CHAPTER I

INTRODUCTION

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Chapter I

INTRODUCTION

1.1 Introduction

Economic development can be seen as a multi-dimensional process involving improvements in human well-being. Health is one of the key components of a sound development strategy along with improvement in other factors like education, income and environment, which markedly changes the course of development. Therefore, every economy, whether developed or underdeveloped, gives importance to the ‘health’ of the people. The preamble of World Health Organisation (WHO) constitution defines health in positive terms as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’ and notes that ‘the health of all people is fundamental to the attainment of peace and security’. The New Encyclopaedia Britannica (Vol.5, 15th edition) defines health in human beings as ‘the extent of an individual’s continuing physical, emotional, mental and social ability to cope with his environment’. Health is a term that refers to a combination of the absence of illness, the ability to cope with everyday activities, and physical fitness of high quality. There are fundamental links between health and economic development. The ultimate goal of economic development is to improve the quality of human life and to increase the longevity of human beings. Good health enables individuals to be active agents of change in the development
process. A person’s capacity for intensive work depends to a large extent on the state of his or her health. Therefore, good health status is one of the best criteria for assessing the quality of development in a society.

1.2 Health Economics

Health has long been considered a domain reserved exclusively for the field of medicine [Coulibaly.S.O and Keita.M, 1996]. The social, economic and cultural dimensions of providing health care were neglected. It has recently been realised that for solving the problems in the health sector requires the help of other professionals working in the field of health economics [Ibid]. Health economics can help both the developed and the developing countries to utilize available medical resources in the most effective manner.

The growth of health economics as a sub-discipline of economics can be dated only from the 1950s (in the USA) and the 1960s (in the UK) when a number of professional economists began to apply their concepts and theories to the field of health (Lee.K & Mills.A, 1985). After the Alma Ata Declaration in 1978, health economics became prominent as an important branch of development - welfare economics.

Health economics can be broadly defined as the application of the theories, concepts and techniques of economics to the health sector (Ibid). Thus it is concerned with factors such as capital and current costs, depreciation, the direct cost of sickness including cost of prevention, detection, treatment, rehabilitation, research, training, indirect costs which
include loss of output to the economy, disability and so on. Though health economics was connected only to the economics of health services in the past, it is now increasingly related to all the activities that affect health.

An important stimulus for the development of health economics has been the continuing growth in the share of health expenditures in the GNP of nearly all countries (Van Etten G and Rutten F, 1986). In order to attain more effective financing, it is necessary to determine the cost, benefit and effectiveness of different health care services. The scope of health economics covers a wide range of issues such as inter-relation between health and economic development, health planning, costs and benefits of medical care, choice of resource allocation, financing of health care services, demand and supply of health care services, economic efficiency and equity in medical care provisions, health as consumption versus investments, etc (Panikar.P.G.K, 1993). Health economists can provide interesting insight into the way health services operate and how they could operate better. Economics is primarily concerned with the promotion of efficiency in health care. This will normally mean attempting to maximize the health of a society within a given budget. Thus health economics is a social science that analyses the costs and consequences of health endeavours and explains, predicts and prescribes the allocation of resources. The issues discussed by health economics are ever-widening. A concept that gained a great deal of attention in the gamut of health economics is ‘medical pluralism’. In this context, it is useful to examine how various authors have sought to define medical pluralism.
1.3 Important Systems of Medicine

The term ‘systems of medicine’ covers both traditional and modern medicine. Here, traditional medicine is a vague term used to indicate ancient and culture-bound health care practices that existed before the application of science to health matters (Bannerman R.H, 1982). All known cultures of the past - Egyptian, Babylonian, Jewish, Greek, Indus Valley and others had their own equally glorious and useful medical systems and health care (ISM & H, 1998). Among the past systems of medical treatment, the most popular are those of the Chinese, the Egyptian, the Greek and the Roman.

The Chinese system of medical treatment dates back to 2700 BC. The Chinese physicians were well aware of dietetics, hydrotherapy, massage and drugs. The Egyptian medicine dates back to 2000 BC. It occupied a dominant place in the ancient world for about 2500 years till it was replaced by Greek medicine. An early practitioner in Greek medicine was Ae Sculapius (1200 BC). The greatest Greek physician was Hippocrates, the ‘father of medicine’. The Greek theory is similar to the ‘tridosa theory’ in Ayurveda. The Greek civilization fell into decay and was succeeded by the Roman civilization. The Romans owed much to the Greek for their medicines. The noted medical men in Rome were Celsus and Galen (130-205 AD). Galen’s writings were accepted as the standard norm in the field. Modern medicine (Allopathy) is defined as that discipline of medical care advocating therapy with remedies that produce effects differing from those of the disease treated (Canary J J, 1983).
The evolution of this medical system is still vague, but its beginning can be traced back in the detailed description of medical conditions found in the Vedic hymns centuries before. It is only in the last 100 years that specific qualifications have become an essential requirement for the practice of medicine, nursing, midwifery and other health professions. The traditional medicine is an integral part of the national health care systems in developing countries. Even in developed countries traditional medicine is availed as an alternative to modern medicine.

1.4 Systems of Medicine in India

Traditional systems of medicine in India include ayurveda, siddha, unani, yoga, homoeopathy, acupuncture, naturopathy, folk and tribal and herbal medicines (Mullick.B, 1991). The medical systems that are truly Indian in origin are the ayurveda and the siddha systems, whereas allopathy is the modern or Western system of medicine. The following are the most widely- practiced medical systems in India.

Ayurveda

By definition ‘Ayurveda’ means the ‘science of life’. Its genesis can be traced long back to the Vedic times about 1500 BC. This knowledge has played a crucial role in the development of Indian culture. People believed that the medical knowledge in Atharvaveda, one of the four Vedas, gradually developed into the science of ayurveda. In ancient India, the celebrated authorities in ayurvedic medicine were Atreya, Charaka, Susruta and Vaghbata.
Ayurveda is considered to have divine origin representing one of the oldest organized system of medicine for positive health and cure of human sickness. By systematic careful observation and by documenting detailed experiences over the past several thousands of years, it has grown into a very comprehensive health care system. Of the different systems of medicine practiced in India, ayurveda is considered to be the best by most people. (Singhal.G.D and Dwivedi.R.N, 1976).

Siddha

This system of medicine has been existing in South India especially in the Tamil districts of the Madras Presidency for the last many centuries. The documents of this system have been written in Tamil, the interpretation of which is indeed difficult for an average man. The sage Agastiar is considered as the pioneer of the siddha system. This system of medicine got developed and flourished in the Dravidian culture, which belongs to the pre-Vedic period. The siddha system is largely therapeutic in nature.

Unani

It is also called Tibb and is built upon the ancient Greek medical concept of Hippocrates and Galen. It originated and developed with the help of the contributions made by eminent physicians of different religions and different regions. The Muslim rulers around 6th century AD introduced it into India. This system is a much developed and advanced system of medicine and the unani physicians were the first to classify the diseases on the basis of different anatomical and physiological systems of the body.
Medicines are not costly in this system. The government of India recognized the merit of unani system and attempts were made to develop it as a viable system of medicine for national health care. Several state governments have established unani colleges, dispensaries and hospitals.

**Homoeopathy**

Samuel Hahnemann of Germany propounded it. It was introduced in India between 1810 and 1839. Homoeopathy, though a relatively younger system of medicine, has been widely accepted and practised in India.

In homoeopathy the main emphasis is on the remedial agents in illness and health. It is a low cost system using only non-toxic drugs, and has established a reputation for successful treatment of chronic ailments and effective in curing certain diseases for which there is little treatment in other systems.

**Yoga**

The system of yoga is as old as ayurveda. About 2500 years ago, Patanjali propounded it in a systematic form. The practice of integrated type of yoga prevents psychosomatic disorders/diseases and improves individual’s resistance and ability to endure stressful situations. Studies have revealed that the yogic practice enhances the intelligence and memory and helps in developing resistance to endure situations of strain and stress. (ISM & H, 1998).
**Nature Cure**

Sometimes the disorders of the human body get cured without the use of any drug. People have observed this feature in all ancient Indian, Egyptian and Greek civilizations. Although its practice and definitions vary, naturopathy claims to be the medicine of common sense, where patient and practitioners cooperate to take maximum advantage of ‘the self-regulating, self-adjusting and self-healing ability of the human organism’ (Bloomfield.R.J, 1983). Bloomfield has proclaimed that all systems of medicine have an element of naturopathy as a basis.

**Modern Medicine (Allopathy)**

The Western medicine in India, known as allopathy was brought into practice during the era of British colonialism. The Bhore Committee designed India’s first national health care policy outline in 1946, giving more importance to the allopathic system.

Thus in the pre-colonial period, India had a number of indigenous (traditional) medical practices and ‘folk medicines’ were popular among the tribes. During the colonial period there was a transition from the traditional to the modern (western) system of medicine. This transition was originally concentrated in the urban areas while the rural population continued to depend on the traditional systems of medicine. Over the years, allopathic system of medicine has turned out to be the most dominant among the various systems (Sundar Ramamani, 1995). However, in recent times, there has been a revival of interest not only in ayurveda, unani and homoeopathy, but also in other systems like naturopathy and acupuncture. The trend is towards a holistic approach to health care.
1.5 Systems of Medicine in Kerala

The systems of medicine in Kerala include allopathy, ayurveda, siddha, unani, homoeopathy, etc. Ayurveda has a deep rooted and widespread influence in Kerala. Kerala has contributed greatly to the development of the system over the years.

The health care facilities under major systems of medicine in Kerala are explained in the third chapter.

1.6 Medical Pluralism - Meaning and Definition

The philosophic doctrine, ‘pluralism’ means that the universe consists of more than one substance, such as matter and spirit (Compton’s Encyclopaedia, 1980). The concept ‘medical pluralism’ was used by Leslie (1980) as cosmopolitan medicine competing with numerous alternative therapies (local medical system). According to Lee R P (1982), the systems of medicine practiced in China, Hong Kong and Taiwan reveals the presence of pluralistic system of medical practice. Bhardwaj.S.M and Paul.B.K (1986) used the term as different medical cultures in Bangladesh. The two formally structured systems of medicine, modern and traditional; existing side by side in Sri Lanka is considered as plural medicine by Waxler-Morrison.N.E(1988). The alternative systems of medicine practiced in India are treated as medical pluralism by Minocha.A (1980). In Kerala, Boban Jose (1990) used the concept medical pluralism in the sense of more than one type of medical system that came into practice in the tribal world. In the present study, the concept is used to denote the alternative/different
systems of medicine particularly allopathy, ayurveda and homoeopathy followed by Keralites. The present researcher used the same concept in an earlier study, as alternative systems of medicine followed by the people in rural Kerala (Anitha V, 1997).

1.7 Relevance of Medical Pluralism

In the developing world there are two major systems of health care that co-exist - the traditional and the modern. According to the report of WHO (1997), over 80% of the world population depends on traditional systems of medicines, largely plant-based, to meet their primary health care needs. In the United States it is estimated that one-third of the population use at least some form of alternative treatment such as herbal medicine, accupuncture, chiropractic and homoeopathy. Surveys in European countries have shown a similar interest. Sixty per cent of the Dutch and Belgian public have expressed their willingness to pay extra health insurance for alternative medicine and 74% of the British public favour complementary medicine being available on the National Health Service (WHO, 1997) Acupuncture is used worldwide and it has been in constant use in China. There are nineteen WHO’s collaborating centres for traditional medicine, eight of which are involved in training and research on acupuncture, while the others are conducting research on herbal medicine.

WHO strongly supports promotion and development of rational use of traditional medicine throughout the world. There is a growing realization all over the world that traditional systems of medicine offer cost effective
option. The world is witnessing a resurgence of traditional systems of medicine. The toxicity and side effects of the modern systems of medicine have highlighted the importance and relevance of traditional systems of medicine. There is a growing recognition that while modern systems provide treatment to specific diseases, traditional medicines take a holistic view and offer prescription for the human well-being. (Health and Family Welfare Department, Tamil Nadu, 2005).

As mentioned earlier, there are different systems of medicine in India that include allopathy, ayurveda, siddha, unani and naturopathy and yoga which were evolved as a part of the ancient civilizations of the sub-continent or assimilated from other civilizations. Homoeopathy is widely practiced and officially recognized in India. Thus, there is the prevalence of more than one system of medicine viz. medical pluralism in India. The Central Government, which had only allopathic dispensaries, introduced a Health Scheme in 1954, which brought the Indian systems of medicine and homoeopathy in its network. The National Health Policy of 1983 envisages integration of Indian systems of medicine and homoeopathy with the modern system of medicine (Annual Report, AYUSH, 2000-01). The existence of different systems of medicine brings into operation issues like consumer’s choice, comparative costs, pricing etc. into the economics of health care systems.

Traditional medicine is the natural health care practiced in all cultures of human kind from ancient times to the present day. But the craze for westernization has been responsible for the ad hoc adoption of the
allopathic system of medicine with its aggressive commercialised culture (Antia.N.H, 1993). This trend would devalue the indigenous system of medicine and health care. It is argued that the trend in health care system with its overemphasis on the so-called modern system of medicine is loaded with a number of hazards for the economic, social and long-term well-being of individuals. As already mentioned, the WHO has emphasized the strategic role that the traditional system of medicine has to play especially in meeting the health care needs of the rural and tribal population. In this context, issues in medical pluralism constitute an important area for research.

1.8 The Research Problem

As mentioned earlier, in Kerala, there exist different systems of medicine like allopathy, ayurveda, siddha, naturopathy and homoeopathy. Thus there exists medical pluralism in Kerala. The whole medical care system including both the modern and traditional systems tries to safeguard the community from ill health (preventive approach) and to provide effective care (curative approach) at lower costs. At present the general trend is the increasing influence of modern medicine on the one side and the disintegration of traditional systems of medicine on the other. It is often found that the government does not give due importance to the non-allopathic systems while allocating resources. In this context it is important for the government to understand the factors that influence the choice of the system of medicine in both rural and urban areas. It may enable the government to allocate resources more fruitfully among different systems of medicine.
Economics is a science of choice and hence an important issue that should be addressed by health economics in the backdrop of medical pluralism is the choice of the right mix of different health care systems. The present study is an attempt to analyse factors associated with medical pluralism in Kerala and to understand the preference pattern of people for different systems of medicine.

1.9 Objectives of the Study

The main objectives of the present study are:

1) To evaluate the health status of the people in the state of Kerala.

2) To analyses the cost differentials among different systems of medicine.

3) To identify the factors that influence the choice of the system of medicine in rural and urban areas, and

4) To analyse the rural-urban variations in the pattern of preference of people for alternative systems of medicine.

1.10 Hypotheses

The following are the hypotheses to be tested for the present study

1. Socio-economic and environmental factors influence the health status of people and their choice of the systems of medicine

2. Cost differentials influence the choice of different systems of medicine.

3. There exist significant variations in the preference pattern of the people for different systems of medicine in rural and urban areas.


1.11 Methodology

The study is primarily empirical. Both primary and secondary data are used for the study. Secondary data are mainly used for the general overview of the health status in the state. However, for a comprehensive study on health status and medical pluralism, secondary data alone are not sufficient. Therefore, a sample household survey of both rural and urban population was conducted.

The three different indicators usually used for analyzing human development include the standard of living, level of literacy and the health of the population. In the case of variables such as per capita income, the proportion of people living in permanent type of houses, literacy rate, child mortality rate, the percentage of institutional deliveries, the percentage of old age population, etc., the figures pertaining to Kollam district compares favourably with the all-Kerala average (Economic Review, 2002). Therefore, Kollam provides an appropriate case for the field survey related to the present study. Moreover, the district has rural and urban areas, both having access to different systems of medicines like allopatherapy, ayurveda and homoeopathy. Hence, Kollam district is selected purposively for the household survey. Altogether 200 households were covered in the field survey - 100 from the rural areas and 100 from the urban areas. Data have been collected through the interview method.
Purposive random sampling technique was also applied for the selection of the rural area for the field survey. The rural area for the study is Eroor panchayat, a typical rural one among 69 village panchayats of Kollam district. Kollam corporation is selected as the urban area for the study as Kollam is the only corporation in the district.

Systematic sampling is used for selecting the household units. Every 100\textsuperscript{th} house is selected as a sample unit from each ward in the urban area, whereas in the rural area, every 25\textsuperscript{th} house is selected. The number of household units selected in each ward depends on the size of the population. Assessment registers of the Panchayat and Corporation are used to identify the houses. A detailed questionnaire was prepared for collecting primary data (See: Appendix-III). The software - Statistical Package for Social Science (SPSS) is used for processing the data.

Indices for socio-economic status, environmental status and health status are constructed according to the general formula used by the United Nations Development Program (UNDP) for the calculation of Human Development Index (HDI). These indices are then used to find the relation between health status and socio-economic status, and also the relation between health status and environmental status. Statistical techniques like $\chi^2$ test and logistic regression are also used for an in-depth analysis. Average cost of each system is calculated for analyzing the cost variation among different systems of medicine.
1.12 Conceptual Framework of the Study

Health status is a complex concept, which is determined by a range of factors, which may vary across the country from time to time. In India health is related to economic development, anti-poverty measures, food production and distribution, drinking water supply, sanitation, housing, environmental protection and education (Wasan R.K, 1990). Social stratification is also found to be playing a vital role in the morbidity pattern, health action, utilization of health resources and health practices in a rural community (Kopparty, 1994). Basu (1992) states that health status is influenced by social, economic and cultural factors. Kannan et al. (1991) have analysed the linkages between the health status and the socio-economic status in rural areas in Kerala. Thus the health status of the population depends on many factors such as level of development, demographic, socio-economic and environmental factors and so on.

A conceptual framework has been formulated by the author for the present study. The framework consists of different inter-related groups of factors, which influence the health status of the population and the pattern of preference for different systems of medicine in the state. The first group is related to demographic factors like age, sex, religion and caste. The second set consists of socio-economic status, which includes education, per capita income, occupation and nature of housing conditions of each individual. In the next classification, environmental status is considered which includes variables like sources of drinking water, sources of water other than for drinking purposes, sanitary facilities, cooking devices used,
facility for the disposal of wastewater from the kitchen, disposal of solid waste, and accumulation of water in the compound and surroundings. The fourth set relating to the health status consists of episodes of illness, physical fitness, and temporary absence from work, nutritional status and the exposure to health awareness. The last category includes the utilization of different systems of medicine/health services. It includes accessibility, cost of treatment and the reason for preferring one system of medicine to another. The study attempts to analyse the inter-relationships between these groups of factors and their impact on the health status and the preference pattern for the different systems of medicine in Kerala.

1.13 Limitations of the Study

The study mainly takes into account the curative aspects of different health care systems and deals with only a minor part of its clinical aspects. The cost of treatment is analysed on the basis of market prices during the period of the survey. No attempt has been made to value the benefits. It is a one-time survey and therefore does not reflect the seasonal variations in the disease pattern. Above all, the data collected for the present study are not entirely quantifiable.

1.14 Organisation of the Thesis

The study is divided into seven chapters. The introductory chapter includes the importance of the topic, the statement of the problem, objectives, hypotheses, methodology, conceptual framework of the study and limitations of the study.
The second chapter provides a review of the literature related to the study. The related studies are classified into four groups namely, (i) studies relating to health status, (ii) studies relating to medical pluralism, (iii) studies relating to comparative cost and (iv) other related studies.

In terms of health indicators and health care facilities, Kerala’s performance is better than the all-India average. But the state still faces high morbidity rate, low maintenance of health infrastructure, growing prevalence of lifestyle diseases, diseases of the elderly, etc. All these are explained in chapter three under the heading Health Status and Health Care in Kerala.

The fourth chapter analyses the general characteristics of the study area - Kollam district, its households and sample population. In this chapter, the results of the field survey are presented which include demographic, socio-economic and environmental characteristics of the households, knowledge of the family about health related matters and health characteristics of the sample population.

The fifth chapter consists of the construction of different indices such as socio-economic status, environmental status and health status for verifying the hypotheses. The $\chi^2$ technique is used to test the major hypothesis that the socio-economic and environmental factors influence the health status of people.
The sixth chapter examines the rural-urban variations in the preference pattern of different systems of medicine of the people. It analyses the different factors that influence the choice of the rural and urban population regarding the alternative systems of medicine. The second hypothesis is verified in this chapter. The third hypothesis and a part of the first hypothesis, that the socio-economic and environmental factors influence the choice of the systems of medicine, are also tested in this chapter. For this purpose, Logistic regression analysis is used.

The concluding chapter includes a summary of the study, major findings and suggestions.