Health-promoting Behaviour in Muthalamada *Panchayat*, Palakkad District

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1. Introduction

Health, conceived by World Health Organisation (WHO) as a state of physical, mental and, social well-being, refers to the outcome of a process. Usually health refers to well-being arising from freedom from disease. Well-being is an outcome of various activities, such as those undertaken for overcoming of constraints, avoidance of suffering, and maintenance of certain desirable conditions. In this sense, health is a creative process of overcoming constraints, of ensuring survival and growth, and promoting well-being.

Though well-being is experienced at the individual level, the individual concerned is not the only actor in the health process. The other actors include households, community, hospitals, medical industry, governments, markets, and agencies such as WHO. These actors act both independently and jointly. The health process may be considered, therefore, an interaction of the experiencing individual with surrounding institutions and environment.

The interactions occur at different realms – biological, psychological, and social. In the biological realm, the interaction may be concerned with the maintenance of the physiological equilibrium of various interventions. At the psychological level it may be the effective organising of oneself for keeping harmony with surroundings. At the social level, the health process may involve struggling for freedom (for overcoming oppression by natural

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C.K. Brahmaputhran is Project Co-ordinator, Prayoga Trust, Kozhikode.

or human forces) and justice (securing of rights and fairness in the distribution of resources).

Health behaviour is what these actors in the health process do in the psycho-social aspects of health with the intention of avoiding risks for health or for enhancing well-being. Health behaviour is determined by several factors such as available resources (eg. literacy, income, and individual will power). Studies indicate that various social structures, levels of knowledge, States of application of technology, social values, culture, etc. influence it. Scholars like Amartya Sen (1993) have identified 'capability to live the kind of lives we have reason to value' as a major factor. Nizar Ahamed (1996) observes that 'self representations of the agents involved are important especially if any positive attributes other than absence of disease are there constituting health'.

Interactions in the health process by the experiencing individuals and the non-experience institutions need not be equal. An individual may keep his body clean, nourish well, and educate his children. Doctors diagnose diseases and prescribe treatment. Government formulate policies and enforce legislation. Markets provide medicines/services, etc. The hospital approached for treatment is the more proximal institution for the experiencing individual than the drug manufacturing company, which produces the drug, used by the individual but is distant or remote. Directness/indirectness or proximity/remoteness of interacting agencies makes the understanding of health issues complex and difficult for the interacting individual. Some of these actors may be more powerful than others. One's powerfulness need not, however, make the others powerless. 'Dominant agents may be there — those who are more powerful – but need not be dominating'. Domination is imposing one actor's interest over the other in an interaction. In this case power of the former makes the later powerless. Health process is now dominated by the bio-medical model, a perception on health held by many dominant actors. Scholars have attempted to analyse these in many ways (Foucault, 1980, p.105). The domination by some actors over others in the health process has made some the providers and the individual seekers of well-being the users of health care rather than making both partners in the health process. 'The issue of domination in any human interaction invokes question of justice. So health behaviour studies should seek sources of injustice in the health process, if any' (Nizar Ahamed, 1996).

According to WHO, "health behaviour study is concerned with the origins and causes of human behaviour in relationship to social, economic, cultural and behavioural changes affecting health". WHO also noted that "although this (bio-psycho-social model) is widely accepted as a concept it is seldom operationalised as a research model". Health behaviour research is not a study only of individuals within health systems; it should "seek to ensure that social and economic development plans bring about structural changes so as to enlarge the people's capacity to make the right choices and take advantage of the available facilities". A working model proposed by WHO identifies the importance of environmental, social, and economic development in relationship to health-promoting behaviour.

WHO has identified three main goals for health behaviour research (WHO, 1986).

1. To promote participatory health development.
2. To demystify knowledge and provide the means by which decision-makers can anticipate, predict, and influence behaviour in order to promote positive health behaviour.
3. To develop an indigenous conceptual framework and methodologies appropriate to the needs of developing countries.

For the purpose of this study the definition of health promotion formulated by S. B. Kar (1987) is accepted; he has defined health promotion "as the advancement of well-being and avoidance of health risks by achieving and maintaining optimal levels of behavioural, societal, environmental, and biomedical determinants of health". …."Health promoting behaviour may be performed by individuals (abstinence from or cessation of cigarette smoking) and by societies (legislation banning cigarette sales to minors). Thus health promotion behaviour needs to be measured at both individual and societal level".

Most health behaviour studies available are about conditions in advanced industrialised countries. In developing countries, such studies were done mainly for promoting the interests of the medical industry as has been rightly pointed out by WHO.

Health behaviour studies in Kerala are few except in the case of reproductive health. Even after the launching of decentralisation processes and of the People's Planning Campaign the question of promoting the primary health care programme to villages self-reliant has not received serious attention. The low mortality and high morbidity situation in Kerala has received, however, some research attention (Panikar, PGK and C. R. Soman, 1981). The widespread utilisation of health care services for health promotion is considered by some scholars as the cause for such a situation. (Kannan K. P, et al, 1991). In this study, health inequalities are traced to prevailing socio-economic differences in the State. The National Family Health Survey conducted in Kerala in 1992-'93 provides useful information on reproductive health behaviours and some child care practices but only very little on overall health issues of the State.

In the present study, health promoting behaviours of the population of the Muthalamada *Panchayat* are the main focus; an attempt is made also to analyse the differences in health promotion behaviours between deprived and non-deprived sections. In terms of development, Muthalamada is one of the backward *panchayats* in Kerala. Of the 33,935 persons in 1991, 17 percent belongs to SC and 7 percent to ST (1991 census). Fifty-five percent of the households are below the poverty line (1992 IRDP survey). The development report of the *panchayat* prepared under People's Planning in 1997 mentions about the high prevalence of infectious diseases in the area. A study on drinking water problems in the area (Shailaja and Sujith, 2000) shows that only 29 percent of the people have own safe drinking water sources. Most of the deprived sections depend on neighbours' wells for drinking water. Public facilities for drinking water are inadequate. Another recent study

on health situations of elderly people in the area (Preetha K.K., 2001) revealed that the poor among the elderly suffer from various illnesses and receive scant health care. Elderly people are often neglected in their households. Intimacy in family relations is becoming denied to old people, especially in poor households.

Objectives of the study

In a context of low achievement of health at Muthalamada reported in various studies, the following objectives are formulated for the study.

1. Preparation of an account of existing health practices – both traditional and modern – in the area so that health-promoting behaviours and adverse practices could be sorted out.
2. Assessment of the differences in health-promoting behaviours – reproductive health behaviours, nutritional practices, hygienic practices, health security practices, family care practices, and social participation activities – as between deprived sections and non-deprived sections in the area.
3. Making suggestions for improvement of the health-promoting practices in the area.

Method

Complexities of the health processes and the abstract nature of concepts such as health, suffering, well-being, and behaviour make the study of health behaviour difficult and call for the use of multiple methods. A participatory observation method is followed to get an account of health practices in the area. By an ethnographic approach perceptions on health in the area are recorded. Some levels of perceptions and satisfactions are assessed through questionnaire (used for statistical survey of health-promoting behaviours). Constraints of health are explored through focus group discussions and in-depth interviews. Case studies are conducted to capture the coping measures in the health processes in the area.

Grama panchayat officials, members of the voluntary organisations, *anganvadi* teachers, and local leaders were contacted for personal discussions and local group discussions. Focus group discussions were conducted at Pallam *anganvadi*, Chukkanpathy tribal colony, Galaxy Youth Organisation at Chappakkad, Kuttipadam SC Colony and Mundipathy Colony.

The study of selected health-promoting behaviours was attempted through quantitative methods. Problems in the measurement of behaviour are numerous. "Attitudes or motivations, cannot be measured directly as can length or weight; instead the process of its measurement is indirect and requires several steps…There is no single variable that describes health; instead its measurement relies on assembling a number of variables as indicators of health, each of which represents an element of the overall concept. Measurement then implies the application of a standard scale to each variable, giving numerical scores which then may be combined into an overall score" (McDowell, 1996). Data for measurement of the selected health promoting behaviours were obtained through a household survey.

Unit of study

Most of the decisions made on health care and cure take place at the household level. According to WHO (1986) "An individual bias - a by-product of western capitalist health cultures – is not applicable in family-oriented, group-directed cultures as are found in most of the developing countries….Thus, the family, not the patient, should be the main unit of study" (Page 20). Also, a World Bank study in 1993 concluded that 30 percent of the burden of disease could be averted by improvements in the household environment and of these 20 percent is just modest interventions (Gopalan HNB, 1999). The unit of study selected for the present study is therefore the household.

Sampling

The sample design adopted for the study is stratified random sampling. The universe consists of all households in the 12 wards of Muthalamada *panchayat* and the strata used are the deprived and the non-deprived households. The sample size was set considering the time and resources available for the survey and the need for separate estimates of selected health-promoting behaviours for the deprived and the non-deprived households. The overall sample size set was 60 households in each stratum. The list of households below the poverty line (BPL) as identified by the socio-economic survey of the Government of Kerala (1998) available with the *Grama Panchayat* office served as the sampling frame. The sampling frame for non-deprived households was taken from the list of households of *Grama panchayat* excluding the BPL households. The households to be interviewed were selected from the households' lists in each stratum using systematic sampling with equal probability.

As no standardised instrument is available suited for the objectives of the study a new instrument was constructed. The questionnaire included items seeking demographic details, socio-economic status, and items to capture the selected health-promoting behaviours at the household level and the morbidity pattern of the area. Questionnaires were revised before administration on the basis of comments received from experts and after field test.

Data collected through household surveys were used to construct a health promoting behavioural index for each household in both deprived and non-deprived sections (Annexure). For households with children below five years, a child-care-practice index was also constructed.

Variables of the study

Variables of this study are deprivation/non-deprivation and health-promoting behaviour index.

Deprivation/Non-deprivation

An accumulation of undesirable circumstances such as low income, low education, low

occupational status, and status as single parent are usually taken as signs of deprivation. In the present study households falling below poverty line according to the socio-economic survey of the Government of Kerala (1998) were considered deprived and the others considered non-deprived. The list of households below the poverty line available in the *Grama panchayat* office was used for the identification of the deprived households.

Health-Promoting Behaviour Index

Health-promoting behaviour index is an additive scale made up of 20 items, which are assumed to affect health promotion. Items selected for preparation of health-promoting behaviour index are reproductive health behaviours (3 items), nutritional awareness practice (an evaluation based on daily selection of food items out of 26 items in daily use for past one month), hygiene behaviour (4 items), health security practice (2 items), family care practice (4 items), and social participation level (5 items). The important consideration, which decided selection of these behaviours, was their appropriateness in leading to the final action those results in desired health outcome and their measurability. For each item a 5-point scale is used. The index is then calculated as summation of score on 20 items obtained for each household. Details of scoring methods are given in the (Annexure). The index is then calculated as summation of score on 20 items for each household. The index would provide scores between 20 and 100 for the households.

Questions 15 and 16 in the questionnaire about suggestions for improving health were found less communicative to many respondents both in the deprived and in the non-deprived sections and were thus discarded from the analysis.

Health-promoting behaviour index and child-care-practice index for each household was statistically analysed by using simple statistical tools such as mean and variance and the t-test for comparative purposes.

The report is presented in the following order. In Section 2, a short description of the area in terms of its land and people is attempted. Section 3 gives a fairly extensive discussion of the socio-economic characteristics and health-promoting behaviour of the households on the basis of a household survey and focus group discussions. The health status of Muthalamada in a comparative perspective is examined in Section 4. Some speculations on the gap that exists between health aspiration and achievements of the local population are also made in this chapter. A few case studies on health-promoting behaviour of individuals on presented in Section 5. The broad conclusions of the study are drawn in the final chapter. A few recommendations are given.

2. The Study Area

Muthalamada is one of the largest *panchayat* in Palakkad district. Many of the geographical peculiarities make the area conducive to healthy living. Of the total area of 375 sq. km, 301 sq. km are forest area situated in the Parambikulam hills and 74 sq. km are revenue land belonging to the Palakkad-Gap region - both belonging to Western Ghats. The Resource Map Report 1999 of the area states that land and soil degradation and changes in land forms in the area due to degradation of forest might have happened during the period since the early 1940s. The drying up of perennial streams arising from the Nelliyampathy Hills and the draining to the Gayathri River of recent origin are also reported as causes. Extensive pesticide use for rice cultivation is common in the northern parts of the area. The practice of hormonal spray for flowering of mango trees is getting widespread for the past five years in the south-western parts of the district. As industrial units in the area are few and the land-population ratio low, industrial pollution is not yet a serious problem in the area.

Rainfall in the area is only one-third of the Kerala average. But geographical peculiarities of the area provide it with plenty of natural water reservoirs. Gayatri River, a tributary of Bharathapuzha River flowing along the centre of the area and 200 ponds naturally formed provide water for irrigation, bathing, washing and cattle-farming in the area for almost all the year round. Almost half the population utilises these natural facilities. Two man-made reservoirs, Meenkara and Chulliyar commissioned in the 1970's are used for fishing by co-operative societies under the Fisheries Department of the government. A drinking water supply scheme for the study area and four other neighbouring *grama panchayats*, under construction by Kerala Water Authority, proposes to use the Meenkara dam as its source of water. Chulliyar dam is also potential source for drinking water to water-scarce areas in the *panchayat* such as Chemmanampathy and Chappakkad.

The area also has highly fertile soil and is rich in natural vegetation. A large variety of food crops are locally cultivated. Rice is the traditional crop is northern half and groundnut and ragi in southern part. Cultivation of banana, coconut, mango, and vegetables has become extensive in recent years. Traditional food crops such as groundnut and ragi are now showing a declining trend. Rich natural vegetation also gives facility for cattle-farming to several households. Some households keep one or two cows for household use and lease out 40-50 sheep for short-term farming. The 1991 census shows a population of 33935 in the area. Of these, 17.4 percent belongs to Schedule Castes and 7 percent to Scheduled Tribes. Sixty percent belongs to other backward classes. Thirty percent are Tamil-speaking but most of them know Malayalam also. Among the tribes, Kadar, Muthuva, Malayar, and Malayarasan groups live in the interior of the forest area. In the revenue area, it is the Eravalar group, which is the most common. Tribal people in Muthalamada are not now in the pre-agricultural stage. Tribal identities in the lives of these people are only few and they seldom serve now as determining categories. With acceptance of many modern ways of life, they are tribal only in the sense of belonging to certain constitutional categories. Both in the forest and in the revenue area, most tribal households are settled in colonies of

5 to 50 households. Settlements of Schedule Caste people are also found in colonies in remote places. Some are on hilltops with little access to drinking water sources and to vehicular traffic. In the Ambedkar Colony where about 300 families of Scheduled Caste and Scheduled Tribe people are living, though situated near the roadside, the daily struggle to fetch drinking water is on ever since its inception 20 years ago. The other sections of the population also have clustered settlements but have the privilege of living along the main roads through which buses connecting Pollachi, Palakkad, and Thrissur towns ply frequently. All these different settlements form a mosaic and the social relations among them are cordial and wholesome.

Though the area is rich in vegetation, people are poor. The 1992 IRDP survey showed that 55 percent lived below the poverty line. As elsewhere, most SC and ST households were below poverty line. Most of the people are engaged in low-earning agricultural and related occupations. Low educational status and little chances for migration to the Gulf-region or other areas in the country have made the area less economically developed than the rest of the State.

The area had 13 wards in the beginning of the study. Ward 13 being a forest area with a population of only less than one percent of the area, this ward was excluded from the study. Only the remaining 12 wards were considered.

One of the seven primary schools in the area celebrated its platinum jubilee this year. The only one high school for the area in which more than 2000 students are attending was started only in the early 'seventies. Most of the 21 *Anganvadis* in the area are 15 years' old. In spite of all frustrations, teachers keep up the spirit of maintaining the *Anganvadis* alive. The average attendance of most of these centres is 10-15 children. The demand for more *anganvadis* genuine as many of the children below five years of age and belonging to households of the low economic strata have to travel more than one km to reach their nearest *anganvadi*. Most of the mothers who do not send their child to *anganvadi* have expressed willingness to do so if a centre were available within 10 minutes' walk. Classes 11 and 12, (higher secondary classes) now started in the High School, are the only higher education facilities in the area. A Primary Health Centre, started in the seventies, has remained always in pubic attention for not having regular medical personnel there. Five sub-centres of primary health care functioning in the area also lack facilities and have a poor service record. One Government Ayurvedic Dispensary at Meenkara is well utilised by people. Two private clinics of modern medicine are situated in Kambarathuchalla, the trade centre of the *panchayat*. A few clinics of indigenous medicines such as Ayurveda, and Unani are functioning in various parts of the area. Three Homoeo clinics are also available. Though there are no doctors in the Primary Health Centre of the area facilities for primary health care are available within 10-15 km from the *panchayat*. Specialised hospitals exist within 25 km from the area. But about 30 percent of the population experience difficulties for travel due to poor access to bus stops and inadequate bus services in certain areas like Chammanampathy and Chappakkad.

Social life in Muthalamada is a slow-going experience. Economic activities do bring people outside the home daily. But no high-earning activities exist in the area. Rice, coconut, banana, groundnut, and mango are the main crops. Cultivation of rubber and pepper is rare. No islands of opulence are found in the area. Households receiving foreign remittances seldom exist here. Employment opportunities - even in farming sector - are few. The poor among the working force seek work in agriculture, but remain unemployed for several days in the month. Young workers from the non-poor sections often migrate to Coimbatore or Pollachi as sales persons or workers in mills in low-paid jobs. Intimate relations are found among members of the family, and among neighbours, and in the community as a whole.

There exists no single powerful agency in the area for mobilising the people towards any positive social goals such as economic development and health improvement. In terms of membership, political parties are seen as the largest social institution. All mainstream political parties have members in the local society but their political activity is confined mostly to casting votes in elections. The question why certain sections of their members remain deprived in spite of delivery of several benefits to them does not seem to worry any political parties. Official agencies like *Grama Panchayat* have not yet attained the momentum for mobilising people even after decentralisation of governance and the People's Plan Campaign, their actions are targeted at allocating schemes to households, but they are not found to be interested in ensuring successful implementation of targets. For example funds for housing to deprived households are allotted; but the failure of these households to construct their houses with the allotted funds, resulting in wastage of funds, is not noticed. Similarly, health education by health workers and ensuring of water availability by the Water Authority are not co-ordinated before sanctioning sanitary latrines for deprived households. The ability of the *Grama* Panchayat in its present form to perform such co-ordination works is itself in questions. But the lack of will on the part of local government for betterment of the social life of its people through local intervention in the area rampant with social inequality is the prime problem. Sectoral agencies like Primary Health Centres, *Krishibhavans,* and educational institutions are not found to be the concern of the people except for the routine services. For example, the non-availability of a medical officer in the local primary health centre throws all other public health activities in disarray. No one is responsible for preparing a database for identification of public health problems in the area. The *Krishibhavan* does not visualise the possibility of directing its subsidies towards the attainment of goals like local food security, which may serve common benefits, rather than towards goals of individual support. Religion and religious organisations also serve their followers only through rituals and routine observances. Festivals at many local temples in the area provide excitement for two-to-three days a year. Charitable schemes by religious institutions are rare in the area. Nearly 15-20 voluntary organisations working with 20-50 members each are engaged mainly in classroom educational programmes rather than field activities. A few small-scale production centres function under these NGOs. Still, models of effective local level collective actions are yet to emerge.

All economic activities - farming, manufacturing, exchange of goods, transport, and banking - in the area are low scale. Even propertied sections earn low incomes; economic class

divisions consequently are mild and non-antagonistic. Trade union activities are also of low profile. But cultural divisions in the area represented by caste, religious, and language are sharper. Though no serious conflicts prevail among such groups, social relations are intense within cultural sub-groups. But in real emergencies like acute illness in a neighbouring household, households among all sub-groups extend support. In practical social life, Schedule Caste and Schedule Tribe people are largely alienated from the rest. Settled in colonies with little facilities for drinking water, sanitation, power supply and housing they live in places far removed from main roads and market centres. Their children attending *Anganvadis* or high schools are also a rare phenomenon. Dropouts after primary school are more common among them. Many tribal youth take up agricultural labour areas bordering forests for a living; they thus fail to acquire social skills for mainstream life. Schedule caste and schedule tribe people are kept away even from *grama panchayat* offices and village offices places from which many of their constitutional benefits are to be obtained. Scheduled Caste people are often branded as quarrelsome and lazy, shirking work and seeking benefits by government officials and the public alike. Neglect of the deprived is prevalent here too, as is the case almost everywhere thus accentuating the economic, social, and cultural deprivation of the already poor. Not surprisingly men among the deprived sections are found chronically alcoholic in this area also. Cultural divisions among the people are nodes of invisible ruptures in the social fabric, negatively affecting the social well-being of the deprived.

3. Socio-Economic Characteristics and Health Practices of Households

The present study surveyed 105 households from 12 wards of the Muthalamada *Panchayat*. Fifty-nine households were from deprived sections and 46 from non-deprived sections. Out of 541 persons in the sample households, 283 persons belonged to the deprived group and 258 to the non-deprived group. The average household size is 4.7 persons in the deprived group and 5.4 persons in non-deprived group. More than one-fourth the sample population is below 14 years of age in the deprived group; the corresponding proportion in the non-deprived group is one-sixth. About four percent of the total population is above 65 years; 2.5 percent in the deprived group and 4.3 percent in the non-deprived group (Table 3.1).

Table 3.1 Distribution of Household Population by Age and Sex According to Deprivation Status (in percentage)

Age	Deprive			Non-deprived			Total		
(Years)	Male	Female	Total	Male	Female	Total	Male	Female	Total
<1	1	0	1	5	2	7	6	2	8
1-4	8	5	13	6	4	10	14	9	23
5-9	16	14	30	7	5	12	23	19	42
10-14	16	15	31	7	7	14	24	22	45
15-19	15	28	43	12	22	34	27	50	77
20-24	11	14	25	16	24	40	27	38	65
25-29	16	16	32	20	6	26	36	22	58
30-34	11	6	17	11	10	27	22	16	38
35-39	7	12	19	11	7	18	18	19	37
40-44	9	6	15	7	10	17	16	16	32
45-49	6	10	16	5	10	15	11	20	31
50-54	9	6	15	12	4	16	21	10	31
55-59	8	4	12	6	2	8	14	6	20
60-64	4	2	6	4	5	9	8	7	15
65-69	3	3	6	3	3	6	6	6	12
70-74	0	0	0	1	2	3	1	2	3
75-79	1	0	1	1	0	1	2	0	2
80+	0	1	1	0	1	1	0	2	2
Total	141	142	283	134	127	258	276	266	541
Percentage Sex Ratio			1007			947			963

Household Composition

Table No 3.2 shows the percentage distribution of households by various characteristics of the household head: sex, age, marital status, social section as well as the usual number of residents. Four-fifths of all household heads are male in both the groups. Over four-fifths of all household heads are male in both the groups. Over four-fifths of household heads are currently married and 16 percentage is widowed. The proportion of widowed household is slightly higher in the non-deprived group. Overall, 72 percent of the households belong to Other Backward Classes and 15 percent belongs to Scheduled Castes and 1 percent to Scheduled Tribes.

Table 3.2 Distribution of Households by Selected Characteristics of Household Head and Deprivation Status (in percentage)

Characteristics	Deprived	Non-Deprived	Total
Sex of the household head			
Male	86.44	86.95	86.66
Female	13.55	13.04	13.33
Age of the household head			
<30	03.38	0	01.90
30-44	30.58	21.73	26.66
45-59	40.67	47.82	43.80
60+	25.42	30.43	27.61
Marital status of the head of household			
never married	0	0	0
currently married	84.74	82.60	83.80
widowed	15.25	17.39	16.19
divorced	0	0	0
separated	0	0	0
Social group of the head of the household			
Scheduled caste	23.72	04.30	15.23
Scheduled tribe	15.25	0	08.57
Other backward classes	61.00	86.95	72.38
others	0	08.69	03.80

Educational attainment

The level of educational attainment in the population is an important indicator of social development. Many of the health behaviour, nutritional awareness, hygiene practices, early seeking of medical treatment, etc.

Table 3.3 Distribution of Households by Size According to Deprivation Status (in percentage)

Number of usual members			
1	03.38	0	01.90
2	11.86	02.17	07.61
3	01.69	19.56	09.52
4	25.42	02.17	
5	25.42	32.60	15.23
6	22.30	15.21	28.57
7	0	13.04	19.04
8	05.08	06.52	05.71
9+	05.08	08.69	06.66
Total	100	100	100
Total number of households	99	99	99

Table 3.4 Distribution of Household Population of Age 6 Years and above by Literacy Status and Level of Education according to Age, Sex and Deprivation Status (in percentage)

Population group/sex	Illite-rate	Lit. <pry.	Pry. comp.	MS comp.	HS comp.	Above HS	Total%	No
Deprived								
Male	19.23	20.76	25.38	20.76	09.62	03.80	100.00	130
Female	28.57	14.28	28.57	19.56	06.00	03.00	100.00	133
Total	23.95	17.49	26.90	20.15	09.10	03.40	100.00	
Total (No)	63	46	71	53	21	9		263
Non-deprived								
Male	03.36	08.40	11.76	26.80	26.05	23.52	100.00	119
Female	14.15	06.19	15.69	14.15	28.30	21.21	100.00	113
Total	08.62	06.46	12.10	18.25	23.95	19.77	100.00	
Total (No)	20	17	32	48	63	52		232
Total (No)	83	63	103	48	63	52		495

Table 3.4 shows the extent of literacy and level of education in the sample population. Of the total deprived population 24 percent are illiterate and only 3 percent having above-high school education. In the non-deprived section, the corresponding figures are 9 percent and 20 percent respectively, indicating the higher level of educational attainment of the non-deprived group. Among the females, 29 percent of the deprived are illiterate but only 14 percent among the non-deprived are found to be so. Only 3 percent among the deprived have education higher than high school level as against 21 percent in the deprived group.

Health promoting behaviours in the area

Among the several health-promoting behaviours, practices relating to reproductive health, nutrition hygiene, health security, family care, and social participation are taken up in the enquiry. These are considered in terms of the few items included under each in the household survey.

Reproductive health

From among the large number of activities, which may be included reproductive health behaviour, three easily identifiable activities considered to be the most significant in determining reproductive health are selected for the study, namely age at marriage, family size, and fertility control measures adopted.

Age at Marriage

Pregnancy at very early ages and late ages are risky for both mother and child. In India, the legal age for marriage is 18 years for women and 21 years for men. From a medical point of view ages above 30 for women and 35 for men are risky for health of the mother and child. The optimum age at marriage accepted in this study for women is 18 to 30 and for men is 21 to 35. The percentage distribution of households with ages at marriage of the heads of household and spouses is given in Table 3.5.

In both the deprived and the non-deprived groups, 46 percent are found to have married in the optimum age group.

Marriages in which the female partner was above 30 years of age and the male partner above 35 years of age are not seen to have happened in any of the sample households.

Family Size

Family size is a determinant of the health condition of all the members of a household. Less number of children brings less stress for the mother from repeated pregnancies and rearing of children. A family with a small number of children would be able to provide better care for its members, in the modern socio-cultural and economic set-up (Table 3.6).

Table 3.5 Distributions of Households by Age at Marriage of Head of Households according to Deprivation Status (in percentage)

Ages at Marriage	Deprived	Non-deprived	Total
Both married in the optimum age range (female 18 to 30, male 21-35)	47.45	43.58	45.71
One partner married below the lower limit of optimum range	37.82	50.00	42.85
Both married below the lower limit of the optimum range	11.86	04.34	08.50
One partner married above the upper limit of the optimum age range	03.39	02.17	02.85
Both married above the upper limit of the optimum age range	0	0	0
Total	100	100	100
Total number of Households	59	46	105

Table 3.6 Distribution of Households by Family Size according to Deprivation Status (in percentage)

Family size	Deprived	Non-deprived	Total
Father, mother with 2 or less children only	27.12	17.00	22.80
Father, mother with 3 or 4 children only	47.45	47.50	47.40
Father, mother with 2 children + 2 dependents	13.55	26.08	19.04
Father, mother with 4 to 6 members	08.47	04.34	06.66
Family with 9 or more members	03.38	04.34	03.80
Total	100	100	100
Total number of Households	59	46	105

Nearly half of the households in both the groups have 3 to 4 children. But in deprived group, 27 percent are seen to have limited their family to two children or less; the corresponding proportion among the non-deprived group is only 17 percent. There are only 4 percent of the households with nine members or more.

Fertility Control Measures

Fertility control measures adopted by eligible couples in a family are an indicator of the

reproductive health of its members. Table 3.7 shows the proportion of households, which had adopted different fertility control measures. Forty-three percent of the households had not adopted any fertility control measures. But 30 percent of the deprived households had resorted to sterilisation after 2 childbirths or even earlier. In the non-deprived group, only 20 percent had opted for this method.

Table 3.7 distributions of Households by Fertility Control Measures Adopted according to Deprivation Status (percentage)

Fertility control measures adopted	Deprived	Non-deprived	Total
Households with 2 children or less and adopted permanent sterilisation	30.51	19.56	25.71
Households with 3-4 children and adopted permanent sterilisation	06.77	06.78	06.70
Households with 2 or less children but adopted only temporary measures	11.86	19.56	15.23
Households with one child and adopted temporary methods	06.77	08.69	07.61
Households which have adopted no fertility control measures	44.06	43.48	43.48
Total	100	100	100
Total number of households	59	46	105

Nutritional behaviour

Studies on nutritional status have reported widespread malnutrition in Kerala. This study has made an attempt to examine the nutritional behaviour of households in the sample, in terms of selection of food items for daily use. From the point of view of health, diet patterns and preferences do not much. But nutritional sufficiency is important. Even when economic resources are poor, choice of food items based on nutritional adequacy may reduce nutritional deficiency. For estimating the nutritional sense and practice households, information was collected on 26 items of food. The question was asked whether they used any one of them during the 24 hours and during the one-month period preceding the interview (Table 3.8)

Only 2 percent of the households in the deprived group showed a nutritionally conscious choice of food items. Thirty percent of the non-deprived group showed a fairly high level of nutritional consciousness. About two-fifths of all the households showed interest only limited interest in taking balanced diet. Three percent of households in the deprived group show poor performance in the selection of nutritional food items.

Table 3.8 Distribution of Households by Levels of Nutritional Behaviour according to Deprivation Status (in percentage)

Levels of nutritional behaviour in food practices	Deprived	Non-deprived	Total
Food items for			
a balanced diet included daily	01.69	30.43	14.28
" most often	06.77	30.43	17.14
" less often	45.76	34.78	40.95
" occasionally	42.37	04.34	25.71
" not sufficiently	03.38	0	01.90
Total percentage	100	100	100
Total number of households	59	46	105

Hygienic behaviour

Hygienic is one of the most important health-promoting behaviours. Most infectious diseases could be prevented by hygienic practices at the household level. Sanitary facilities, drinking water sources, waste disposal methods and treatment of drinking water before use at home constitute the components of hygienic behaviour of households.

1. Latrine

Disposal of human excreta hygienically is essential. Selection of sanitation facilities is not only a matter of economic capacity but also of hygienic consciousness. For example, through many government schemes households receive support for construction of latrines. But getting latrines constructed and maintained is a matter of the hygienic sense of the household and its members (Table 3.9).

Table 3.9 Distribution of Households by Latrine Facilities according to Deprivation Status (in percentage)

Latrine Facilities	Deprived	Non-deprived	Total
Permanent Latrine available	28.81	71.78	47.60
Temporary facilities available	0	02.17	00.95
Use common facilities	0	0	0
Use open place for defecation	62.71	23.91	45.70
No specific facilities available	06.71	02.17	04.76
Total	100	100	100
Total number of households	59	46	105

On the average, 47 percent of households have permanent latrine facilities. But in the non-deprived the proportion is far ahead of that in the deprived group, 72 percent as against 29 percent. Sixty two percent of the deprived households use open spaces for defecation. Use of common facilities is not found in the area.

2. Safe water

Availability of safe water at the household level is an essential condition for good hygiene. The sources of drinking water comprise the following: own source, public water supply, neighbours well, public tap or water bodies available. Table 3.10 shows the different sources of water for the sample households.

Sixty five percent of the non-deprived households have own water sources whereas only 8 percent of the deprived households have own sources. Forty five percent of the deprived group gets water from nearby public water facilities and 39 percent from neighbours' wells.

Table 3.10 Distribution of Households by Drinking Water Sources according to Deprivation Status (in percentage)

Source of drinking water	Deprived	Non-deprived	Total
Own source	08.47	65.21	33.30
Public water supply	45.76	17.39	33.33
Neighbour's well	38.99	13.04	37.10
Public tap	06.78	04.34	05.71
No specific source	0	0	0
Total	100	100	100
Total number of households	59	46	105

3. Kitchen waste disposal

The mode of disposal of kitchen waste is a good measure of the hygiene behaviour of a household; the practice of throwing away waste to the open shows a low level of hygienic practice; separating degradable waste from non-degradable waste and converting degradable waste into organic manure indicates a higher level of hygienic practice. It is with these assumptions that these methods of kitchen waste disposal were evaluated; five levels were identified. 1. throwing away, 2.burning, 3.depositing in farm land, 4.depositing in pits, and 5.converting into organic manure. The distribution of households according to methods of disposal of kitchen waste is given in Table 3.11.

Among the households in the deprived group 40 percent used to throw away kitchen waste into the open. In the non-deprived group, 43 percent of the households burn the

waste. In both the groups 21 percent deposit it in their farm lands. 13 percentage of households among the non-deprived and 2 percent among the deprived are practicing the conversion to organic manure.

Table 3.11 Distribution of Households by Methods of Disposal of Kitchen-Waste according to Deprivation Status (in percentage)

Methods of kitchen waste disposal	Deprived	Non-deprived	Total
Throw out into the open	40.68	10.86	27.60
Burn	35.59	43.48	39.00
Dump in farm lands	20.33	23.91	21.90
Put in separate pits	01.69	08.70	04.76
Convert into organic manure	01.69	13.04	05.71
Total	100	100	100
Total number of households	59	46	105

4. Practices of Using drinking water

Regular use of safe drinking water at households is a health promoting behaviour. So an assessment of mode of drinking water a household level is a measure of health promoting behaviour. Results of this assessment are given in Table 3.11 (a).

More than two-thirds of the deprived households use drinking water without boiling; the corresponding proportion among the non-deprived is only 42 percent. In both groups, there are no households using filters for draining drinking water.

Table 3.11 (a) Distribution of Households by practices of Using Drinking water according to Deprivation Status (in percentage)

Modes of using drinking water	Deprived	Non-deprived	Total
Is used after filtering	0	0	0
Is used boiled water only	05.10	34.50	18.10
Boiled water is used	17.00	24.00	20.00
Boiled water used only occasionally	10.00	11.00	11.00
Water is used in any available condition	68.00	38.00	42.00
Total	100	100	100
Total number of households	39	46	105

Health Security Practices

Health-promoting behaviour is often considered actions that directly result in desired health outcomes. In fact such actions are to be preceded by a sequence of actions to yield desired results. Health security practices considered here is one such preliminary action, the willingness to participate in a new health insurance scheme proposed for the households. Though this may be an attitudinal measure in pure terms, the level of readiness observed by the investigator is taken as a health-promoting behaviour of the household concerned. Hence the reported level of willingness to participate in a health insurance scheme proposed if any, is recorded in the following manner: Readily willing to join by paying the full amount, willing to join but half amount can only be paid, willing to join but if without any payments, only partially willing to join, not interested to join the scheme. The results are given in Table 3.12.

Forty-eight percent of non-deprived sections are readily willing to join the scheme where as only 15 percent of deprived sections are readily willing. Twenty-three percent in each section are interested to join without any payment. Thirty-two percent of deprived and 13 percent of non-deprived are not interested by any means to join the scheme.

Table 3.12 Distribution of Households by Willingness to Join Health Insurance Scheme according to Deprivation Status (in percentage)

Level of Willingness	Deprived	Non-deprived	Total
Willing to join with full payment	15.35	48.30	26.60
Willing to join, but only with partial payment	18.64	06.52	12.12
Willing to join, but without payment	01.69	13.04	06.66
Only partially willing	10.16	15.21	12.70
Hot interested to join	32.20	13.04	23.80
Total	100	100	100
Total number of households	59	46	105

Savings

Savings habit of people are better indicator of health security practice because any savings are also intended for taking care of emergencies arising in the household which are often medical in nature. Even if no savings are started anxiety having it is health promoting. Savings habit of households are assessed with the following norms: Those having saving habit, those not having any savings but highly anxious for not having, those not having the savings but only moderately anxious, those having only mild anxiety, those having neither savings nor anxiety for not having it. Results are given in Table 3.13.

Only 3 percentage of the deprived and 20 percentage of non-deprived are having the savings habits. 21 percentage of each section are moderately anxious for not having savings. 44 percentage of the deprived and 28 percentage of non-deprived are not having any anxiety for not having saving habits.

Table 3.13 Distribution of Households by Savings Practices according to Deprivation Status (in percentage)

Level of savings practices/anxiety for not having	Deprived	Non-deprived	Total
Has savings	03.38	19.56	10.47
Has no savings: but highly anxious	08.47	13.04	10.45
Has no savings: moderately anxious	22.03	21.75	21.90
Has no savings: mildly anxious	22.03	17.39	20.00
Has no savings, but not anxious at all	44.01	28.26	37.14
Total	100	100	100
Total number of households	59	46	105

Family care practices of the area

Many of the behavioural development of children occur in the family set-up. WHO states that in most of the Asian countries where traditional family relationships are intense, family care are better source of health care in several aspects. Here the level of attachment towards the family by head of the household is considered as a health promoting behaviour and measured through four items of the behaviours: 1. leisure time spending mode of the head of the household, 2.time spending mode of head of the household when at the home, 3.daily returning time of head of the household, 4. mode of dealing boredom by the head of the household.

1. Leisure
Mode of leisure time spending by the household is a measure of his attachment to the family and care of his family members. No head with attachment to family and sense of care will divert time from home affairs unnecessarily. Leisure time spending of the head of the household at the household is given in Table 3.14.

Eighty-three percent of head of households in both sections spend their leisure time with family. Only four percent are reported to go for liquor during leisure time.

2. Time spent at home
A highly health conscious head of the household would give keen attention to problems of home affairs especially in caring and education of children. Different modes of time spending by head of the households at home are given in the Table 3.15.

Table 3.14 Distribution of Household by Leisure Time Activities of the Heads of the Households according to Deprivation Status (in percentage)

Leisure-time activities	Deprived	Non-deprived	Total
Going to liquor shop	05.09	02.17	03.80
Wandering alone	10.16	02.17	06.60
Going for cultural activities	01.69	0	00.95
Spending time with friends	08.47	02.17	05.71
Spending time with family	74.58	93.47	82.85
Total	100	100	100
Total number of households	59	46	105

Table 3.15 Distribution of Households showing Time spent by Heads of Households at Home according to Deprivations Status (in Percentage)

Time spent by the head of household at home	Deprived	Non-deprived	Total
Doing nothing special	30.51	04.35	19.04
Taking rest/watching TV/Radio	05.08	04.35	04.76
Reading	03.38	02.17	02.85
Attending to home affairs	32.20	67.39	47.61
Helping children in studies	28.81	21.74	25.71
Total	100	100	100
Total number of households	59	46	105

Only 25.71 percent of head of the households are keen at home on children's learning. Thirty percent of head of households in deprived section are engaged in nothing when at home. Only four percent of heads are like that in non-deprived sections.

3. Time of returning home

An early returning to home habit by head of households is an indicator of the concern for welfare of home and is a health promoting activity. The Table 16 gives patterns of returning to home by head of the households.

Sixty-three percent of heads in both sections return home immediately after jobs. Only 1 percentage is latecomers. Similarly only 1 percentage is interested to spend time with friends before reaching home in both sections.

Table 3.16 Distribution of Heads of Households by Habits of Returning Home according to Deprivation Status (in percentage)

Patterns of returning to home habit of head of the households	Deprived	Non-deprived	Total
returns at the time of sleeping	01.69	0	09.95
returns after spending sometime with friends	01.69	0	00.95
no regular time for return	13.55	04.34	09.52
returns after completing essential outside work	20.33	32.60	25.11
returns immediately after job	62.71	63.04	62.85
Total (%)	100	100	100
Total number of households	59	46	105

4. Avoidance of boredom

The way boredom arising from daily life is handled can lead to healthy or unhealthy results, both for the person concerned and to the members of his household. The head of the households who generally overcome boredom by spending time with family promotes his health as well as the health of the other members (Table 3.17).

Table 3.17 Distribution of Households with forms of dealing. Boredom by Heads of Households according to Deprivation Status (in percentage)

Ways of dealing boredom followed by heads of the households	Deprived	Non-deprived	Total
Consumption of alcohol/drugs	10.17	02.17	06.66
Sitting alone	28.81	15.21	33.33
Spending time with colleagues	01.69	13.04	06.66
Visiting friends	05.08	10.86	07.61
Spending time with family	54.23	58.69	56.19
Total	100	100	100
Total number of households	59	46	105

Fifty-six percent of the heads of households have the habit of spending time with family to get relieved of the boredom experienced in daily life. Two percent among the non-deprived and 10 percent among the deprived take to alcohol/drugs to relieve boredom. Among the deprived group, 29 percent of the heads of households sit alone whaling away their hours of boredom where as only 15 percent act this way among the non-deprived.

Social participation by households

Social health of an individual is defined as "that dimension of an individual's well-being that concerns how he gets along with other people, how other people react to him and how he interacts with social institutions and societal moves" (page 122 Ian McDowell 1996). Social participation is thus an indicator of the social well-being of individuals and households. Measures of social participation considered in this study are (1) participation in social gatherings and functions (2) activities other than occupation (3) participation in *Grama Sabha* meetings (4) social support received during difficulties in family, and (5) participation in trade union activities.

1. Participation in social functions/gatherings: Participation of household members in social functions like marriage, funeral and other rituals and ceremonies is an indication of social integration of the household members and hence a health-promoting activity. Distribution of households according to levels of participation in social functions is given in Table 3.18.

Table 3.18 Distributions of Households by Levels of Participation in Social Functions according to Deprivation Status (in percentage)

Levels of participation in social functions (eg. marriage, funeral)	Deprived	Non-deprived	Total
Usually don't participate	06.77	02.17	04.76
Participate only in unavoidable cases	08.47	04.52	07.61
Participate only occasionally	11.86	04.34	08.57
Participate almost always	64.40	71.73	67.61
Participate in all functions	08.47	15.21	11.42
Total	100	100	100
Total number of households	59	46	105

About two-thirds of the households participate almost always in social functions. On an average only 5 percentage of households avoid attending marriages and social gatherings. In the matter of the levels of participation, wide differences are not observed as between the deprived and the non-deprived groups though participation is, in general, higher among the non-deprived.

2. Social activities other than main occupation: Adult members of the sample households engage themselves in a variety of occupations for livelihood. Involvement in other social activities is optimal for them depending on personal preference and social concern. Involvement in social activities is undoubtedly health-promoting. Information about this aspect is given in Table 3.19.

Table 3.19 Distribution of Households with Heads of Household involved in Social Activities Other than the Main Occupation according to Deprivation Status
(in percentage)

Social activities other than occupation	Deprived	Non-deprived	Total
Do not have any specific involvement	84.74	76.09	80.95
Religious involvement	01.69	06.52	03.80
Political involvement	10.17	04.34	0
Trade Union involvement	0	08.69	7.61
Involvement in Art and Culture	03.39	04.34	03.80
Total	100	100	100
Total number of households	59	46	105

About four-fifths of the heads of households are not involved in any social activities other than their main occupation. Only less than 2 percent in the deprived 7 percent in the non-deprived groups are involved in some religious activity. No heads of households among the deprived are involved in trade union activities as their best personal preference.

3. Participation in Grama Sabha: Regular active participation in *Grama Sabha* is an indication of awareness of citizenship and concern, for a better social life. It may also lead to an improvement of the health status of households of the participants concerned. The levels of participation in *Grama Sabhas* are given in Table 3.20.

Table 3.20 Distribution of Households by Levels of Participation in *Grama Sabha* according to Deprivation Status (in percentage)

Levels of participation in Grama Sabhas	Deprived	Non-deprived	Total
All adults participate	08.47	23.91	15.23
All adult male members participate	30.50	26.09	28.57
At least one member from each household participates	54.23	32.61	44.76
At least a male member from each households participates	01.69	06.52	03.80
No adult member participates	05.08	10.86	07.61
Total	100	100	100
Total number of households	59	46	105

Fifty four percent of deprived households and 33 percent of non-deprived households send at least one member to *Grama Sabha*. All adult members from about one-fourth of the non-deprived households and 8 percent of the deprived households go for *Grama*

Sabha. None goes to the *Sabha* from about 5 percent of the deprived households and 8 percent of the non-deprived households.

4 Social support received for households

Households often require help from others in the neighbourhood for finding solutions to their problems. The levels of such supports would differ from household to household depending on the degree of integration, which households have achieved with the immediate society. The better the degree of integration, the higher will become the health-promoting effect of the support. The levels of social support received are given in Table 3.21.

Table 3.21 Distribution Households Receiving Different Levels of Social Support according to Deprivation Status (in percentage)

Social support received	Deprived	Non-deprived	Total
No support received from outside sources	64.40	32.60	50.47
Support received from government	01.69	0	00.95
Support received from trade unions	03.39	0	00.95
Support received from co-workers	01.69	13	03.8
Support received from family and relatives	28.81	.04	28.57
Total	100	100	100
Total number of households	59	46	105

Nearly two-thirds of the deprived households and one-third of the non-deprived households held that they receive no support from any source outside home. More than one-half of the non-deprived and about 30 percent of the deprived households received support solely from members of their families and relatives. Both sections are of the view that the support received from the government has been nominal if not nil.

5. Participation in trade union activities

The participation in trade union activities is an indication of social integration of the members of households. Many of the health welfare measures are channelised through trade unions. Hence the level of involvement in trade union activities is also an indicator of the health promoting behaviour. The levels of trade union activities are given in Table 3.22.

Eighty-five percent of the heads of deprived households and 61 percent of the heads of non-deprived household have only formal involvement in trade union activities. Only 7 percent of the non-deprived households are highly active (occupying positions of responsibility in trade unions); no heads from the deprived group fall in this category.

Table 3.22 Distribution of Households by the Levels of Participation of their Members in Trade Union Activities according to Deprivation Status (in percentage)

Level of involvement in trade union activity	Deprived	Non-deprived	Total
Only formal involvement	84.75	60.86	74.28
Partial involvement	11.86	21.73	16.19
Average involvement	01.69	08.69	04.76
Active involvement	01.69	02.17	01.90
High involvement (being an office bearer etc.)	0	06.52	02.58
Total	100	100	100
Total number of households	59	46	105

Health promoting behaviour in childcare practices in the area

In the 59 deprived households there is 23 children aged 0-5 years (boys 16, girls 7) and in the 46 non-deprived households there are 19 children aged 0-5 years (13 boys and 6 girls). In order to know the level of health-promoting behaviour in child care practices in the area, information on the following aspects of maternal and child care was collected through the questionnaire: 1. antenatal checkups 2. place of delivery 3. post-natal care 4. Immunisation of children 5, early seeking of treatment for illnesses 6. nutritional care of children.

1. Antenatal check-up of mothers

Antenatal care is essential for ensuring the well-being of mother and child. The number of antenatal checkups of mothers is a measure of health-promoting activities. The results of antenatal checkups made are given in Table 3.23.

Table 3.23: Distribution of Households with Children Aged 0-5 years showing Levels of Antenatal Care taken According to Deprivation Status (in percentage)

Level of antenatal Care	Deprived	Non-deprived	Total
No specific measures taken	30.43	0	16.66
Traditional methods such as advice by elders, followed	0	0	0
Visited doctor during illnesses	0	36.84	16.66
Followed both doctor's advice and local knowledge	4.30	0	2.30
Followed doctor's advice correctly from the beginning	60.68	63.15	61.90
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

More than three-fifths of the households in both the groups had taken regular antenatal checkups by doctors. Thirty percent of the households in the deprived group have not gone in for any specific antenatal care; in the non-deprived group sought medical advice only during periods of illnesses.

2. Care of Delivery

The place of childbirth is important in deciding the health of child and mother. Conducting delivery in places at which medical assistance is available is a sign of health-promoting behaviour. The places of childbirth chosen by the sample households are given in Table 3.24.

Table 3.24 Distribution of Households with Children Aged 0-5 years, by Place of Child Birth according to Deprivation Status (in percentage)

Levels of care of delivery	Deprived	Non-deprived	Total
Normal childbirth at home	30.43	0	16.70
Childbirth in Hospital	56.52	52.60	54.76
Childbirth with difficulties in Hospital	13.04	26.31	19.04
Operated at Hospital	0	21.05	09.52
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

Of the total 42 childbirths, 85 percent were conducted at hospitals. In both the groups of households, 55 percent of hospital deliveries were normal. In the non-deprived group all childbirths were conducted at hospitals whereas in the deprived group, 30 percent of the childbirths took place in the homes themselves.

3. Postnatal care

Postnatal care, which is important for the health of mother and child, is a measure of the health-promoting behaviour of a household. The levels of postnatal care are given in Table 3.25.

In the case of about one-half the number of total deliveries, no special care has been taken. In this category, it is found that there is no household of the non-deprived group. Fifty eight percent of the non-deprived group followed doctor's instructions carefully, as against only 9 percent of the deprived group. About 87 percent of the deprived group have taken no special postnatal care in their households.

Table 3.25 Distribution of Households with Children Aged 0-5 years, by Levels of Postnatal Care. according to Deprivation Status (in percentage)

Levels of post natal care	Deprived	Non-deprived	Total
No special care taken	86.95	0	47.61
Traditional methods followed	0	10.52	04.76
Visited doctor only during illness	0	05.26	02.38
Followed doctor's instructions carefully	08.69	57.89	30.95
Combined doctor's instructions and Traditional methods	04.34	26.31	14.28
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

4. Immunisation of children

Immunisation of children is a well-accepted health-promoting activity. The immunisation status of children aged 0-5 years in the sample household is given in Table 3.26.

Nearly four-fifths of the children have been administered in almost all immunisation vaccinations, 74 percent in the deprived group and 84 percent in the non-deprived group. The proportion of households, which had not taken any immunisation measures, was 14 percent, 18 percent in the deprived group and 11 percent in the non-deprived group.

Table 3.26 Distribution of Households with Children Aged 0-5 years by Immunisation Levels according to Deprivation Status (in percentage)

Immunisation Status	Deprived	Non-deprived	Total
No Immunisation taken	17.39	10.52	14.28
Some immunisation doses taken	08.69	05.26	07.14
Almost all immunisation measures taken	65.21	15.78	42.85
All immunisation measures available in govt. hospitals taken	08.69	68.42	35.71
All immunisation measures taken	0	0	0
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

5. Early seeking of treatment for illnesses in children

Early seeking of treatment for illnesses, especially in cases of children's illnesses, constitutes a health-promoting activity. It saves the child from complications, relieves anxiety of household members and provides for healthy living. Modes of seeking of medical treatment for illnesses of children are given in Table 3.27.

Table 3.27 Distribution of Households with children Aged 0-5 years by Treatment Pattern according to Deprivation Status (in percentage)

Treatment Pattern	Deprived	Non-deprived	Total
Will immediately take the child to doctor	78.26	84.24	80.51
Will consult doctor if the child is not relieved of illness	08.69	0	04.76
Will consult doctor if only the child is relieved of illness by traditional methods	08.69	05.26	07.14
Will resort to different types of treatment according to nature of illness	04.34	05.26	04.76
Only traditional methods are followed for treatment of illness of children	0	05.26	02.38
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

More than four-fifths of all the respondent households used take children immediately to doctor in cases of illness.Only 2 percent of households depended solely on traditional methods.

6. Nutritional care of children aged 0-5 years

Nutritional care in childhood period prevents a lot of illness and promotes mental and physical health in adolescence and later life. So levels of nutritional care are also a measure of health promoting activities.

Nearly four-fifths of the households in the deprived group give usual home-made items of food for children. In 37 percent of the non-deprived households nutritional foods are bought specially for child. About one-sixth of the non-deprived used to consult doctors for choosing nutritional items for their children.

Health and healthcare consciousness in the area

The present study attempted to assess the level of health consciousness among the deprived and the non-deprived sections in the area. Perception on health is a determining factor on

health behaviour and improved healthcare consciousness level. Asking them what they do mean by health assessed perceptions on health.

Table 3.28 Distribution of Households with Children Aged 0-5 years by pattern of nutritional care According to Deprivation Status (in percentage)

Levels of Nutritional Care	Deprived	Non-deprived	Total
Usual home made foods given to children	78.23	31.57	57.14
Special items like milk, eggs, green leaves are prepared for children	17.37	15.78	16.66
Available nutritious foods are bought specially for children	04.34	36.84	19.04
Items of food chosen after consultation with doctor	0	15.78	07.14
Total	100	100	100
Total number of households with children of 0-5 years of age	23	19	42

Table 3.29 Distribution of Households by Perceptions on Health According to Deprivation Status (in percentage)

Perceptions on health	Deprived	Non-deprived	Total
Implies a state of no illness	60	55	58
Implies physical and mental well-being	20	20	20
Implies physical, mental and social well-being	13	20	16
Implies harmony with physical, mental and the whole environment	05	03	04
Other perceptions	02	02	02
Total	100	100	100
Total number of households	59	46	105

Nearly three-fifths of the households perceived health as a state of no illness. Only 4 percent expressed the view that health implied harmony.

Health care consciousness

In order to assess the level of health care consciousness, five questions were asked: roles of domestic hygiene, knowledge and awareness on the part of household members, social situations producing illness, doctors' power over health-care seekers, and co-operativeness

of the society for successful implementation health care programmes. Few households responded to these questions.

Table 3.30 gives a summary of the scores obtained by households for the questions on health and health care. Each of the five questions was given 5-point scale ranging from 1 to 5.

Table 3.30 Distribution of Households by Levels of Score obtained for Health Consciousness according to deprivation Status (in percentage)

Health consciousness (score level)	Deprived	Non-deprived	Total
Less than 10	0	0	0
10-14	3.38	0	1.9
15-19	89.83	43.47	69.5
20-25	6.77	56.52	28.57
Total	100	100	100
Total number of households	59	46	105

In both the deprived and the non-deprived groups, 98 percent of the respondent households have an above average score of more than 14. Such an exorbitantly high score at the middle level of consciousness may be an indicator of the incapacity of the households to comprehend the questions fully.

A t-test done to look into the differences observed as between the deprived and the non-deprived groups showed that the observed differences were not significant.

Level of satisfaction in family life

Level of satisfaction in family life is an indication of well-being of the household. An assessment of the level of satisfaction in family life was attempted. The responses obtained are shown below in Table 3.31.

Of the total, a little more than one-half the number of households are satisfied to a great extent with their family life. Nearly 8 percent are however totally dissatisfied. Among the deprived only 42 percent come under the category of satisfied to a great extent. More than one-half of the deprived households are less than satisfied with their family life.

A t-test done showed no significant difference between the deprived and the non-deprived groups in the levels of satisfaction in family life.

Table 3.31 Distribution of Households by Levels of Satisfaction in Family Life according to Deprivation Status (in percentage)

Level of satisfaction in family life	Deprived	Non-deprived	Total
Not satisfied at all	13.55	0	7.61
Dissatisfied to some extent	18.64	8.69	14.28
Note sure	18.64	10.86	15.23
Satisfied to a great extent	42.37	65.20	52.38
Almost fully satisfied	6.77	15.21	10.47
Total	100	100	100
Total number of households	59	46	105

Morbidity

Illness can be reduced, but cannot be totally avoided. The number of occurrences of illness in a household is a measure of its morbidity status. In this study, acute morbidity (illness occurred during the two weeks prior to the date of survey and chronic morbidity (any member taking treatment for more than six months on the date of survey) were taken as the measure. Table 3.32 shows the percentage distribution of households according to occurrence of acute and chronic illnesses.

Table 3.32 Distribution of Households by Acute and Chronic illnesses according to Deprivation Status (in percentage)

Type of Illness	Deprived	Non-deprived	Total
Acute illness	40.60	54.34	46.66
Chronic illness	40.60	58.70	48.64
Total	100	100	100
Total number of households	59	46	105

Morbidity is often expressed as illness per 1000 population. Table 3.33 shows morbidity in the area per 1000 population.

Table 3.33 shows that there are not many differences in the occurrence of acute and chronic illnesses between the deprived and the non-deprived groups. However, the sample shows slightly higher figures for chronic illnesses for the non-deprived group.

The study began with the proposition that health-promotion behaviour would be higher among non-deprived sections of society than among deprived sections. A test of this proposition conducted with the data collected from Muthalamada shows that the difference

is not significant. The responses obtained from the survey were given scores and used to build a health-promoting behaviour index (see Annexure). The index provided for a minimum score of 20 and a maximum score of 100 for each household. The average score that for the non-deprived groups is 70.16. The average for the whole sample is 61.23 (Table 3.34).

Table 3.33 Morbidity per 1000 population in the area by Deprivation Status of Households (in percentage)

Type of Illness	Deprived	Non-deprived	Total
Acute illness	85.71	91.25	90.25
Chronic illness	85.71	105.06	98.65
Total Population	283	258	541

In order to study the difference between the two health-promoting behaviour indices a t-test has been done. The t-value was found to be -0.97, which is not significant. Hence it is concluded that there exists little difference between the two categories with regard to health-promoting behaviour. T-tests have also been done separately for reproductive health behaviour, nutritional behaviour, hygiene behaviour, health security behaviour, family health care practice and level of social participation. No significant values for the differences are obtained except in the case of hygiene behaviour. So it is concluded that hygiene behaviour among the deprived households is poorer among the deprived than among the non-deprived.

Table 3.34 Health-Promoting Behaviour Index Scores according to Deprivation Status of Households

Health-promoting behaviour	Maximum	Average score obtained		
		Deprived n = 59	Non-deprived n = 46	Total n = 105
Reproductive health behaviour	15	11.42	11.54	11.48
Nutritional behaviour	5	2.64	4.13	3.39
Hygiene behaviour	20	9.92	13.84	11.88
Health security practice	10	4.79	6.26	5.25
Family care practice	20	15.77	18.11	16.94
Social participation	30	14.75	16.80	15.78
Health promoting behaviour Behaviour Index	100	59.29	70.16	61.23

In 23 households among the deprived and 17 households among the non-deprived there

were children below 5 years. For these households a childcare promotion index was worked out and average values obtained for the two groups. The values were 17.17 and 23.41 for the deprived and the non-deprived respectively the total being 20.49. A t-test showed no statistical significance in the difference between the two groups.

4. Health Status of Muthalamada in a Comparative Perspective

The study shows that in spite of poor health care facilities and economic deprivation of households people in Muthalamada panchayat show have high aspirations for health. Intense family attachment is observed in general. However, collective action at the local level is found to be low. The majority as freedom from disease perceives health. This understanding results in relatively early seeking of medical treatment for illnesses. Linkages between social factors and other variables affecting health are less clearly perceived. The discussion in this chapter is presented in three sections. The first part gives a comparison of Muthalamada with rural Kerala in general, on the basis of a few developmental indicators and health behaviour variables. In the second part an attempt is made to explain the factors for the absence of significant differences in selected health-promoting behaviours as between the deprived and the non-deprived groups in Muthalamada. Some speculations on the gap observed between people's aspirations for better health and the low levels of realisation are attempted in the final part.

I

Muthalamada and rural Kerala

Many geographical peculiarities of Muthalamada are conducive to healthy living—large areas of natural vegetation, highly fertile soil in which several food crops are grown, presence of natural and man-made water bodies, little pollution etc. Many developmental indicators of rural Kerala are available with which the Muthalamada situation could be compared. But only few health behaviour data are available for comparison. For instance, which data on reproductive health behaviour and nutritional status are available on a comparative basis, information on family care behaviour and social participation levels is not so available.

Table 4.1 shows that demographic features like mean family size (5.1), predominance of male-headed households are common for both rural Kerala as a whole and Muthalamada. Educational levels are also comparable.

The lower level of sanitation facilities in the study area may be related more to economic deprivation rather than to cultural differences. The observation made by scholars that social development has occurred in Kerala in spite of its low per capita income is true in the case of Muthalamada also. P. G. K. Panicker has identified the State Government as the main actor in the health transition in Kerala. "Of the different factors governing the health status, spread of education, especially female education, and of medical care facilities has emerged as the most important. The role of stage government as the principal agent in the promotion of education, universal literacy and expansion of medical care facilities aimed at "health for all" has to be duly acknowledged" (Panikar P.G.K.-1999, p.39). But the author does not mention the role of international agencies while had funded heavily especially in reproductive and child health care.

Table 4.1 Household comparisons of Sex, Size, Education and Sanitation Muthalamada and Rural Kerala (in percentage)

Developmental indicators	Rural Kerala (National Family Health Survey Kerala 1992-1993)	Muthalamada (Present Study)
	Percentage of households	
Sex of the household head		
Males	80.10	86.70
Females	19.90	13.30
Mean family size		
Education	05.10	05.10
Illiteracy	15.00	16.76
Proportion of females with at least high school education	17.00	27.64
School enrolment of children Of 6-14 years of age	94.50	100.0
Sanitation		
Household facility available	65.60	47.60

II

Health practices in the area

The health practices observed in the area are summarised in Table 4.2.

Many of these health practices are of recent origin. The practice of the small family norm, immunisation of children and children's education received great impetus from the State Government since the 1970's through primary health centres. But the proposed objectives of primary health care programmes are much larger. They even include health education to improve nutritional status by promoting locally produced food items and to enhance hygiene status of households thorough inter sectoral activities. Poor achievements of these objectives, especially among the deprived sections, show that there are factors other than State Health Services affecting health-promoting behaviours. The fact that people have not mobilised themselves to achieve these health objectives is clear as evidenced by their low social participation.

Table 4.2 Summary of Health Practices in Muthalamada (qualitative aspects)

Positive features:
Physical environment:
Well-distributed natural and man-made water-bodies, fertile soil with large number of food crops grown and relatively unpolluted.
Social arrangements:
Evenly distributed primary health care facilities, educational facilities, *anganvadis*, etc. supportive of health.
Individual aspects:
1. Perception of health - health is freedom from disease and diseases are to be treated using medicines;
2. non-availability of doctors and medicines in public health agencies is perceived as the main constraint for treatment of illnesses;
3. early seeking of medical treatment especially in cases of children is common;
4. small family norms, immunisation of children, education of children are widely accepted. Commitment to family life is strong.

Negative features

Physical environment:
Settlements of deprived households are located mainly in water-scarce areas away from transport facilities; use of pesticides is getting widespread.

Social arrangements:

Primary health care facilities are inefficient due to non-availability of doctors; *anganvadi* are not easily accessible to many colonies of the deprived sections.

Individual aspects:

1. locally-grown food crops are rarely consumed (e.g. milk, fish, groundnuts, banana, papaya, green leafy vegetables etc.) especially by deprived sections;
2. linkage of hygiene with health is not well perceived;
3. sanitation practices are neglected;
4. social factors of ill-health are not well understood;
5. dropouts from high schools are more from among deprived sections
6. deprived sections are largely withdrawn from social participation

Health promoting behaviours of deprived and non-deprived groups: a comparison

Differences between the health-promoting behaviour indices of the deprived and the non-deprived groups do not show statistical significance. Nor was significant difference observed between their behaviour patterns except in the case of hygienic behaviour; hygienic behaviour was poorer among the deprived. Table 4.3 presents a comparative picture of selected household characteristics of the two groups, the deprived and the non-deprived.

Table 4.3 Distribution of Households by Selected Characteristics of Household Head According to Deprivation Status (in percentage)

Characteristics	Deprived	Non-deprived	Total
Sex of the head of household			
Male	86.44	86.95	86.66
Female	13.55	13.04	13.33
Age of the head of household			
<30	03.38	0	01.90
30-44	30.58	21.73	26.66
45-59	40.67	47.82	43.80
60+	25.42	30.43	27.61
Marital status of the head of household			
never married	0	0	0
currently married	84.74	82.60	83.80
widowed	15.25	17.39	16.19
divorced	0	0	0
separated	0	0	0
Social section of the head of household			
Scheduled caste	23.72	04.30	15.23
Scheduled tribes	15.25	0	08.57
Other backward communities	61.00	86.95	72.38
others	0	08.69	03.80

Table 4.3 shows that in spite of the fact that the proportions of scheduled caste and scheduled tribe populations are higher in the deprived group, there exist little differences between the two groups in terms of characteristics of household such as sex, age, and marital status of heads of households. This finding points to the cultural homogeneity of the entire population in the area.

Educational, attainments of the deprived households are poor though the younger generation is rapidly catching up. Though the educational institutions have remained open to all and universal education was promoted by government, the level of attainment of education of

the older generation, especially women, of the deprived households, is found to low.

Many of the health-promoting behaviours examined have been facilitated by state-sponsored projects on small family norms, and fertility control measures, promoted through wide campaigns and by improvement in primary health care facilities, exclusively for reproductive health intervention. These have become accessible equally to both the deprived and the non-deprived sections. Certain other behaviours such as choice of the optimum age for marriage, family attachment, and social participation might have been inherited from the common cultural traditions specific to the area. Hygienic behaviours which may have a cultural origin and which have received public sponsorship might have needed a certain level of economic capacity for households to practice them. For instance, child grown in a deprived household might not internalise the value of cleanliness and developed clean habits. Even if she achieved them later in life, she might realise them only though better housing facilities and easy availability of water. As public investments in these sectors are less than sufficient in the area only those capable of private investment are capable of realising them.

Table 4.4 shows the educational attainment of the deprived and the non-deprived groups.

Table 4.4 Educational Attainment of the Deprived and the Non-deprived Groups (in percentage)

Educational Status	Deprived	Non-deprived	Total
Illiteracy	23.68	08.62	16.66
Females with at least high school education	09.02	49.55	27.64
Enrolment of children in the age group of 6-14 years	100.00	100.00	100.00

The preceding discussion leads to the following conclusions: (1) health-promoting behaviours facilitated through public health facilities are equally accepted by the deprived and the non-deprived sections; (2) Health behaviours having common cultural background, - some of which may have negative characteristics – are prevalent among both the sections' (3) Health-promoting behaviours which are culturally routed and for which public support is most adequate, are poorly realised by the deprived section.

5. Health Care Practices in Muthalamada: Case studies

Health is freedom from disease to most people. Occurrence of disease is a chance event. Diseases have to be treated for recovery of health. But treatment involves costs. But treatment itself could be of different types-allopathic, homeopathic, ayurvedic, or natural care. Costs of treatment under these different systems also differ. The indigent may opt for low-cost treatment or in some cases, even no treatment. This is the perception of people in Muthalamada. Difficulties of transport also pose problems of treatment. The people of the locality have serious complaints about the transport facilities in the area. They also narrate their several failed attempts to get the roads repaired with the help of Panchayat Members. In case of real emergencies financial support is mobilised from neighbours, relatives and/or from employers. The support extended by the neighbourhood for treatment of acute illness is more common among the deprived sections than among the non-deprived. Support by relatives is more common among the non-deprived.

Case study 1: Suresh aged 23, discontinued studies after the 8th class for no obvious reasons. He works as a helper in a local construction project. A few months ago while digging a pit at the work place he was bitten by a poisonous snake. Immediately with the help of co-workers and neighbours he was taken to Pollachi 20 km away where specialised medical treatment is available. After the first level treatment, his doctors advised anti-venom treatment which costs Rs 10,000. As the patient could not deposit the amount, he was referred to Medical College, Thrissur. The patient was immediately brought to Thrissur by a Jeep and was treated for a period of two weeks in the hospital. The expenses on medicines and stay came to Rs.5000. The entire expenses on travel, medicines and stay were collected from relatives and neighbours by way of small contributions of Rs 100, Rs 200, or Rs 500. Suresh has to repay the entire loans within a period of three to four months after returning to work.

Case Study 2: Basheer, aged 42, is a highly spirited farmer and an enthusiastic local real estate businessman. He is father of three children aged between 9 to 16 years and has three younger brothers staying with him. His father died a few years ago and he is the head of the household of a ten-member family. Two months ago when he had a sudden onset of headache and loss of consciousness, he was taken to private hospital at Coimbatore. The illness was diagnosed as bleeding into the space between membranes covering the brain for which an immediate neuro-surgery was advised. For this, an amount of Rs 1.5 lakh was required. He did not have that amount. Many of his relatives helped and the surgery was done. Now he is well. During our talk he was talking to us time and again that personnel economic security is essential for improvement of health, as was evidenced by his plight.

Discussion

In cases of serious acute illnesses, going for immediate medical treatment is common. In case of mild illnesses most often children only are taken to hospital. Adults often taken to

home-remedies-taking rest inside home consuming only hot coffee or tea, or getting a few tablets from near by grocery shop, in case of fever or pain, or fasting. Going for traditional medicine is followed only in cases of chronic illnesses. Only middle class educated persons go for consulting doctors in Ayurveda or Homeopathy. Others go in for self-medication and buy medicines from local shops. Even tribal households now do not depend on their own traditional medicines but purchase medicines from local shops, if they can afford to do so. People from Chukkanpathy and Chappakkad tribal households told that only their grandfathers knew about medicinal plants and after their death nobody among them know about their traditional treatment methods. Elderly members falling sick are seldom taken care of by the other members in the family in many deprived households. Though the perception that illnesses have to be treated, some families adopt a double strategy in the case of the treatment of illness of children: get the disease treated by the doctor and leave the rest to god. The administer medicines properly and perform rituals at the temple, the same time.

No one among the deprived sections seems to know about linkages between nutrition and illnesses or between hygiene and occurrence of diseases. Many of the housewives from non-deprived sections told that they consciously include locally available green leafy vegetables in their daily menu. They often cultivate them in own homesteads or purchase them local markets. But in many of the deprived households especially households of the scheduled castes, they cook only rice with one curry. Coconut is added only if it is available from their own homesteads or given to them by neighbours. Even households, which have natural growth of green leaves, do not include them in their food. In Mondipathy colony papaya trees with ripe fruits were found remaining unused. When asked about it, the local people said in those areas papaya fruits are not used for human consumption.

Milk is available in several households in the area. In the households of the non-deprived group a couple of cows each are common; milk is regularly used by all members of such households either in the form of milk or as curd or as buttermilk. In the households of the deprived group, milk is not regularly used even if it is available. It is sold at local collection centres. Preparation of curd or buttermilk is also rare in these households.

Similar is the case with use of groundnut, which is cultivated in the area, though its local cultivation is declining. About two decades ago groundnut was the main summer crop in southern half of the panchayat. Local vendors used to take groundnut by bicycle at doorsteps of consuming households. Surprisingly, no deprived household has the habit of purchasing or storing groundnut for household use. But many non-deprived households buy groundnuts from, local vendors. School children buy sweet biscuits of groundnut prepared in jaggery.

Hygienic practices

Most people in the deprived sections are not aware that by using boiled water, water-borne diseases can be prevented. Almost all households showed a semblance of cleanliness in the immediate surroundings of the households, but it was done so not on health grounds. But some of the educated housewives in the non-deprived sections reported that it is for

the sake of health that they keep their premises clean but also complained about the enormous effort involved. According to one elderly housewife, one full day's labour of a person is required to keep the house and premises of a moderate house on a daily basis.

The practice of using sanitary latrine is not common in the area either among deprived or the non-deprived. Construction of bath-attached houses is a practice, which has only a ten-year old history even among the non-deprived households. Most people in the area feel that they have enough open spaces around their homesteads or colonies and that latrines with foul smell near homes are to be avoided. Lack of easy accessibility to water is also a factor discouraging the construction of latrines within or around houses. It is without an appreciation of such attitudes on the part of the rural people that the government schemes allot funds for households in the deprived sections for construction of latrines. Ninety percent of the latrines constructed under the schemes are found to be left unused or used as bathrooms for women or storage places of fuel wood.

Cleanliness of deprived households is affected also by cattle farming. Most often they have to keep one or two cows or five to ten sheep within a homestead of five cents or less. As most poor households cannot afford to engage workers for tending cattle and cleaning them as well as to tiding up cattle sheds and premises, dirt and filth accumulate and swamp the premises.

As children in deprived households grow up in the midst of dirt, internalisation of an attitude of cleanliness and acquisition of skills for keeping homesteads clean and tidy, do not take place. This indicates that just providing water and latrines alone would not bring hygiene; long term intervention by education, building of models of hygienic surroundings, enforcements of laws etc. are required at the community level, for the purpose.

Case study 3: Kabir aged 58, was-bed ridden at the time of our visit to his hut, for three years was suffering from asthma and cough. His wife Rabia aged 48, was the respondent. Ten years ago Kabir had lost vision of both the eyes. Eight years ago one eye was operated upon at K. J. Hospital, Madras. Even from early adulthood he was physically weak and was not able to do heavy work walking cattle from Pollachi to Thrissur was his occupation. From this work he used to get weekly remuneration. Three years ago he under event a complete course of treatment for pulmonary tuberculosis at the government hospital, Nemmara. Now he is having chronic obstructive pulmonary disease as diagnosed by the doctor and has been bed-ridden for a year. As he does not have the where withal to buy medicines, he approaches the government doctor and tries to get medicines from government hospital whenever available. Still his illness has not abated; he does not take medicines regularly. As he could not go for work, household maintenance has become problematic. He has eight children – two sons and six daughters. The eldest son age at 28, studied up to the sixth standard, has taken over his father's job. The eldest daughter is married to Thrissur. She used to give some help her father's treatment by buying medicines for him or lending him money for hospitalisation. The other daughters are aged 25, 22, 19, 18 and 14 years respectively. The youngest son is 17 years old. All have studied only up to the middle school level from which stage they stopped out. All of them are searching for job that can

be done at home or at other safe places. Rabia is not confident of sending her daughters to field work because she had witnessed every day eve teasing of her daughters from the nearby shops. Sometimes she is forced to take her elder daughters to her parent's house, six kilometres away, for their safety. Marriage proposals have come for two of her elder daughters. But she is not in a position to provide dowry demanded by them. They have no house of their own. The hut in which they live has a plinth area of less-than 200 sq.ft, thatched roof and mud-wall, in a leased-in land. Rabia's parents are supporting her and her children, beyond their means. But her needs for a large family with her bed-ridden husband and youthful children cannot be met sufficiently. It was without any hesitation she told us that she decided to have sterilisation operation when she was carrying pregnant with the eighth child. Doctors did the sterilisation as requested by her but advised medical termination of pregnancy. But she opted for childbirth. Rabia, though not educated formally, is hopeful of a better future in spite of all her difficulties. With pride she showed photographs of her two elder daughters who were not there at the time of our visit. She was a proud mother appreciative of the beauty and charm of her daughters.

Case Study 4: Velukutty, aged 50 is head of a household of five members, his wife aged 45 and three sons aged 31, 24 and 22 years. He was born at Kambarathuchalla 10 kilometres away from his present residence. After schooling up to the fourth class, he did sundry jobs to begin with and shifted to masonry. He got married at the age of 22. His wife had no formal education. When he succeeded in making some savings, he purchased about eleven acres of land at Chappakkad were he is staying now. He educated his children to the extent he could afford- the elder two sons studied up to the pre-degree level and the youngest up to SSLC. All three were not interested to go for higher studies. Now all of them are engaged in farming in their own land and own two-to-three cows each. They engage some workers to help them in farming operations. The youngest son does milking of cow and taking milk to booth. Children are also engaged in local collection of agricultural products like coconut, cotton, groundnut and vegetables and taking the produce to markets at Pollachi and Palakkad for wholesale sales. All of them are on the look out for salaried jobs but not yet succeeded. Velukutty cultivates rice, coconut and vegetables and raises cattle for milk for use in his household and for sales for the past six years, he has been undergoing treatment for joint pain, headache and stomach pain. Doctors advised X-ray, Scan etc. but he could not get them done. During the past one week, he spent Rs 250 to consult a private doctor at Palakkad and to buy medicines. A small swelling on his lower limb is found growing in size for the past four months.

Case Study 5: Saudammal aged 70 lives alone. With no house, of her own, her only assets comprise a manual grinder and iddly-making pot. When we visited her house at around 3'o clock in the evening, she was grinding rice for making iddly the next morning for sale. From the sale of iddly she earns a livelihood. She received us warmly and offered us seats in the 40 sq.ft *veranda* near her grinder. The only room her residence has an area of around 100 sq.ft. The rooms were conspicuously clean. A few neighbours slowly gathered around. Our *Malayalam* was only partially understood by Saundammal. Neighbours helped us in translating. Without much worry about her children staying far way from her or for not having an own house or for not having any staying for the rainy day, as the saying

goes, she was calm and happy. The only thing she found bothered about was her health. When asked about her health, she showed some skin marks found recently on her arms. On examination these marks appeared to be benign patches. Her husband had died 30 years ago. It was twenty-two years ago that she came from Tamil Nadu to Muthalamada. Her eldest son and two daughters are settled near Pollachi and are married. The youngest daughter is staying in a nearby place with her family. For the previous six years she is staying in this Harijan colony. Up to noon she sells idly. Then she goes for purchase of rice for the next day and starts grinding it for iddly-making the next morning. Mothers in neighbouring houses purchase Iddly from her for their young children. Occasionally, her children visit her and give her some money. A middle-aged lady among the neighbours told us confidentially that it was her family that gave this house for Saundammal. "She belongs to a high class (Chettiar)", the woman told us in a respectful tone.

Case Study 6: Karthyani aged 65, is head of the household of a 9-member family. Her house is situated just 1 km away from Kambrathuchalla, the trade centre of Muthalamada panchayat. Her husband died 25 years ago. She hadn't any formal education but had attended literacy classes. She used to work as helper in households. Occasionally she gets the job of cleaning dining tables during marriage feasts. That comes only 2-3 days a month for which she gets Rs.100 per day. She gave birth to seven children: two of died them before they reached five years of age. Of the five surviving children, four are boys. The eldest three sons have not undergone any formal schooling. Valliyamma, the daughter, aged 37 years, has studied up to the third standard and the youngest son (now aged 26 years) has studied up to the fifth standards. The eldest son and his family are staying in an extension of her 220 sq.ft. house constructed two years ago. The next two sons are staying with their families in a neighbouring panchayat. The youngest son, his wife and 3 children, used to stay with his mother but not regularly. They some time live on roadside, with her son doing some menial works and her daughter-in-law go for begging. Her daughter, Valliyamma, divorced 17 years ago, is also staying in Karthyani's house with her two daughters aged 15 and 16. The two grand daughters are only educated up to the 5th standard. The only regular source of income for the house is Valliyamma's agricultural labour. The items of food consumed by the five members during the previous day (24 hours) was 250 ml of milk used for preparation of tea, Rs 2 worth of tomato, 25 grams of coconut oil for preparing *rasom*, half a coconut used for preparation of chutneys and 1½ kg of rice. Karthyani belongs to a scheduled caste. She appeared to be helpless, but misfortune has not shattered her nerves.

6. Conclusions and Recommendations

Health-promoting behaviour of the people in Muthalamada has shown both positive and negative factors. Among the positive health-promoting behaviours are included choosing of the optimum age for marriage of boys and girls, the small family norm, educating children, early seeking of medical treatment for children, and high commitment to family life. But negatively affecting factors like non-utilisation of locally available food materials for keeping a balanced diet, neglect of hygienic practices, and scant social participation. Such negative aspects are noticed more among the poor and the deprived sections.

The difference between deprived and the non-deprived with regard to selected health-promoting behaviours are not seen, however, to be statistically significant except in the case of hygienic behaviour. But the consequences of such negative behaviours happen to be more damaging to the deprived than to the non-deprived as the existing health facilities are not designed to tackle local inequalities in health.

The perception that health is freedom from diseases is encouraging. But total dependency on the existing system and the habit of complaining of its inefficiency, is widely prevalent in the area. The ways of removing such inconsistent attitudes need to be explored and remedial interventions implemented.

Inefficiency of the state health care system is highly incapacitating the health promotion efforts made in the area. No visible factors of social conflicts exist here, which inhibit local collective action for betterment of the existing system. Nevertheless some invisible forces such as among the people are found to cause dent in the social fabric.

The will to activate official agencies like Grama Panchayat through the various health programmes and facilities for betterment of the health status of the area is conspicuous by its absence. People's initiatives in this regard are weak. It is necessary therefore to look seriously into designing and implementing appropriate local health security schemes.

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Annexure

Health-promoting behaviour index

Health-promoting behaviour index is an additive scale made up of 6 health-promoting behaviours selected for the study. Each selected behaviour is again composed by 3 to 7 items as given below.

Health promoting behaviours and its compossing items	Questionnaire reference
1) Reproductive health behaviour	
1. Age at marriage	Part I
2. Family size	Part I
3. Sterilisation methods adopted	Q 12
2) Nutritional Consciousness	Q 36
3) Hygienic practices	
1. Whether having latrine facility at households	Q 4 Vv
2. Drinking water source for the households	Q 4 Vv
3. Mode of kitchen waste disposal	Q34
4. Mode of using drinking water	Q35
4) Health security practices	
1. Whether having savings practices	Q 7 a & b
2. Whether interested to join a healthy insurance scheme if newly proposed	Q 46
5) Family care practices	
1. Leisure time spending of head of the household	Q 18
2. Mode of time spending of head of the household at the home	Q 22
3. Time of returning to home by the head of the household	Q 23
4. Mode of dealing boredom by the head of the household	Q 28
6) Level of social participation (6 items)	
1. Level of relationship with neighbours and relatives	Q 24
2. Participation in social gatherings	Q 25
3. Area of interest other than the occupation	Q 29
4. Level of participation in Grama sabha	Q 30
5. Level of social support received	Q 31
6. Trade union involvement	Q 32

Each item of these six behaviours is measured on a 5-point scale. Details of scoring

system of this behaviour scale are given below. Sum of scores obtained for all six behaviours for each household is considered as the Health Promoting Behaviour Index of that household. In a similar way child care practice score for households where children below 15 years are also estimated.

Health Promoting Behaviour Index Scoring System

Questionnaire reference	Items	Score allotted
Part 1	Family size	
	Households with	
	Father - mother and 2 children	5
	Father - mother and 3-4 children	4
	Father – mother – 2 children + dependents	3
	Father – mother + children + dependents to a maximum of member 8	2
	Family members 9 or more	1
Part 2 Q 12	Fertility Control Measures	
	Permanent sterilisation adopted by couples with 2 children	5
	Permanent sterilisation adopted by couple with more 2 children	4
	Temporary medical measures for couples with less than 2 children	3
	Temporary medical measures for couples with more than 2 children	2
	No fertility control adopted	1
Q 36	Nutritional practices in selection of daily food items	
	Had nutritionally sufficient food items on all days	5
	Had nutritionally sufficient food items on almost all days	4
	Had nutritionally sufficient food items moderately	3
	Had nutritionally sufficient food items occasionally	2
	Had nutritionally sufficient food items rarely	1
Q 4v	Sanitation facility at household level	
	Permanent toilet facilities available	5
	Temporary toilet facilities available	4
	Using common toilet facilities	3
	Using the farm lands	2
	No facilities available	1
Q 4 vi	Household water supply	
	One’s own open well or piped water	5
	Panchayat Water supply	4
	Neighbour’s well	3

	From distant common tap	2
	No fixed facilities available	1
Q34	Disposal of Kitchen Wastes	
	Convert to organic manure	5
	Deposit in separate pits	4
	Deposit in farm yard	3
	Burn out	2
	Throw outside	1
Q 35	Mode of using drinking water at household level	
	Use after filtering	5
	Use boiled water only	4
	Use boiled water most often	3
	Use boiled water as possible	2
	Use as available	1
Q 7	Whether having savings habit or anxiety for not having	
	a. have savings habit	5
	b. No savings but severally anxious for not having it	4
	c. " moderately anxious "	3
	d. " mildly anxious "	2
	e. No savings and not anxious about it "	1
Q 46	Willingness to pay Rs.100 per month for household to join in a health insurance scheme if launched by Grama panchayat	
	a. readily willing to pay	5
	b. willing to pay	4
	c. willing to pay up to half only	3
	d. willing to pay only less than half	2
	e. not interested	1
Q 18	Spending of leisure time by the head of the households	
	at home	5
	with friends	4
	engage in cultural activities	3
	sit alone	2
	not interested	1
Q 22	Mode of spending time inside the house by the head of the households	
	attending children's study	5
	involve in family matters	4
	reading	3
	relaxing/watching TV	2

	doing nothing	1
Q 23	Returning to home after work by the head of the households	
	immediately after work	5
	after finishing off other outside jobs	4
	no regular times	3
	after chatting with friends	2
	in late night during sleeping hours	1
Q 28	Dealing of boredom in daily life by the head of the households	
	return to home	5
	visit friends	4
	spend with co-workers	3
	keep alone	2
	go for addictives	1
Q 24	Relation with friends and relatives bad to very good	1-5
Q 25	Participation in social functions like marriage, funeral etc.	1-5
Q 29	Extra occupational activities of the head of the household from nil to Highly active in art and culture	1-5
Q 30	Participation in Grama Sabha from no members to by all members	1-5
Q 31	Social support received during personal crisis from nil to from all relatives	1-5
Q 32	Participation in trade union activities formal to office-bearership	1-5

Summation of scores on these 20 items provides a score with the range of 22-100 for each household in the area. This is considered as the health promoting behaviour index for each household.

Child Health Care Promotion Behaviour Index

In households where children below 15 years are available a child health care promotion behaviour index is also composed in above terms. Using responses for questions number 9(ii-v), 10, 11 and 33. This should provide an index of score ranging from 8-40 for each household.