CHAPTER II

REVIEW OF LITERATURE

Studies on health economics mainly deal with such aspects as cost of health care, health care expenditure by the government, cost and benefits of health care administration and treatment being the most exciting area revealing significant information pertaining to the general health conditions of the people and their spending on health activities.

Primary health consists of all sorts of health care services needed for every one irrespective of his position in the society. No matter if he is rich or poor, primary health is the basic necessity of an individual. By considering this fact, the primary health care concept is evolved. Government takes the responsibility of administering the primary health care services in any economy. In India, primary health care administration and services constitutes a vast network involving huge amount of expenditure. In economics, there is a great need to study the cost structure, expenditure position and benefit analysis of the primary health care institutions. Infact, till now, there is no single comprehensive study done on this area of interest.

Various studies have covered one or the other areas of primary health care without giving a comprehensive and holistic picture of the phenomenon. It is in view of this, a comprehensive review of literature pertaining to health economics in general and economics of primary health in particular has been done in this chapter. Brief resume of each study is given so as to point out the gap in research and relationship to the present study.

In the area of economic study of primary health, several studies have been conducted in western setting and few studies in Indian setting. These studies differ in respect of aims and objectives and research design. Among them, important literature related to the studies on economic aspect of illness is reviewed in present section.
In India studies have been undertaken on many chronic illness. The study of relationship between economic factors and stress related health such as primary health has advanced significantly in the past fifteen years through the precise nature of the relationship is not yet fully understood.

I. Studies related to Health Services

Other countries

Medical services in the USSR are free, but private practice also exists. For nearly all residents in Norway and Sweden, health insurance covers free hospital treatment, about three quarters of doctor’s fees and subsidized medicines. In Denmark, health insurance covers 90% of residents, providing free medical and hospital care. In Irish Republic, free medical services are provided for those in lower income groups. In Australia, medical benefits are subsidized by the Commonwealth for members of certain registered organizations and in New Zealand, the social security fund provides free hospital treatment and meets certain prescribed medical fees.

In Canada, federal legislation authorizes the provision of hospital and diagnostic services, and has been operated in Saskatchewan and British Columbia, and on a limited scale in Alberta and Newfoundland, besides clinical hospital, nursing school, medical service, public health law, social insurance etc. Ismail et al (2002) analyzed the cost effectiveness of community workers in Tuberculosis control in Bangladesh. In Ginsburg’s (1979) study of mixed economy in medical care which is related to public economics that improve their living conditions, but the realization of the bourgeoisie investment in the sector was necessary for accumulation of capital from the capitalist point of view State welfare contributes to the continual struggle to accumulate capital by materially assisting in bringing labour and capital together profitably and containing the unsustainable resistance and revolutionary potential of the working class.
WHO (1994) studies economic costs as measures of the cost to the country for the consumption of health services. They represent an attempt to measure the true cost of using resources to provide health services. These resources consist of foreign exchange, local currency, labour materials and other inputs including time. The economic cost of a commodity is different from its financial cost because it measures the cost to a country of making available a unit of the commodity whereas, the financial cost reflects only the utilization of resources acquired at their market prices. For instance, duties and taxes are not costs to the country because a tax paid by one person is a revenue to another as tax is a transfer within the economy. Kronerfeld (1993) raised the controversial issues in health care policy that the universal call by the WHO to provide health to all which made it one of the main social targets of governments. According to Timmer (1988) economic aspects improve the nutritional status of the poor and especially during economic improvements though financial resources may be limited.

Szmoiz et al (1990) introduced steps to improve the health status of the population since the 1960s. The effectiveness of many of these interventions would need to be monitored, but the actual statistics and health information required for proper health programmes planning particularly in connections with efforts to reduce maternal morbidity and mortality, remain inadequate. There are also gaps in appropriate consideration of the socio-economic status and cultural determinants of health, seeking behaviour among the poor strata of society reduction in health budget and their impact on health services delivery which have led to a general deterioration of services accessible to the poor.

Garfield et al (1997) analyzed the combined effects of a severe economic decline since 1989 and a lightening of the US embargo in 1992 on health and health care in Cuba. Different methods, data from surveillance systems for nutrition, reportable diseases and hospital diagnosis were reviewed. These sources were supplemented with utilization data from the national health registers. The results changes
in Cuba indicate declining nutritional levels rising rates of infectious diseases, violent deaths and a deteriorating public health infrastructure. Chernichovsky (1977) has explained that economics offers a conceptual framework in which investigations are undertaken of family’s response to changes in its environment. The framework can be useful for policy makers and planners in formulating hypothesis about the effects of intervention programs.

Buzby et al. (1997) observed that economic costs and trade impacts of microbial food born illness related to health economics. This article addresses the approaches to calculate the economic costs of food borne diseases and the interaction between microbial food safety issues and international trade in food. The human illness costs due to food borne pathogens are estimated most completely in the United States. Seven food borne pathogens found in animal products were selected for analysis.

WHO (1976) introduced the origin of international health cooperative which dates back to 1951 when an international sanitary conference the first of its kind was convened in Paris.

The study of Joseph et al. (1970) is related to demand curves that are estimated from 1963 United States household survey. Data analysis limited to those with positive observed quantities of services, use explicit parameters from insurance policies to define net price to estimate price elasticities of demand for hospital, physicians office and hospital outpatient services. The values are found to be small all lying below 0.2 in absolute value. Wage income effects are positive and non wage income is found to have no effect on demand. Insurance coverage is also shown to influence prices of services and as does wages, income and the quantity of services demanded.

Fraser (1996) observed that health research relating future intervention options describe a model for setting priorities in research funding.
Pauline (2001) analyzed the clinical application about ambiguous loss, and the work included in both physical and psychological types of ambiguous loss of the focus.

Michael attempted to introduce health services in United Kingdom and the National Health Service was introduced in 1948 which provides a comprehensive services for every resident. It is administered by the Ministry of Health for England and Wales and for Northern Ireland and also by the Scottish Department. It is financed mainly from general taxation (68½%) and partly from rates (4½%) insurance contribution (13¾%) and from certain charges (4¾%). The total cost for England and Wales was in $ 809 Million in 1961 out of which hospital and specialist services took 56% general medical and pharmaceutical services about 11% each and local authority and other services 23%.

Tediosi et al (2001) analyzed management and cost of dialysis in the Italian national health service wherein information on efficacy, and health related quality of life have been reviewed. The clinical differences between the dialysis modalities seem to be related to their appropriate patient groups. Efficacy rates are similar and the only difference is in complications and health related quality. Traditional haemodialysis can be done in dialysis centres. High flux haemodialysis (HFHD) is generally done in hospitals, while peritoneal dialysis (PD) is usually done at home. The cost analysis was performed on a sample of Italian dialysis centres and hospitals according to the full cost method.

Gilson et al (1950) study is related to structural quality which is a key element in the quality of care provided at the primary level. It aims to offer health care interventions of proven efficacy. This assessment of the structural quality of Tanzanian primary health services indicated serious weaknesses in the available physical infrastructure as well as supervision and government and non governmental services and also first referral level services.

The study of Joseph et al (1984) noted that primary health care requires strong and continued political commitment at all levels of
government based upon the full understanding and support of the people. It recommends the governments to express their political will to attain health for all by making a continuing commitment to implement primary health care as an integral part of the national health systems within overall socio economic development with the involvement of all sectors concerned so as to enable legislation to stimulate mobilize and sustain public interest and participation in the development of primary health care.

Wilkend et al. (1984) studied psychological effects a year after the first myocardial infraction in 177 male patients, aged below 61 years. Emotional distress, self reported symptoms, avoidance behaviour, over protection, pessimism and decreased sexual activity indicated a poor adaptation. These disturbances were apparent two months after the myocardial infraction and remained stable. Psychological factors were found to be stronger determinants of maladjustment than smoking, angina and somatic illness. Neither severity or infraction nor social and demographic factors were found to determine maladjustment. The authors suggested that interventions must take place early and should target psychological factors as well as cardiac conditions in one of the earlier studies of emotional social outcome after a health support.

Castro and Musgrove, (2000) observed that one crucial difference is that there is nothing in education corresponding to referrals in medical care. A sick or injured person can be referred “up” from a health care or physician to a hospital and referred “down” when hospital care is no longer required. There is a natural hierarchy of organizations and treatments in health care, but there is no natural sequence like primary education followed by secondary schooling and by university or other higher-level training. If the health system worked the same way as education, no patient could get into a hospital until he or she had spent years at health posts and three more years attending illness. In schooling, the worse results are at one level. To proceed to the next higher one in health care, the opposite is true. This is one of
the reasons why health care costs increase more rapidly than educational costs one fails in primary school may not be sent to college. To emphasize these differences to attack on this imprecise idea, social security comes to the rescue. (Allen and Gillespie, 2001)

On cost effective analysis to justify fortification of basic foodstuff with micro nutrients, (thin iodine, and Vitamin A) straightforward economic analysis does not provide any arguments against the use of fortification to reach all of the population that suffers or is at risk of micronutrient deficiencies and that consumes purchased food. In particular it is hard to see any reason to consider fortification less natural or less sustainable than other approaches to increasing micronutrients intake such as promoting household garden or otherwise changing eating habits. Taken together, the actual and potential food policies and programmes accomplishment in improving child health service falls short of the potential (Allen and Gillespie 2001)

Conn Taylor and Albele (1991) explored age and gender differences in physical health, psychological state and regimens adhered in a study of 197 adults myocardial infarctions, services aged 40-80 years. 12 years after their first myocardial infraction, they found that increased age was associated with higher depression scores, lower quality, less social support, less participation in cardiac rehabilitation, less therapeutic exercise and poorer general health. While women reported poorer health than men, older males were found to be at risk for lower social levels.

Eger and Schratter (1993) studied occupational reintegration and quality of life in 107 consulted patients after inpatient rehabilitation in myocardial infraction in a psychosomatic unit in Germany. The aim was to trace the psychological and cardiological parameters that constituted the patient’s reintegration into work life as well as improved quality of life. The patients were assessed at discharge end after twelve months back home. Higher quality of life was seen in those patients whose psychological status was only slightly impaired, who did not attach too much importance to their job and who reported good physical coping,
social integration and successful adjustment in their lifestyle. No relationship was observed between psychological coping and return to work significantly. Younger and middle aged males tended to return to work more often. It was also found that patients with good physical coping did not suffer a re-infraction in the twelve months.

Indian Studies

The study by Chandrashekar et al (1989) deals with the interaction between health and various economic variables. Joseph et al (1983), says the enjoyment of the highest attainable standards of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social conditions. Nagle et al (1991) discussed health policy and its related issues like poverty and ill-health. The government has to have an appropriate policy framework to initiate a process of health planning in India. Such an attempt was seen in the appointing of the Bhore Committee in October 1943 to survey the status of the health organizations in the country and to make recommendations.

Gupta et al (2003) noted that in most of the states, raising the level of nutrition, the standard of living and public health are regarded their primary duties. According to him, factors which lowers the health benefits are:

1. Lack of positive dynamic and multidimensional concept of health
2. Social injustice
3. Other socio-economic, cultural, religions and public factors.

In his study, Nayar (1988) analyzed the mismatch between the new health services agenda and epidemiological priorities and exploration of the possible alternatives such as decentralization. Benerji (1985) aimed to the delivery of preventive, promotive and rehabilitative health care, serving as institutional life support system for the poor in the country. The micro-economic agenda under structural adjustment
programmes initiated in the nineties undermined the approach to primary health care and enforced an entirely new paradigm of health services.

The study of Phadke (2003) is another relative study of health care services in Mumbai. Health care is an important step in the health infrastructure in India. The programme organized by the Jana Swasthya Abhiyan (JSA) was decided to commemorate the 25\textsuperscript{th} anniversary of the famous Health For All by 2000 declaration that emerged from Alma Ata Conference. It may be recalled that the J.S.A. formed in the People's Health Assembly (PHA) held in Kolkata in December 2000 is a broad nationwide health coalition consisting of hundreds of organizations which have decided to pursue the aim of the Alma Ata Conference.

According to Khatri \textit{et al} (2002) tuberculosis control is still a major challenge in India. To reach its potential, the control programme needs to continue to expand so as to cover the remaining half of the country, much of which has a weaker health infrastructure than the areas already covered. Increase its reach is essential so that greater proportion of patients are treated to ensure sustainability and to improve patient's friendliness of services confronting TB and human immuno-deficiency virus (HIV) infections. It is expected that HIV will increase the number of TB cases by at least 10\% with an increase in higher percentage of HIV.

Sain's (1986) study is related to the cases of heart attack, in the age group of 35-54 which is 60\% to 70\% more among tobacco users and smokers. Tobacco chewing and smoking adversely affect potency of men and give way to epilepsy and cause mental and physical retardation. Besides irritation of eyes, nose and throat, bronchitis asthama and tonsillitis and larynx.

Preker \textit{et al} (2001) revealed that the twentieth century witnessed greater gains in health outcomes than any other time of history. These gains resulted partly from improvements in policies (housing, clean water, sanitation systems and nutrition) and greater gender equality in education. The gains also resulted from new knowledge about the
causes, prevention and treatment of diseases and from the intervention of policies, financing and health services made accessible more equitably.

Krishnan's (1982) study is related to the urban primary health care services and the outreach of primary health care, especially family planning and mother child health services in the urban slums or places inhabited by poor people,

Panchamukhi (1994) points out that economics of health is of relatively recent origin in the discipline of economics. It has developed much faster with combinations of research and governmental support during the post independence period. Though there is a symbiotic relationship between education and health, the social economic aspects of this relationship have received very little attention in policy making.

According to Seeta Prabhu (1994), there has been a decline in the share of revenue expenditure on health in total revenue expenditure as well as social sector expenditure on medical and public health between 1985-86 and 1991-92. She further reiterates this fact that within revenue expenditure, the rate of growth of the salary component has been higher than that of commodity purchase, which is bound to adversely affect the already poor quality of services rendered in the public health facilities.

Dasgupta (1990) notes that health is an important constituent of wellbeing and foundation for prosperity and development of a country. It is generally indicated either by life expectancy at birth or by infants mortality rate.

Mathews (1979) conducted a study on health and culture in a South Indian Village. The objective of the study was to find out the course and treatment of different diseases. This study reveals that villagers had their own beliefs about causes of diseases and they had very little knowledge of allopathic treatment and believe variety of traditional and spiritual healers.
II STUDIES RELATED TO PRIMARY HEALTH CENTRES

Krishnakumar (1986) in his study observes that primary health centres play a pivotal role in the delive of family planning and primary health care services in the rural areas over. Sizeable investment has been made in creating network of infrastructural facilities all over the country for delivering family welfare and health care services. It has now become paramount that this infrastructure be energized to yield optimum benefits. Saigal (1986) states that the study of primary health care services are delivered in the rural areas through a team of workers at the level of primary health centres, sub-centres at the village level. This team consists of community health officer, block extension educator, compounder, laboratory technician, health assistant, male and female health assistants.

Sall (1989) observes that supporting primary health care is not the same as delivering primary health care. When a hospital tries to be both a health centre and a hospital, it gets in a triple jam. It provides bad primary care because if simply is not in an adequate setting to give full attention and time to the human dimensions of individual care. It provides bad referral level care too. Physicians are flooded with primary care work and by competing with the health centres, a competition which the health centres cannot win, given the control over resources and the prestige of the hospital. It robs the health centres of their charm of gaining the credit they need to provide good quality primary care and to lessen the burden of the hospital.

Bharadwaj (1975) analyzes the type of medical practitioners and the systems of medicine preferred by 104 rural heads of households in four selected villages in Raipur district of Punjab. The result of the survey indicated contrary to the views of many social scientists that English medicine and allopathic physicians were generally preferred over the indigenous medicine and its practitioners. Less than 4% of the sampled head of household showed a clear preference for local medicine. In none of the four villages was the indigenous physician preferred solely on the basis of either due to ayurvedic or unani system.
of treatment. About a third of the sample households indicated that their preference for either allopathy or local medicine would depend upon the particular malady. This suggests that the expectancy of cure is more than a consequence of traditional commitment to a system.

Chatterjee (1988) finds that health infrastructure and not expenditure had a positive significant effect on health expenditure and on health attainment. It is reasonable to expect health expenditure to have a positive impact on health status through direct and indirect effects. However, to capture the precise nature of the impact in quantitative terms, it requires rigorous and intricate modeling exercises but none of the above studies have attempted this on a comprehensive manner.

Parks states that the study of primary health care level is the first level of contact of individuals, to be followed by family and community. At the level of care, it is close to the people where most of their health problems can be dealt with and resolved. It is at this level that health care will be most effective within the context of the area needs. The median contact of primary health care is provided by the complex of primary health centres and their sub-centres through the agency of multi-purpose health workers, village health guides, and trained people. Besides providing primary health care, the village health bridges the cultural and communication gap between the rural and people and organized health sector.

Schafer, Coyne and Lazarus (1984) feel that perceived social support would be more strongly associated with health outcomes because it is a more direct measures of support afforded to a person. Wellington and Kessler (1986) reported that perceived support was more important than received support in predicting this adjustment. Perceived social support involves an evaluation of appraisal of whether and to what extent an interaction pattern or relationship is helpful.

Carstairs (1965) collected data from medicine and faith in rural Rajasthan. He has pointed out that the difference between the points of view of psychiatry and village folklore in regard to the established
theories. The study of Marrioti (1955) on western medicine has thrown valuable light on the place of modern scientific medicine in a village in western Uttar Pradesh.

Mathiyazhagan (1999) estimates through logit model by using the rural household survey on health in Karnataka State. The study explores heuristic approach through observations and informal discussions with rural people about their opinion on existing health care services. Nelson and Swint (1976) made the economic evaluation of aspects of health policy whose results have been unequivocal. Over a decade ago, it was shown that the benefits of adding fluoride to water supplies to prevent dental caries outweighed the costs.

Bhore (1944) noted that the study of health education in India can be traced back as early as 1929 when the state of Mysore had established a publicity unit within the state directorate of health services to inform the masses about the better health. By 1940, almost all the states in the country had established publicity units attached to their health services. However, the need for integrated and intensive health education as well as the need for independent organization for this purposes at the national level was realized by later health surveys and development. Many committees strongly recommended the integration of health education both at the centre and the state levels.

**PUBLIC Vs. PRIVATE HEALTH CARE**

Health services are available in India through both public and private sources. Bhat (1991) shows that in India 57% of hospitals and 31% of hospital beds are with private organizations, and voluntary agencies. The study of Jesani and Anantharam (1989) shows that the number of qualified doctors engaged in private practice are almost three times the number in government health services. The conclusions drawn relate to a higher proportion of health services provided by the private sector.

As regards to public and private facilities, several interesting observations emerge from existing literature. Sonya (1987) and World
Bank (1994) distinguish between the use of health services for outpatient – inpatient and preventive care. Both the studies reiterate the predominance of private services in the use of outpatient care. World Bank confirms the conclusion that the demand for private health care does not come only from higher income patients and surprisingly high degree of users of private providers is seen amongst the lowest income groups. However, Sonya observes that the intensity of use of government health services for outpatient care has been growing up quite significantly.

Infact, it has been pointed out that government's network of primary health centres (PHCs) and sub-centres (SCs) have been more involved with preventive care like immunization, special services like family planning and disease control programmes, rather than focusing on curative outpatient care. According to World Health Organization (1994), government is by far the major source of immunizations particularly in rural areas. However, curative care remains largely with private providers. It is more disconcerting and alarming to note that many of these private providers are not fully qualified to practice medicine.

With regard to inpatient care, government facilities are more intensively used than private facilities. According to both Soumya (1987) and World Bank (1994), more than 50% of the rich in many states were using government hospitals both in rural and urban areas. However, World Bank suggests that public hospital care has to be well targeted to the poor, particularly in rural areas.

There is clear evidence in available literature that private health service at a higher level than public health service. Bhat (1991) collected some evidence to show that 7.9% of the annual household consumption is spent on health services, most of which goes to the private sector. World Bank (1994) concludes that on an average a hospitalized treatment for an illness cost the equivalent of at least a month's household consumption expenditure.
QUALITY OF PRIVATE HEALTH CARE

The existence of private health care services cannot be automatically equated with better quality and efficiency. Several important factors affecting private providers can be identified. For example, the agent principal realization between physician and the patient could result in inefficiency or poor quality because the physician has got an incentive for his performance or the mix of medicines prescribed is not necessarily the most desirable from the cost minimization point of pharmaceutical companies.

Some attempts have been made to examine these factors in India. Regarding awareness of minimal cost and quality treatment, Uplekar (1989) found that private physician serving the urban poor in the slums of Bombay have inadequate awareness about the treatment regimen of leprosy but a majority of the people first seek the services of such providers. Greenhalgh (1987) in a survey of 2400 patients treated by private and public medical providers observed that private doctors prescribe a large number of drugs. The study reports that combination / preparations containing hidden classes of drugs are often suggested and anti-infectives are widely used inappropriately. The studies show the incentive problems of physicians in the private sector resulting in the inefficient use of resources. The physicians in the private sector use more injections and medicines than their counterparts in the public sector. In 75% of the cases, physicians in private sector used injections and medicines.

In India there is not much literature on health economics; this is a serious handicap both for the layman and researchers. Some of the institutions that directly deal with aspects on social work and multidisciplinary studies and research possess valuable literature in this field. Bannerjee (1994) comments that some of the key research institutions which have been significantly set up to strengthen the health services system in India have made thus far very little contributions of significance. He cites the example of the All India Institute of Medical Sciences (AIIMS) New Delhi.
An analysis on cost and benefit of primary health care system in terms of major health problems and minor health problems, spending on nutritious food, sanitations, infrastructural facilities has not been covered in the above studies. Hence, keeping in view the gap in research in the field of health economics and primary health, the present study is aimed to cover such aspects as economics of the prevention and cure of major health and minor health problems, infrastructural facilities, food, nutrition and sanitation incurred by primary health units. On the other hand, it also aims to analyze the benefits of these expenditure in terms of beneficiaries.