own representations' and had good faith in their organizational set-up, the web of social relationship, with its strong social bonds, to reach all strata of the community Due to their continuous, intimate and face to face contact with the community. They posses a better understanding and could uphold the solidarity and cohesion. Hence it was found that the simple, practical and economically viable propositions of the control strategy proposed by the VCRC, could be carried out very effectively by these agencies (Table IV. 3).

Table IV -3

Reasons for the effectiveness of Voluntary organisations

Sl.No	Reason	No. Interviewed	No responded	%
1.	Simple & practical technology	473	379	79.22
2.	Have organizational setup.	,,	428	90.49
3.	Upholds solidarity & cohesion	,,	364	76.96
4.	Have better understanding	,,	451	95.35
5.	Have primary relationship	'	443	93.66

Source : Survey data

Opinion of the community on the acceptance of VCRC programme and the reasons for its acceptance and non-acceptance were analyzed. 81.39% of the population regards that the filariasis control programme has been accepted well by the community .Good approach maintained by the involved agency was found most important (94.54%)in this regard, followed by the approved reliability of VCRC (90.30%). others are effective channels of implementation (84.67%), simplicity of the control technique (84.41%) and confidence gained by the agency (70.82). Community considered certain qualities of the organization as essential for its involvement in the programme like filariasis control. They are, presence of reliable members, the presence of a well accepted, reliable member in leadership role itself,

are found encouraging . Some of the respondents even confessed their compliance to the programme and participation was, because a very reliable and known member asked to do so. The degree of faith and confidence on the 'reliable person' is well evident in these activities. The second but very important is the extend of support these agencies receive from the authorities like VCRC, since these programmes are viewed only as services of VCRC in their locality. The type of relationship maintained by the organizations to its community is also important. Organizations having primary relationship only could implement a programme like that of filariasis control, since many of the activities of the control programmes necessitates routine house visits, regular follow up, enmass participation etc. Some of these organisations are unregistered, seasonal and that come into being for organising annual community festivals or religious festivals. Yet the history behind such agencies and the faith the society puts on them were reckoned in involving them with the programme (Table IV. 4).

Table IV-4

Qualities needed for Voluntary Organisation

S.No	Qualities	No.inter-viewed	No. respon-ded	%
1	Reliable members	473	452	95.56
2	Support of VCRC	"	448	94.71
3	Primary relationship with the community	"	441	93.23
4	Permamancy	"	395	83.51
5	Validity & history	"	392	82.88

Source :survey data.

The Study reveals that the programmes extended through the voluntary organizations were much acceptable and desirable for the community in general. This attitude is evident in their response to the filariasis detection and treatments centers. These centres are manned by the volunteers, trained by the VCRC, in smear collections for detection of filariasis. The smears thus collected in these centers are sent to VCRC for laboratory processing. The mf $^{+ve}$, detected were given treatment at the centre, through the voluntary organizations.This programme was found very successful in terms of coverage and completion of chemotherapy. Which pause another important problem in the case of mf $^{+ves}$. The treatment with DEC usually cause severe reactions in people with 'mf', not directly from the drug, but triggered in someway by the deaths of the 'mf' and by its effect on adult worm. Since most of the mf carriers are asymptomatic, the tendency to discontinue the drug, once started is very obvious. Therefore the need of education & follow up with a good rapport is very essential, for the successful completion of treatment. The confidence and acceptance gained by these organizations together with the regular contacts maintained by the VCRC, community view the programme as very successful. The contacts instils in them the faith that, any drug reactions or other disease conditions that crop up, consequent to the adopted therapy, would be taken care of by the medical help right at hand. The presence of local known people reiterates this faith.

The community appeared convinced of the simplicity involved in smear collection techniques ie. 99.37% of 292 who consider FDTC as successful. The reliability of

VCRC and the support rendered by them to these centres also counted much with them (86.67).

Table IV –5

Factors contributed for the success of FDTC

Sl.No.	Factors	Response in %
1	Simple technology	99.37
2	Reliable support of VCRC	87.67
3	Single Drug	48.84
4	No ill effect & legally sanctioned	52.73
5	Service of VCRC in proximity	95.9
6	More participation & coverage	93.84

Source : Survey data

All these made them to view the programme as part of the familiar VCRC work in their own area. And they consider it can cover the entire population reaching the message and treatment out to each and every member of the community. The knowledge that 'DEC' is the only drug of choice is in there with only 48.84% This however gives them the assurance that there could not be any mis-administration of drugs as there is no other drug. People of Kerala is highly concerned about such things. 52.73% consider the drug being outside the perview of regulations that restrict the administration to licensed practitioners, as signaling the relative safety of the drug. Here the implicit faith in the safety of the drug carried by the involvement of people of personal reliability and the cost-effectiveness of the method draw the common people to it.

The tables IV 6,7,8 given, clearly indicates that the activities for the control of filariasis and its achievements are varying in between the study areas. Regarding the awareness aspects of the disease, 68.67% of the people in Kadakkarapally, is in the middle and high classes, where as, in Arookutty and Muhamma, majority (50.51% & 58.02) is in the lowest class. These were the areas meant for Christian. Muslim & Hindu community organizations respectively. Practice towards the control of the disease also reveals the same pattern in Arookutty and Muhamma, 67.01% & 75.3% of the population are in the lowest class and in Kadakkarapally 73.46% is in the middle & high class. All the three areas are far behind in knowledge and practice compared to the other two areas, where voluntary groups of different kinds are rendering the health service. However, a very important factor noticed with regard to attitude there is not much different between these areas.

Table – IV. 6

Community's Knowledge on filariasis

Area	Score in percentage		
	< 12	12-24	>24
MNP	9.8	69.6	21.51
MSP	17.02	64.89	18.08
KDPLY	31.63	52.04	16.63
ARKTY	50.51	27.11	12.37
Muhamma	58.02	26.69	17.28

Source : Servey data

Table IV . 7

Fiariasis control Practice of the community

Area	Score in percentage		
	< 15	15-30	>30
MNP	4.9	12.7	86.7
MSP	11.7	37.33	51.06
KDPLY	26.5	38.77	34.69
ARKTY	67.01	22.69	10.3
Muhamma	75.3	17.28	7.4

Source : survey data

Table IV. 8

Community attitude towards filariasis

Area	Score in percentage		
	< 75	75-150	>150
MNP	2.94	95.09	2.94
MSP	2.12	95.74	2.12
KDPLY	2.06	94.89	2.04
ARKTY	13.5	85.56	0
MUHAMMA	12.34	87.65	0

Source survey data.

The church organizations were well ahead of the others. More over they hold the good will and faith of the people. It is only in areas where church organization functioned, that a sizable number of people admitted of receiving help or assistance from community organizations (Table IV. 9)

Table – IV. 9

Services rendered by the community organizations.

Area	Always	Response in percentage			
		Often	Sometimes	Rarely	Never
MNP	11.65	13.59	23.3	11.65	39.8
MSP	8.5	14.89	19.14	11.7	45.74
KDPLY	40.81	17.34	8.16	21.42	12. 24
Arkty	7.21	7.21	16.97	22.68	44.33
Muhamma	0.0	5.0	17.28	24.69	53.09

Source survey data.

Such response was most poor in Hindu areas. The bulk of the response from the Hindu/Muslin areas is that they never received help from community organizations (53.09%/44.33%). This shows that the social and community work of the organizations carried out in these areas are not very much alive at present. These factors, that is the factors of effectiveness has to be reckoned in associating such organizations in filariasis control programmes. The Muslim community organization were slightly ahead.

Co-operative mass endorse in Shramadans, filariasis detection camp, health education campaigns are seemed contribute immensely to the control programmes. People of the area do voice their appreciation of such collective efforts. Collectiveness imparts and instills a sense of co-operation and enthusiasm, which is welcomed by the individual members. More over the thrust of the spirit of an enthusiastic collective task is seen to work wonders in flushing out personal anti-patterns (Table IV. 10).

Table – IV. 10
Merits of collective actions

Sl.No.	Merits	Response in %
1	Arose collective conscience	86.04
2	Induce social responsibility	80.55
3	Minimize resistance	88.58
4	Social status improvement for the agency	74.63
5	Motivation for other groups	75.69

Source survey data

The effectiveness of the involvement of the voluntary organization is vouched by the fact that, the most number of people accessed detection and screening services through the intermediary services of these agencies as affirmed by the appended chart (Chart – 2). This is the more notworthy in that the acheivements is in an other wise difficult area like night time blood examinations.

IV. 4. Conclusion

These primary groups are considered as the basis of social organization.The essential conditions for a primary groups are are face to face mutual relations, physical proximity ie. close and continuous contact, identity of interest, informal relations regulated by conventional control and similarity of background and the relationship is an end in itself against the uttiliterian ones of urban life.

In rural setup the homoginity arising out of a commonly shared way of life tends to develops an associative attitude towards social actions. Individuals always try to confirm his conduct to the prevailing code of the community, due to the deep feeling of belonging to each others, or being part of a single whole and of the necessity of co-operative ventures and way of life.

Figure 2
Cumulative number of people screened and number treated for flariasis through different appraoches (1986-1995)

Approach	Parasitological			Clinical		
	No. examined	No.+ve	mf rate (%)	No. examined	No. +ve	Disease (%)
Sample	22059	517	2.34	3702	311	8.4
Mass survey SSP	3721	260	6.99	3409	447	13.11
Mass survey MNP	2465	27	1.10	1310	93	7.10
Community Filariasis Detection Camps (243)	37590	439	1.17	–	–	–
Health Camps (18)	7453	135	1.80	9635	664	6.98
School Filariasis Detection camps (18)	3041	55	1.81	–	–	–
Filariasis Clinic at VCRC	33072	328	0.00	21867	12405	56.73
Filariasis detection & treatment centres (75)	67349	568	0.84	–	–	–
Anganwadi surveys (Children below 7 years)	4704	33	0.70	–	–	–
Total (Cherthala Taluk)	181454	2362	1.30	39923	13920	34.87
Outside Cherthala Taluk Sample surveys	30610	661	2.16	9658	553	5.73
Community Filariasis Detection Camps(7)	431	2	0.46	–	–	–
Filariasis Detection & Treatment Centres(16)	6259	77	1.23	–	–	–
Total (Ambalapuzha Taluk)	37300	740	1.98	9658	553	5.73
Grand Total	218754	3102	1.41	49581	14473	26.90
Resurveys	19630	234	1.19	5046	267	5.29

Sourse : - VCRC annual report 1995

Thus the voluntary organizations in the villages have great population for authority, social action and can shoulder the responsibilities of common welfare/Social problem, if identified, guided and support properly.

CHAPTER V

FACTORS INFLUENCING COMMUNITY PARTICIPATION (CP)

Interest in Community Participation (CP) in health care is not a new idea . There was community support for healers in past centuries and is still a feature of traditional culture. It was recognized in the 19th century as a fundamental factor in the public health movement. Today many international agencies and organisations, including UNICEF and WHO, emphasize the importance of community involvement in health care. It is looked upon as the foundation of better health throughout the world.

The stress now laid on CP has resulted from two trends that emerged after the second world war. With the advent of decolonization, the new nations had neither a suitable infrastructure to sustain the hospital based treatment system (Western medical system) nor the money to support its high cost. Moreover, since it was based mainly in the urban areas and available to those with money to pay for the services, it denied care to the majority of the people, who lived in rural areas, where they had little access to any type of health care. To deal with this health crisis a shift of emphasis to new technologies involving preventive measures and decentralized, community care based on epidemiological priorities was proposed. Health service delivery was seen in terms of social policy rather than technological development. Planners believed that providing people with knowledge regarding their health is enough to improve health. But mere provision of knowledge handed

over by experts to layman resulted in only nominal improvements in heath. As a result new approach to health care delivery had to be adopted.

It was increasingly recognized that the differences that existed within communities, influence the nature of health services available to them. Therefore programme for the improvement of the health status, has to involve the concerned community in planning.

The second trend that emerged in the post war period was the recognition of health policy as an integral part of country's general developmental policy. The development of these two trends resulted in the concept of primary health care. Primary health care (PHC) is defined in Alma-Ata as "essential health care made universally acceptable to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and the country can afford". (WHO, 1978).

The important ideas on which PHC rests are 1) Health is not the responsibility of the health sector alone. 2) The development of self-reliance and social awareness through CP which is a key factor in improving health 3) For improving health care, the community should define its needs and suggest ways of meeting them. 4) Decentralization of power and decision making is necessary and 5) community resources, financial and human, can make important contribution, to health and developmental activities.

Thus CP is mainly concerned with applying tried and tested health care procedures to the health problems of the poor and underprivileged, in the rural areas of the developing countries. Only through the involvement of the concerned

community in the delivery of health services, a culturally acceptable care can be made available to the people.

WHO and UNICEF have not confined themselves to mere advocacy of PHC based on CP, but have also persuade activities designed to promote its practical applications. WHO has promoted the exchange of empirical data among countries and has supported research to asses the extent to which community participation in health services has lead to an improvement in health status. It has also integrated CP into several specialized health care activities. UNICEF has adopted a more integrated approach in developmental activities. In addition to health services, food production,' nutrition, water & sanitation, education & income generation are encouraged through CP. This type of approaches of the UNICEF has facilitated an understanding of how people of a community can be motivated and involved in improving their own health. It has also helped to give health a broader meaning extending beyond health service activities.

V.1. Primary Health care and community development

CP in development programmes in the third world is not new. Prior to the development of the concept PHC, the united Nations in 1950s observed that the people in the community should play a major role in their own development programmes. Cambridge summer Conference on African Administration, defined Community development as embracing "all forms of betterment. It includes the whole range of activities in the district whether they are undertaken by government or unofficial bodies". (Brokensha & Hodge, 1969). The definition was expanded later by the United Nations Department of social and economic affairs to stress the processes in which communities and government joined together to improve the

economic, social and cultural conditions of the (1982) has compared the conceptual similarities between community development and PHC. He observes that both concepts emphasize multipurpose activities, presuppose the provision of basic services and material gains and recognize the process by which the goals are achieved are more important than the goals themselves.

V.2. Meaning of CP

Reviewing the interest in CP in health programmes can provide a basis for determining what factors influence CP in disease control. As a first step it is important to attempt to defiine of the term "community participation.

"Community participation can be defined as "people engaged in a process of change directed by themselves". Then it involves essentially, the devolution and decentralization of power and decision transferring them over to local hands. Responsibility of planning and implementation is made to rest on the communities, which are small groups of people often in face to face, contact (Dag Hammarskjoid, 1983). Thus Community involves in a process towards self-reliance. In this process of self-reliance health education plays an important role.

Therefore CP can be understood as a process through which people attempt to control their own lives, time and resources and through which they attempt to influence and penetrate others. CP in its broadest sense may be defined as a dynamic process in which people consciously engage in planning and implementing, motivating and evaluating activities, which affects their lives. But in a narrower sense, CP in a specific disease control programme may be defined as the

process by which individuals and families assume responsibility for their own health and welfare and for those of the community.

V.3. Need of Community Participation

The need for CP can be summarized as follows.

1) There is increasing evidence that medical technology is less effective in improving health in large communities than what people can do for themselves. In rural areas, health patterns can be improved radically by preventive measures rather than by curative measures. Rapid improvement in health can be achieved by helping the people to adopt healthier habits in sanitation, environmental hygiene and food than by increasing service investments.
2) Misuse or under use of medical services can be reduced by involving the community in planning, development and application of health programme this will enable the provision of appropriate services.

3) Community possess untapped resources that could be used to make health care more accessible and acceptable, particularly to the poor and underprivileged. It is for the community to decide on the best ways of mobilizing those resources to satisfy community priorities, which include materials, money and personnel, particularly by providing better care for more people.

4) People have the right and the duty to be involved in deciding the activities that affect their daily lives.

Such involvement provides a basis for increasing self-confidence and self reliance, it gives opportunity to all sections of the community to take part in improving the health services available to them.

V. 4. Process of participation / Levels of participation

The possible degree of CP achievable for a disease control programme can be grouped into four major classes.

V.4. 1) Active participation:

In this community recognize the problem, designs the programme with or without the help of an expert group and plays an active role in the implementation and evaluation of the programme.

V.4. 2) Passive participation and acceptance:

Where the community simply simply co-operate with programme. The extend of such participation depends on the awareness of the problem, the beneficial effects of the programme, the method used for achieving participation, the literacy rate and economic conditions of the people.

v.4. 3) Passive resistance:

In this case, people being afraid of open defence, passively resist by non co-operation.

V.4. 4) Active resistance:

Where people perceive some deterious effects of the programme and Vehemently oppose it.

V. 5. CP and Filariasis control programmes

Acute infectious disease that cause mortality often provide an immediate stimulus to community action. Filariasis on the other hand is a chronic disease with a prolonged incubation period and insidious onset, does not have much impact.

Regarding vector borne diseases like filariasis and its control, CP has considerable potential in activities like source reduction, antiparasitic and antivector measures. This can happen only when the centralized programmes are willing to share their authority with the people. The basic requirement of community participation is that the people should be involved in conceiving, planning, implementing and evaluating all developmental programmes, WHO (1992) .

V. 6. Technology Mission Project and CP

Technology Mission Project of the VCRC can be considered, successful in achieving these basic requirements of CP in its filariasis control programme. The analysis of the various factors which contributed the successful participation of the community is looked in to.

V.6. 1) Voluntary organization and CP

Voluntary organizations in rural areas are found very effective in channalizing disease control programmes. As already seen in the previous chapter certain special features of the organization and the control programes are vital in making community participation successful.

A remarkably high level of knowledge attitude and practice, regarding filariasis control is found among the people in areas where health care delivery was undertaken by voluntary organizations. The knowledge regarding the disease, its transmission, prevention and control is credited against certain parameters and ascribed respective scores . Then they are classified in to 3 classes .These classes are: one with a score point less than '12', a middle class with '12-24' and a higher class of above 24. In the first area ie Mararikulam North Panchayat (MNP), where Fillo movement activities are intensive, only 9.8% of population came in the lowest

class, while 69.9% and 21.55% are clustered in the middle and the highest classes respectively. The second area, Mararikulam South Panchayat (MSP) where core groups (Neighbourhood Committees), another form of voluntary organization formed for the specefic purpose, were engaged in filariasis control activities. These group also suceeded to a great extend in imparting awareness. 17.2%, 64.89% & 18.08% are proportionate distribution in the three classes. The church based organizations also achieved an appreciable level, 68.67% of the population in Kadakkarapally (KDPLY) are in and above the middle class score. At the same time the other areas meant for the community organizations of Muslims and Hindus in Arookutty and Muhamma, the awareness level is found to be very low ie 50.51% and 58.02% are is the lowest class who scored less than 12 points as illustrated in the Table – IV.6.

Disease control practice of the communities also reveal marked variation. Measures/activities for filariasis control , practiced by the community members such as deweeding, night blood test, seeking prompt treetment, acceptance of chemotherapy, adoption of self protective measures etc. are also scored with certain points and classified in to three. A lower class less than 15 points, a middle class with 15 to 30 points and a higher class with more than 30 points as shown in the table IV.7. In the first two areas the activities channailized by FILCO and neighbourhood committees, are practiced well by the majority. A very neglegible portion ie 4.8% to 11.7% are found weak in practicing control measures where as in Arookutty and Muhamma very few people are found practicing disease control measures.

There is not much difference in the attitude of the community among the five areas. In all the 5 areas, people maintain a positive and healthy attitude towards filariasis and its control programmes. It can only be explained on the basis of the improved facilities of communications and transportations available now. Though scientific and systematic knowledge through health education is not received by the community, information about VCRC and its activities for filariasis control might have reached the people and this could develop a positive attitude towards the programmes. This in turn helped them in identifying the disease as a social problem.

The infrastructural frame work of the voluntary agency, the net work of social relationship of primary nature, aided in a better understanding of the community's needs and aspirations. The inherent social obligation and the we feeling of the rural characteristic and the simplicity of the control technologies made them excellent in channalizing disease control activities and enlisting community participation. The co-efficient of co-relation between practice and channalizing agency is also found significant as 0.578 in stastical analysis.

The efficacy evident in FILCO Movement activities acknowledge the success of co-ordination among the agencies in control activities. In MSP, where one of the WHO project "Pilot project on development of integrated vector control at village level, by the community," was intensive, the neighbourhood committees were actively engaged in disease control programmes. Their activities were centrally co-ordinated by the VCRC, during the project period. The community whole heartedly participated in the programmes in its all phases of planning, implementation and

evaluation. But when the co-ordinatinfg force is withdrawn a gradual dicline in the enthusiasm is evident in the area. The results of the survey proves the facts further. On the other hand 2 voluntary organizations (included in neighbourhood committee) affiliated with FILCO, are found very active through out.

FILCO can, mobilize collective force for disease control activities. Since, for FILCO containment of filariasis being its objective, priorities are decided and activities like Sramadan for weed control are planned, implemented, evaluated, supplimented and co-ordinated centrally. This ensure the continued availability of services, on priority basis. Where as in places, where voluntary organizations independently engaged in disease control programmes, continued availability of services depend on the enthusiasm of the leaders, and a shift in leader ship considerably affects these programmes.

Therefore an administrative structure is needed for the flow of informations, supply of equipments and so forth in all directions and to provide adequate expertise at referal level.

V. 6.2. Awareness and Participation

A well informed community can participate successfully and meaningfully in disease control programmes. In the study areas for ensuring community participation for the control of filariasis, a preparatory phase was necessary, since filariasis control was not a priority for the community. Adequate health education has been given to the community on the nature of the disease, the role of vectors, the mean of control, the effectiveness of DEC in reducing morbidity and transmission, and on the safety of the drug with emphasis. It succeeded in identifying the 'need' and prioritize problems by the community. Before the

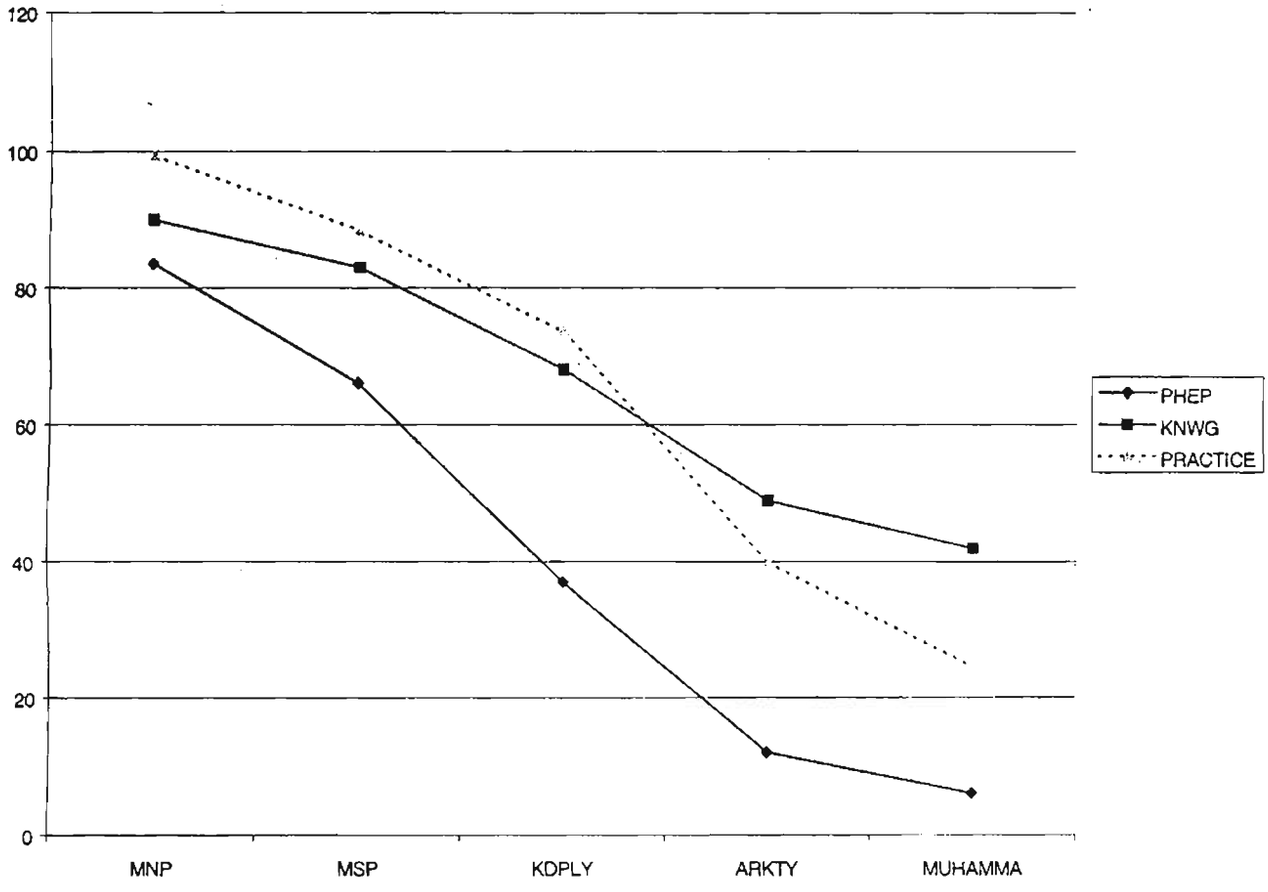
intervension programmes, being borne and brought up in the midst of filariasis there is a sort of adoption towards the disease , as part of the culture has happened and people in general were not much concerned about the disease or its control (self 1989). VCRC's health education campaign succeeded in generating an awakening and concern in the community. These aspects are dealt in detail in chapter VI.

The results of the survey point out that in areas where more people participated in health education compaign, possess a high level of knowledge that in turn is evident from their higher degree of compliance and acceptance of disease control programmes. The correlation coefficient of knowledge and practice, participation in health compaign and practice are found to be significant (0.634 and 0.874. (Fig,' 3)

In filariasis control programme, only knowledgeable community can participate effectively. Knowledge on various aspects of the control programmes like 'nocturnal periodicity' of the parasite and night time blood test, asymptamatic carrier phase of the disease, etc are essential to make the community participate in night blood detection programme for mf screening. Again the knowledge about the role and type of the mosquito in transmitting the disease, and its breeding source is necessary for the successful control of vectors. For effective chemotherapy, a clear cut idea about the effectiveness of the drug in reducing morbidity and transmission, safety of the drug and the possible discomfort due to the positive action of the drug in mf carriers (usually mistaken as the reaction of the drug) are essential. Therefore a well informed community can involve and participate in the control programmes right from designing to evaluation.

Figure : 3

Relation between Participation in Health Education, Knowledge and Practice



PHEP	**- Participation in health education campaign**
KNWG	**- Knowledge**
	- Practice

V.6.3 Support and involvement of authentic agency & CP

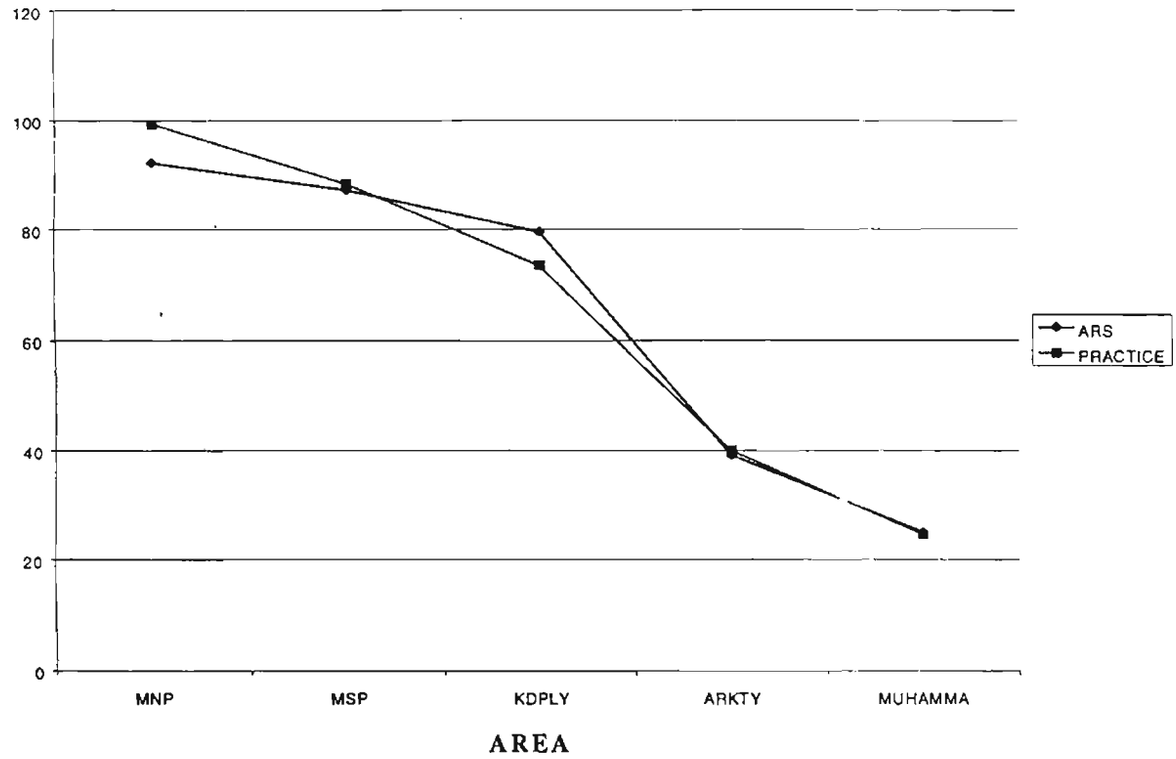
Genuine support and involvement of an authentic agency in the government setup is found as the most important factor in a successful community participation programme in disease control. People of Kerala, in general, are very conscious about their health matters. Even for minor ailments, they prefer specialist in the discipline rather than a general practitioner with a basic degree in medicine. This is a trend evident in all the income groups. Being an institution of Indian Council of Medical Research (ICMR), Vector Control Research Centre (VCRC) could get the authenticity needed for its acceptance from the community. Community accepted VCRC as an authority in the control of filariasis.

Through the special strategy adopted by the VCRC in implementing the programmes, community conceived all disease control activities , channalized through various agencies as VCRCs own programme arranged in their localities, by their own people, for their welfare. Through out the survey the most prominent aspect of the disease control programmes, highlighted by the community is the support & approach of VCRC Fig. 4.

The approach and involvement of the VCRC with the community is already approved and recognized by various scientific forums. The Indepth Evaluation team, consists of eminent scientists of national reputation has visited and apprised the activities of VCRC. They have mentioned this aspect specifically in their report, which states" The total acceptance of the VCRC programme by the people of

Figure : 4

CORRELATION OF AUTHENTIC & RELIABLE SUPPORT AND PRACTICE



ARS	**- Authentic and reliable support**
	- Practice

Shertallai impressed the committee. Apart from the scientific knowledge, courtesy and hard-work, the proper approach of VCRC scientists have won the confidence of the people and this committee wishes to record their tremendous appreciations to the project leader as well as staff members" (VCRC Annual report 1987-88).

Considering the uniqueness of the programme British Broadcasting Corporation has filmed the activities of FILCO, for their "Tomorrow world film series".

The success of filariasis detection and treatment centres (FDTC) depends mainly on the reliable support of VCRC·87.67% believes that this support and involvement gives faith and confidence to the services rendered through these centres. Compliance and acceptance of chemotherapy found more in these centres, are also based on the credebility of VCRC·95.54% view these centre's activities as VCRC services in their proximity.

V. 6.4 Simple technology and CP

Disease control programme with simple and practical technologies promote community participation better. Success and nature of participation varies according to specific control measures that are available in use for specific disease. In disease control programmes distinctions can be made between 1) the one that can be carried out independently by the community and 2) the other in which varying degree of interdependance is involved. The degree of dependance is related to the type of technology involved in the control programmes. Simplicity of the techniques in the control programme influence the community involvements. The simple techniques and definite results induce enthusiasm and confidence in the people and lead towards self-reliance, the ultimate goal of community participation.

This will provide greater degree of satisfaction to the community. An activity should be undertaken within the context of what can be realistically accomplished by the community (Fig. 5). In brugian filariasis control, the technology adopted by the VCRC is found simple and affordable for the community. The major control measures/ activities are:

V.6.4. a) Vector control

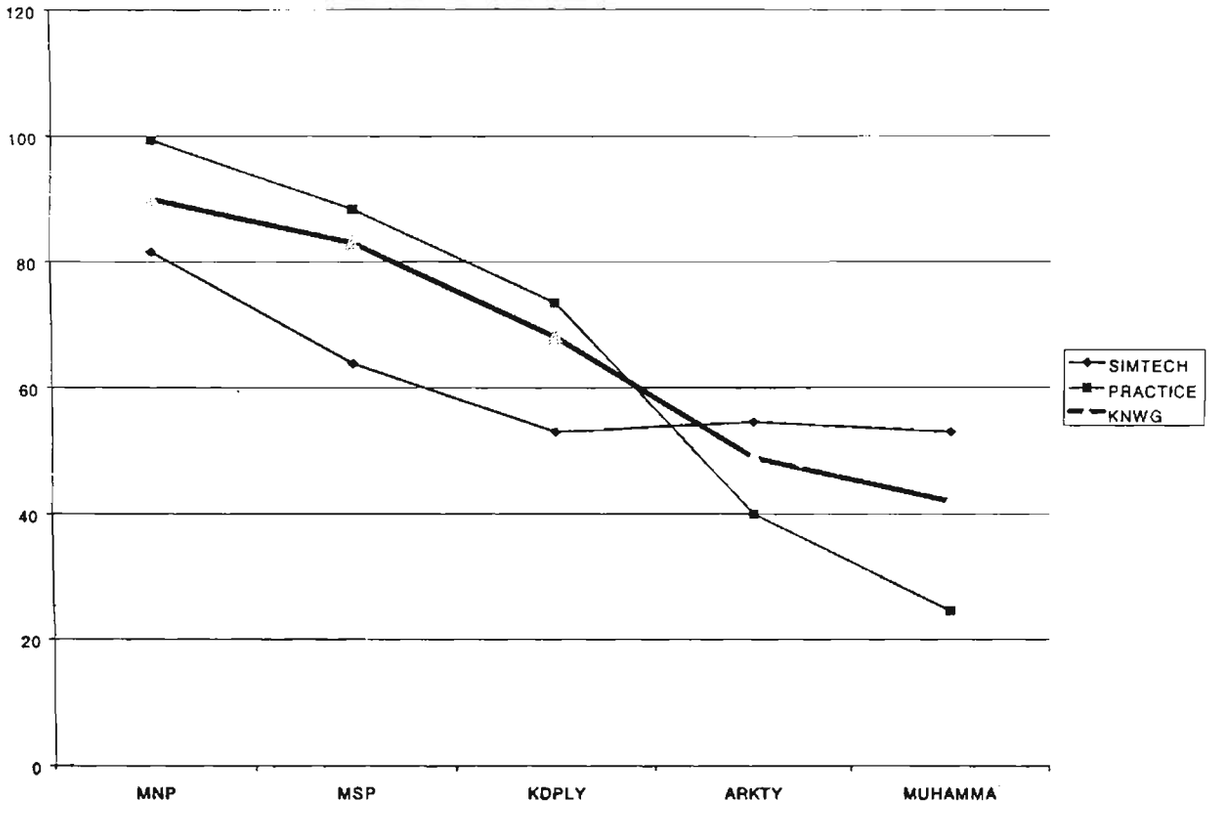
Deweeding of the water body is the sole and definite measure for vector control which is comparatively easy and environment friendly, compared to the other vector control measures. Mansoinoide species, the vectors of Brugian filariasis, can live only in association with the water vegetation in water bodies. Water bodies with a relatively permanent status only can promote weed growth, so that the breeding sources are definite. Where as, the other species of mosquitoes can breed in any water-collections of short duration, like water collected in a cocconut shell, discarded vessels, tyres, axils of plants, hole in tree trunk-during the rainy season. To control the breeding in larger areas like drains, cement tanks, septic tanks, tanks attached to cattle shed etc. needs insecticidal application which is harmful and cause pollution. But physical removal of water vegetation is simply a biological measure. A good will and a little energy is enough and more for individual household to keep these water body devoid of mosquito breeding.

V.6.4. b. Parasite detection

Presence of parasite detected through night time blood examination, due to the peculiar nature of the parasite, the blood smear are collected after 8.00 pm, when the young ones of the parasite worm, 'mf' are found in the peripheral blood stream of the human beings. The technique involved in the collection of blood

Figure : 5

RELATION BETWEEN SIMPLE TECHNOLOGY; KNOWLEDGE & PRACTICE



AREA

KNWG	- Knowledge
	- Practice
SIMTECH	- Simple technology

smear is so simple that, with one day training, any member, irrespective of his education can master the art. Under the vigilant supervision of VCRC more than 200 volunteers from various organizations became experts in smear collection. Filariasis Detection and Treatment Centres (FDTC) manned by these volunteers have collected 67,780 smears, and treated 330 mf positives. In the survey community (61.10%) also considers the programme as a successful one and the simplicity in its technology as the major factor (99.37%) for its success. Majority (80.97%) of the population cherished to have a centre in their locality.

Community assigns faith in the role of community organization as effective in filariasis control is also based on the simple nature of the technology involved in it. Horizontal level of health reduction is found more appropriate in disease control programmes, as the topic & theme of the education programme is being very much related to the daily life, fellow men in the community could shoulder the responsibility of teaching his community members (detailed aspects are included in the chapter on health education). The contribution of the simple technology to the success of various control activities are compiled in Table – V. 1.

Table V. 1 : Programme benefited with simple technology

S.No	Various aspects	Response in %
1	Total acceptance of VCRC	84.4
2	Success of FDTC	99.37
3	Involvement of volu: organization	79.22
4	Horizontal level of HE	86.05
5	Vector control	73.78

Source – survey data.

Though there is agreement about the simplicity of the control technology as a whole, a further probe into the matter reveals distinct gradation in rating, as seen in Table V. 2.

Table V. 2

C ·nity· perception about the simplicity of various control measures

S.No	Programmes / Activities	Response in %
1	Vector control	73.78
2	Smear collection	64.51
3	Chemotherapy	51.44
4	Prevention	42.0

Source :survey data

This gradation can be explained on the basis of dependency needed for each activity. For vector control, deweeding can be achieved independently. Planning and implementation can be achieved with in the community, where as all the other programmes need various levels of dependency. In smear collection, for training, supply of materials and support, an outside agency is needed. Dependency gets increased in other two programmes, which involve drug administration.

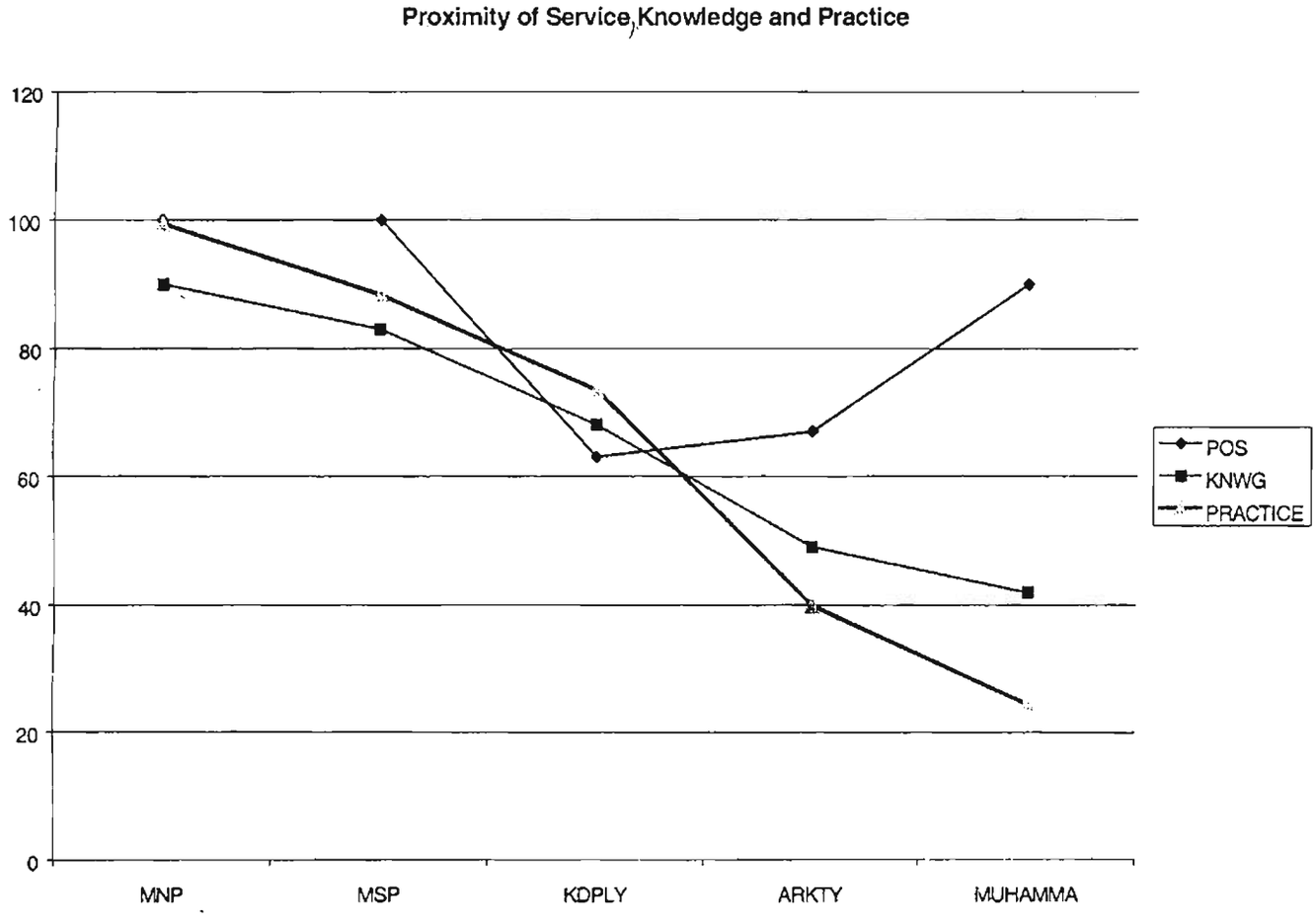
V. 6. 5. Involvement of reliable and acceptable members & CP

Participation of the community is influenced very much with the involvement of reliable and acceptable members in the control programmes. The personal merits and acceptance of the members through whom, they have access to the service, speak much about the participation of the community. Presence of an accepted, potential leader in the planning phase itself will help to motivate and mobilize the community towards the designed goal, 95.56% of the population consider the presence and association of reliable members from the community is enough to inculcate faith and confidence in the programmes. The coefficient of co-relation between the variables and practice is found very significant as 0.768.

V. 6.6. Service in proximity and CP

Disease control programmes when arranged in the community enhance CP, when these are organised with in the community, the members are involved in all aspects of the programmes such as the planning, arrangements, implementation and evaluation. Since success of the programme is assumed as their own responsibility, competence and acceptance are more in these programmes. This aspect is all the more important in night time blood detection. Reluctance in de-weeding and blood detection is reduced to a great extent. Co-efficient of correlation for service at proximity and various related variable are calculated and found significant. Thus it is proved that service in proximity promotes community participation in disease control. (Figure-6)

Figure : 6



POS	- Proximity of service
KNWG	- Knowledge
	- Practice

V. 6. 7. Collective action and CP

Programmes like shramadan & filariasis detection camps organized collectively, induce social responsibility, minimize resistance and inspire collective conscious and thus aid in promoting participation as illustrated in the table IV.10.

V. 7. Conclusion

The general man power of a region may be put to use in achieving great goals if properly oriented and motivated. The keywords in this area would be – 'formation' and 'recognition'. Man looks up for recognition of his worth and requires to be better informed on all aspects of life. If the people of an area are made aware of the health hazards of their place in real terms and enlightened regardiing the effective role they can play in containing them, they can surely be banked on for bringing great results. So let us slighty change our priorities and get more to the people, especially the young among them.

They recognition they demand ought to appear in the form of an authentic Govt. agency giving them genuine support and involvement. Authentic support of the Govt. agency is of great importance, because the community in its beneficiary aspect would not be receptive to the informed voluntary services given by youth organisations or any other type of voluntary agencies, in the absence of such Govt. setp up. It has been the experience wherever experimented that effects of any technology transfer is nullified when the authenticating presence of such an agency was not felt.

The experience of the health administration activities of the study area vindicates these ideas. It further reiterates the need for restructuring health programmes ensuring more of the direct involvement of the people.

CHAPTER VI

HEALTH EDUCATION : ITS ROLE IN COMMUNITY PARTICIPATIOIN AND DISEASE CONTROL PROGRAMME.

To ensure community participation in disease control programmes, a preparatory phase is necessary. During this phase, adequate education should be given on the nature of the disease, on the role of vectors and means of its control.

Effective communication is the first thing in accomplishing community involvement and education is the second in importance. Education provides the stimulus that generate desire and motivation for community actions. Therefore, it is widely appreciated that health education has to be strengthened to suppliment the curative, preventive and environmental services. Health education aims at a behavioural change in the positive direction, It is not merely to improve the quality of life but to achieve a higher and better standard of life quality. Hence, the behavioural change has to be in tune with the latest findings of science. Behavioral change has to be achieved through educational efforts and not by applying coercive or punitive measures.

Like education in general, "Health Education" is concerned with the change in the pattern of knowledge, feelings and behaviour of the people. It concentrates on developing such health practices as are believed to bring about the best possible state of well being. It is defined as the translation of what is known about health into desirable individual and community behaviour in tune with the refined and replenished knowledge on health. The two basic tools of health

education are 1) basic science which deals with the knowledge aspects of health and (2) the behavioural science that deals with the principles governing behaviour and its change.

Regarding filariasis control , the basic sciences are continuously at work and expanding the horizon of health knowledge. Since knowledge itself is ever increasing, behaviour also has to undergo continuous modifications inorder to cope with the progress of knowledge. For the self same reason health education has to be a continuous processes engaged in preparing the community and modifying its behavioral patterns.

VI.1 United Nations and Health Education

The World Health Organizations (WHO), as a specialized agency of United Nations, dedicated to the betterment of human conditions came into being in 1948. Later the WHO secretariat established a section for Health Education of the Public, as an integral part of its first team. It emphasized the need for public Health to focus on people in communities, on total quality of life, on efforts to help people learn which would improve and enhance their own action for health.

The aims and objectives of health education was stated in the report of the first Expert Committee on Health Education which met in Geneva in 1953. It said the aim of health education is to help people to achieve health by their own actions and efforts.

Health Education begins therefore with the interest of people in improving their conditions of living, and aims at developing a sense of responsibility for their own health betterment as individuals, and as members of families, communities or government.

Health is but one of the elements in general welfare of the people,and health education is only one of the factors in improving health and social condition. It is, however, an indispensable factor and should therefore be integrated with other social, economic, health, and educational efforts.

Realizing the difficulties in managing the activities from the headquarters at Geneva, regional offices that could function within the possibilities and realities of the conditions of which they were also part, were established and the south –East Asia Regional Office (SEARO) was established in New Delhi.

Health Education development in South East Asia includes both periods of rapid growth and periods of retardation. From the mid 1950 to mid s1960s was the period of high excitement and great expectations. But, due to the lack of quick results, the area of health education had faced some degree of retrenchment. Administrative / Political support weakened. During the period the entire health field was subjected to a lowering priority status by the developmental policies which laid less emphasis on human resource enhancement. But the logic and wisdom of integrated – community based, people – oriented – public health – gradually reasserted itself.

The two milestones which mark the resurgence were: (1) the 1974 resolution of the World Health Assembly, which requested the Director General to develop ways and means of providing additional support, including man power and funds, for the organization's programme of work in health education in accordance with available budgetary resource, taking into account its essential role in

programmes for socio-economic development and (2) the historic Declaration of Alma -Ata in 1978. "Health for All by the year 2000".

At the alma-Ata conference in 1978, member countries of the WHO called for a revolutionary approach to health care. Health programmes were no longer to be conceived only with the absence of illness but with even broader principles of equity and social justice, including universal access to effective health services. Even with all the best intensions, community participation in major campaigns proved much more difficult to be achieved than originally thought. Health, it turned out, required more than health service.

Recognizing the need to review the issue and identify national priorities, the WHO regional office for. South-East Asia has made efforts to promote health behavioral research to help member states, to find the best approaches and strategies for improving community involvement.

VI. 2 Health Education and Community Participation

The essential relationship between health education and participation is not a new idea. It was emphasized in the preamble to the constitution of WHO, which states, informed opinion and active co-operation in the part of the public are of the utmost importance in the improvement of the health of the people. For effective implementation of control programmes, the community that receives the services, should be motivated adequately. For this the health education is an imperative requirement that must go before the adoption of any specific programme at the community levels. The importance of preparing the people, who are the ultimate beneficiaries of health, services are obvious.

VI. 3. Health Education and Filariasis control

Community based filariasis control must emerge from a community – based programme of health education. According to the definition adopted by the National Conference on preventive madicine in USA "Health education is a process that informs, motivates and helps, people to adopt and maintain healthy practices and life styles, advocates environmental changes as needed to facilitate this goal and conducts professional training and research to the same end. Three distinct objectives can be picked out from the above definition a) Informing people – disseminate scientific knowledge about prevention of disease and promotion of health, this will aid to remove the barriers of ignorance, prejudice and misconceptions, people may have about health and disease. This creates an awareness of health needs and problems and also of responsibilities on the part of people. For filariasis control this sort of information is much needed, since there are many misconception prevail among the people. b) Motivating people. Motivating people is more important than the first one. Simply telling people about health is not enough. They must be motivated to change their habits and ways of living, since many present day problems of community heath require alteration of behavioral patterns or change in health practices, which are detrimental to health. Health education must provide learning experiences which favourably influence habits, attitudes and knowledge relating to individuals, family and community health.

As many of the breeding sites of filariasis are man-made, like domestic ponds for traditional agricultural practices vector control needs a behavioral charge. c) Guiding into actions: People need help to adopt and maintain healthy practices and life-styles, which may be totally new to them. People should

also be encouraged to use the health services available to them judiciously and wisely.

For the control of filariasis, the above mentioned aspects of health education is most appropriate since human behavioural aspects is a major determinant factor for the perpetuation of filariasis . Rauyajin et. al. in 1995 after a thorough review of available literature in the topic have pointed out that, preventive behaviour are often inhibited by lay knowledge and belief system. Knowledge and behaviour must be addressed, if filariasis control programme are to be effective.

VI. 4. Aims of Health education in Filariasis Control

The WHO's expert committee on filariasis (1986),in their fourth report has suggested the aims of health education in support of filariasis control as,

1) To make the people aware on the early signs and symptoms of the disease.
2) To make a willingness to take treatment to prevent the development of a chronic disability
3) To make the drug acceptable in mass/selective treatment
4) To make them accept the diagnostic procedure
5) To encourage personal protection
6) To make a willingness in environmental sanitation to reduce breeding sites

VI. 5. Importance and role of health education in the study Area

It is stated in the introductory chapter that till 1986, the govermental efforts for the control of Brugian filariasis in the area could not yield the desired effect. Analysis of these earlier programms reveal the essential role of health education and community participationin the control of filariasis. Taken as an example, the pistia clearance programme, adopted in 1931 specifically for

Cherthala area under the filariasis control programe of state government, was a very effective biological control measure, for vector control. The results were promising at the beginning gradually, the practical disadvantages revealed due to lack of public co-operation. Under the Pistia clearance programme, staff employed by the department has engaged in cleaning the water bodies in the area independently. The programme was planned and implemented as a pure governmental, with out consulting with the community members or making them understand. Intially community acted as passive on lookers, as they didn't know the purpose of the programme or its benefit to community, since they were very much convinced of the usefulness of the waterweeds, they began to put it back after its removal by government staff, resulted in a negative deleberate action against the governmental efforts of control programmes.

Besides, control of filariasis was not a priority for the community, because being non-fatal, the co-existence with the disease for a long time, developed an 'unconcern' towards the disease. Generation of a real concern and awakening was essential for encouraging the people to realize the need of filariasis control.

Therefore to initiate the control activities it was found necessary to have an idea on the level of knowledge, attitude and practice of the community regarding filariasis and its control, to develop a suitable health education strategy for the area. A socio-economic survey of the VCRC in 1986 showed that many misconceptions regarding the disease were prevalent in the area, inspite of its high literacy level. In the survey only 12% of the respondent believed that filariasis is

caused by mosquito bites. The rest of them expressred their firm misbelief, and occasionaly in combination with mosquito bites (VCRC Annaul Report 1987-88) The common misconceptions were 1) Heridity 2) drinking polluted water 3) bathing in pond water with roots of pondanus plants 4) dipping foot in cold water after walking in hot sand 5) sprains & bruise etc. One of the major hurdle to overcome for the VCRC was this deep-rooted misconceptions.

VI.6. Health education strategies of the Project

To root out the misconceptions and to impart scientific knowledge regarding the disease and its control, health education became the most important activity .

Intensive health education has been carried out at all starata of the society to impart scientific knowledge on health aimed to induce changes in their way of living which can prevent / control the perpetuation of filariasis. The basic role was to prepare the community to participate in the control programmes. The major inputs Were (Fig. 7).

a) individual family persuasions

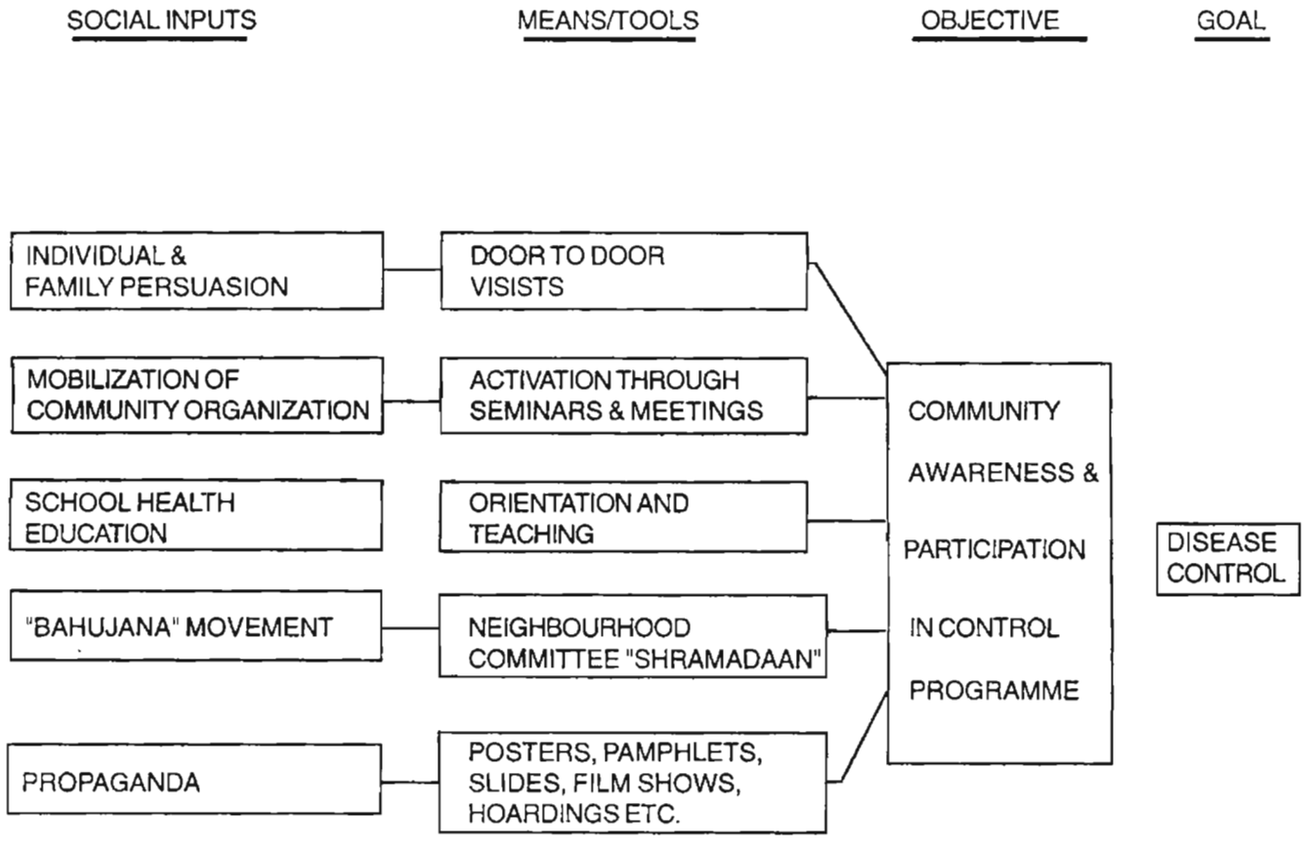
b) Mobilization of community organizations

c) School health education

d) Propaganda

Figure : 7

COMMUNITY APPROACHES FOR VECTOR CONTROL IN SHERTHALLAI



SOURCE : VCRC ANNUAL REPORT - 1986-87

VI.6.1. Individual and family persuasion

Keeping the surroundings clean, removal of hydrophytes from ponds, Personal protection from mosquito bites, all these activities require much persuasion at individual and family level. Family is a group of persons whose relationship with each other is based on consanguinity. Educating an individual in the family is like educating the Whole family. This is being carried out through door to door visit. Conversational method was employed to impart knowledge. This strategy aided much in establishing a good rapport with the community.

VI.6.2. Mobilization of community organization

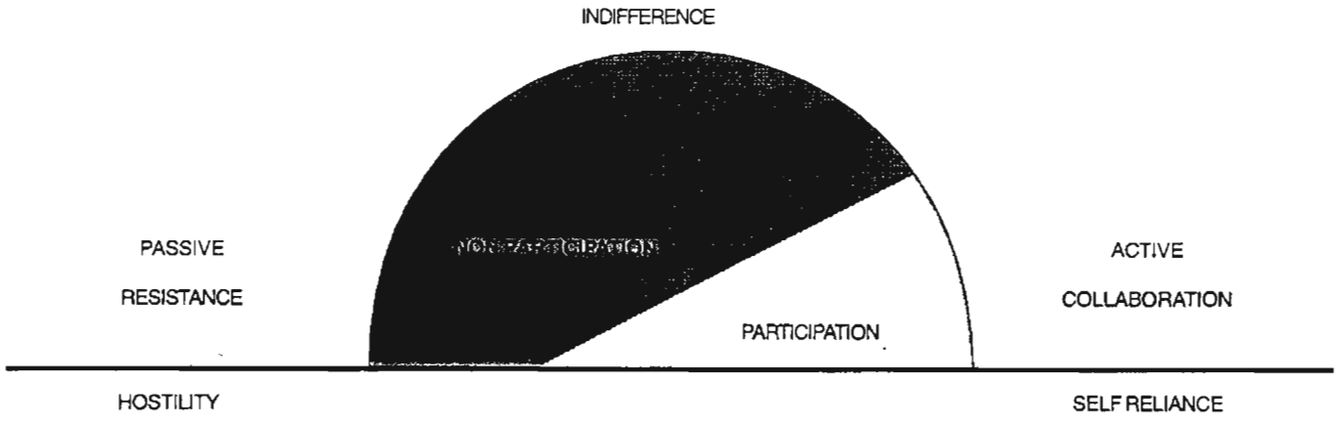
Mobilization of community organizations through local leaders could yield fruitful results. Governmental and voluntary organizations have been identified and involved in the control programmes. Different governmental agencies like UNICEF aided Urban Basic Services (UBS) Rural Functional Literacy Programme (RFLP) Integrated Child Development Services (ICDS) etc. have been engaged in the welfare programmes in specific areas at the community level. Collaborating with these agencies VCRC has imparted Vector/disease control messages to the community. Voluntary organizations like the Kerala Sastra Sahitya Parishat (KSSP), Mahila Samajams, Youth Clubs, Arts and Sports Clubs, Womens Welfare Societies and Balajana Sakhyams also helped in supporting health educations, by arranging health education classes and camps in rural areas.

VI.6.3 School Health Education

It is well known that health and development are inseparable and they begin with children. Maximum potential for physical, mental and spiritual development

Figure : 8

THE PROCESS OF COMMUNITY PARTICIPATION



PASSIVE RESISTANCE DUE TO MISCONCEPTIONS/ UNAWARENESS	HEALTH EDUCATION	PARTICIPATION	ACTIVE COLLABORATION & SELF RELIANCE
1. RELUCTANCE IN DEWEEDING	1. INDIVIDUAL & FAMILY	1. DEWEEDING OF WATER BODIES.	1. COMPOSITE FISH CULTURE
2. RELUCTANCE IN BLOOD TEST	2. SCHOOLS & COLLEGES	2. BLOOD TEST	2. REGULAR TREATMENT
3. RELUCTANCE IN TREATMENT	3. ORGANIZATIONS & ASSOCIATIONS	3. ATTENDING CLINIC FOR REGULAR TREATMENT AND FOLLOW-UP.	3. FDTC
	4. GOVERNMENTAL AGENCIES	4. CHEMOTHERAPY	4. ORIENTATION CAMPS
	5. PROPAGANDA	5. MASS DRUG ADMINISTRATION	5. SHRAMADANS FOR DEWEEDING
			6. ADMINISTRATION OF DEC MEDICATED SALT.

SOURCE : - Working paper Fourth meeting of the scientific working gorup on social and Economic Research WHO -1983

vests in children when compared to adults, with whom it reached a static stage. In collaboration with the Education Department, classes have been conducted in schools for teachers and students separately. National Service Scheme (NSS) and India Population Project – 3 (IPP – 3) were the other two media which have been utilized in the programmes at college level

VI.6.4 Propaganda

Since most people are literate, propaganda through pamphlets, notices, posters etc. were essential for creating public awareness.

More details about the means and tools adopted for health education is dealt in detail in the following chapters.

The model of health education adopted in the project to achieve community participation can be fitted into the lucas half moon model. (Fig. 8)

VI.7 Accomplishments of health education

The study reveals a tremendous increase in the level of knowledge regarding filariasis.94.5% of the population is aware of the role of mosquito in disease transmission. Moreover a good many of them even know the species name of the mosquito responsible for the transmission of Brugian filariasis, the type of filarial form in the study area. Majority, ie 65.12% know the breeding place of the particular type of mosquito. 77.38% of the population consider deweeding of water bodies as a definite measure for vector control, to interrupt transmission.

Regarding the nature of the disease also, the community is found knowledgeable. They know, that there are various stages of filariasis infection ranging from the asymptamatic carrier stage to chronic manifestation stage of elephantiasis. 58.35% know that there is an asymptamatic stage, for filarial

infection, at that time the young ones of the filarial worms will be seen in the peripheral blood stream of man. So the diagnostic procedure at this stage is night time blood test. 54.33% know about the exact diagnostic procedure and 53.91% know even the reasons for testing blood at night hours, the nocturnal periodicity of the parasite (presence of mf in the peripheral blood stream ater 8.00 pm , coinciding with the feeding habit of the vector mosquitoes).

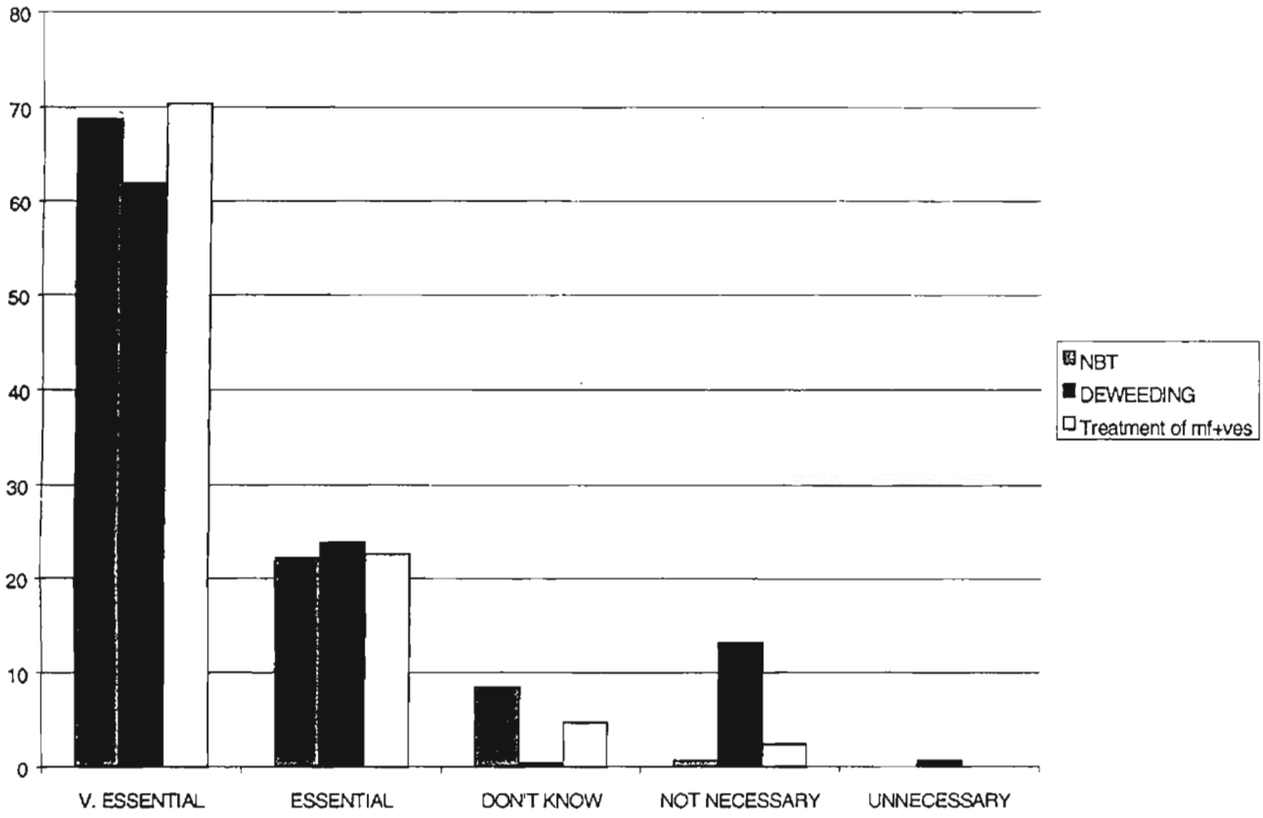
Acute manifestation like lymphangitis (acute inflamation of lymph channels, resulting in reddish streaks on skin over the lymphatics) and associated fever, thick lymphatic trunk, filarial fever (fever with chills and rigors associated with painful lyphnode enlargements) and adenites (enlargement of lymphnode in groins or arm pits, with free skin above it) are the acute symptoms of the disease, which 65.12% of the population can identify these symptoms as acute manifestation of the filariasis. Where as in 1986 other than elephantiasis, all other symptoms like this were neglected as some other minor ailments, with local names such as neerirakom,Thalaneeru etc & believed to be subsided without any treatment .

The community possesses clear knowledge about the treatment of filariasis. 64.48% belive that early detection and timely treatment can cure the disease. 83.5% have faith in precuative measures another 77.38% consider vector control by deweeding as an effective source reduction measure.

Vector contact control by personal protection as a means of prevention is suggested by 74.21% . Only 52.43% know about the prophylatic effect of the drug. Use of DEC medicated salt (Med salt) is not known to many, (due to its limited administration in few areas) only 38.69% know about it . Periodic blood test in

Figure : 9

Attitude towards control Activities



NBT - Night Blood Test

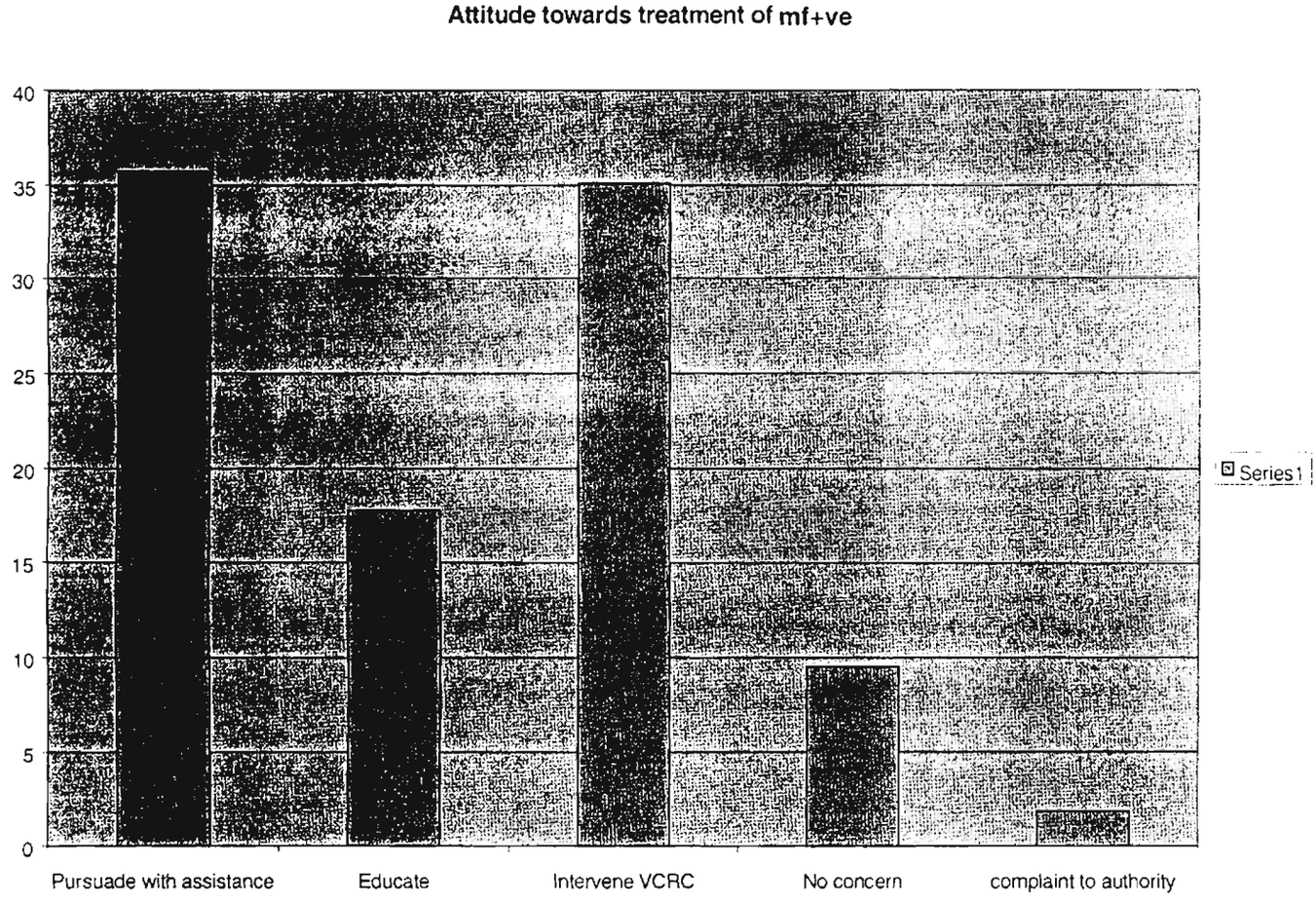
regular intervals and treatment if needed is suggested by 67.44%as a successful control measure.

A social concern and awakening is evident among the population as a result of the intensive health education campaign·69.56% of the population perceive filariasis as a serious public health problem, pinned with social stigma, where as in 1986, filariasis was a disease of no concern, only causing little morbidity to the affected. But the social concern seems to be failed to inculcate an individual concern regarding filariasis. In the survey 60.26 % rate their chance of getting the disease as low, though they are well aware of the risk factors and the dynamics of transmission potential.

The health education compaign of the project succeeded in motivating the members of the community to a great extend. The study illustrates that community consider programmes / activities like deweeding, night blood test and treatment of mf^{+ves} are essential. (Fig. 9).

Community consider very seriously about the treatment of mf+ve. Fig.3 reveals that social commitment and social obligation possessed by the community and social obligation possessed by the community. All the responds and the attitude pattern reveals the throught knowledge about the treat of keeping a m+ve in the community (fig.10)

Figure : 10


Attitude towards treatment of mf+ve
40
35
30
25
20
15
10
5
0
Pursuade with assistance
Educate
Intervene VCRC
No concern
complaint to authority
Series1

According to the fig.10 community has a very positive attitude towards the various control activities of the project.

People seems to be convinced of the chronic manifestations as well as its irreversability and ailments and discomforts associated with the acute manifestation. So the predominant attitude towards filarial patient is sympathy (92.12%).

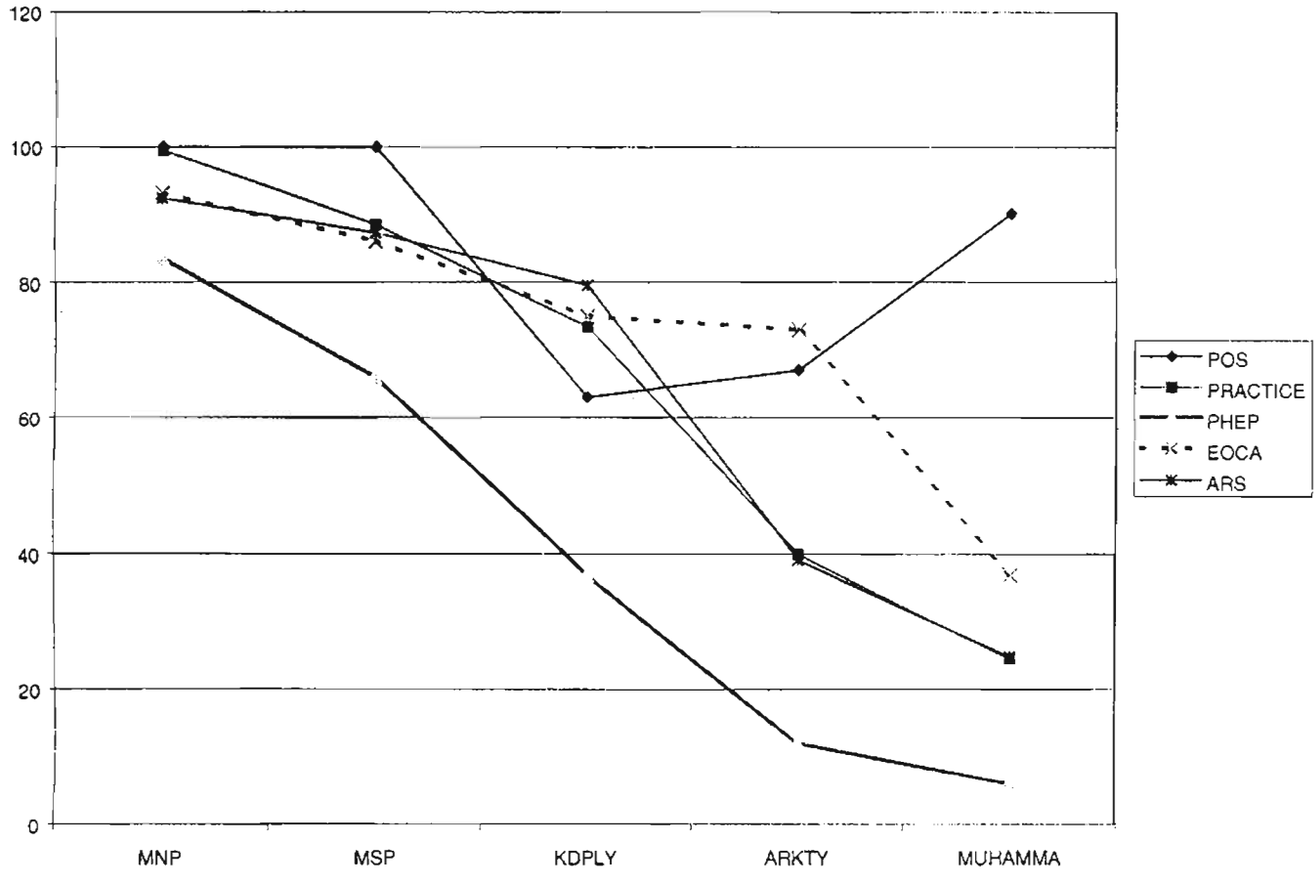
Scientific knowledge of the community regarding the disease and its control manifests in their faith in the role of voluntary organization as effective agency. 68.5% and 21.35% of the population consider It as effective in the field of filariasis control. Their opinion on FDTC as a successful programme and the reasons attributed to its success also project their indepth knowledge and positive attitude towards filariasis control programmes.

The need of a continuous and sustained action for a long period is also known to the community. It is under lined in their choice of a community based governmental action (87.74%) for the control of filariasis against a pure Governmental programme. More over among the qualities need for the organisation to take up the filariasis control measure, 83.5% of the community opined about the permanancy of the agency.

The knowledge about the complexities inherent in chemotherapy and smear collection led the community to realise the importance and need of 'primary relationship- the strong social bond that exists in rural community, the influence of the presence of reliable members in the control team and the need of the support a

Figure : 11

RELATIONSHIP BETWEEN MAJOR VARIABLES AND CP



ARS	**- Authentic and reliable support**
POS	**- Proximity of service**
EOCA	**- Efficiency of Chanalizing**
PHEP	**- Participation in halth education campaign**
	- Practice

involvement of an authentic agency in the control programme. So the community cherished to have control service in proximity.

It is found to have significant correlation between the participation of the health education campaigns and the above mentioned variable like primary relationship, presence of reliable members in the control team involvement and support of authentic agency and service at proximity.

VI. 9. Conclusion

It is proved that the health education compaign of VCRC has succeeded in its objectives. It has imparted knowledge regarding filariasis and its control, motivated and led the community to action for the containment of the disease as envisaged in the definition of health education and in accordance with the aims assigned to health education by the WHO Expert committee on filariasis...

CHAPTER VII

TOOLS AND MEANS OF HEALTH EDUCATION - AN EVALUATION

The forgoing Chapter describes in detail a result oriented health education strategy. The present chapter takes a closer look at the tools and measures adopted by VCRC as part of this strategy. A comprehensive evaluation of these tools and measures necessarily involves certain difficulties, as it was a multiplicity of tools employed at a given time, targeting people belonging a multiple strata. This multiplicity of strata concerned social, cultural, economical, religious sectarians and political aspects that have marked influence on the behavioural pattern of man. In such a situation, identifying valid objective parameters for evaluating each tool separately is quite impossible. So the study, in this area, has to be limited to the evaluation of the response to these tools and measures, in terms of their acceptance or otherwise of such tools and measures as they found employed in the community. Again ,as the community in general was found to accept the entire package of tools and measures as successful, what was left was a study of the relative merits of the tools and measures among themselves. That is to stay. apart from evaluating the feasibility and efficiency of a particular tool in isolation: What is attempted is to see a tool add any relative merit over another.

Health education is not a one shot affair. It has to be continuous and lifelong. Health education, cannot be separated from general education which is

given at home, In schools and in society, during the process of socialisation, through non-formal, incidental or formal channels. The same agencies and techniques can be employed and adopted in health education also. Health education like all other education is a three fold process of 1) giving information 2) Teaching skill 3) inculcating values. It makes vital contribution to the health of an individual'. In fact there can be no health without health education and health consciousness.

Participating and cultivating a social responsibility for health is aimed in health education. An individual must realise that health has a social aspect and an individual's attempt to be healthy, will succeed only and succeed better, if policies which strive to provide health for all were to be pursued. In short the health Of an individual is to be sought in the health of the society as a whole. Therefore he should be aware of the social cause of illness and willing to play his role in remedying them. This is the essence and sum of the health education policy adopted by VCRC.

Since most of the people of the area are literate, propaganda through pamphlets, posters, hoarding etc. were used to create public awareness visual media was essential for creating public awareness. Hoardings bearing messages in attractive captions have been erected in various vantage points. "Remove weeds and protect yourself and your future generations from Filariasis" is the message. Posters explaining the acute symptoms and signs of Filariasis and preventive measures to be taken, have been exhibited in places of public

gathering like Hospitals, Markets, Bus stands, Local tea-shops, Libraries,Reading rooms etc. Pamphlets explaining the cause, mode of transmission and control of Filariasis and various services rendered by VCRC field stations were used during house-visits. Cine Slides with control messages were projected in all theatres of the area.

During public festivals, exhibitions were arranged, to facilitate a passive contact in a short period. Exhibits and illustrations explaining the cause of the disease, preventive measures, the technologies delivered for the control of Filariasis and the role of individual members and community were displayed.

Since it was not practical to meet each individual of the area with a population of more than four lakhs, in 80,000 house holds, identification of certain influential individuals in the community to initiate action through them, in mobilising the community was undertaken. Voluntary organisations thus identified were entrusted with the education of the community Health camps, arranged by these organisations became a regular feature of VCRC.

Various local folk arts incorporating disease- vector control as its major theme, formed one of the major component of health education programme. These were being staged during Filariasis detection camps at night hours, served to attract people towards these camps at odd hours.

A 16 mm documentary film " Yudham " (the war) has been produced in malayalam with a captivating story on the sufferings of a Filariasis victim, what the community could do in the control of the disease in which social stigma is

attached, is also well depicted in it. It is being showed in various parts along with the Filariasis detection camps.

VII. 1 Community perception on the effectiveness of health education

The study reveals that the community considers the health education campaign of VCRC in general as an excellent one. 40.8% of the population remarks it as an excellent, the other 25.52 % view it as a good programme, and for another 23.47% it is only ' fair ' programme and the rest are passive without any comments. Among all the programmes of VCRC, the programmes specifically intended for educating the community appealed much to the community as shown in the figure-1.

During the course of the Filariasis control project of VCRC, a shifting of responsibility in the field of health education is evident. In the initial stages, the VCRC itself has been engaged in the task, later, gradually, community assumes its role in imparting knowledge to their people in the form of self -help. The phases can be distinguished into two 1) vertical and 2) horizontal level of health education.

VII. 2 Vertical and Horizontal level of Health education

The two means employed in for health education campaign are 1) Vertical ie, 'top down' strategy, of disseminating information. Experts themselves are employed in imparting knowledge in classes or camps where as in the horizontal method, learned participants of the first category are taking the responsibility of educating their fellow men. During the Filariasis control

programmes of VCRC., a shift from the vertical mode of education into a horizontal one is evident . In the initial stages, as there was no scope for a horizontal level of education, health education classes, seminars, disscussions & house visits, were employed. In these programmes experts of VCRC, directly engaged in educating the public. Later, after the formation of FILCO movement, the dissemination of knowledge became the responsibility of FILCO. Core group of FILCO members from various organisations engaged in planning, implementing and evaluating of the health educating programme. This is carried out mainly through orientation camps, that is arranged in the rural area by the member organisations of the movement. Both the methods have its own merits and demerits.

Health education classes and camps are the major forms of vertical level of health education in which formal teaching through, person to person contact is involved. These are carried out in formal settings, mainly arranged with help of voluntary organisation. Experts from outside taught the participants on various aspects of the disease and its control. The merits accorded to these line of education by the community is that the information being authentic from the experts, found more acceptable to the members. Direct contact with experts from the authentic agency inspire the group. It has all its demerits of being a ' top-down' means of communication, restricted in interaction, we feeling and communication.It is found to be very effective up to the first stage of health

education in imparting information, the subsequent stages of motivation and action is rarely achieved in these formal form of education,

The community prefers the horizontal level of health Education for filariasis control programmmes. 91.75% is firm on their opinion that only a horizontal level of education, supported and guided by an authentic agency, is good for disease control programmes. On enquiry 91.12% of the population opined that this level of education has wider coverage and the capacity to reach the grass root level, as members of the community themselves are engaged in education. For 87.74%, the involvement of a fellow man from their community enhances the 'we feeling' and felicitated in need identification. As the teacher is very familiar, the community has no strange feeling or no inhibition in expression of feelings and ideas. This sort of health education enhances the individual responsibility of members of a community (79.49%), as the one who preaches the ideas and droctrinens live with them. So follow up is feasible (78.65%) and aids in better communication (91.75%).

The community is well aware of the conditions conducive for this sort of horizontal level of education. They are, the theme and topic should be simple and practical, without much technical terminologies and scientific information, (86.05%) support this aspect. When it is related to the daily life it is easy for the learners to grasp the ideas and imbibe the information disseminated (80.76%). 70.82% of the population stressed the need of involvement of socially motivated

and socially obliged individuals. Better chance of interaction and communication is the most important aspect for 82.66% of the population .

VII. 3 Tools and Means of Health education employed in Filariasis Control

VII. 3. 1 Health education classes

A vertical level of education was organised in association with voluntary organisations, like Sastra Sahithya Parishad, Mahila Samajams, Youth clubs, Arts and Sports clubs, Balajana Sakhayam etc. The government agencies like UBS, RELP, ICDS etc. have also joined hands with VCRC in this venture. In collaboration with educational department, classes were conducted in schools at both levels of students and teachers. Flip charts, Pictorial charts demonstrating the life cycle of mosquito and parasites, were used on visual aids in these classes. Since it was organised in formal settings and in confined areas like class rooms, demonstration of 'mf' with the help of a microscope has been made possible during these classes. Community has high appreciation about the programme as a means of authentic information, 70.4% of the respondents in this study shared theis view. The approaches and demonstration materials made the information acceptable to 65.96% of the population. As it facilitates direct contact with experts in the field, it is stimulating and encouraging for 53.07 %. when asked about the effectiveness of the programme, in educating the community in general 48.2% refer it as very effective and 29.81% as effective.

VII. 3. 2 Health education camps

One day camps organised for voluntary organisations, engaged in Filariasis control, can be considered as a refresh course for them. Delegates are selected and sent by the respective organisations. After the first 2 camps, conducted directly by VCRC, it was in collaboration with FILCO that VCRC has been arranging the subsequent camps. Besides VCRC scientists, experts from the related fields, medical personal from medical colleges and hospital, local medical institutes, officials from agricultural departments, banks, etc. were included as resource persons and they used to deliver lectures specific topics. The presence of medical officers of reputation to the community, enriched the authenticity of information, especially regarding Chemotherapy, where people were suspicious of the drug. For the community this information and knowledge has more authenticity than health classes where cross checking is not possible 76.95% consider camp as more authentic in nature. Direct contact and physical presence of experts from various fields together seem important for 53.07% of the respondents. Since the participants are representatives of FILCO member organisation who are already in the field of Filariasis control, they could interact effectively with the experts in a meaningful way to find practical solution for their problems (48.49%). 65.54% think that it helps in upholding the interest in control activities by sharing and another 66.17% consider this as a platform of interactions and inter stimulation for organisations by sharing their experience. Regarding the effectiveness of education, 42% consider it as very effective,

21.78% as effective and 6.5% as ineffective. Pamphlets circulated in this camps are also found to be effective.

VII. 3.3 Orientation camp

Orientation camps are arranged and managed by learned volunteers and in the classes were arranged in rural areas, flip charts and pictorial charts were used to teach about the life cycle of the parasite and vectors. Besides this, live specimen, like usually vector mosquito, eggs cluster and larva, usually collected from the area were used in these camps. Symptoms and signs of acute and chronic manifestations are demonstrated to the patients These strategies adopted in the orientation camps were acceptable and encouraging to the people. They enjoy much freedom in clearing their doubts as the fellow men among them were handling classes. The support and involvement, the VCRC has given rendered more authenticity to the programme. FILCO, through its core groups of volunteers is also engaged in educating the community. The community acceptance is also found to be more for the programme, (54.55%) consider it as, very effective health education means, with wide coverage (91.12%).

VII. 3.4 Exhibition

Though it is helpful in making a passive contact with a large number of people in a short period, community is not convinced about the educational role of exhibition. In the beginning, it served as a means of propaganda only (13.1%)

of the population consider the programme as very effective while 38.27% as effective.

VII. 3.5 Visual aids used for Health education

Hoardings, wall paintings, stickers etc. were made use of in disseminating disease control messages. Messages in attractive captions used in these aids, were found very useful. Among all the health education tools used, it can be seen from the table that hoardings are very much desirable for the people.

Sl.No.	Items	Response in percentage				
		Excellent	Good	Fair	Don't know	Bad
1	Hoardings	68.92	30.66	0.42	0	0
2	Wall Paintings	11.29	37.42	27.0	624.23	0
3	Posters	24.04	37.63	24.74	13.59	0
4	Banners	12.56	39.32	32.41	15.71	0
5	Pamphlets & Bit notice	36.36	35.94	23.89	3.81	0
6	Cini Slides	14.09	37.63	24.74	23.59	0

Source : survey data

All Sections of the community registered their appreciation, and think these aids used for health education as very effective. The captions given and drawings were very attractive to them. Even illiterate could get the message easily. At the same time wall paintings have limited scope and only 11.29 of the respondents think it as excellent.

VII. 3.5 a. Pamphlets

Pamphlets, aiming at the literate section of the population are widely used by VCRC, considering the high level of literacy. Various types of pamphlets specific for the purpose have been made use of by VCRC. Life history of mosquito and parasite, and transmission cycles were explained with the aid of suitable drawings for school heath education. Other types of pamphlets in simple languages were used for general public and distributed during health education classes, orientation camps & exhibition. But this tool is not considered very effective in educating public, as only 36.36% of the population consider it as very effective. Banners and cini slides are also not considered as effective tools.

VII. 4 Cultural Programme

Local folk arts are utilized for awarnes compaign. Popular folk acts like thiruvathira, Ottamthullal, Kaikottikali & Street dramas were staged during night blood test. The vector disease control messages through these folk arts are found appealing to the public and 61. 31% consider it as very effective programmes. When cross checked with another question regarding the comparative efficacy of tools in general, 48.2% rate it as an excellnt tool in diseminating information among the general public. More than it helps in attracting people in the night blood examination camps, thereby enabling more people to undergo night blood test. FILCO has its own cultural droop for this specific purpose.

VII. 5. Film show

The 16mm film "Yudham", has been screened during night blood camps, found very effective as a health education tool in attracting crowds towards blood detection camps.

Conclusion

In short the imaginative strategy adopted by VCRC and the tools and measures, adopted in its implementation were found to meet the acceptance by the community and achievement of the set goals. Much so that these tool and mean asserts their right to the emulated in future programmes of similar or greater magnitude and scope.

CHAPTER VIII

SUMMARY

The distribution of Brugia Malayi infection is found to be confined in certain localities. In India the largest endemic tract as observed earlier, exists along the coastal region of central Kerala with its greatest concentration found in the Taluks of Cherthala and Ambalapuzha with in the Alappuzha district. The high prevalance of the disease in these taluks has a history that ranges over a century. In a census report as early as 1901, Dr. Subramania Iyer, who was the Census Commissioner of the earst while princely state of Travancore, has highlighted Cherthala for its highest prevalence of filariasis, mentioning Ambalapuzha as following close behind. Dr. Subramonia Iyer's report records one in 27 of the population as having filariasis. It is to be noted that what came under the census report was the cases of the overtly manifest chronic cases as in those days any kind of tests and examination to detect dormant disease condition was quite unknown. Control measures regarding filariasis were introduced as early as in 1933 , based on the scientific studies of MOT Iyengar. Considering the peculiarities of the breeding cities of mansonioides he had suggested a simple, indigenous, biological control measure. This consists of pistia clearance and was found as a very effective vector control measure. A study by Dr. Sweat in 1937, after a thorough survey and assessment, proved the measure to have achieved a

remarkable high degree of efficacy. But this measures we could not be sustained as potent weapon against filariasis, because interest of the people in the programme could not be sustained for long, As the planning and implementation of the programmes had a vertical orientation, it ended up as government programme to which public acquiesced when the pressure was on and left it the moment such pressure was lifted. In most cases people put the vegetations back as soon as the Govt. team left the place. This happened so because they were not given to generate any confidence regarding the purely governmental programme.

The above attitude of the people can be understood in terms of the socio cultural atmosphere prevalent at the time. A 1955 report also shows one in 23 having swelling of legs or arm as a manifestation of the disease. A very long co-existance with the disease, spread over several generations had instilled a kind of knowledge, which was at variance with and in contradiction of real scientific knowledge. This native 'knowledge' told them that filariasis was a non-fatal, non-curable, non-controllable disease. There was neither any awareness of any cause of the disease or of control measures in the 'knowledge' as there was nothing one could do about it. The native wisdom prompted tolerance verging on acceptance and resigned itself to the fatalistic conclusion that it is the will of the almighty.

In the relatively uninformed society of those days, the false believes and misconceptions that they cherished were dependable direct deduction from their own experience and they developed a practice that was in full logical, correspondence with those 'beliefs and concepts'. In this 'knowledge' pistia was

good and useful to them in many ways. It provided manure, it kept the water bodies clean and cool, and prevented rapid evaporation. On the other hand they could not feel the same kind of faith when government agency told them that removing pistia would prevent the proliforation of mosquitoes.

Neither did they feel the necessity of keeping away mosquitoes. So the villager was content to remain with his native knowledge and pistia rather than accepting and pursuing what "scientific" people proclaimed. This even lead to a kind of social acceptance. There was no social Stigma attached to the disease as is found at present. This social acceptance of the disease can be seen reflected in many folk ditties of the areas and even in some of the well known poems.

The eminently popular Malayalam poet Vayalar Rama Varma opens one of his poems with these lines;

"Randu kalum malapole manthulla

Kundunni Menon Nadannu pathukkave"

[Kudunni Menon stalked in slow grandeur clad,

Riding elephantine hugeness of his feet.]

Another folk piece sings

[Welcome to the swollen footed guest of honour. We spread the grass mat of honour for you]

"Mantha bandhuakkara Va Pullupayeliri".

[Welcome, elephant footed in - law - We spread the grass mat of honour for you]

Again the lines

"Manthananengilum Chinthikkavendedo,

Manthenikkeeswran thannathane"

[No disdain need you show nor

look down on my gait.

These swollen feet mine

Are sure gifts from the Lord.]

show both the acceptance and the belief that it is Gods divine dispensation. This can be viewed as the operation of a simple of mechanism of social integration. Since, a sizable number of population was affected with this non-fatal, and non-curable disease, it was neither necessary nor possible to isolate them from the society.

This was the state of the society that prevailed in those days. The society had an immune and isolated existence where in interaction with other societies was limited to the bare minimum. A typical Kerala village of those days had a closed - in existence. In a place like Cherthala, one could live on to the end of ones tenure seeing and interacting with people of ones own area, many of whom had contracted filariasis which was taken for granted and nobody cared to even think of doing something about it.

As time rolled on, and as the mobility of the people increased with improving education, transportation and other such elements, social contact grew more, varied and heterogeneous. These aspects of having to interact with people of other societies and other areas left its mark on the people. These other societies had not had any experience of having lived with filariasis for generations and they looked down on the disease with revulsion, which the home society, left to

themselves, would scarcely have developed. In the eyes of the outsider the elephantine legged Cherthalite became a laughing stock as well an object of repulsion. The gravity of the problem was driven home as matrimonial ties with other communities and areas became increasingly common. Gradually the social stigma got attached to the disease. The attitude of the people towards filariasis changed. They began to desire to get rid of it. But this did not generate any interest in the scientific knowledge regarding the desease that was available. This was the case even with the highly educated segment of the society. Most people cherished myths of varying degree of falsity regarding the disease. Nor did any attempt from the people was seen in fighting and preventing the disease.

The surveys VCRC conducted prior to the launching of the programme, revealed that only 12% of the people really knew that the disease was spread by mosquitoes. This was the case inspite of the very high level of literacy in the area during the period. This was so even when 87.12% of the people strongly desired to avert the disease. All the same this did not persuade them to adopt any preventive measures. The social stigma attached to the disease co-exited with the deep-rooted misconceptions regarding it.

It was a programme functioning on active participation of the people that VCRC had designed. The major element that blocked access to the community involvement was the lack of scientific information regarding the cause of the disease. An opening to break into the strong resistance block settled through centuries of experience was the need of the hour for the VCRC programme.

Involving voluntary organizations was the opening VCRC found. The present study has proved beyond doubt that this was a great success. An action plan co-ordinating and orienting different organizations of a given area, has been proved to be an efficient tool in combating other health problem as well.

Health education programmes channalised through these voluntary agencies have been found to be highly successful in transferring informations to the people and activating them to join the fight against disease. The study has also founde that the tools and means adopted in the programme was remarkably in tune with the economic, cultural and political structure of the concerned society. The information that was confined to a meager 12% before the launching of the programme has now reached 94.5%

" The primary relationship " characteristic of the rural society was found to have contributed considerably to the success of the programme. The social bond that rests on mutual trust and co-operation were seen to have had enhanced the faith in and acceptability of the disease eradication measure. As these voluntary agencies intimately knew the native pulse, they could help in modulating the programme to the tastes and needs of the society, without compromising the scientific and technological foundation of the control programme.

The presence and involvement of Government agencies also were found to be inevitable. For the people of Kerala who are highly concerned about health, it is very important that there should be authenticity and authority in the field of treatment. The health level index of the state being on a par with highly developed countries, is a corollary of the high level of education here. Accredited programmes

in the field of science at the governmental level may harness community involvement to make such programme immensely more cost efficient and effective.

The religious and communal organisation of the state were also found to be of great use. But a thorough evaluation of their role could not be effected due to certain peculiarities of their areas and manners of operation. The Christian church was however, found to have more of the community presence.

A disease like filariasis with much social implications can be handled and controlled only through the active involvement of the people. The strategy in harnessing such community involvement in the programme under study, was found to have incorporated a deep and sound understanding of the structure and variety of the society.

In short, a programme that imparts information in a manner in which the common man can assimilate it, that involve people in whom they can place their trust, that uses techniques that they can handle for themselves for the greater part and that is made to function in their area involving them, can for certain be successful. This should be the case with any programme involving community participation in real terms. Cost wise also this could be very advantageous. Governmental thinking and planning ought more to be turned in these lines.

MAJOR FINDINGS OF THE STUDY & RECCOMMENDATIONS

Voluntary organisation in the villages are very effective in channelling disease control programmes. The following special features of organisation and programme were found to be vital in making them effective.

a. The social infrastructure.

b. The primary relationship with community.

c. Better understanding of the community.

d. Social obligation and commitment

e. Simplicity of the technology involved in the control programme.

2. Voluntary organisation that functioned in different locations, improved their efficiency when co-ordinated and operated centrally.

3. A well informed community can participate successfully and meaningfully in disease control programmes.

4. Health education campaigns should be in tune with the social and cultural background of the community.

5. A horizontal level of health education involving the community members are better than vertical level followed so far.

6. Genuine supports and involvement of an authentic agency is the most important factor in a successful participation programme.

7. Disease control programme with simple and practical technology, promotes community participation better.

8. Involvement of reliable and acceptable members in the programme facilitate participation.

9. Proximity of services enhances participation levels.

10. Collective programmes - reduces resistance, increases social responsibility and inspiring the collective conscience, aids in the promotion of community participation.

A scientific evaluation of the tools and means adopted by the VCRC in fighting filariasis in Cherthala has revealed that it was by reason of the VCRC being able to function, in tune with the pulse of the people and their culture, that made it possible for them to harness the participation of the people in full measure.

Apart from being very effective in filariasis control and cure, the programme has imparted a new trust and faith in Government programmes which has set the people to work in full allignment and co-operation with government agencies. The people strongly feel the necessity of putting up a strong peoples united fronyt against epidemics and other health hazards. The most important aspects of the experiment is its cost effectiveness. The Government ought to build on from the strong foundation now created. The peoples planning programme now running in the state or other similar programme now running in the state or other similar programmes could be fruitfully aligned in the line of the VCRC programme and has to be kept in going till targets are fully achieved. The faith that has now been created in the people has to be sustained.

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APPENDIX – 1

QUESTIONNAIRE

A Study on community participation in disease Control Programme, with reference to control of filariasis in Alappuzha District

1. Name and Address of the respondent :

2. Name of the Panchayat :
   1. Mararikulam North panchayat 2. Mararikulam South Panchayat
   3. Kadakkarappally 4. Arookutty Pan 5. Muhamma

3. Age 1. 21 - 30 2. 31-40 3. 41-50
   4. 51-60 5. 60 and above

4. Sex 1. Male 2. Female

5. Religion 1. Hindu 2. Christian 3. Muslim

6. Educational Status:
   1. Illiterate 2. Literate 3. Matriculate
   4. Graduate 5. P.G./Prof. 6. Others

7. Occupation 1. Casual Labour 2. Fishing 3. Coir Work
   4. Agriculture 5. Business 6. Govt. Service

8. Monthly family Income R:.....

9. Membership in Vol. Organisation.
   1. Ordinary 2. Executive Member
   2. Official 4. Non-Member

AWARENESS / KNOWLEDGE

10. What are the major public Health problems in your locality

1. Malaria 1. Yes (1) 2. No(0)

2. Filariasis 1. Yes(1) 3. No(0)

3. J. E
1. Yes(1) 2. No(0)

4. Tuberculosis 1. Yes(1) 2. No(0)

11. Do you know how filariasis is contracted ?

12. Do you consider filariasis as a local problem ?

1. Yes (1) 2. No(0)

13. If yes, in which locality ?

1. Central Coastal belt 2. Alappuzha Dist.

3. Cherthala Taluk 4. Kadakkarappally

14. Do you know the reason for the prevalence in these localities ?
1. yes (1) 2.NO (0)

15. Do you know mosquitoes are transmitting the disease?
1.yes (1) 2. No (0)

16. If yes, which genes ?
1. Culex 2. Anopheles 3. Mansonioides

17. Do you know the breeding place of these mosquitoes ?
1. Yes (1) 2. No (0)

18. Do you know the acute symptoms of filariasis ?
1. Yes (1) 2. No (0)

19. Do you know the chronic symptoms of filariasis ?
1. Yes (1) 2. No (0)

20. Can a person harbour the parasite, without showing external symptoms ?
1. Yes (1) 2. No (0)

21. Do you know the diagnostic procedure at this stage ?
1. Yes (1) 2. No (0)

22. Do you know why blood test is done after 8.00 pm. ?
1. Yes (1) 2. No (0)

23. Is filariasis curable ?
1. Yes (1) 2. No(0)

24. Can the disease be prevented ?
1. Yes (1) 2. No (0)

25. If yes, how ?

1. Vector control	1. Yes (1)	2. No (0)
2. Vector contact control	1. Yes (1)	2. No (0)
3. Prophylatic drugs	1. Yes (1)	2. No (0)
4. Medicated salt	1. Yes (1)	2. No (0)
5. Periodic blood test	1. Yes (1)	2. No (0)

26. What kind of programme is suitable for filariasis control ?
1. Government programme 2. Individualistic
3. Community based Govermental

ATTITUDE

27. What is your perception of fialariasis ?
1. A disease of the poor (0) 2. A disease of certain locality (0)
3. A disease of no concern (0) 4. A disease with social stigma (1)
5. Causing morbidity (2) 6. A serious public health problem with social stigma (3)

28. How will you rate your chance of getting the disease ?
1. Low 2. Moderate 3. High

29. What do you feel about the treatment of mf +ve ?
1. Not necessary (- 1) 2. Don't know (0)
3. Essential (1) 4. Very essential (2)

30. If you know a person in your locality as mf +ve and reluctant to take treatment, what will be your response ?

1. Render possible assistance and persuade (4) 2. Educate him (3)
3. Try to intervence VCRC (2) 4. Complaint to authority(1)

5. No concern (0)

31. What is your opinion on the following programmes ?

a) Night blood test

1. Very essential (2) 2. Essential (1) 3. Don't know (0)
4. Not essential (- 1) 5. Unnecessary (- 2)

b) Deweeding of water bodies

1. Very essential (2) 2. Essential (1) 3. Don't know (0)
4. Not essential (- 1) 5. Unnecessary (- 2)

32. What is your opinion on the following filariasis control programmes ?

a) MDA

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

b) Shramadan

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

c) FDC

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

d) FDTC

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

e) Health education campaign

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

f) Medicated salt

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

g) Cultural programme

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

h) Film show

1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

33. What is your opinion of the effectiviness of the following programmes ?

a) Health education classes

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. Not effective (- 1)

b) Health camp

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. Not effective (- 1)

c) Orientation camps

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. Not effective (- 1)

d) Exhibition

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. Not effective (- 1)

34. What is your attitude towards a filarial patient ?

1. Empathy (2) 2. Sympathy (2)
3. Apathy (0) 4. Dislike (- 1) 5. Hatred (- 2)

35. What is your opinion on the marriage prospect of filaria patient ?

1. Normal (0) 2. Some what difficult (1)
3. Difficult (2) 4. Most difficult (3)

36. Are you prepared to marry a filarial patient for yourself or for your nearest ?

1. Yes (1) 2. No (0)

37. What is your opinion on the role of the following organisations in the filariasis control programme ?

a) Voluntary organisation

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. In effective (- 1)

b) Community organisation

1. Very effective (2) 2. Effective (1)
3. Don't know (0) 4. In effective (- 1)

38. Why do you think that voluntary organisations/community organisation has an effective role in filariasis control programme ?

a) Technology simple

1. Yes (1) 2. No (0)

b) Has organised set up

1. Yes (1) 2. No (0)

c) Solidarity and coherence gained

1. Yes (1) 2. No (0)

d) Status improvement for the organisation

1. Yes (1) 2. No (0)

e) Better understanding of the community

1. Yes (1) 2. No (0)

f) Primary relationship
1. Yes (1) 2. No (0)

39. What is your opinion on the following activities ?
a) Vector control
1. Simple (1) 2. Don't know (0) 3. Complicated (- 1)
b) Smear collection
1. Simple (1) 2. Don't know (0) 3. Complicated (- 1)
c) Chemotherapy
1. Simple (1) 2. Don't know (0) 3. Complicated (- 1)
d) Prevetive measures
1. Simple (1) 2. Don't know (0) 3. Complicated (- 1)

40. Has the filarial control programmes gained community acceptance ?
1. Yes (2) 2. No (0) 3. To some extend (1)

41. If yes, what are the reasons ?
a) Technology simple and acceptance
1. Yes (1) 2. No (0)
b) Good approach
1. Yes (1) 2. No (0)
c) Effective channels of implementation
1. Yes (1) 2. No (0)
d) Approved reliability of VCRC
1. Yes (1) 2. No (0)
e) Gained confidence
1. Yes (1) 2. No (0)
f) Environment friendly
1. Yes (1) 2. No (0)

42. If no, reasons
1) Non availability of services
1. Yes (1) 2. No (0)
2) Low priority of the community
1. Yes (1) 2. No (0)
3) Irresponsibility of the agency
1. Yes (1) 2. No (0)
4) Ignorance of the programme
1. Yes (1) 2. No (0)

43. What is your opinion of FDTC programme ?
1. Succesul (1) 2. Don't know (0) 3. Failure (- 1)

44 . If successful, how ?

a) Simple technology
1. Yes (1) 2. No (0)

b) Reliable support of VCRC
1. Yes (1) 2. No (0)

c) Single drug
1. Yes (1) 2. No (0)

d) No ill effect, legally sanctioned
1. Yes (1) 2. No (0)

e) Service of VCRC in proximity
1. Yes (1) 2. No (0)

f) Social status of organisation improved
1. Yes (1) 2. No (0)

g) More participation
1. Yes (1) 2. No (0)

45. What is your opinion on the merits of conducting FDC, Shramadan, Health education class etc. ?

a) Arose collective conscience
1. Yes (1) 2. No (0)

b) Induce social responsibility
1. Yes (1) 2. No (0)

c) Motivation for other organisation
1. Yes (1) 2. No (0)

d) Improve social status for the organisation
1. Yes (1) 2. No (0)

e) Minimise resistance
1. Yes (1) 2. No (0)

46. What are the qualities of a voluntary organisation you consider important to take up activities like filariasis control ?

a) Validity and history
1. Yes (1) 2. No (0)

b) Reliability of members
1. Yes (1) 2. No (0)

c) Permanancy of organisation
1. Yes (1) 2. No (0)

d) Primary relationship with community
1. Yes (1) 2. No (0)

e) Involvement and support of an authentic agency
1. Yes (1) 2. No (0)

f) Proximity of services
1. Yes (1) 2. No (0)

47. What is your opinion on the following health education tools of filariasis control ?

a) Hordings
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

b) Pam phlets
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

c) Wall paintings
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

d) Posters
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

e) Banners
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

f) Cultural programmes
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

g) Film show
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

h) Cine slides
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Don't know (0) 5. Bad (- 1)

48. Which level of approach is good for health education ?
1. Vertical (1) 2. Horizontal (2)

49. What is your opinion on t he merits of horizontal level of health education ?

a) Fellow men share the experience
1. Yes (1) 2. No (0)

b) Wider coverage
1. Yes (1) 2. No (0)

c) More responsible
1. Yes (1) 2. No (0)

d) Follow up feasible
1. Yes (1) 2. No (0)

e) Better communication
1. Yes (1) 2. No (0)

50. How it is possible ?

a) The theme and topic is simple

1. Yes (1) 2. No (0)

b) Very much related to daily life

1. Yes (1) 2. No (0)

c) Socialy obliged individuals are involved

1. Yes (1) 2. No (0)

d) Better chance of interaction

1. Yes (1) 2. No (0)

PRACTICE

51. Is there any one in your family with filariasis ?

1. Yes (1) 2. No (0)

52. If yes, did he/she take complete treatment ?

1. Yes (1) 2. No (0)

53. Do you practice any self protection measures ?

1. Yes (1) 2. No (0)

54. Have you taken preventive drug for filariasis ?

1. Yes (1) 2. No (0)

55. Do you use medicated salt for filariasis control ?

1. Yes (1) 2. No (0)

56. Have you tested your blood for filariasis ?

1. Yes (1) 2. No (0)

57. If yes, how often ?

1. Once in three months (4) 2. Once in six months (3)
3. Yearly once/twice (2) 4. Others

58. Why do you tested your blood ?

a) Social obligation and personal interest

1. Yes (1) 2. No (0)

b) Due to personal interest

1. Yes (1) 2. No (0)

c) Asked by very important persons

1. Yes (1) 2. No (0)

d) Availed the service in proximity

1. Yes (1) 2. No (0)

e) Imitating others

1. Yes (1) 2. No (0)

59. Have you deweeded your water body ?

1. Yes (1) 2. No (0)

60. If yes, how often ?

1. Regularly (4) 2. Sometimes (3) 3. Rarely (2) 4. Once (1)

5. Never (0)

61. Have you or any members of your family attended the following programmes ?

a) Health education camp

1. Yes (1) 2. No (0)

b) Health education class

1. Yes (1) 2. No (0)

c) Orientation camp

1. Yes (1) 2. No (0)

d) Film show

1. Yes (1) 2. No (0)

e) Ehibition

1. Yes (1) 2. No (0)

f) FDC

1. Yes (1) 2. No (0)

g) FDTC

1. Yes (1) 2. No (0)

h) Shramadan

1. Yes (1) 2. No (0)

i) Cultural programmes

1. Yes (1) 2. No (0)

62. From where do you get these services usually ?

a) VCRC

1. Yes (1) 2. No (0)

b) Voluntary organisation

1. Yes (1) 2. No (0)

c) Community organisation

1. Yes (1) 2. No (0)

d) Neighbourhood committee

1. Yes (1) 2. No (0)

e) Others

1. Yes (1) 2. No (0)

63. Do you get help fom the community organisation, when you are in need ?

1. Very often (4) 2. Often (3) 3. Some times (2)

4. Rarely (1) 5. Never (0)

64. How will you rate the performance of the voluntary organisation of your locality in the following aspects/spheres ?

a) Health
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

b) Economy
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

c) Culture
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

d) Education
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

65. How will you rate the performance of community organisation in the following ?

a) Health
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

b) Economy
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

c) Culture
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

d) Education
1. Excellent (3) 2. Good (2) 3. Fair (1)
4. Bad (- 1)

66. Have you participated in the following programmes and how ?

a) FDC
1. Participate (1) 2. Organise (2) 3. Both (3)

b) FDTC
1. Participate (1) 2. Organise (2) 3. Both (3)

c) MDA
1. Participate (1) 2. Organise (2) 3. Both (3)

d) Cultural programme
1. Participate (1) 2. Organise (2) 3. Both (3)

e) Fish culture
1. Participate (1) 2. Organise (2) 3. Both (3)

f) Awareness programme
1. Participate (1) 2. Organise (2) 3. Both (3)

g) Shramadan

1. Participate (1) 2. Organise (2) 3. Both (3)

67. If any FDTC available in your locality ?

1. Yes (2) 2. Non-functional (1) 3. No (0)

68. Would you like to have one ?

1. Yes (1) 2. No (0)

69. What are the motivating factors of the organisation to take up programmes like

filariasis control

a) Simple and definite technology

1. Yes (1) 2. No (0)

b) Reliable support of VCRC

1. Yes (1) 2. No (0)

c) VCRC approval

1. Yes (1) 2. No (0)

d) Sense of social obligation

1. Yes (1) 2. No (0)

e) Status improvement

1. Yes (1) 2. No (0)

70. What are the reasons for your acceptance of services channalised through voluntary organisations?

a)VCRC service in proximity

1. Yes (1) 2. No (0)

b) Reliable non members involved

1. Yes (1) 2. No (0)

c) Social obligation

1. Yes (1) 2. No (0)

d) Others

1. Yes (1) 2. No (0)

71. What are the reasons for the reluctance in contributing blood for filariasis detection ?

a) In convenient timings

1. Yes (1) 2. No (0)

b) Fear of pain

1. Yes (1) 2. No (0)

c) Fear of lose of blood

1. Yes (1) 2. No (0)

d) Fear of contamination

1. Yes (1) 2. No (0)

e) Not necessary

1. Yes (1) 2. No (0)

f) Not reliable

1. Yes (1) 2. No (0)

g) Non - availability of services

1. Yes (1) 2. No (0)

h) Not aware

1. Yes (1) 2. No (0)

Place:

Date : Signature of the Investigator.