Chapter II

REVIEW OF LITERATURE

2.1 Introduction

On the basis of the available literature related to this study in the context of medical pluralism, an attempt has been made here to make a brief review of the important works among them. The studies have been grouped under four heads: (i) studies relating to health status, consisting of studies connected with the factors that determine health status (ii) studies relating to medical pluralism, consisting of studies on different systems of medicine (iii) studies relating to comparative-costs, including cost analysis of various types of services or programmes and (iv) other related studies.

2.1(i) Studies Relating to Health Status

The health status of population has long been a central focus for health scientists, economists and policy makers. Usually, the contribution of health care to the health status of the population has been difficult to quantify. Wasan.R.K. (1990) through Status of Health in India and its Future Prospects reveals that health is related to economic development, anti-poverty measures, food production, distribution, drinking water supply, sanitation, housing, environmental protection and education.

In his book, Kopparty.S.N.M (1994) has made an attempt to understand the relationship of social stratification and health care in a rural community from a sociological perspective. This study is based on an
intensive fieldwork conducted in a village in East Godavari District of Andhra Pradesh in India. It examines in detail the nature and the extent of the influence of social stratification on the morbidity pattern, health action, utilization of health resources and health practices in a rural community and the study concludes that social stratification plays a vital role in these cases.

In *A Case Study of a North-Indian Village*, Hasan (1979) has drawn a clear picture of the health status of the people and the sociological factors influencing health. The effects of the introduction of modern scientific medicine in the village and the behavioural changes that followed it have been analysed. The common beliefs, customs and practices connected with health and disease have been found to be intimately related to the treatment of the patient.

Banerji Debabar (1989) in his paper *Rural Social Transformation and changes in Health Behaviour* deals with the findings of a wide-ranging study of health behaviour in 19 Indian villages spread over eight states and covering a time-span of fifteen years. The study which has provided a range of information on rural, social, cultural and economic transformation on the one hand and changes in health behaviour on the other, highlights the close correlation between the two and concludes that changes of health behaviour can be considered as one of the indices of the degree of rural transformation.

Health status of the rural elderly people along with certain other factors like availability, awareness, accessibility, acceptability and affordability, satisfaction etc. of the elderly towards the medical services
and the help rendered by family members are examined by Vijayakumar (1996). The empirical data used in this study are based on a fieldwork carried out in selected rural areas of Andhra Pradesh, covering 150 elderly men and 150 aged women of about 65 years and above. Out of the total sample, 52.7% are found to be having chronic diseases. The gender-wise distribution indicates that males are suffering more from chronic health problems than females. Elderly people living in joint families are getting personal help, whereas those living alone or in post parental families are suffering from problems due to non-availability of personal help from the family members.

In their paper Banerjee.A. et al. (2004) report a recent survey conducted in a poor rural area of the state of Rajasthan in India, which was intended to shed some light on delivery of health care. For that, they have used a set of interlocking surveys to collect data on health and economic status, as well as public and private provision of health care.

Through their paper, *Health Seeking Behaviour of People of North Eastern States of India* Mukherji.T and Somayajulu.U.V (2004) have made an attempt to get an understanding of the prevalence of problems such as TB, malaria, jaundice, health-seeking behaviour and reproductive-health problems. The paper also identifies the gaps in the health-service utilization and provides inputs for effective programme implementation.

Ill health is often a manifestation of the multidimensional nexus involving poverty and social inequality. With this truism, Barai-Jaitly.T (2002) has examined the health status of the children in India in his work.
Basu.S (1992) in his article discusses the issues involved in raising the health status of India’s underprivileged groups. The article points out that in addition to the social and economic factors contributing to the low health status of the underprivileged groups, cultural factors also play a role. The article stresses that programs to improve the health status and quality of life of the underprivileged groups cannot succeed unless they form part of a larger effort to bring about an overall transformation of the society.

Menon.N.R (2000) presents the 1998 reports of the Task Force of Kerala, describing the status of sanitation, nutrition, health and health infrastructure in Kerala. Although Kerala seems to have achieved the “Health for All” goal as per conventional health indicators, the people still suffer many episodes of diseases which arise out of poverty and deprivation. Moreover, the utilization rate of health services is low, in that only one-fourth of the population avails the government health services and the rest use the private sector health system.

Kannan et al. (1991) in their work have focused on rural Kerala analysing the linkages between the health status and the socio-economic status, and the contribution of the health care sector to health status. In the case of expenditure analysis, the study has found that, on the whole, per capita expenditure is the highest for the allopathy system followed by ayurveda and homoeopathy. The work also addresses the regional variations in health status to a limited extent.
Panikar.P.G.K and Soman.C.R (1984) in their book *Health status of Kerala: The Paradox of Economic Backwardness and Health Development* has attempted to relate socio-economic factors and public policy. It also examines the existing institutional framework and suggests improvements for the effective implementation of inter-sectoral action programme. They have found from hospital data that morbidity in Kerala is high while mortality is low.

Manonmoney and Rajesh (2006) in their paper, *Kerala’s Development in Health Sector: Prospects and Emerging Challenges*, have made an attempt to evaluate the achievements and challenges of Kerala in health sector. To them, the current health scenario of the state looks relatively good. In the coming years, the emerging challenge in the health sector for Kerala will be to control both communicable and non-communicable diseases.

An examination of the effect of health-care expenditures on population health in USA shows a weak correlation between expenditures and the health status of state-wide population (Molinari.N, 2004).

Anson.O and Sun.S (2004) have examined the degree to which the commonly used social-class indicators - education, income and occupation- are associated with health in the context of rural China. Data were collected from 10,226 individuals of working age from 16 to 60, living in Hebei Province. The association between education and income observed has resemblances with the patterns documented in industrial societies. The health status of farmers is quite similar to that of white-collar employees. Persons in occupations other than in the mainstream report the poorest health status.
Health Sector Reforms and Reproductive Health-Services in Poor Rural China is really a passive response to the changed rural socio-economic conditions rather than an active action aimed at improving the health status of the rural population (Jing F 2004). In his study, Jun C.Z (2002) analyses the living arrangements and the health status of the elderly in rural China.

The work of Hutchinson P.L and LaFond A.K (2004) identifies ways to evaluate the impact of decentralization in achieving key objectives - improved efficiency, accessibility, equity, community participation and health status. It also identifies the types of data that can be collected and a detailed set of indicators in several broad areas like political, administrative and fiscal that can be useful for monitoring and evaluating purposes.

2.1(ii) Studies Relating to Medical Pluralism

In the context of growing interest and demand for traditional and alternative systems of medicine, Sankar Deepa (2005) in her paper has tried to understand the nature of the demand for these systems with regard to Kerala, based on the utilisation of health-services data collected through a primary survey in Alappuzha district. The analysis shows that systems like ayurveda and homoeopathy should be seen as ‘complementary’ rather than as ‘alternative’ to the modern medicine.

Boban Jose (1990) in his study has used the concept of medical pluralism among the tribal people in Idukki district, Kerala. He has analysed the impact of medical pluralism and its consequences in the health
situation of the tribals. The results obtained from the household health survey show that ‘ethnomedicine’ has a definite edge over modern medicine.

Combating communicable diseases and the reduction of mortality and morbidity are the essential components of public health efforts. Chandra.S (2000) has argued that in India, public health managers have ignored the existence of a huge infrastructure of indigenous or non-allopathic practitioners, duly registered after completing five and half year degree course. It is noted that the involvement of these indigenous practitioners could contribute much in filling critical gaps in public health if proper orientation is given. To this effect, the need for an open dialogue on the benefits that can be derived from this infrastructure and the presence of registered doctors in rural areas is highlighted.

Nakkeeran (2001) in his paper has examined the various attempts at the integration of traditional medical systems into the modern health care system in Indian health-policy making and administration. It is noted that both the public and private health care systems remain completely dominated by allopathic medicine. The major reasons are the problem of efficacy of traditional medicine, insufficient recognition of these systems of medicine by the state and lack of standardization.

In a discussion of the ways in which social, economic and political factors interrelate to influence health-delivery systems in a community, Banerji.D (1979) suggests that formulation of an alternative system of health-care system must rectify the distortions in the present system. The
new system must meet the needs of the people. A general social history of the health services is presented in the article. According to him, in India, Western medicine was used by the colonialists to strengthen the oppressing classes and weaken the oppressed classes. The colonial system denied mass access to Western medical system. Introduction of the so-called modern medicine caused the traditional indigenous medical system to decay and degenerate. The post-colonial leadership in India has continued to use the medical delivery system for its own benefit.

Assumptions and misconceptions about the pluralistic Indian medical system are examined and their implications for health service are assessed by Minocha.A (1980). When alternative therapists are taken into account, the maldistribution of health practitioners is not as serious as usually believed. Preference for the practitioners from their own cultural milieu is less important to the patients than the availability, accessibility and quality of medical care provided by different systems. The study suggests that medical interventions should be distinguished from non-medical health interventions and that only persons with medical training should be allowed to concentrate specifically on medical concerns.

In Duggal.R’s (1994) view, India has a plurality of health care systems as well as different systems of medicine. Public health care in areas of pluralistic medicine concentrate more on prevention and promotion services than to the determinant of curative services.
The book ‘Disease, Treatment and Health Behaviour in Sri Lanka’ (Indrani Pieris, 1999) brings together the findings of a review of the theories of mortality decline, the evolution of Sri Lanka’s health care system from the traditional to the modern and the analysis of data from two recent and major surveys. It seeks to understand Sri Lanka’s health miracle and to see whether the Sri Lankan model can be transferred to other developing countries. With a low per capita income, Sri Lanka has achieved a life expectancy almost equal to that of the developed countries. This book examines the mechanism through which Sri Lanka obtains medical services and seeks an explanation of how these services are employed so well.

According to Leslie.C (1980), the ideal of modern medical practice is to restrict or eliminate irregular practices, while incorporating local medical systems into larger structures that are ultimately linked to a world-wide system of medicine. An alternative frame work views medical systems as pluralistic structures in which cosmopolitan medicine competes with numerous alternative therapies. The article notes that comparative research on pluralistic structures in medical system is needed as an aid in the development of programs utilizing traditional medicine in the developing countries.

According to the World Health Organisation (WHO), while many elements of traditional medicine are beneficial, some are not. The organization therefore does not blindly endorse all forms of traditional medicine, but works to ensure that traditional medicine is examined critically and objectively and safe and effective forms of traditional
medicine are developed and made available to the public. WHO supports research and training in traditional medicine in the member states (Zhang.X, 1996).

In 1996, Ken.C reported that traditional medicine is an integral part of the community and its practitioners are well-patronized and valued. Even in developed countries, traditional medicine is availed as an alternative to modern medicine. Pretorius.E (1991) has suggested that the synthesis of traditional and modern medicine may be the best way to achieve “health for all”. According to Ortega.F (1988), improvement in health conditions in Ecuador should take into account the coexistence of multiple medical practices (indigenous system, medieval European medical theory and practice, etc.). In Ecuador, traditional system provides care for much of the rural population and areas where western medical care is not available.

Janes.C.R (1999) examines Tibetan medicine and other Asian medical systems. To him, the rising costs of biomedical-based health care system, together with an increased global burden of chronic, degenerative diseases and mental disorder will produce considerable incentives for the expansion of indigenous alternatives.

In Sri Lanka, two formally structured systems of medicine exist side by side – ayurvedic and western medicine. Waxler-Morrison NE (1988) found that plural medical systems continue in Sri Lanka because they, as institutions, are linked to the social, economic and political structure of the society.
Bhardwaj.S.M and Paul.B.K (1986) take into account the health search behaviour of parents who were unsuccessful in their attempt to save their infants’ life in a rural area of Bangladesh, and analyse within the pluralistic medical milieu. Bangladesh has a high infant mortality rate. The choice of a healer by the parents of infants is a complex process depending on a great variety of conditions such as the health status of the infant, relative proximity of the healer, cost of health care, transportation facilities, gender of the infant, attitude of the parents toward different systems of medicine and the experiences of the parents. The choice of healer of a particular type may be related less to the parents’ orientation to traditional or modern medicine than to the seriousness of the infant’s conditions and the expectancy of cure.

Pedersen.D and Barufatti.V (1985) stress the need for coalescing the gap between the social and medical sciences in order to reach a better understanding of the health requirements of the population. The main objective of those ethnomedical researchers in the Latin American region was to work towards the creation of a bio-socio-cultural model in an attempt to enrich systems qualitatively in the development of more humane and efficient interventions, both in the clinical field and in health policies and strategies. The authors have used the latest and main bibliographic sources in traditional medicine for the region for the analysis.

Zaman.H (1983) in an article discusses the status and functioning of the major systems of traditional medicine in South East Asia with particular attention to the activities of WHO. The article concludes that future efforts
of WHO in the region should be related first, to reorient the traditional healers to meet the needs of primary health care, and second to support research on the treatment of diseases such as peptic ulcer, bronchial asthma, rheumatoid arthritis, urolithiasis, viral hepatitis and diabetes mellitus, for which modern medicine has not yet found a cure.


The objective of Kakar.D.N’s (1983) study was to determine the role of indigenous medicine practitioners in providing medical care to the people and in identifying factors influencing the continuity of their practice. Sixty four registered practitioners of indigenous medicine were practising in a Community Development Block in North India, with a total population of 18,000. The study found that the cosmopolitan medicine was still favoured by a majority of the rural people; all kinds of elements of cosmopolitan medicine were incorporated into the traditional system of medicine, and that constant liaison with traditional birth attendants who practiced protective medicine was maintained. The traditional healers took care of the medical needs of nearly three-fourth of the total population of the Block.

Singh et al. (2005) conducted a study on the usage and acceptability of indigenous systems of medicine to provide an estimate of the utilization of different indigenous systems of medicine in the country and found the
reasons for preference as well as the cost of treatment. The study covered 35 districts spreading over 19 states in the country. The findings of this study showed that 14% of the sick have adopted indigenous system of medicine. Slow progress and non-availability of practitioners were the main reasons for not preferring the Indian systems of medicine and homoeopathy treatment.

In their paper, Ramanchandran.H and Shastri.G.S (1983) deal with the pattern of movement of the rural population for purposes of medical treatment. The study was conducted in Tumkur District of Karnataka, India, consisting of 30,000 households. The analysis reveals that (a) the actual places visited for treatment may be different for different socio-economic groups (b) the long distance movement is not a matter of travel costs but essentially of overhead costs to the places of treatment and (c) there is no significant differences in the distance travelled by different socio-economic groups.

In his paper, Thiruvenkitaswamy.S (1998) has made an attempt to analyze the utilization of health services by different economic classes and to examine the disparities between rural and urban settings in the utilization of the available health services. The primary source for study was the data from NSS. It reveals that 90% of the lower and middle class people utilize government services. It also reveals that the cost of services is the determining factor in using the system of medicine. It is noted that the poor utilization of the health services and low health status have been attributed to the economic status of the poor households.
In a case study, Izhar.N (1989) examines the practice of the traditional unani medicine in India (Aligarh Town). Objectives of the study were to discern the distribution pattern of traditional medical systems in India, highlighting the unani medical system and to gather data on the utilization pattern of well established clinics such as unani and to observe how the behaviour of patients shift according to their acceptance of a particular system of medicine. The majority of patients were under modern allopathic treatment before accepting the unani medicine. A suggestion of the study is to examine how allopathic medicine might be interrelated better to other medical systems.

Mathews (1979) in his book *Health and culture in a South Indian Village* reports an intensive study of village life in Tamil Nadu. The different aspects studied include economy and development, social and religious factors, communication, food and nutrition, health and disease. The main emphasis is on health and villagers’ own beliefs about the causes and treatment of different diseases, the different types of healers, maternal and child health and family planning. The different types of healers and services include a given mode of production and a given form of society. The characteristics of health are not the same among the rural poor, particularly tribals, as among the westernized urban upper class. The discussion is restricted to the delivery of allopathic medicine.

Purohit C.Brijesh and Siddiqui.A.Tasleem (1994) in their study have tried to analyze the available information sources to have a closer look at the utilization aspect of health services in India and derive their relevance
for existing national health policy. The degree of utilization is established in this study in terms of relative levels of health facility utilization across the states. The study reveals the growing popularity of indigenous non-allopathic systems and growth in the involvement of private sector in expensive tertiary care. As against National Health Policy guidelines, regional disparities tend to continue. There have been no governmental initiatives to encourage appropriate utilization by means of devising health insurance and other cost recovery mechanisms.

In the results of *A Household Survey of Health Care Utilisation and Expenditure*, Sundar Ramamani (1995) reveal an overwhelming dependence of the population on allopathic system of medicine. The survey brought out another fact that the services of private health facilities are preferred to public facilities for out-patient treatment.

Ram and Dutta (1976) had conducted a study in 1974 and found that in the case of those availing medical services; allopathic doctor was preferred even if he was available at a distance.

The feasibility of practitioners of indigenous medicine in the family planning program and their use in Kerala was investigated by Andrews.S (1973). The community, the indigenous practitioners themselves and the health centre staff were the subjects of the study. Patterns of preference for and utilization of various systems of medicine in different morbidity conditions and the level of family-planning acceptance were investigated for each group. Preference and utilization of indigenous health care systems
varied by morbidity conditions and household characteristics. According to the study, the middle-income groups are most likely to use indigenous medicine, especially for illnesses of children and maternity care.

Usha.S(2000) in her study, *Economics of Health Care* examined the health infrastructure and the pattern of health expenditure in Kerala. It also compared the three systems of medicine, viz. allopathy, ayurveda and homoeopathy on the basis of the choice of system by patients. Data are based on a survey of 30 hospitals, 10 from each system of medicine. The study found that in-patient service under all the three systems in the government sector is concentrated in the urban areas. It also stated that in the private sector both the allopathy and ayurveda systems are equally popular. Most of the middle aged patients used allopathy or ayurveda for treatment while majority of the children were given homoeopathic treatment.

2.1(iii) Studies Relating to Comparative Costs

The main objective of the Babson’s (1973) study is to derive a methodology for costing treatments. The study has outlined in considerable detail the methods of attributing hospital resources to treatments in the given disease categories. Market values are used to estimate costs. The author argues that the study justifies considerable optimism regarding the feasibility of disease costing. The collection of cost data also affords considerable opportunity for more general observations regarding the efficiency of hospitals.
Barlet et al. (1978) in their article *Evaluating Cost-effectiveness of Diagnostic Equipment: The Brain Scanner Case* analyse the cost and benefits of CAT scanners and the existing neuroradiological techniques. The costs arising from changes in health service resource used for the introduction of scanners were considered. The main clinical benefit considered was the saving of ‘good quality’ lives by brain scanning. The article concludes that introducing scanners has a positive net present value.

The benefits and costs arising from the treatment of rheumatic diseases have been dealt in Brooks’ (1969) analysis. The costs considered are the costs of providing hospital and other facilities for treatment. The benefits are those arising from the productive output gained from patients who are able to return to work. The study assumes that all the improvements in health are due to the treatment. The costs of treatment are estimated using market values. The value of the production of those in employment is valued at gross earnings. A wage is imputed for housewives using the wage of domestic helps. The study concludes that there is a prima facie case for the investment of resources in centres of rheumatic diseases.

Buxton.M.J and West.R.R (1975) in their article, discuss the costs and economic benefits of maintaining patients on long-term dialysis, the costs and benefits for home treatment compared against the cost for hospital treatment. The data for patient-survival used in the study were those reported by the European Dialysis and Transplant Association. The study was not linked to a clinical trial. Market values were used for the health
service costs. There was a large gulf between the cost of long-term maintenance haemodialysis and the economic benefit. Using best estimates, the ratio of cost to benefit was 6.4:1 for hospital dialysis and 3.2:1 for home dialysis.

Byrne.E.B et al. (1970) has studied the costs and the effects of an immunization surveillance programme, those resulting from health service resource use in increasing the surveillance programme. The effects were expressed in terms of the proportion of infants immunized. The study was linked to a prospective trial. The experimental population was matched by social class. Costs were estimated using market values. No attempt was made to value the benefits resulting from increased immunization.

Carter.F et al. (1976) in their study, analyse the comparative costs of hospital and home treatment for adult haemophiliacs. Only changes in health service resources use were considered. Other costs, i.e., resulting from production loss were not considered. An attempt was made to identify precisely the changes in resource use arising from the out-patient element of hospital treatment. The in-patient estimate was based on average hospital costs and the cost was valued at market values. The result of the study is that cost of home treatment was found to be only 16 percent of that of hospital treatment. It was concluded that home treatment could provide substantial benefit, and the cost to the health service would only be fractionally higher and so there should be no further delay in instituting such programmes.
The costs and effectiveness of alternative health care programmes for the elderly are analysed by Doherty N and Hicks.B (1977). The alternatives are institutional care versus day care, versus home care. The cost considered were those resulting from health service and other community resource use. But the results did not lead to a definite ranking of the programmes. They showed that the day-care programme was the preferred choice on each of the effectiveness criteria, whereas home care was preferred on the overall cost criteria.

Hallan and Harris (1968) through their work analyse the economic cost of end-stage uraemia. The main focus of this study was to indicate the ‘size of the problem’ and not to examine defined treatment or research strategies. Changes in health service resource use in the treatment of end stage ureamia were considered. Along with that, production losses associated with the morbidity and mortality resulting from the disease was also taken into consideration. The total cost of the disease was estimated to be $509 million per year. It was argued that the economic costs are useful in examining the relative importance of the disease.

Harper.D.R (1979) tries to derive a methodology for costing in-patient treatment. For this, changes in hospital resource use were only considered. All patients passing through the professorial surgical unit of the Aberdeen Royal Infirmary in a six-month period in 1971 were studied. The key to the measurement procedure was the derivation of units of resource use for the different categories of resource. These formed the basis of the
calculation of those costs considered *individual* to particular patients and of those *shared* costs in particular treatment departments. Thus the costs of treatments for patients in 18 diagnostic groups were derived.

Weisbrod Burton. A (1971) in his paper has examined the costs and the benefits of a particular medical research program which led to the development of vaccines against poliomyelitis. The costs of vaccination were considered to be those relating to resource use in research and application of vaccine. The benefits considered were the resources in treatment averted, plus those relating to production loss averted through the reduction in mortality and morbidity from the disease. The study was not linked to a prospective medical evaluation. The number of cases of polio likely to be prevented by vaccination was extrapolated from historic data. The paper concludes that the internal rate of return on research is found to be heavily influenced by the costs of application.

Cohn.E.J (1972) in an article discusses the relative costs of eradication of malaria and its control. For this, cost arising from changes in health service resource uses in setting up the alternative programs was considered. Benefits arising from reduced morbidity and mortality and increased fertility were also considered. The major changes identified were changes in productive output and changes in the population size and composition. Costs were estimated using market values. No attempt was made to value the benefits. The study leads to the conclusion that the choice between eradication and control depended on discount rate. At rates lower than 12% eradication appeared more cost effective.
The main purpose of Cooper and Rice’s (1976) study was to indicate the costs to society from different forms of illness. The economic cost of illness was considered to be due to the direct resource outlays for prevention, detection and treatment and the indirect costs or loss in output due to disability and premature death. The costs of pain and suffering were noted but not considered. Aggregate data from a number of sources were used for measurement. They found that the total cost of illness for 1972 was US $189 billion at a 4% discount rate. About $40 billion was for persons suffering from diseases related to the circulatory system, $27 billion for accident victims and $17 billion each for cancer patients and victims of gastro diseases.

The costs of different forms of maternity care are discussed by Ferster and Pethybridge (1973). Costs are calculated for average ‘non-intervention’ cases and ‘intervention’ cases. The latter group included surgical induction, forceps, caesarean operation and a class consisting of residual and multiple interventions. Costs resulting from the use of health service and local authority resources were considered. Patient and family costs were noted but not considered. The study concludes that the deliveries that involved intervention cost more than those without intervention.

Krishnan.T.N (1994) has focused on the inter-state variations in the utilization of health services for in-patient care and has raised the important issue of the cost of treatment and the burden of treatment that fall on the lower strata of people. To him the discussion of health care financing and
provision include access to health care and the quality of services, the importance of building stocks and capital formation in health services, cost effectiveness and the role of technology in determining cost of health care.

Sharma and Bhatia (1971) have studied the cost structure of rural health co-operatives in Delhi. The study reveals that average expenditure per patient was Rs.1.01 during 1957-58 but came down to Rs.0.63 in 1964-65. The cost studies on hospital set-up have been of varying nature. Sharma and Timmappaya (1973) conducted a pilot study in hospital cost analysis in Faridabad and Gurgaon district of Haryana in 1968-69. They provide the methodology for determining the unit cost of various services provided in a hospital and use it to work out the cost of in-patient and out-patient care. The cost per in-patient visit was Rs 5.54 whereas the cost per out-patient visit was Rs.9.91.

Krishnaswami.P (2004) has made an attempt to measure the burden of disease in terms of the number of days lost due to illness and the costs incurred by the household, through cost of treatment and through loss of household income. The study concludes that allopathy is the preferred system of medicine, acute morbidity is the major cause in the total number of days of work lost and that the average cost of treatment of acute illness is high.

2.1(iv) Other Related Studies

Bhat Ramesh (1993) in his paper *The Private Health Care Sector in India* quantifies the growth and composition of private health services throughout the country and discusses the lack of meaningful health policy
analysis or action relative to private health service. He argues that regulatory and supportive policy interventions are inevitable to promote a viable and appropriate development of this sector.

Mishra D.K et al. (1993) explain the findings of a survey of household health care utilization and expenditure in a tribal block of Madhya Pradesh. They argue that as the income level of the household increases, the percentage level of treated cases also increases. Thus, they suggest that in order to improve the curative health care status of the tribals, it is necessary to increase their income from sources close to their surroundings.

Krishnan T.N (1985), depending mainly on published statistics states that Kerala has achieved remarkable improvements in various demographic parameters. To him, the spread of health care facilities and spread of immunization have helped in the sharp decline in infant mortality rate in the state.

The article *Country Profile: India, Health at Low Cost, the Kerala Model* by Thankappan and Valiathan (1998) throws light on the Kerala model of good health and low income with low fertility. Health indicators in Kerala are comparable to those of developed countries and the rates of related variables like education, immunization, gross domestic product, etc. are favourable when compared with the rates worldwide. Non-health care sectors have also contributed to the health status of Kerala like education, food grain distribution, social reform movements and land reform. Kerala has yet to experience economic development and continues to suffer from high rates of morbidity and suicides.
2.2 Conclusion

It is evident from the above analysis that only few studies have been undertaken about different systems of medicine at international or national levels with a socio-economic perspective. The subject area and findings of these studies show that there is a noticeable absence of research work on the role of different systems of medicine in the health care field. Therefore, the present study, which is an attempt in this direction, assumes great significance.