CHAPTER - II

REVIEW OF LITERATURE

2.1 Introduction

The literature review is an important step in any research process. Review of earlier studies discloses the works and studies done by individual researchers and institutions and help to establish the need for further the study. Reports of surveys undertaken by the government and the non-government agencies provide very useful information to the research process. Various studies relating to the choice of health care services and health insurance have been conducted by different social scientists at micro as well as macro level in India and abroad. While there has been much literature available about the health care services, it is found in the study that the choice of health care services and enrollment of health insurance among industrial workers is of recent development. An attempt has been made in the study to review the earlier studies relating to the health care choice and the enrollment of health insurance among industrial workers.

A scientific research is one which tries to unearth the theoretical background of the field concerned and to understand the research works made on the topic chosen for the study so as to understand the problems to be explored, methodology to be adopted and the social relevancy to be achieved through the given research. Thus, the present chapter has been devoted for those two important aspects of research, viz, theoretical background / concepts and reviews of empirical studies made on this and it related topics. In this chapter, an attempt has been made to review the available theoretical literature on health. Part-I deals with the definitions of health and related conceptual clarifications. Part II dealt with theories related to health and the third Part will review the earlier empirical studies.
PART-I - Concepts and Definitions

❖ Health

"Health has been defined as a state of complete physical, mental and social well being and not mere absence of disease or infirmity". Health is in fact, a positive state of well being in which the harmonious development of physical and mental capacities in the individual lead to the enjoyment of a rich and complete life.

❖ Health Care

Health care is one of the most important of all human endeavors to improve the quality of life. Health Care covers a broad spectrum of personal health services ranging from education and information through prevention of disease, early diagnosis and treatment and rehabilitation.

❖ Health Care Services

The term 'health services' implies organization, delivery, staffing, regulation and quality control.

❖ Health Care System

The health care system is intended to deliver the health care services. It constitutes the management sector and involves organizational matters. It operates in the context of the socio-economic and political framework of the country. In India it is represented by three major sectors, which differ from each other. They are:

1. Public Sector: Hospitals, primary health center, District Hospitals, Specialist hospitals.
2. Private Sector: Private hospitals, Polyclinics, Nursing homes, Dispensaries.

❖ Medical Care

Medical care consists of technical interventions by physicians to deal with already developed medical problems. Consumers recognize symptoms, seek assistance are diagnosed, receive surgical or pharmaceutical assistance, follow medical regimes and
(it is to be hoped) recover. Medical care is economically appropriate if the benefits of the care are greater than the risks to the patient plus the social costs including the direct patient costs as well as the insurer's costs. The term medical care (which often wrongly equated with health care) refers chiefly to those personal services that are provided directly by physicians or rendered as a result of physician's instructions.

❖ Medical Care System

The primary goal of any medical system is to organize the health service in such a manner as to optimally utilize the available resources, knowledge and technology with a view to prevent and alleviate diseases, disability and sufferings of the people. There is no specific pattern of care of health organization and its structure, to institutions and also by the political, economic and value system of the society of which it forms a part. In order to effectively utilize the available technologies and know ledge, it may, therefore, be desirable to look for various organizational options by which the medical care goals can be pursued.

❖ Quality of Health Care

Quality care is a product of health care sources and personnel, which together provide a setting for the process of treatment. It includes access to medical care, patient management, management of interpersonal relationships and continuity of care. Quality of service implies adequate staff, infrastructure, periodic training and retaining, supportive supervision but also strengthening logistic and supply lines of contraceptives, vaccines, medicines and drugs. These aspects by themselves will generate demand for services and improve utilization of the network of health services created. Quality of a unit of health or patient care service depends on the activities actually performed by the provider of health services, e.g., physician, nurses, health worker, etc. If all the prescribed activities are not performed while delivering a health or patient care service, it will not produce the desired result and will be reflected by poor service effectiveness.

❖ Choice of Health Care

A serious illness causes people to use some practitioner rather than none and it is the probability of choosing a private modern practitioner, public modern medical treatment or traditional treatment. Behaviour in medical markets is distinguished by the roles that
Physical need and life cycle pattern play in determining demand. Circumstances, such as accidents, pregnancies and infections, often dominated health care consumption decisions.

❖ Health Development

Health development is usually measured in terms of (a) hospital bed population ratio, (b) doctor and nurse population ratio and (c) per capita consumption of calories particularly derived from proteins. Other indices such as (a) birth rate (b) death rate (c) infant and prenatal mortality (d) birth weight (e) maternal mortality (f) morbidity patterns due to communicable diseases and nutritional deficiencies and (g) life expectancy at birth etc.

❖ Health Economics

Health Economics may be defined as "the economic aspects of health care services that deal with the determination of the quantity and prices of the scarce resources devoted to this and related purposes and with the combinations in which these resources are employed". Selma Mushkin defined health economics as "being concerned with the optimum use of scarce resources for the care of the sick and the promotion of health, taking into account competing uses of those resources”.

❖ Health Insurance

Health insurance provides risk sharing between the insured and insurer, pooling risks among the insured, and sometimes risk sharing between the insurer and healthcare providers. Insurance is a mechanism for transferring funds from the state in which a person is well to those requiring health care.

❖ Informal Sector/Unorganised

“The unorganized sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers”.

❖ Health care Utilization Model

Anderson and his colleagues have set out a model for health care utilization called the structural model for health care utilization (Anderson R and Newman JF 1973). In this model, three sets of determinants have been proposed, that influence health
services utilization. Society and system determinants are postulated to influence individual determinants, which directly inpire on service use. Societal determinants include the current state of knowledge as well as people’s attitude and beliefs about health and illness. The factors operate either directly through their influence on the system factors. System factors include health services resources (both volume and distribution) and organization of health services. However, it is the individual determinants that are directly related to health services utilization (Figure 2.1)

**Figure 2.1: Factors Affecting Health Services Utilization According to Anderson’s Model**

<table>
<thead>
<tr>
<th>Societal Determinants</th>
<th>System Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Norms</td>
<td>Resources Organisation</td>
</tr>
<tr>
<td>Individual Determinants</td>
<td>Pre-disposing Enabling Illness</td>
</tr>
<tr>
<td>Health Services Utilisation</td>
<td></td>
</tr>
</tbody>
</table>

(Source: K. Gangadharan, 2005, Utilisation of Health Services in Urban Kerala)

Individual determinants of health services utilization are further sub divided into three main categories, according to Anderson model (Figure 2.2) they are 1) Pre-disposing variables which are divided into demographic factors and social structure 2) Enabling factors and illness level.

**Individual determinants of health services utilization**

1. Pre-disposing variables which are sub divided into  
   a) Demographic factors such as age, sex and marital status and  
   b) Social structure, such as education, occupation family size religion and beliefs (e.g. Values, attitudes and Knowledge)
Table 2.2: Individual Determinants of Health Services Utilization

<table>
<thead>
<tr>
<th>Pre-disposing</th>
<th>Enabling</th>
<th>Illness level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>Family</td>
<td>Perceived disability</td>
</tr>
<tr>
<td>Age</td>
<td>Income</td>
<td>Symptoms</td>
</tr>
<tr>
<td>Sex</td>
<td>Insurance</td>
<td>Diagnosis</td>
</tr>
<tr>
<td></td>
<td>(type of accessories)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>Community</td>
<td>General health</td>
</tr>
<tr>
<td>Social structure</td>
<td>Facilities</td>
<td>Evaluated health condition</td>
</tr>
<tr>
<td>Education</td>
<td>Costs of Service</td>
<td>Symptoms</td>
</tr>
<tr>
<td>Race</td>
<td>Region</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>Occupation</td>
<td>Urban Rural</td>
<td></td>
</tr>
<tr>
<td>Family size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beliefs</td>
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<tr>
<td>Values</td>
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<tr>
<td>Attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: K. Gangadharan, 2005, Utilisation of Health Services in Urban Kerala)

2. Enabling variables, on the other hand are the conditions, which permit the individual to health services.
   a) Family factors such as income, health insurance type and accessibility.
   b) Community factors such an availability, cost of service and residence.

3. Illness level is probably the most direct factor related to health service use. It includes:
   a) Perceived disability, symptoms and diagnosis and general health.
   b) Evaluated health condition by health personnel (Symptoms and diagnosis)

Anderson health care utilization model depicts the various determinants that influence the utilization of health services namely societal determinants, system determinants and individual determinants. The model developed by us in figure 2.3 deals
with the process of health care service utilization. The starting point for the process of health services utilization is the health status of the people of a given community. The health status generates the need for health or medical care. The need for health care influence some way the attitude of the individual (who becomes a patient) towards the health care he enjoys or receives. Another and probably the most significant factor is the perceived value of health services, which are offered to him and are used by him. In other words the behaviour of an individual towards health care partially depends upon the need for such care (e.g. its intensity, duration) but to a greater extent upon his evaluation of health services needed by him and available to him (K. Gangadharan, 2005).

The patient’s or household’s socio-economic status will decide the choice of whether the free medical service or paid medical services which ultimately estimates the effective demand for health services. The need for health care plus, the socio-economic status creates an effective demand and this seems to be one of the two decisive factors contributing to the utilization of health services. Another factor is undoubtedly the supply of health services. Supply of health services available is divided into public and private and in each category all the system of medicine like allopathic, auyurveda, homoeopathy and other systems of treatment are available. In addition to this, their physical accessibility and financial feasibility is also an important element in deciding the volume of health services utilization. Physical accessibility means the distance to the health centers chosen availability of transportation facility, working time of health centers etc. Thus the degree of utilization of health services is finally dependent upon two basic factors. The supply of health services coming from different inputs resources and the effective demand for health services whose primary source is the health condition of the people which generate their needs for health services supported economically by their financial resources.

The question regarding the factors affecting high morbidity and health services utilization is extremely significant. Once the causes for this high morbidity and factors affecting health services utilization are identified correctly, it would be easy to devise ways to control the high morbidity and augment the volume of utilization of health services.
Figure 2.3: Model of Health Service Utilization Process

Part II. THEORIES OF HEALTH ECONOMICS

2.2 Theories Related to Health

The study is based on some theoretical perspectives. The number of theories related to the topic is available viz; human capital theory, health related theories etc. are

(Source: K. Gangadharan, 2005, Utilisation of Health Services in Urban Kerala)
discussed below. In the past, economists believed that the rate of economic growth of nations could be increased only by increasing investment in physical capital. But since 1960s they have realized that investment in human capital is as important as investment in physical capital. Of all the factors that increase human capital, education is considered very important. The birth of separate branch known as economics of education was announced by Schultz in 1960 in his survey on Human Capital Theory. Economics of Health is similar to economics of education in many respects. Health expenditures are also investment in people as educational expenditures. Quite often, expenditures on education and health are joint expenditures made in the same person. Improved health lengthens life expectancy of a person and this in turn raises returns on investment in his education. Like education, health is consumption as well as investment. Health improves the quality as well as the quantity of labour. Health expenditures contribute to economic growth by reducing mortality and morbidity. There is a general consensus that health must be provided by the State according to need and not according to ability to pay. This is called “Communism in health”.

**a. Health as a form of Human Capital**

The most important and powerful insight is that in addition to health care being an economic good, health itself can be thought of as good, albeit one with special characteristics. It can be regarded as a fundamental commodity: one of the true objects of people’s wants and for which more tangible goods and services- such as health care- are simply a means to create it. This theory originates from the work of Becker (1965) and Grossman (1972), but it can be traced to 18th century economists such as Jeremy Bentham (1780), who wrote the “the relief of pain” as a “basic pleasure”.

If it is accepted that health is a fundamental commodity, demand for improvements in health can be analysed in very similar ways to the analysis of demand for other goods and services. A key differences is that because health is not tradable, it is not possible for it to be analysed in the market framework (i.e., improvements in health cannot be purchased directly). Instead, focus here is on the production of health as the key means in which people express their demand for it, which may involve the purchase of goods and services, thereby indirect purchase in health improvements. Health care is therefore derived from the demand
for health. Such analysis can be used for almost any goods or services, but it is of particular importance in health because the consumption of health care is usually not pleasurable, but is undertaken simply to improve health (Morris et al., 2007). A model of the demand for health, developed in the 1970s by Michael Grossman, treats investment in health as a form of investment in human capital (Cuyler and Newhouse, 2000). The general model of human capital was originally developed by Gary Becker in his context of investment in education and it was logical to extend this to health (Becker, 1975).

b) Grossman’s Investment Model of Health

The principle contribution of Grossman’s model is the distinction between health as an output (i.e., a fundamental commodity), which is a source of utility to people and medical care as an input to the production of health. In Grossman’s model, health is both demanded and produced by individuals. Health is demanded because it affects the total time available for the production of income and wealth and because it is a source of utility itself. Ill health reduces both our happiness and our ability to earn. Health is modeled as being produced by individuals, using a variety of means such as diet, lifestyle choices and medical care. How efficient people are in the production of health depends on their knowledge and education. Medical care is but one input to the production of health. Each individual is modeled as starting life with a ‘stock’ of health, which has characteristics similar to capital: health depreciates through time with age, but can also be increased through investments in time, effort, knowledge, or by seeking health care.

Grossman’s model captures two important insights. First, health care is but one input in generating improvements in health: it is now widely accepted that medical care is not the major determinant of health. Second, individuals do not demand health care for its own sake. The utility received from consuming health care is not generated from health care, but from the improvements in health that result. Therefore, the demand for health care is a derived demand. The investment model of health views the demand for health as being conditional on both the cost of health capital and the rate of depreciation of the health stock. As in the investment in a computer, or in any capital good that eventually wears out, the difference between the gross (total) and net investment depends on the rate at which the capital good wears out or depreciates.
The Marginal Efficiency of Capital (MEC) is a measure of how much extra output can be produced with an extra unit of input. Figure 2.4 depicts the schedule of the Marginal Efficiency of Capital of health capital. It shows how much extra expenditure is required to produce an additional unit of health stock. One measures the stock of health capital on the horizontal axis and the costs along the vertical axis. The Marginal Efficiency of Capital curve slopes downward because additional units of investment are assumed to yield smaller marginal improvements in the production of health. In other wards, assume that the production of health is subject to diminishing marginal returns. Hi and Hi+1 are two levels of health stock choosen by individual at different levels of costs of health. The total cost of producing any health stock includes the cost of offsetting depreciation and the cost of incremental units of health stock, represented by C (Johnson – Lans, 2006).

Figure 2.4 Marginal Efficiency of Health Capital

![Production Possibility Frontier](image)


(Source: Diane M.Dewar, 2010)
One can think of the marginal efficiency of capital schedule as the demand curve for health. It can also be seen as a production function for health because it relates inputs and the output of the stock of health. Once we know the marginal efficiency of capital schedule, it is possible to know the level the individual will choose to produce. A rational person will invest additional resources in the production of health to the point where the value of additional degrees of healthiness is just equal to the marginal cost of producing it. The marginal efficiency of capital schedule is specific to an individual. The location of the marginal efficiency of capital schedule depends on a person’s initial stock of health at the beginning of the time period. An individual with the lower endowment of health will require more inputs to achieve the same health stock as an individual with a higher initial endowment. In that case, the marginal efficiency of capital curve will located to the left of the one that describes someone who behinds life in a healthier state. The model does not assume that a given increase in inputs into the health production function will generate the same marginal improvement in different people (Johnson – Lans, 2006).

c) The Investment Aspects of the Grossman Model

Grossman’s theory is based on the idea of household and production. The true objectives are the fundamental commodities which are created within households by using time and market goods and services. The total time available can be used for either direct production of these commodities or for work to obtain income for market goods. For example, in creating the fundamental commodity related to eating, a household can have home-cooked, restaurant, take-out, or prepared meals. Each involves different combinations of the household’s time and market goods. Analogously, health can be produced by diverse activities and goods such as exercise, diet, medical care and lifestyle changes. The theory of health demand starts by assuming that for simplicity, people derive utility from two goods: health \((H)\) and a composite of all other fundamental commodities \((O)\), such that:

\[
U = U(H, O)
\]

Both \(H\) and \(O\) are sums over time, weighted by the person’s time preference: different people have different preferences for when to obtain benefits, some being more impatient than others. \(H\) is therefore a weighted sum of the number of healthy days that
the person enjoys over a lifetime. These healthy days derive from a person’s stock of health (HS), thus greater health stock will lead to a greater number of healthy days. The health stock as a particular time (HS\(_t\)) is determined by the health stock in the previous period (HS\(_{t-1}\)) less any depreciation in health stock that has taken place over that period (\(dt\)), plus any investment in health (\(It\)) that the person has undertaken, such that:

\[
HS_t = HS_{t-1} - dt + It
\]

Health, in this way of thinking, is analogous to other types of capital, such as a machine. For example, one’s health can depreciate over time due to excessive alcohol use or the effects of aging. But this can be offset by other investments that will improve health, such as lifestyle changes or medical care consumption. Both \(O\) and \(I\) are produced within the household and we can define a production function for each of them. Production of \(O\) and \(I\) uses market goods, medical care (\(M\)) and all other market goods (\(X\)) respectively and time spent on either in the production of health (\(T_H\)) or in the production of other goods (\(T_O\)). A third input to both is human capital, usually characterized as the level of education (\(E\)). The production functions are therefore:

\[
I_t = I (M_t, T_H, E_t)
\]

\[
O_t = O (X_t, T_O, E_t)
\]

It is assumed that a person will attempt to maximize their utility, but there are two constraints upon this – a time budget and an expenditure budget. The time budget (\(T\)) is fixed at 365.25 per year, where time is further constrained to time spent on working (\(T_w\)) and time spent being sick (\(T_s\)), such that:

\[
T_t = T_H + T_O + T_W + T_S
\]

The constraint on the expenditure budget is income, which depends on how much time is spent working and the wage rate (\(W\)). How much is spent depends on the costs the market goods, \(M\) and \(X\) and it is assumed that all income is spent, such that:

\[
P_M xM + P_X xX = T_w xW
\]

Both sides of the equation are in terms of present discounted values because they refer to a person’s lifetime income and are discounted at interest rate, \(r\).
Maximization of the utility function, subjected to these constraints and taking into account the production function, leads to an equilibrium condition which can be interpreted as a person equalizing the marginal benefits of health capital and its marginal cost (Grossman, 1972).

d) Gary S. Becker’s Investment Model of Health

Gary S. Becker has inspired a revolution in economic thought, extending the boundaries of economic inquiry and ultimately redefining what economists do. Beginning with his dissertation research published in 1957 as “The Economics of Discrimination”, Becker’s theoretical work has opened to economists the research fields of other social sciences. In addition to his early work on discrimination, Becker is responsible for ground breaking research on social issues such as fertility and demographics, education, crime and punishment and marriage and divorce – all aspects of human behaviour once considered outside the scope of economics. He is best known for his contribution to a symposium on “investment in Human Beings”, published in a special issue of the journal of Political Economy in 1962. This work expanded into a book in 1964 entitled Human Capital, is recognized as a classic piece of research by economists and serves as the theoretical foundation for a field of study under the same title. Within this framework, individuals spend and invest in themselves and their children with the future in mind. Education and training, job search, migration and medical care are all viewed as investments in human capital.

2.3 Theories Related to Health Insurance

2.3.1 Conventional Theory of Health Insurance

The conventional theory of the demand for insurance that originated with Bernoulli and was modified for the health insurance context by Pauly. While various writers have made modifications in this theory to highlight specific insights, one among that Friedman and Savage (1948) and then subsequent health economics papers (Feldstein (1948); Folland, Goodman an Stano, 2001, Phelps 1997, Folland, 1999; Santerre and Neun, 2000). It contains all the essential components of the conventional explanation of why consumer demand health insurance, but it avoids some of the
extraneous components of more sophisticated models. The consumer may choose the optimal level of the insurance payoff or coinsurance rate, given a loss which is assumed to be a fixed amount and which is determined exogenously. In most cases, however, the consumer does not have sufficient leeway to choose the exact level of coverage he wants, so models that describe the optimal level of coverage have limited practical appeal.

2.3.2 Von Neumann- Morgenstern (VNM) Utility Function

The specific shape the Bernoulli proposed for the relationship between utility and income (wealth) is now widely accepted. Originally, Bernoulli asserted the successive additions to income result in successively smaller gains in utility, but there was little need to convince the essential truth in this concept. Von Neumann –Morgenstern expected utility theory had a number of other features that made based on a series of fundamentally appealing axioms. Second, its derivation was consistent with Ordinal utility and the indifference curve theory of demand. This utility function is the basis of the conventional theory of the demand for health insurance. Conventional theory has held that the curvature of the consumer’s utility function reflects the degree of risk averseness of the consumer. The more concave the utility function, the more “risk averse” the person is. Therefore, the second consumer described is more risk averse than the original one, because her utility function is more “curved”.

2.3.3 Conventional Utility Theory

The conventional utility theory of the demand for insurance and health insurance assumes that the consumer’s VNM utility function exhibits diminishing marginal utility of income. Diminishing marginal utility of income, however, is assumed to be equivalent to risk aversion in economic theory. Instead of specifying that marginal utility of is diminishing, it is therefore considered equivalent simply to assume a “risk averse” utility function. Conventional expected utility theory also assumes that there is “loss” and that the loss is exogenously determined. Although in some models, the consumer’s problem is to choose a lump sum payoff such that expected utility is maximized, in his simplified model, it is assumed that the consumer is presented with the more limited choice: either
purchase a certain insurance policy or not. The consumer’s decision depends on the expected utility with or without insurance. Further assume that the probability of becoming ill and that this probability is exogenously determined. Finally, they assume that the insurer has no administrative costs and therefore changes a premium, \( R \), that is actually fair. To be clear, an actuarially fair or “Pure” premium is one that is equal to the expected payoff. Under the conventional model, the consumer appears with a choice between

(1) being uninsured and having an uncertain outcome with an expected utility, or (2) being insured and having a certain outcome with certain insured, the consumer is opting for a certain level of utility over an insurance has been interpreted as a demand for certainty or, equivalently, for avoiding risk. This theory stands conventional theory on its head. Conventional theory assumes that all moral hazard (moral hazard was the term insurers use for the additional health care that was purchased when one is insured) was inefficient and represents a reason why consumers would not purchase health insurance. The new theory holds that most of moral hazard was efficient and represents an important reason why consumers purchase health insurance. “Conventional theory holds that health insurance was demanded because consumers prefer the certainty of a premium payment to an uncertain loss of medical expenditures of the same expected magnitude. The new theory relies on empirical studies that have shown that just the opposite was true: consumers tend to prefer an uncertain loss to a certain loss of the same expected magnitude. Therefore, preferences for certainty, if anything, would lead the consumer not to purchase insurance”.

### 2.3.4 The Theory of Demand for Health Insurance

According to Prof. John A. Nyman, the demand for health insurance was a demand for an income transfer in the event of illness. This income transfer allows those who become ill to purchase more health care and other goods and services than they would if uninsured. Insurance was purchased because the expected value of the additional health care and other consumer commodities (when ill) exceeds the expected cost of paying the insurance premium (when healthy). Because of the high costs that would be incurred if insurance paid off with lump-sum amounts (e.g., costs of writing complex contracts and monitoring for fraud), most health insurance contracts pay off by reducing price. Even though such price-payoff contracts generate some inefficient spending on
health care, they are still likely to be more efficient than lump-sum payoff contracts. The new theory suggests that the gain from insurance was better analyzed with the Bernoulli utility function, rather than with the von Neumann-Morgenstern utility function, which confuses preferences for income with preferences for lotteries. For illnesses where medical expenditures are the same with or without insurance, the Bernoulli utility function was sufficient to explain the purchase of fair insurance. While preferences for certainty may still enter the insurance decision in a secondary way, the primary motivation was the desire to obtain an income transfer when ill.

In the Theory of the Demand for Health Insurance, Professor Nyman, presents a new theory of the demand for health insurance. According to this theory, the demand for health insurance is a demand for an income transfer in the event of illness. This income transfer allows those who become ill to purchase more health care and other goods and services than they would if uninsured. Insurance is purchased because the expected value of the additional health care and other consumer commodities (when ill) exceeds the expected cost of paying the insurance premium (when healthy). Because of the high costs that would be incurred if insurance paid off with lump-sum amounts (e.g., costs of writing complex contracts and monitoring for fraud), most health insurance contracts pay off by reducing price. Even though such price-payoff contracts generate some inefficient spending on health care, they are still likely to be more efficient than lump-sum payoff contracts. This theory stands conventional theory on its head. Conventional theory assumes that all moral hazard (moral hazard is the term insurers use for the additional health care that is purchased when one is insured) is inefficient and represents a reason why consumers would not purchase health insurance. The new theory holds that most of moral hazard is efficient and represents an important reason why consumers purchase health insurance. Conventional theory holds that health insurance is demanded because consumers prefer the certainty of a premium payment to an uncertain loss of medical expenditures of the same expected magnitude. The new theory relies on empirical studies that have shown that just the opposite is true: consumers tend to prefer an uncertain loss to a certain loss of the same expected magnitude. Therefore, preferences for certainty, if anything, would lead the consumer not to purchase insurance.
Part III Review of Empirical Studies

Many contributors have recorded and reflected on the main aspects of Health Economics, since early eighties. The earlier studies collected by the researcher on this subject would be broadly classified into four sub-themes namely,

(A) Studies on Health Seeking Behaviour and Health Care Choice  
(B) Studies on Demand for Health care  
(C) Studies on Health care Expenditure and Health care Finance  
(D) Studies on Health Insurance.

Thus, this chapter consists of four sections discussing earlier studies on each theme. The review of literature gives an account of various studies conducted in the research topic selected namely Economics of Health care services. This serves as a background for the investigator to have a knowledge of facts relating to economics of health care services, in the previous studies. Proper need for health care and adequate provisions of health care have become indispensable for the welfare of the community. A rich literature is available on Economics of health care services. A large number of studies have been completed on Economics of curative, preventive, promotive and rehabilitative health care services. These studies have been made in different sectors namely public sector, private sector, voluntary charitable organisations and indigenous home sector. It is essential to have an overall review of such studies, relating to Economics of health care services.

Section A: Studies on Health Seeking Behaviour and Choice of health care services. Some studies relating to this area are portrayed in this section.

A. Studies Related to Health Seeking Behavior and Health Care Choice

In this paper on non-monetary determinants of medical care demand, J.P. Acton (1975) demonstrated that time plays an important role in the rationing of medical services, particularly in situation where the prices of these services have been drastically reduced by insurance or by public expenditure programs.

The study done by Gupta and Dasgupta (1989) was to study the health status as well as treatment seeking behavior of those living in Delhi and to add to the understanding of the status of urban health and healthcare in India. The distribution of the households was roughly proportionate among the three areas: area I (184 households),
area II (172 households) area III (170 households). There was in all 2745 individuals spread over 526 households. The model used in this study was best described as a maximum likelihood Probit model with sample selection. A person’s work status, marital status and the monthly household income were significant explanatory variables for explaining the probability of seeking care. Gender, age and education are not significant determinants of care in the case of the rural sector. In contrast, the educational attainment of the individual concerned did significantly affect the probability of seeking care in Delhi, though gender and age did not seem to be significant determinants of care.

**Germona M. Mwabu (1989)** in his study Non-Monetary Factor in the Household choice of Medical Facilities examined the variations in the effect of time price on household's health care-seeking behaviour in different seasons. According to this study, the financial costs of travel were the main barriers to the utilization of Government hospital though it provides better service at free of cost. An increase in income makes a visit to the Government hospital more attractive than any other facility. Based on the empirical results, the monetary factors, that is, the monetary costs of treatment and in most cases, the monetary incomes have statically effects on households' choice of clinics. Apart from other determinants like income, status, distance, time cost, etc. styles and attitudes of people also influence their choice. Due to life style few may choose high level of medical care with high expensive facilities. But it is also true that life style is based on the income. They found that when income is more the life style will be costlier.

**Madhu Nagla (1989)** in his study on ‘Medical Sociology’ had observed that the allopathic system of medicine is dominating the scene and the quick relief provided by modern medicine professionals. The study revealed the importance of the socio–cultural and economic background of the patients and their conception of illness treatment, which also affects the course of therapy. However, it has been observed that highly educated persons were not in favour of traditional values and norms. It has been found that educated patients with urban background and high income were better aware of illness and recognized them were correctly and were also, more favorably, disposed towards seeking medical care. This shows that social status of people is also an important factor in seeking medical care.
In his study on the cost of health care, Ravi Duggal (1990) had tried to find out what the common people spent from their own pockets for medical treatment. It was reported that people go most often to the private doctor even if they have to borrow money. Here the quality of care is deterrent. The utilization of government facilities is very small in comparison with the private facilities. The poor form the largest number of those using government health services.

Flex Moncler and Murugesan (1990) in their study on rural health care service had identified the problems faced by the consumers in availing of health care services offered by the Government health services. An attempt has also been made to study the relationship between the income level of the respondents and the sources of health care service. The income-wise analysis reveals that the respondents less income group avail public ‘health care services and respondents belonging to the higher income class’ avail both private and public health care services. It could be concluded that the public care services are mostly availed by the ‘lower income class’ people.

Madhu Nagla (1991) had observed that the Allopathic system of medicine is dominating the scene and the quick relief provided by modern medicine professionals. The study revealed the importance of the socio-cultural and economic background of the patients and their conception of illness treatment, which also affect the course of therapy. However, it has been observed that highly educated persons were not in favour of traditional values and norms. It was found that educated patients with urban background and high income were better aware of illness and recognized them more correctly and were also, more favorably, disposed towards seeking medical care. This shows that social status of people was also an important factor in seeking medical care.

Venkateswara Rao (1991) explained how cost and distance influence the poor and rural population. Big hospitals with modern equipment and highly specialized medical personnel do not substantially contribute to the health care and rural and urban poor. The treatment available in such sophisticated hospitals is out of reach of these people because of the cost involved in the treatment. Barrier of distance between villages and the city hospitals also prevents them from seeking specialized medical treatment.
As a matter of fact it is impossible for the expertise and services of the sophisticated city hospitals to reach out to the vast majority of the rural population.

**Ramanan Sunder (1992)** in his study explained how cost and distance influenced the poor and the rural population. The study also brought out the disparity between the rich and the poor in their dependence on private vs. public health care facilities. In order to achieve the goal of health for all, the government has to ensure the availability of hospital / primary health centers at a reasonable distance and cost for all sections of the population. The average cost of treatment per illness episode is lower for girls as compared to boys indicating that the parents have spent on an average more on their son’s treatment than on their daughters.

Many research studies had examined the pattern and choice of medical care or health come to various types of findings, like income, economic factors, social factors, etc. **Martin Feldstein (1995)** in his study explained how lifestyles influenced the choice of medical care. He found that “two individuals with the same income and the same insurance may choose very different medical care just as they choose different lifestyles because of differences in their attitudes toward health risks”.

In the study on, uncertainty, health care technologies and health care choices, **Marks McClellan (1995)** had explained the correlation between the effects of treatment and treatment choice. The treatment choice is determined by the effects of treatment. When the treatment is at the more satisfactory level, people will select particular treatment. If it is not effective or if the result is not up to the expectation they will not choose that type of treatment.

**Mathiyazhagan (1999)** examined the people's choice of health care providers, in rural Kamataka. He estimated the people's choice of health care provider through logic model by using the rural household survey on health in Kamataka State in India. Similar study in Maharashtra by Ravi Duggal and Amin showed that out of 100 people who fell sick, only 13 went to the government hospital while 77 sought the services provided by private doctors and the rest resorted to home remedies. In rural Karnataka, six districts were selected, that is, two from developed, two from backward districts. 12 taluks were
selected on the basis of accessibility. It was decided to use a stratified random sample to ensure its representative character. One or two more villages near the selected village with PRC only were included in the sample. Thus a total of 35 villages were selected. In all there 17811 households in them. Only a total of 1000 households were selected with 6025 members. He found that per cent of the people were willing to join the proposed health insurance scheme and the author suggested private public mix model in health sector as experimental in Canada.

Ramesh Bhat (1999) described some of the important characteristics of private medical practice using the case study of an urban district in Ahmadabad, India and analysed their implications. He surveyed 130 private doctors in the allopathic system, using the parameters such as growth of private practice, patient load and referrals within the sector, payment methods and determinants, patient's concerns and risks associated with private practice. A five-point scale was used to rank the factors and average score was arrived at using the rank information and number of observations. The following results were arrived at from the study. There had been a general increase in healthcare demand because of the growth of population, growing urbanization and a general increase in income levels. Patient load and clinical practice of spending time with each patient by private providers will have a significant bearing on the quality and cost of healthcare. About 50 per cent of the doctors in the survey had a maximum patient load of 26 or more. Fifty six per cent doctors sent the patients for referral. 70 per cent doctors charged on a fee-for-service basis and the remaining 30 per cent doctors charged on case-based payment system. Private doctors had the problems relating to location of hospital, source of finance, problems with nursing and paramedical staff, per caption of risk factor and prevalence of undesirable practices.

Indrani Gupta and Purnamita Dasgupta (2000) studied the health status as well as treatment seeking behavior of those living in Delhi. The distribution of the households was roughly proportionate among the three areas: area I (184 households), area II (172 households) area III (170 households). There was in all 2745 individuals spread over 526 households. The model used in his study was best described as a maximum likelihood Probit model with sample selection. A person’s work status, martial
status and the monthly household income were significant explanatory variables for explaining the probability of seeking care. Gender, age and education were not significant determinants of care in the case of the rural sector. In contrast, the educational attainment of the individual concerned did significantly affect the probability of seeking care in Delhi, though gender and age did not seem to be significant determinants of care.

**Mathiyazhagan (2001)** analysed the choice of healthcare in India in a study entitled “People’s choice of healthcare provider: Policy options for rural India”, examined the people’s choice of healthcare provider in rural India. The people’s choice of healthcare provider was estimated through Logit Model by using the rural household survey on health in Karnataka State in India. The study also explores the heuristic approach through observation and informal discussions with rural people about their opinion on existing healthcare services. The analysis showed that the private healthcare provider has emerged as the people’s choice. However, the choice was significantly linked with socio-economic conditions of the rural people. The discussion suggested that policy makers in India should take serious note of the growing popularity of the private sector in providing healthcare services in India and that it would be advisable to opt for regulatory and supportive policy interventions.

**Gotsadze et al. (2005)** examined the current patterns of health – seeking behavior and the extent of out-of-pocket payments. This was a cross-sectional study, with one-stage cluster sampling and a total sample size of 2500 households. The two-sample t-test was used. One-Way Analysis of Variance (ANOVA) was applied for comparing the means for more than two populations. The socio demographic determinants of health seeking behavior were examined by means of multiple logistic regressions. Results showed that healthcare services are a financial burden and that private payment creates financial barriers to accessing health services. Members of the poorest households are less likely to seek care than people from more affluent households and devoted a higher share of household monthly expenditure to health care.

**Jain et al. (2006)** in their study assessed the health seeking behavior and perceptions of rural community regarding the quality of available health care services. Eighteen villages of three rural community development blocks of district Agra
(Uttar Pradesh) was selected on the basis of performance for achievement of RCH indicators. Multistage Stratified Random Sampling Technique was adopted for selection of villages to be included in the study. The responses of community members were free listed and semi-quantified using standard qualifiers. The results indicated that the community members first discussed their health problems with the community members. Majority of people tried some home treatment first and then only opted for approaching any other provider. Choice of the health provider was in fact dependant on decision-makers which would be elder male family members or some other person from the community. Literacy status, socio economic status, past experience and perceived quality of health care services played a pivotal role in the selection of provider. Quality of available health care services was poor in the opinion of respondents as a result of which rural community preferred to approach private providers ranging from indigenous medical practitioners, Rural Medical Practioner’s and qualified doctors.

**Dhanasekaran (2006)** studied the level of knowledge, attitude and practices of health seeking behavior of urban women with reference to the selected Rural Health Care (RCH) services. The present study was undertaken in Dindigal Municipality. A sample of 250 women who were currently married in the age group 15-49 years were selected randomly for this study. The analysis revealed that 70 per cent of women have correct knowledge on legal age for marriage. Seventy per cent of women were having partial awareness and others are having correct knowledge on need and importance of Anti Natal Care (ANC). It was found that 54 per cent of women delivered their babies at private/Non-Governmental Organization (NGO) health facilities and 40 per cent at public health facilities. The level of awareness on complete immunization for children was nil, whereas 90 per cent of women have partial awareness and others did not know.

**Canaviri (2007)** in his study modeled out a health care provider choice in Bolivia with a Random Parameter Logit using MECOVI (Continuous Household Survey) during the period 1999 and 2000. It was found that price and income were important determinants of the decision choice of health care provider. Older individuals in all groups had a preference for self care treatment instead of government and private health centers. Increasing government prices or fees shifted the demand from government to
private health facilities for children and women. In addition, women were more sensitive than children and adults to changes in price and income. The perception of Quality was significant just for private health facilities expect for children group. People would prefer private to Government when they fall ill.

Yingchun Peng and et al. (2010) their study was designed to assess the factors associated with health-seeking behavior and to explore feasible solutions to the obstacles migrant workers in China faced with when accessing health-care. A sample of 2,478 migrant workers in Beijing was chosen by the multi-stage stratified cluster sampling method. A structured questionnaire survey was conducted via face-to-face interviews between investigators and subjects. The multilevel methodology (MLM) was used to demonstrate the independent effects of the explanatory variables on health seeking behavior in migrant workers. The medical visitation rate of migrant workers within the past two weeks was 4.8 per cent, which only accounted for 36.4 per cent of those who were ill. Nearly one-third of the migrant workers chose self-medication (33.3 per cent) or no measures (30.3 per cent) while ill within the past two weeks. 19.7 per cent of the sick migrants who should have been hospitalized failed to receive medical treatment within the past year. According to self-reported reasons, the high cost of health service was a significant obstacle to health-care access for 40.5 per cent of the migrant workers who became sick. However, 94.0 per cent of the migrant workers didn’t have any insurance coverage in Beijing. The multilevel model analysis indicates that health-seeking behavior among migrants is significantly associated with their insurance coverage. Meanwhile, such factors as household monthly income per capita and working hours per day also affect the medical visitation rate of the migrant workers in Beijing. Their study assesses the influence of socio-demographic characteristics on the migrant workers’ decision to seek health care services when they fall ill and it also indicates that the current health service system discourages migrant workers from seeking appropriate care of good quality. Relevant policies of public medical insurance and assistance program should be vigorously implemented for providing affordable health care services to the migrants. Feasible measures need to be taken to reduce the health risks associated with current
hygiene practices and equity should be assured in access to health care services among migrant workers.

**Rahman and et al. (2011)** Knowledge about the existing disease pattern and health seeking behavior is essential to provide need based health care delivery to any population and to make the health care system more pro-poor. A community based cross sectional study was conducted among 493 systematically selected households in the Modhukhali Upazilla of Faridpur District to determine the prevailing disease pattern and health seeking behavior in rural Bangladesh. More than half of the respondents gave history of illness of her or her family members during the preceding 15 days. Their study concluded that it is important to develop a need based health care delivery system and actions should be taken to improve the overall scenario of health system of rural Bangladesh.

**B) Studies on Demand for Health Care**

**Wynand et al. (1982)** in their study developed a model to analyze the demand for health care. It differs from current practice in that (1) it deals explicitly with the complex relation between income, health, health insurance and the demand for health care and (2) ‘health’ is treated as an unobservable variable. They present the Maximum Likelihood estimates of an eleven-equation, simultaneous, multiple-indicator, multiple causes (MIMIC) model, containing two simultaneously determined unobservables and, in total, nine ‘indicators. Data used sample from a health-care survey among 8000 households in the Netherlands. The results show, among other things, that health and permanent income have mutual, positive impacts. Both age and education have important direct and indirect (via permanent income) effects on health. The estimated impact of the availability of health care on individual demand confirms similar results based on aggregated data.

**Alaka Malwade Basu (1987)** analysed the health care services provided to the people of Tamil Nadu State and the people of Uttar Pradesh at resettlement slums in New Delhi. This study represented two distinct regional groups of similar socio economic states, which live in the same locality and were theoretically exposed to the same health services. The researchers interviewed people of two different ethnic origin. The particulars regarding, (i) Fever (ii) Respiratory illness (iii) Gastro intestinal illness (iv) skin disease
and (v) Immunization status of living children aging, 1 to 12, had been collected from 1129 children of Uttar Pradesh and 777 children of Tamil Nadu. These two states were chosen because they were fairly representative of the northern and southern regions of India, which had been described as being culturally distinct by several observers. They found that Tamil Nadu households had greater faith in home medication with modern drugs whereas Uttar Pradesh households relied on traditional home remedies, especially for coughs, colds and diarrheas.

**Grag and Wolfe (1991)** investigated the importance of health as a determinant of the demand for medical care; the influence of ‘demand-related factors’ on health and the importance of including accurate measures of health in the demand analysis. The data used in this study were collected in 1975 by the Rochester Community Child Health Survey. A one per cent of families with children less than 18 years of age in Monroe County were interviewed in 1975. Observations on 972 adults and 1191 children aged 1-18 within 514 households were used in this work. A set of health factors are constructed by calculating the principal components of the correlation matrices of the health measures. Family size has a significant negative impact on health care utilization ‘holding health constant’. To a certain extent the employment status influenced healthcare utilization, the effect is direct not through health status. Finally, total family income showed a positive effect on health status and on the number of private office visits, again ‘holding health constant’ it is found that nonwhites go more often to hospital outpatient clinics and less often to private physician practices. The effect of mother’s education on children’s health is positive but not significant. The direct effect of mother’s education on private physician visits is positive and significant. The employment status of the mother showed only direct effects on utilization. Family income showed positive effects both on health and utilization.

**Carrin and Dael (1991)** presented an empirical model of the demand for health care in Belgium. The analysis pertained to 17 categories of medical care and to two subgroups of health insurance beneficiaries, namely the ‘active’ and the ‘widows, orphans, pensioners and invalids’. The estimation technique used was ordinary least technique. The estimated results showed that income and relative prices mattered in the demand for medical care. Supplier induced demand is also detected for a number of medical care categories.
**Purohit and Siddique (1994)** in their analysis on utilization of health services had used the reports of National Sample Survey Organization 1992 and National Council of Applied Economic Research, 1992. The authors had studied utilization of health services at micro level, taking into account the following aspects - distance of facility from patients, type of care, availability of facility, cost of treatment, quality of care and awareness about existing facilities, as well as other socio-economic aspects of patients in a particular regional set-up. They had also tried to understand the utilization of health care services under various systems. Allopathic, Homeopathic, Ayurvedic and Unani NSSO sample extended over 8346 village in rural areas and 4568 blocks in urban areas and the survey was conducted between May 1990 and July 1990, NCAER sample encompassed in rural and urban areas respectively.

**Jagga Rajamma and et al. (1996)** undertaken a study among the tribals living in Buttayaguden Mandal consisting of 53 villages in West Godavari districts of Andhara Pradesh to study their health seeking behaviour, acceptability of available health facilities and knowledge about tuberculosis. Information was also obtained on their practices to get relief from illness and type of health facilities used. In all, 429 households belonging to 34 villages were selected at random and the heads of these households or the next responsible persons were interviewed. A total of 189 (44 per cent) had heard of tuberculosis and of these, 72 (38 per cent) attributed it to tubercule bacilli. A majority of the tribals were in favor of modern medicines and accepted the available health facilities.

**Khandewale (1996)** focused on the health care facilities available to the economically weaker section of east zone of Delhi municipal administration. The objectives of the study were to analyze the structure and organization of health administration, to study the health policy and decision-making policy and to know the utilization of municipal health facilities by the economically weaker section. The research concluded that there was a growing trend in urbanization and its impact on poor living conditions and lopsided emphasis either on family planning or universal immunization programme at the expense of other health programmes was a matter of great concern in the field of public health administration.
Gerdtham and Johannesson (1997) estimated a demand-for-health equation using Swedish micro data. The empirical analysis of the demand for health was based on data from a probability sample of the Swedish population, the Level of Living Survey (LNU) from 1991. The full sample consists of 6773 individuals between the ages 18 and 76 years. The sample was reduced to 5,174 individuals for the full sample and 3,184 individuals in the employed sample. An appropriate tool for analyzing the categorical data was the ordered probit model. As age increases the demand for health decreases. The education had a positive effect on health, indicating that individuals with a higher education are more efficient producers of health. The estimated effect of the wage rate on the demand for health was positive and significant.

Deshpande (1998) studied the morbidity differentials in rural Karnataka. The researcher selected 1600 households from the selected villages in Karnataka state by systematic random sampling. The study was able to cover only 1427 households. A total of 837 persons in these households reported an illness during the recall period of one month period, prevalence rate by age and sex of respondents was calculated. The recall by the young people was better and the recall by the old people was worse. To ensure the quality of data, the prevalence of reported illness by age of informant was computed. The findings of the study were, (i) it reveals that children below four years of age and elderly people with 60 or above years of age have higher levels of morbidity as compared to other age groups. (ii) Morbidity rate of women is higher than that of males. (iii) Poor, landless people, Muslims and those living in kutch house had higher levels of morbidity. (iv) The educated rural people have less morbidity.

The objective of the study ‘Self-rated Health Status of the Aged in a Rural Area’ by Goswami et al., (1998) was to measure the self-rated health status and the association of poor self-rated health with self reported health problems / symptoms and selected indicators like living habits, psychological problems, body mass index among the rural aged. The study was conducted in Intensive Field Practice Area of Comprehensive Rural Health Services Project, Ballabgarh in district Faridabad, state of Haryana. The present study was conducted in 7 villages with a total population of 17,795. For the comparison of proportions, chi-square test/ Fisher’s test was used. Logistic regression was used to
analyze determinants of perceived health status. Most of the respondents rated their health status as ‘not healthy’ (61.6 per cent of males and 71.6 per cent of females). It was observed that men were more likely to report their health status as very healthy (14.9 per cent) and quite healthy (23.5 per cent) compared to women (10.7 per cent and 17.7 per cent) respectively. Only a fifth of respondents (25.9 per cent of men and 14.3 per cent of women) perceived their health status to be ‘better’ than people of the same age and a smaller proportion told that their health status was ‘compared’ to others in their age.

Ramesh Bhat (1999) described some of the important characteristics of private medical practice using the case study of an urban district in India, Ahmadabad and analyzed their implications. He surveyed 130 private doctors in the allopathic system, using the parameters such as growth of private practice, patient load and referrals within the sector, payment methods and determinants, patient's concerns and risks associated with private practice. He found that there had been a general increase in health care demand because of the growth of population, growing urbanization and a general increase in income levels.

Andres Vork (2000) tests the theoretical implications of the Grossman’s health demand model using a survey on health behaviour among Estonian adult population in 1996. Self-reported health assessment and visits to a doctor and a dentist are used to measure demand for health and health care. Health assessment is modeled with ordered probit model; the number of visits is modeled with Poisson, negative binominal and zero-inflated Poisson models. The results of the empirical models confirm the main implications of the theoretical Grossman’s model. Demand for health increases with income and education and decreases with age. Demand for health care decreases with age, but the effect of education and income is not clear. The results also suggest that some inequity in health care with respect to nationality may be present in current Estonian health care system.

An attempt has been made by Duraiswamy (2001) to examine the determinants of health status and curative healthcare of children, adults and the elderly in rural India using the NCAER-HDI (Human Development Indicator) for 1994. The information collected was based on the survey of 1,94,486 individuals in 33,230 rural households spread over 1762 villages in 195 districts covering to major Indian States and the North
Eastern region. These functions are estimated using Maximum likelihood Probit, Tobit and Multinomial methods. The results indicated a U shaped relationship between age and morbidity. Both education and income exert a negative impact on morbidity measures. An interesting result was the significant negative effect of smoking on adult and elderly morbidity. Morbidity was found to be higher among the Scheduled Caste and Scheduled Tribe population. The estimates of the multinomial discrete choice model of curative health care showed that the real choice in rural India was between private health care and other types of health care facilities. Primary level education, household income and village-level infrastructure and amenities are found to increase the probability of choosing private health care over any other type of facility.

Mary Cifaldi (2001) studied about the Factors affecting health services utilization in the Medicare population. The most significant predictor for health care utilization is the individual's health status. Other factors shown to affect Medicare recipient's use of health care services are income, education, insurance, age, smoking status, place of residence and having an ongoing relationship with a physician. Less is known about the demographic and socioeconomic factors that affect prescription drug use. Analogously to medical utilization, health status had been determined to be a significant predictor for prescription drug use. Prescription drug insurance has also been shown to increase pharmacy utilization, but its impact on overall health care costs has yet to be determined.

Sahn et al., (2002) made a research on the Demand for Health Care Services in Rural Tanzania. They examined the pattern of health care demand in rural Tanzania. The data from the 1993 Human Resources Development Survey (HRDS) were used to model the health care choices that individuals in Tanzania make when ill or injured. A nested Multinominal logit model was used. The most important finding is that the own price elasticities were quite variable, being far greater than unity for private clinics, private hospitals and public hospitals. Specifically it was found an uncompensated elasticity of demand for private services with respect to the price of public clinics and dispensaries to be a surprisingly high 0.64. This indicated that as prices of public services rise there will be a substantial substitution into private services. In the other direction, the price elasticity of public clinics with respect to the price of the private alternative is 0.58,
implying a high, albeit somewhat smaller, degree of price sensitivity. Regarding the 
quality on health care demand there was a greater demand for public clinics and 
dispensaries in those clusters with higher quality ratings for drug availability and the 
health clinic environment. The higher quality of medical staff in a community increases 
the demand for care.

The important objectives of the study done by Rao (2003) were (i) to examine the 
trends in the indicators of health status (ii) to analyze the trends in the determinants of 
health status (iii) to estimate the effects of determinants of health on the indicators of 
health status namely (a) birth rate (b) death rate (c) infant mortality rate. The data relating 
to the health indicators are collected from official sources for the period from 1986-87 to 
1999-2000. The determinants of health status are collected from official sources for the 
period 1983-2000 with 1993-94 base. In order to estimate the effect of determinants of 
health status the multiple regression was used. The rapid decline in the birth rate 
indicated the effectiveness of birth control programmes and family welfare efforts made 
by the Government in the last two decades. The decline in the death rate indicated the 
improved quality of health facilities that control the deaths from communicable diseases. 
In accordance with the growth of State Domestic Product of Andhra Pradesh the per 
capita income is increasing over a period leading to an increase in the expenditure on 
public health.

The study done by Sharma and Chawal (2003) examined the aforesaid 
intangible characteristics of rural health care services in relation to satisfaction of parents. 
The list of outdoor and indoor patients for the year 2001 was taken from the three rural 
primary health care centers located at Purmandal, Chata and Vijapur towns of Jammu 
district. The questionnaire was used for collecting the response from 500 experienced 
patients of the selected primary health care centers. The entire sample was analyzed 
separately for inpatients and outpatients using Multiple Regression and Chi-Square. 
The variables namely behavior of doctors and facilities were found to be highly 
correlated with the overall patient satisfaction in both the gender-based classes. The 
multiple regression values also correspond with this trend. The study shows that the 
degree of patient satisfaction secured by patient availing services in the urban health centers.
The correlation analysis suggested that outpatient and inpatient satisfaction if they are efficiently managed and effectively delivered.

**Lawson (2004)** investigated whether the income and user fees were the main factors which influenced health care demand in Uganda. When analyzing health care demand in Uganda there were several rich data sources upon which micro econometric analysis could be based. However, the most useful of these was the 1999/2000 Ugandan National Household Survey (UNHS), which is particularly rich in community and health care data and interviewed 10,696 households. Multinomial logit approach was adopted which not only focused on the most important decision but also on what type of medical care was demanded. Overall, the demand analysis showed that income is strongly associated with increased health care usage, across all age ranges. Furthermore, This study find significant differences in health seeking behavior to be related to age and gender and that increased levels of education are consistently associated with a transfer away from government provided health care, possibly indicated that people regard its quality as inferior.

**Yanagisawa and et al., (2004)** compared health-seeking behaviour between poor and better-off people after health sector reform in Cambodia. The survey was conducted in the Prek Dach Health Centre coverage area, which is located in South-east Cambodia. The study population consisted of 257 housewives of reproductive age, selected at random. Data were collected through household surveys with a structured questionnaire. Data collected included socio-demographic information on the housewives, as well as episodes of illness of family members within 30 days prior to the survey. Two indicators, the floor area of living space and a rating scale on asset ownership, were used to identify poor and very poor people. When a family member became ill, subjects most often used home remedies as a first step, followed by self-medication. Subsequently, people used self-medication or the private health sector. Very poor people used the health centre more often than better-off people as a first step. For the second step, use of the health centre was also high among the poor compared with better-off people, although the difference was not statistically significant. Keeping the treatment fees low and abolishing informal fees maintained the affordability of health-centre services for the poor. However, this benefit diminished quickly with distance from the health centre. The significant
difference between poor and better-off people disappeared for villages situated more than 2 km from the health centre. Thus, the health centre in the studied area was shown to be effective in providing primary health care to the economically disadvantaged, but only within a limited geographic area.

Alan C. Monheit and Jessica Primoff Vistnes (2005) used data from two nationally representative household surveys sponsored by the Agency for Healthcare Research and Quality: the 1987 National Medical Expenditure Survey (NMES) and the 1996 Medical Expenditure Panel Survey (MEPS). They examined the role of out-of-pocket premiums and expanded Medicaid eligibility in households’ demand for employment-based family coverage. Cross-sectional results reveal that demand is affected by both factors. They find that between 1987 and 1996, the increase in out-of-pocket premium costs accounted for nearly half of the decline in dependent coverage while expanded Medicaid eligibility represented 14 per cent of the decline.

Majumder (2006) utilized data from National Family Health Survey-2 (NFHS) and done an analysis of health care economy in India to examine precisely how demand for public as well as private health care services is affected by various socio-economic and demographic characteristics and other health service system related factors. It covered a representative sample of about 95000 women in the 15-49 age groups from 26 states in India. Methodologically the exercise was carried out by estimating binary multivariate logistic pattern. The study revealed that utilization of public health facilities varied sharply according to individual, household and social characteristics and institutional factors. On an average in India, 58.91 per cent of the respondents utilized private and 41.09 per cent of the respondents utilized public health facilities. When we concentrated on quality of care we see that private health facilities remained far ahead of their public counterparts.

Awad Mataria and et al. (2007) proposes a new methodology to assess demand and price-elasticity for health care, based on patients’ stated willingness to pay (WTP) values for certain aspects of health care quality improvements. A conceptual analysis of how respondents consider contingent valuation (CV) questions allowed us to specify a probability density function of stated WTP values and consequently, to model a demand
A method for quality-improved health care, using a parametric survival approach. The model was empirically estimated using a CV study intended to assess patients’ values for improving the quality of primary health care (PHC) services in Palestine. A random sample of 499 individuals was interviewed following medical consultation in four PHC centers. Quality was assessed using a multi-attribute approach; and respondents valued seven specific quality improvements using a decomposed valuation scenario and a payment card elicitation technique. Their results suggest an inelastic demand at low user fees levels and when the price-increase is accompanied with substantial quality-improvements. Nevertheless, demand becomes more and more elastic if user fees continue to rise. On the other hand, patients’ reactions to price increase turn out to depend on their level of income. Their results can be used to design successful health care financing strategies that include a consideration of patients’ preferences and financial capacities.

Alemayehu Geda and Abebe Shimeles (2009) investigated demand for health in Ethiopia using a large welfare monitoring survey collected in recent period using alternative indicators of health status such as self-reported illness episodes, number of days lost due to illness and stunting. They found strong evidence that health status varies with socio-economic characteristics of an individual. Consistent with the large empirical evidence, their findings suggest that the level of schooling achieved by the individual in rural areas progressively affects health status and the result is robust to different estimation approaches. In addition, access to health services, affordability and attitudes towards health facility, as well as employment status determine infirmity experienced by individuals.

Section C. Studies Related to Health Care Expenditure and Source of Finance

Silver (1972) employed a number of standard tools of economic analysis to explore the unpublished data on the medical expenses and work-loss days due to illness or injury of currently employed persons. The medical expenses and work-loss days analyzed were drawn from the National Health Survey of the National Center for Health Statistics. Multiple regression analyzes were used to analyze the medical expenses and work-loss days. The estimated income elasticities of demand for medical services were ranged from 1.4 to 2.0 which were quite high. The results for the education variable were quite interesting: the coefficient of Xt was negative for hospital expenses, positive for
medicine and physician expense. The coefficient of the marital status variable was found to be positive and statistically significant for hospital and physician expense, positive but insignificant for medicine expense and negative but insignificant for dentist expense.

The principal objective of this study done by Jha (1990) was to test whether public expenditures on education, health and other development activities have been effective in reducing poverty in India. Data for fourteen Indian states from 13\textsuperscript{th} to 53\textsuperscript{rd} rounds of National Sample Survey of India were used for estimating poverty. To ensure sensitivity and robustness of the results, three different measures of poverty belonging to the Foster-Greer-Thorbecke group of poverty measures are used. For the purpose of estimation, the study uses three different techniques: Fixed effects, Random effects and Ordinary Least Square (OLS). It concluded that education, health and development expenditures helped to reduce poverty. In particular, expenditure on higher, university, technical, adult and vocational educations as opposed to elementary and secondary education was more effective in poverty reduction.

Shashanka Bhide (1991) in their study, have examined the health status of people in the command area of Indira Gandhi Nagar Project in Rajasthan. The study is based on a sample survey of the households in the region. The study broadly reviews the incidence of diseases in the command area, type of treatment availed by the households and expenditure incurred by households on treatment of ailments. With increase in income levels people apt for the private health facilities rather than the public facilities. People look for effective systems of medicine rather than free treatment. The largest portion of the expenses on treatment goes to fees and medicine followed by transportation. Considering the fact that the lowest income groups are affected by illness more than the middle-income group. This is because of the expenditure incurred for treatment. When the cost of health care is high lowest income groups are not able to go for better treatment.

Berman (1992), in his study on Healthcare Expenditure in India, reviews the size and composition of health expenditures in India and makes some comments and suggestions about what this information can offer for future development of the health system in India. He presents a recent estimate of national health expenditure and compared it with a earlier figures. He also makes a comparison of India’s expenditure
level with other countries. He feels that understanding the size and composition of health expenditures, their effect on the health system and the factors that influence it should be an essential component of any thorough analysis of India’s health policy and programmes. He points out that the government role in meeting public health needs should still be strengthened, reformed and refocused.

Reddy (1992) made an attempt to quantify the total resources devoted to healthcare in India in the year 1991. He attempts to find out that whether spending pattern across states is on the right lines and in which categories of expenditure influence health status more positively. For that purpose simple correlation matrix and percentages are employed in this study. The author revealed that the expenditure on medical and public health, family welfare, nutrition, water supply and sanitation, social security and welfare are help to improve health of the people directly.

Ramanan Sunder (1992) in his study explained how cost and distance influenced the poor and the rural population. The study also brought out the disparity between the rich and the poor in their dependence on private vs. public health care facilities. In order to achieve the goal of health for all the government has to ensure the availability of hospital/ primary health centers at a reasonable distance and cost for all sections of the population. The average cost of treatment per illness episode is lower for girls as compared to boys indicating that the parents have spent on an average more on their son's treatment than on their daughters.

Andre Ament and Silvia Evers (1993) developed a standard procedure for a COI study is including the explicit definition of the disease, choice of relevant variables and appraisal of direct and indirect costs. COI studies can be incidence-based or prevalence-based. The adjustment of cost figures for time preferences and the performance of a sensitivity analysis are presented. The standard methodology is applied to diseases in two different areas. The first disease category is dyspepsia, a complaint with a rather somatic background. The second is schizophrenia, a mental syndrome. In performing COI studies in practice, however, researchers are forced to deviate, in many aspects, from the theoretical standards. In this study these choices and the reasons behind these choices, are explained. Furthermore, discuss certain problems regarding the
reluctance to make a diagnosis regarding certain diseases, the reliability and the validity of the sources used and the absence of certain figures. The value of the information derived from COI studies for policy-making is assessed.

Sanyal (1996) in his study 'Household Financing of Health Care’, analyzed the changes in utilization patterns and differentials across economic classes. According to this study, private health care dominates in outpatient's treatment and the public sector in respect of in-patients. Not surprisingly, the ratio of outpatients to in-patients in private sector outstrips that of the public sector, there being hardly any difference between the rural and urban sectors. Of particular importance was a much higher ratio obtaining for secondary and tertiary hospitals compared to the lower level indicating again, the inefficiency or the incapability of the primary health care system. The quality of services and work done at various health institutions and by different categories of health and medical staff was poor, resulting in low credibility among the rural community. Moreover, for want of quality, effectiveness of the services was limited and the objectives were not realized or achieved. This was one of the main causes of non-utilizations of services facilities by the people and of poor participation of the rural community. By keeping Infant Mortality Rate (IMR) as a health indicator, he tests the influence of these variables on it. Health expenditure and health indicators are looked in terms of per capita expenditures and IMR. The degree of relationship is lowest in case of water supply and sanitation. He concluded that it is obvious that per capita expenditures hence to be increased to improve health status. But increase in per capita expenditure in India is not on resources and economic backwardness. So he finally concludes that government had to choose program schemes that reallocate the existing resources in a proper manner.

Catharina Hjortsberg (1998) explored the factors, which determined the household’s health care utilization in Zambia and analysed the extent of significant factors affected health care consumption. The survey covered 8487 households in rural areas and 8223 households in urban areas. The household’s health care expenditure was estimated by regression. Households having a motor vehicle have higher expenditures than those without a vehicle. Moreover, the distance to the nearest health care facility also affected the expenditure level. However, non-poor households were not affected by
distance. Rural households had lower health care expenditures compared to urban households. The demographic characteristics of the household seem to reflect on health care expenditure level.

**Bansal (1999)** examined the status of health financing in India. He analysed health expenditure of central and state governments, variations in per capita income and the relationship between health status and health financing. To find out whether per capita expenditure on health care truly affects the health status of a population, a health development index was constructed. The results revealed that health expenditure shows an increasing trend in all states and there is a wide interstate variation in allocation of per capita resources to health care. He finally revealed that increasing of health expenditure is mainly due to salary and non-salary components and not because of higher share of health expenditure in state domestic product.

**Pauly and Herring (1999)** addressed the question of whether there is an individual specific offset by estimating wage regressions using data from the 1987 National Medical Survey and including measures of predicted medical expenses and age interacted with health insurance coverage. Their results showed that wages rose more slowly with age for workers who have health insurance coverage than for those who do not suggesting that older workers “pay” for their benefits. They reported that their measures of predicted medical spending do not have an effect on wages that differs systematically for workers with and without health insurance. The size of the household affected the health care expenditure level. On the other hand the age of the head of household was a significant variable reflecting on total health care expenditures. The poorer households did not seem to utilize health care to such an extent as households better off do.

**Usha (2000)** attempted to study the health infrastructure of Kerala. She also examined the pattern of expenditure in Kerala especially in the three systems of medicine for similar "diseases. She made a comparison among the three systems of medicine namely allo, Ayurvedic the choice of system by patients in certain variables. While studying the health status of the people in Kerala she found that Kerala had already reached the goal of World Health Organization namely, "Health for All by 2000 A.D". Through Kerala ranked first in health status among all the states in India, the morbidity
rate in Kerala was high. This was due to various reasons namely increase in longevity, which in turn resulted in increase in morbidity level. The low per capita income in Kerala might be the reason for high level of morbidity. She found that the health status of people in Kerala was a reflection of the socio-economic development of the state and males preferred Ayurvedic and Allopathic private hospitals while females preferred Ayurvedic and Homeopathic private hospitals.

**Randall P Ellis and et al. (2000)** argued that there is growing evidence that the level of health care spending in India – currently at over 6 per cent of its total GDP – is considerably higher than that in many other developing countries. This evidence also suggests that more than three-quarters of this spending includes private ‘out-of-pocket expenses’. Despite such a high share of expenditure by individuals, the provision of health care, that is adequate in terms of quality and access, is becoming more and more problematic. Particularly, public delivery of health care is poor in quality, presumably for reasons of inadequate financing. This highlights the need for alternative finances, including provision for medical insurance at a much wider level. This study attempts to review a variety of health insurance systems in India (defined here as any mechanism which covers the risks of payment for health care at the time of its requirement), their limitations and the role of the General Insurance Corporation as an important insurer agency. It also attempts to develop a prospectus of strategy for greater regulation and increased health insurance coverage by making suitable changes – particularly in claim settlements and the exclusion clause. Also highlighted is the need for a competitive environment (which is at present completely missing) and an opening up of the insurance sector.

**Herring and Pauly (2001)** examined the relationship between expected medical expense and actual paid premiums for households. The survey’s sample size of about 60,000 individuals in 33,000 households provided them with a sample of approximately 1500 households covered by individual insurance. The regression results indicated that health status, age, gender and to some extent location were each significant predictor for health expenditures. However the low R-squares indicated that the majority of realized medical expenses were not predictable. It was found that premiums vary less than proportionately with expected
expense and vary only with certain risk characteristics. It was also explored how the relationship between risk and premium was affected by local regulations and market characteristics. It was found that premiums vary significantly less strongly with risk for persons insured by HMOs and in markets dominated by managed care insurers.

Duraisamy (2002) attempted to analyze the utilization and expenditure on medical services in Tamil Nadu using the NSS 42nd round survey data. The average hospital fees in a private hospital was about 19 and 100 times higher than the public hospital charges in rural and urban sectors respectively. The majority of the population relied on the allopathic system of medicine. The results indicated that as the level of education and per capita income increases the utilization of public health care services reduced significantly.

Mahendra and Mooij (2002) examined trends in the social sector expenditure in the central and state budgets for 1990 – 1991 to 2000-2001 and looked at several aspects including overall levels of allocation, expenditure on health and education and interstate disparities. The study has included social services as well rural development expenditure in the analysis. It is found that taking centre and states expenditure together the share of social sector expenditure as a proportion of gross domestic product has not increased during the reform period, except in 1999 – 2000 and it was lower in 1980s and 1990s. As a proportion of total public expenditure, the share of social sector has increased since the mid 1990s and it was higher in the second half of the 1990s than it was in the late 1980s. The expenditure on health and education has declined in 1990s for states. The study suggested that there is an obvious need to step up social sector expenditure and improve fund utilization.

Sharriff et al. (2002) made an attempt to analyze trends in public expenditures on social sector and poverty alleviation programs from 1990-91. A considerable proportion of these expenditures are undertaken by the states but the central share seems to be increasing over time. It is found that expenditure on social sector schemes is increasing in real terms but mainly through increased expenditure of the central government. The state governments seem to be easing out of their constitutional commitment to sustain programs in the social sectors. There are large inter sectoral reallocations of funds in the poverty alleviation sectors.
**Mishra et al. (2003)** examines the reasons of the poor health scenario in India and the challenges in the provision of health care in India. The study makes several recommendations relating to the control of communicable disease, the rising threat of non-communicable diseases, reduction of infant and maternal mortality, the emerging threat of the proliferation of HIV/ AIDS infection, financing of health care systems (both public and private), drug policy and regulations, health research and Indian systems of medicine. Keeping in view the huge inequalities in the present system, the larger proportion of the population still leaving in abject poverty and the states, special responsibility to protect the vulnerable population, an overarching concern about the health care of the poor underpins the entire report.

**Bhat and Jain (2004)** examined the relationship between public health care expenditure and gross domestic product in 14 Indian states from 1990 to 2002. Besides an attempt was made to estimate the income elasticity of health expenditure and find out the target ratio of health expenditure on gross domestic product in these states. The central sponsored schemes like family welfare programs and water and sanitation programs are not included in this study. To estimate the relationship between income and health care expenditure they have taken real gross domestic product (GSDP) for income and real per capita state public health expenditure (PHCE) respectively. Adaptive expectation model was used to estimate the targeted ratio of health expenditure. They showed that at state level, government have target of allocation only 0.43 per cent of state gross domestic product to health and medical care even the income elasticity is 0.68.

**Paolo Belli et al. (2004)** presents an in-depth investigation of out-of-pocket payments for health services, formal and informal, in the Republic of Georgia. The main purpose of the study is to: (a) analyze the process of collection and distribution of out-of-pocket or direct payments and particularly of the informal component; (b) explain why they seem to be so prevalent; (c) investigate their consequences, especially on access and quality of health care services. The findings of this study are derived from in-depth interviews and focus group discussions with users as well as providers. The study found that in general paying for health services in Georgia has become a really common and mostly accepted practice and that a significant share of these payments are completely
unrecorded. The extent of direct payments for health services are producing severe consequences on both equity and efficiency, making services unaffordable for most people and leading to underfunding of essential inputs. The policy implications of the study findings are challenging. First, the study clearly points out the deep-rooted and multidimensional reasons why out-of-pocket payments are pervasive and why an important share of them is collected informally. Second, the study highlights that there is no simple solution. In particular, some of the solutions frequently proposed in the international debate, such as simply formalizing user charges, in the Georgian context appear impractical.

**Babu Nahata and et al. (2005)** consider a utility-maximization model for health care. On the basis of the equilibrium conditions derived for patients and the providers of the medical service, they evaluate the importance of cost-sharing between the patients and the third party and provide an explanation for the rising medical expenditures. They effectively assume that some form of third-party payer is always involved in the health care market and this involvement has significant consequences for the incentives of both consumers and providers of health care. The proposed demand specification explains why the empirical estimates of the price elasticity of demand for medical services could exhibit a wide range. They analyze how medical insurance can result in a market failure and evaluate ideas that can correct some of the distortions in resource allocation for medical services. Some guidelines also emerge for a national health insurance policy.

The purpose of the study by **David Richards Hotchkiss and et al., (2005)** is to use the 2002 Albania Baseline Health Survey, a survey of 2000 households in Berat, Kucova and Fier to understand the magnitude and distribution of out-of-pocket payments for health care services and to identify the factors that operate at the household- and provider-levels that determine whether individuals pay for health care and how much is paid within the month prior to the survey. Of particular interest in the study is examining the extent to which households incur out-of-pocket payments across a number of dimensions-including health insurance status, socio-economic status (SES), type of service and type of facility. The findings suggest that out-of-pocket payments for care provided in government facilities are widespread, with marked differences in payment practices between inpatient and outpatient care. The multivariate findings indicate that
insurance coverage significantly reduces the likelihood of paying for medicines to treat acute and chronic health problems, but not of paying for consultations. The policy implications of the findings on alternative health care financing reforms are briefly discussed.

**Garg and Karan (2005)** carried out the analysis in order to determine which specific population groups such as by income quintiles, gender, occupational categories, SC/ST households, households with children and elderly were affected by Out of Pocket Expenditure (OOP). Research based on secondary source information on household’s consumption expenditure collected by the National Sample Survey Organization (NSSO) for the year 1999-2000. The methods of calculation were (i) out-of-pocket payments (OOP) (ii) Catastrophic Payments (iii) determinants of catastrophic payments. The analysis showed that catastrophic payments were usually made for meeting the expenditure on common diseases. Education played very important role in reducing catastrophic expenditure. Labor households as against self-employed in general have high probability of making catastrophic payments while households with regularly employed households, particularly in urban areas, were less likely to face catastrophic impact of out-of-pocket payments (OOP) expenditure. Socially deprived SC/ST households face catastrophic impact less frequently which can to be attributed to poor utilization of and ability to pay for health care services.

**Monheit and Vistnes (2005)** examined the role of out-of-pocket premiums and expanded Medicaid eligibility in households demand for employment based family coverage. The data is used from two nationally representative household surveys sponsored by the Agency for Healthcare Research and Quality; 1987 National Medical Expenditure Survey (NMES) and the 1996 Medical Expenditure Panel Survey (MEPS). The 1987 NMES is a survey of approximately 15000 households consisting of nearly 36,000 individuals, while the 1996 MEPS was a survey of approximately 10,000 households consisting of nearly 23,000 individuals. The enrollment decision and the choice between family and single coverage were estimated using the logit model. To quantify the relative contribution of the factors to the changes in household health insurance status between 1987 and 1996 the econometric decomposition techniques were
used. The answer posed at the outset of their analysis was that the out-of-pocket cost of coverage affected household demand for family coverage. The results for both 1987 and 1996 indicated that increases in such costs reduce the likelihoods that a household that a household selects ESI or a family health plan, even though the effects were small.

The purpose of the study by **Viviane Dias Lima and Jacek A. Kopec (2005)** was to quantify the effect of health status on current and future payments and number of visits to health professionals in a large, representative community sample in British Columbia, Canada. The study population was comprised of all respondents to the 1994/5 cycle of the Canadian National Population Health Survey (NPHS) who were 12 years of age or older and residing in the province of British Columbia (N ¼ 2084). Health status was measured with the Health Utilities Index (HUI). They concluded that the HUI is a strong predictor of health services use over 5 years. A 0.1 improvement in health utility is associated with a 10 per cent reduction in the costs of care and number of visits to health professionals.

**Bharti (2006)** studied, to establish a link between poor infrastructure and proportionately high spending on health services and low asset building. A primary survey was carried out in the selected localities. A detailed questionnaire was designed for the household survey. The questionnaire contains pertinent questions regarding household composition, tenure, status, income levels, services available, satisfaction levels with infrastructure, operations and maintenance of services, incidence of illness in the household, health services used, expenditure pattern, asset ownership and future asset priorities of the household. Sample size was proportionate to the total number of houses. Every tenth household was covered for the survey. In the entire sample, 98.5 per cent of the surveyed households were Hindus with 4 per cent Christians and 1.5 per cent Sikhs in Anand Flats. The household size was generally found to be higher in slum areas as compared to non-slum areas. The literacy levels were found to be very low in slum areas as compared to non-slum and formal housing societies. The average monthly income levels were highest at Annad Flats at Rs 4,840.00. The under-privileged section living in the slums spend a higher percentage of their total yearly income on health care.
Narayanan Devadasan and et al. (2006) argued that the Indian health system is mainly funded by out-of-pocket payments. More than 80 per cent of health care expenditure is borne by individual households. Only about 3 per cent of the population, mostly those in the formal sector, benefit from some form of health insurance. Several Indian Non-Governmental Organizations (NGOs) have initiated Community Health Insurance (CHI) schemes within their existing development programmes. This study describes the principal features of the design and functioning of a selection of 10 CHI schemes and presents a brief overview of the current landscape of CHI in India. The schemes explicitly target the poorest and most vulnerable households in Indian society - scheduled tribes, scheduled castes and poor women. Three CHI management models can be distinguished. The first model consists of local NGOs acting as both insurer and provider. In the second model, the NGO is the insurer but does not itself provide care, which is then purchased from a private provider. In the third model, the NGO neither does provide health care nor acts as an insurer: the NGO, on behalf of a community, links with an insurer and purchases health care from a provider. The benefit packages generally include both primary and secondary care and most of the providers are in the private sector. Most of the schemes require external resources for financial sustainability. There is currently little information on the impact of CHI schemes on the performance of local health systems and more research is warranted in that respect.

Rout (2007) seeks to examine the pattern of public financing of health care in 14 major non-special category states of India during 1990-91 to 2005-06. It is observed that out of 14 states, 13 states have reduced the share of budgetary allocations to health sector during the post crisis period. The poor states particularly Bihar, Uttar Pradesh which have a significantly lower human development index in comparison to Kerala and Gujarat have reduced the health expenditure more. The regional inequality measured in terms of coefficient of variation among different states is widening over the years. During the process of reforms the gap between the poor and rich states is rising indicating the poor states are not in a position to allocate more and more resources towards health sector. There exists a negative correlation between ratio of healthcare expenditure to GROSS state Domestic Product (GSDP) and GSDP for 14 major states of the country during the
period of analysis. So increasing GSDP does not contribute to the rise in healthcare expenditure in case of Indian states. He suggested that it is not the allocation alone rather the service delivery mechanism may be improved to translate the outlays to health outcomes.

The objective of this study by Chunhuei Chi and et al. (2008) is to estimate the amount of and factors associated with out-of-pocket (OOP) payment for medical care under Taiwan’s National Health Insurance (NHI) program. This research used two methods to collect original data. The first method consisted of using a sample household survey and household diary records to collect data on OOP payment prospectively over a two-month period from a random sample of 600 households in central Taiwan. Using the individual as the unit of analysis, the researcher obtained a total of 1062 sample subjects. To ascertain the quality and accuracy of survey data, the claim records of the bureau of NHI were merged with the survey data. These data were analyzed by a two-part model, with a probit model for use of health care and an ordinary least-squares model for OOP payments. Results of this research indicate that on average an individual’s annual OOP payment for medical care was $247, which is substantial, compared with the average $144 for per capita NHI earmarked tax. Finally, results of model estimation indicate that supplemental health insurance and household income were positively associated with any use of health care, while household income was also positively associated with OOP payment for health care.

Guruswamy et al. (2008) examined the levels, trends and patterns of public expenditure on health during 1995 to 2006 in India, both at national and state levels. They found that public expenditure on health as a proportion of GDP has remained stagnant over the years and revenue expenditure accounting for the larger share. Among the states, the relatively poor ones were found to be spending more on health, both per capita and as a proportion of GSDP, compared to the richer states. It was seen that expenditure on health by the state had not grown adequately along the path of overall economic prosperity and the private out-of-pocket expenditure seemed to be on the rise. And the author suggested it is imperative that government should increase the finances allotted to health sector by giving priority to alternative health financing options (community based financing of health care, employed based insurance schemes and
private health insurance as risk pooling mechanisms) from the perspective of equity as well as to ensure risk free, unbiased access to health care for all.

The Objective of the study by **Olga Siskou and et al. (2008)** is to analyze private health payments by provider and type of service in order to bring to light the reasons for and the nature of the extraordinary private expenditure in Greece. They used a randomized countrywide sample of 1616 households. Regression analysis was used to determine the extent to which social and economic household characteristics influence the frequency of use of certain health services and the size of household payments for such services. In all statistical analyses this study used the p < 0.05 level of significance. Out of the total private household health expenditure (D 6141 million), 66 per cent is for outpatient services, with the largest share for dental services, absorbing 31.1 per cent (D 1912 million or 1.5 per cent of GDP) of the total out-of-pocket health expenditure. Rural dwellers seek private outpatient care more often, because of the understaffed public primary facilities. The hospital sector absorbs less than 15 per cent (or D 884 million) of household private health expenditure. A significant part (20 per cent) of hospital care financed privately concerns informal payments within public hospitals, an amount almost equal with formal payments in the form of cost sharing. Admissions to private hospitals are only 16 per cent of total admissions. The results indicate that this is a result of the political emphasis in public hospitals and of the considerably high cost of private hospital care.

**Owen O’Donnell and et al. (2008)** estimated the distributional incidence of health care financing in 13 Asian territories that account for 55 per cent of the Asian population. In all territories, higher-income households contribute more to the financing of health care. The better-off contribute more as a proportion of ability to pay in most low- and lower-middle-income territories. Health care financing is slightly regressive in three high-income economies with universal social insurance. Direct taxation is the most progressive source of finance and is most so in poorer economies. In universal systems, social insurance is proportional to regressive. In high-income economies, the out-of-pocket (OOP) payments are proportional or regressive while in low-income economies the better-off spend relatively more OOP. But in most low-/middle-income countries, the better-off not only pay more, they also get more health care.
Emi Sato and kiyohide Fushimi (2009) focused on daily per capita inpatient health-care expenditures and examined the impact of inpatient characteristics such as sex, age, survived or deceased, length of stay, adult disease and type of medical care received during the duration of each stay. They have analyzed data from the Survey of Medical-Care Activities in Public Health Insurance by multinomial logistic regression analyses. Age of patient had little impact on per capita inpatient health-care expenditures per day. As regards length of stay, inpatient stays of 8–14 days had a little impact on health-care expenditures. This study suggested that these results might be due to the kind of medical care received. More research is needed to determine the appropriate medical services to reduce long-term hospitalization. In the last month of care for patients who died, medical examinations had a great influence on health-care expenditures. This study showed that increasing medical examinations in the end-of-life care needs further investigation.

Section D: Studies Related to Health Insurance

The main objective of this research done by Gupta (1989) was to analyze whether individuals and households would be willing to participate in private health insurance schemes and to explore their attitudes towards the concept of private insurance for health. A longitudinal survey was conducted in Delhi, based on a purposive sampling frame. The survey included socio economic and demographic profiles of households, patterns of morbidity for both acute and chronic illness, information on types and amount of expenditure on health care participation in existing health and other insurance schemes. In order to understand the characteristics of those who had insurance a multivariate analysis was carried out. Probit Analysis was done in order to find out whether the individuals had some coverage or not. The results indicated that older individuals have a lower probability of being covered. As for gender, there was no difference between males and females. The education indicated that compared to higher educated individuals, both low and middle level educated individuals have a significantly lower probability of being enrolled in any schemes. As many as 41 per cent of all the low-income households and 38 per cent of the high-income households indicated a willingness to participate in any medical insurance programme.
**Gruber (1994)** used a “natural experiment” to identify exogenous variation in health insurance coverage: the Pregnancy Discrimination Act of 1978. As Gruber explained, this act had the effect of extending health insurance coverage for pregnancy-related expenses to a large group of women. Further, women living in States that already had pregnancy anti-discrimination laws provide a “control group” for purposes of comparison. By comparing movements in relative wages for different population subgroups in different states, Gruber concluded that the full cost of the expansion of coverage was shifted to workers through reduced wages. This analysis provides strong evidence of full compensating differentials at the group level. This result was particularly striking because it looks only at wages and not at other components of compensation such as employee premium contributions, which might also have been used by employers to shift the cost of benefit expansions to workers and is therefore a lower-bound estimate of the cost borne by workers.

**Laurence Levin (1995)** examined whether or not the elderly have precautionary motives for savings against uncertain and potentially large medical costs. He presented a simple two-period model which takes into account the interaction between health insurance and illiquid resources. He analyzed the relationship between purchases of (actuarially unfair) health insurance and the individual’s ability to self-insure. In order to create a complete model of this behavior, the government programs of Medicare and Medicaid are also incorporated into the analysis. The major results from this research are that individuals do tend to behave in a manner that is consistent with precautionary behavior and that even among those who do not hold private insurance, most act in a manner consistent with their being over-insured by Medicare.

**Sheiner (1997)** estimates the effect of health insurance costs on the wage profile. He notes that health care costs vary widely across geographic areas with costs in high-cost areas more than double those in low-cost areas (this is based on city level cost data). Because the cost to employers of providing health insurance increases with employee age, she hypothesizes that the wages of older individuals in high-cost areas should be lower than the wages of older individuals in low-cost areas conditional on other factors which also affect wages.
This study by Liu and Christianson (1998) examined the decision of small group employees to enroll in prepaid plans offered through Healthcare Group of Arizona (HCGA) a state-sponsored and state-administered voluntary insurance program. The study population included 653 potential employee enrollees who were offered the option of two health plans between January 1993 and June 1993, with 447 enrolling in one of the two plans. Data sources included two telephone surveys Healthcare Group of Arizona (HCGA) administrative files and enrollment application forms. The estimate of the enrollment decision is based on a logit model. There was a significantly positive relationship between the interactions of average employee matching rate and having prior insurance (0.0126), whereas the effect of employee matching rate alone was significantly negative (-0.0237). The net effect of employee matching rate for employees with prior insurance was -0.0111. The average income elasticity across income groups was 0.12. The results indicated that employees in higher income groups were less likely to enroll in Healthcare Group of Arizona (HCGA) as their income increased.

This research by Sapelli and Torche (2001) intended to show the behavior of consumers towards the mandatory health insurance system. The data for this study comes from the 1990 and 1996 Characterization Socioeconomic National (CASEN) Surveys. The results of the regression were presented. As expected, a higher income increased the probability of affiliation with private insurance and a higher price decreased the probability of selecting private insurance. The age of the head of the nucleus negatively affected affiliation with private insurance. Age lowered the probability of affiliation with private insurance, possibly as a consequence of the lack of catastrophic insurance in private policies. The sign of the Hospitalization Days coefficient were also negative. The variable was included to proxy private information that the insured person could have regarding the possibility of high expenditures. This possibility increased the probability of choosing public insurance, although the coefficient was not significant in 1990 and significant only at the 5 per cent level in 1996. Regarding the effects of population density, probability of affiliation with private insurance were higher in larger cities.

Janet Currie and Jonathan Gruber (2001) investigates the impact of expanding public health insurance on the medical treatment received by women at childbirth, using
Vital Statistics data on every birth in the US over the 1987–1992 period. The effects of insurance status on treatment are identified using the tremendous variation in eligibility for public insurance coverage under the Medicaid program over this period. Among low education mothers who were largely uninsured before being made eligible for Medicaid, eligibility for this program was associated with significant increases in the use of a variety of obstetric procedures. Among women with more education, however, there is a countervailing effect on procedure use. Most of these women had private insurance before becoming Medicaid-eligible and some may have been ‘Crowded out’ onto the public program, moving from insurance which reimburses medical care more generously to insurance with much less generous reimbursement. This movement was accompanied by reductions in procedure use. Thus, on net the Medicaid expansions had an equalizing effect, increasing the treatment intensity of the previously uninsured while lowering it among the previously insured.

The study by Robert Kaestner and Kosali Ilayperuma Simon (2002) based mainly on the 1989-98 March Current Population surveys, finds that state-mandated health insurance benefits and small-group health insurance reform had no statistically significant effects on labor market outcomes such as the quantity of work, wages and whether an employee worked for a small or large firm. The number and type of state-mandated health insurance benefits were unrelated to weeks of work, wages and the prevalence of private insurance coverage, but positively associated with weekly work hours. Extensive small-group health insurance reform was associated with a slight decline in the prevalence of private insurance coverage in small firms and this reform affected both full- and part-time employees. Less extensive reforms were not generally related to the prevalence of private insurance coverage. Overall, the authors do not find strong evidence that insurance regulations affected labor market outcomes, although they appear to cause a small decrease in private coverage.

Kate Bundorf (2002) examined the relationship between employee preferences for health insurance and the health plans offered by employers. The study hypotheses are that (1) employers hiring workers with stronger preferences for health insurance relative to cash wages offer more generous health plans and (2) employers hiring workers
characterized by greater variation in their preferences for health insurance relative to cash wages are more likely to offer multiple, differentiated plans. He found evidence that employee characteristics affect the generosity of the health plans offered by employers and the likelihood that employers offer a choice of plans. The results suggested that employers do respond to employee preferences in choosing health benefits, the effects of worker characteristics on plan offerings are quantitatively small.

Dong et al. (2003) studied the willingness to pay for a proposed community–based health insurance scheme in order to provide information about the relationship between the premium that is required to cover the costs of the scheme and expected insurance enrolment levels. Data were collected from a household survey, using a two-stage cluster sampling approach. Overall 800 households were selected, 480 in the rural area and 320 in the town of Nouna. The take-it–or leave it (TIOLI) and the bidding game were used to elicit WTP. The average individual was willing to pay 2384 (elicited by the TIOLI) or 3191 (elicited by the bidding game) to join community–based health insurance scheme for him/herself. The two methods yielded similar pattern of estimated willingness to pay, in that higher willingness to pay was obtained for higher income level, higher previous medical expenditure, higher education, younger people and males. A starting point bias was found in the case of the bidding game. Out of the 800 households randomly selected, 776 were included in the analysis. There were no significant differences in key variables such as religion, location of residence, occupation and years of schooling between the responders and the non-responders. There were significant differences however in sex, age and marital status. In the 776 households 705 (90 per cent) heads of the households answered the household willingness to pay questions.

According to Johannes P. Jutting (2003) argument on Community-based health insurance is an emerging and promising concept, which addresses health care challenges faced in particular by the rural poor. To analyze whether rural Senegal members of a health insurance scheme are actually better-off than nonmembers, two-stage sampling procedure were adopted, first selected four out of the 16 villages in which mutuals operate. In each of the selected villages the second step consisted of randomly selecting
households for the interviews. In all four villages, members and nonmembers were interviewed. A binary probit model is estimated to analyze the determinants of participation in the mutuals. Following explanatory variables were used, income of the household, characteristics of the household head, who decides if the household joins or not, household characteristics and community characteristics. Study concluded that low-cost, high frequency events are covered within the extended family, the risk of hospitalization is shared by the larger community. This had a potential positive effect on the ability of households to smooth their consumption, on labor supply and labor productivity and on the health status of the people insured.

Abay Asfaw et al. (2004) investigated the prospect of community health insurance schemes in mitigating the health shock effects of economic reforms and deregulations on the poor rural households of Ethiopia. The results demonstrate that the introduction of such schemes can help to protect the poor against the adverse impacts of economic reforms on health. It is also demonstrated that enough and sustainable resources can be generated from such schemes without obstructing the current economic reforms and evicting the poor and the socially disadvantaged section of the population out of the health care market. The results revealed that CBHIS can be used as a mechanism by which the benefits of market-led growth can be distributed fairly across the large section of the population.

Matthew S. Dey and Christopher J. Flinn (2005) investigate the effect of employer-provided health insurance on job mobility rates and economic welfare using a search, matching and bargaining framework. In their model, health insurance coverage decisions are made in a cooperative manner that recognizes the productivity effects of health insurance as well as its no pecuniary value to the employee. The resulting equilibrium is one in which not all employment matches are covered by health insurance, wages at jobs providing health insurance are larger (in a stochastic sense) than those at jobs without health insurance and workers at jobs with health insurance are less likely to leave those jobs, even after conditioning on the wage rate. They estimate the model using the 1996 panel of the Survey of Income and Program Participation and find that the employer-provided health insurance system does not lead to any serious inefficiencies in mobility decisions.
Anne Beeson Royalty and Jean M. Abraham (2006) studied the joint decision-making of husbands and wives that determines the household’s access to health insurance. They estimated the effect on a wife’s (husband’s) labor market outcomes of husband’s (wife’s) health insurance, allowing the health insurance of both spouses to be endogenous. Obtaining unbiased estimates of such effects is complicated by the likelihood that positive assortative mating creates correlations between a couple’s characteristics and the possibility that there are important unobservable household income effects. Their innovation is to measure these biases by examining a second fringe benefit, paid sick leave, in addition to health insurance. They found that, as predicted, spouse’s insurance has statistically significant negative effects on being offered own employer insurance as well as on the probability of working full-time with health insurance.

Finn and Harman (2006) in exploring the demand for private health insurance in Ireland, the Living in Ireland Survey 1994-2001 is used. They used the panel data analysis and compares three alternate approaches: a Static Chamberlain-Mundalk and dynamic specification. A range of individual and household characteristics is shown to influence propensity to insure. Overall the positive effect of education and income and the negative effect of poor health status remain robust across three specifications. In moving toward a dynamic specification it showed that persistence is a highly significant determinant of demand for private health insurance and also that it reduced the size of the coefficients on the regressors. The highlighting point of the study was that education, income and, to a lesser extent, health status has very large effects on probability of insuring.

A study by Dror et al. (2006) provided evidence on Willingness to pay, gathered through a unidirectional bidding game among 3024 households in seven locations where micro health insurance units are in operation. The data is analyzed using linear multiple regression. The willingness to pay values that were obtained through the bidding game was subjected to multivariate analysis. The regression results revealed a highly significant but modest positive association between being insured and willing to pay for health insurance. The multivariate analysis revealed a highly significant positive association between willingness to pay and household size. Nominal Willingness to Pay correlated positively with income but relative Willingness to pay correlated negatively.
The findings strongly suggested that the correlation between Willingness to pay and education is secondary to the correlation of Willingness to pay with income or expenditure. The multivariate analysis revealed an association between Willingness to Pay and the respondent’s gender in which men were presumably prepared to pay more. There is a marginally significant negative correlation between distance to hospital and Willingness to Pay.

_Tara Sinha and _et al._,(2007) examines the distributional impact of a community-based insurance scheme which covers death, hospitalization and asset loss benefits in a bundled package. It looks at the distribution of insurance benefits between urban and rural members and between the poorest and least-poor members. Urban members benefited much more from the scheme than rural members. While the scheme provided considerably higher benefit to the poor within urban areas, the rural poor benefited far less than the better-off rural members. The results have implications for scheme administration and policy; changes need to be made at both levels to provide a more balanced distribution of scheme benefits.

_Berengere Saliba and Bruno Ventelou (2007)_’s study was based on a rare database with information about health status, socioeconomic characteristics and the complementary health insurance choices of the French population. They intend to characterise a two-stage decision process: first, the decision to purchase complementary health insurance and then the factors related to choice of policy quality. Their econometric study indicated that (i) income level has a strong and significant effect on the decision to purchase complementary insurance, whilst there was no evidence that health risk considerations affect this decision at all; (ii) the individual decision about quality was associated barely if at all with any rational explanatory variables. The population’s concrete behaviour, revealed by the study, was consistent with an allocation of low-risk people to private insurance and high-risk people to public insurance. Complementary insurance was not especially relevant to patients with serious diseases, who depend much more on the public system. If the public insurance system were to disengage significantly from coverage of serious illness, a vacuum would be created that would leave people at high
risk without full coverage. These results have broad implications for numerous national systems of social protection seeking a new mix between private and public insurance.

**Pedro Pita Barros et al., (2008)** estimated the impact of extra health insurance coverage beyond a National Health System on the demand for several health services. Traditionally, the literature has tried to deal with the endogeneity of the private (extra) insurance decision by finding instrumental variables. They focused on the most common health insurance plan in Portugal, ADSE, which is given to all civil servants and their dependents. They argued that this insurance is exogenous, i.e., not correlated with the beneficiaries’ health status. This identifying assumption allows us to estimate the impact of having ADSE coverage on the demand for three different health services using a matching estimator technique. The health services used are number of visits, number of blood and urine tests and the probability of visiting a dentist. Results show large positive effects of ADSE coverage for number of visits and tests among the young (18–30 years old) but only the latter is statistically significantly different from zero. The effects represent 21.8 per cent and 30 per cent of the average number of visits and tests for the young. On the contrary, they found no evidence of moral hazard on the probability of visiting a dentist.

**Amy Finkelstein and Robin McKnight (2008)** studied the impact of the introduction of one of the major pillars of the social insurance system in the United States: the introduction of Medicare in 1965. Their results suggest that, in its first 10 years, the establishment of universal health insurance for the elderly had no discernible impact on elderly mortality. However, they find a substantial reduction in the elderly's exposure to out of pocket medical expenditure risk. Specifically, they estimate that the introduction of Medicare was associated with a 40% decline in out of pocket spending for the top quartile of the out of pocket spending distribution. A stylized expected utility framework suggests that the welfare gains from such reductions in risk exposure alone may be sufficient to cover almost two-fifths of the costs of Medicare. These findings underscore the importance of considering the direct insurance benefits from public health insurance programs, in addition to any indirect benefits from an effect on health.

**Inke Mathauer and et al. (2008)** contributes to analyzing and understanding the demand for (social) health insurance of informal sector workers in Kenya by assessing
their perceptions and knowledge of and concerns regarding health insurance and the Kenyan National Hospital Insurance Fund (NHIF). It serves to explore how informal sector workers could be integrated into the NHIF. To collect data, focus group discussions were held with organized groups of informal sector workers of different types across the country, backed up by a self-administered questionnaire completed by heads of NHIF area branch offices. It was found that the most critical barrier to NHIF enrolment is the lack of knowledge of informal sector workers about the NHIF, its enrolment option and procedures for informal sector workers. Inability to pay is a critical factor for some, but people were, in principle, interested in health insurance and thus willing to pay for it. In sum, the mix of demand-side determinants for enrolling in the NHIF is not as complex as expected. This is good news, as these demand-side determinants can be addressed with a well-designed strategy, focusing on awareness raising and information, improvement of insurance design features and setting differentiated and affordable contribution rates.

Matthew Dey and Christopher Flinn (2008) investigated the implications of the “publicness” of health insurance coverage for the labor market careers of spouses. The theoretical innovations in the study are to extend the standard partial–partial equilibrium labor market search model to a multiple searcher setting with the inclusion of multi-attribute job offers, with some of the attributes treated as public goods within the household. The model is estimated using data from the Survey of Income and Program Participation (SIPP) using a Method of Simulated Moments (MSM) estimator. They demonstrate how previous estimates of the marginal willingness to pay (MWP) for health insurance based on cross-sectional linear regression estimators may be seriously biased due to the presence of dynamic selection effects and misspecification of the decision-making unit.

Kevin T Stroup et al. (2009) examined for evidence of health insurance-related job lock among chronically ill workers or workers whose family member is chronically ill. Using Cox proportional hazard models to indicate the effect of health insurance and health status on workers' job duration we allow for more general insurance effects than that shown in the existing literature. Data for workers in Indiana predating the Health Insurance Portability and Accountability Act (HIPAA) are used to examine the potential
effect of HIPAA on job mobility. Among the workers in this sample who relied on their employer for coverage, chronic illness reduced job mobility by about 40 per cent as compared with otherwise similar workers who did not rely on their employer for coverage. Results reported here identify previously under-appreciated job lock among chronically ill workers and workers whose family member is chronically ill, clarify how one best researches job lock and indicate the potential effect of policies aimed at alleviating job lock and promoting inter-employer worker mobility.

Rebecca L. Thornton and et al. (2010) they presented the results from an experimental evaluation of a voluntary health insurance program for informal sector workers in Nicaragua. Costs of the premiums as well as enrollment location were randomly allocated. Overall, take-up of the program was low, with only 20 per cent enrollment. Program costs and streamlined bureaucratic procedures were important determinants of enrollment. Participation of local microfinance institutions had a slight negative effect on enrollment. One year later, those who received insurance substituted toward services at covered facilities and total out-of-pocket expenditures fell. However, total expenditures fell by less than the insurance premiums. They find no evidence of an increase in health-care utilization among the newly insured. They also find very low retention rates after the expiration of the subsidy, with less than 10 per cent of enrollees still enrolled after one year. To shed light on the findings from the experimental results, they presented qualitative evidence of institutional and contextual factors that limited the success of this program.

2.4 Conclusion

An analysis of the previous studies related to the current topic shows that the average Indians remains underserved by the present healthcare system. This has been observed in many different respects and presented below.

- Indians have inadequate access to quality healthcare, and this is particularly true for the poor, those residing in rural areas, STs and women.
- Physical proximity to facilities and the cost of treatment are two important determinants of access.
• Private health care providers predominant in both institutional and non-institutional services.
• The bulk of the ailments occurring in the poorest quintiles are treated at private facilities.
• ‘Unqualified’ practitioners form the bulk of private practitioners in India, and are the most accessible source of treatment for many, especially in rural areas.
• Public health services are not always free. Often, they do not even have medicines diagnostic equipment, making it necessary for the patient to purchase, the product/service from the market.
• About 7-8 per cent of households are pushed below the poverty line because of expenses incurred on health care.
• There are critical gaps in infrastructure especially with respect to the presence of health care centres and well-trained staff (Laveesh Bhandari (2010).

The review of literature shows that urban health, especially with respect to industrial workers is still a less researched area in the context of its complexities. In the process of urbanization, the cities are swelling due to population growth and migration. This has resulted in further deterioration of physical environment in these cities not backed by adequate expansion of civic amenities as well as health services. Though all the varieties of health services are available in our societies, not all sections of the society are benefited by these facilities. The worst sufferers in the urban areas are the people belonging to the economically weaker sections of the society especially the industrial workers.

Many studies have been done in the general area of health service utilization. As it is clear from the preceding detailed review, existing literature in the field of health services utilization and morbidity problems in urban India; attempts made so far suffer discerningly from the following significant limitation. None of the studies touch the core reality of health issues of the industrial workers, especially their choice of health care services and their enrolment in health insurance schemes in the urban areas. The present study take into account, the health care choice of industrial workers before analyzing the enrolment of health insurance schemes in utilizing the health care services, which is also an improvement over the existing literature. Major studies are based on either demand for
health care services in urban or urban rural comparison in health services utilization and health problems and none of the studies analyses the choice of health care services and health insurance enrolment of urban industrial workers. All these studies have a predominant bias of being macro studies. Such studies by their nature do not touch the core-reality, since it is not possible to know from the top what is going on at the inner base of the mountain of the problem. The correct approach necessarily is the ‘slicing method’ that is to divide the problem into small pieces and then an intensive effort to assess them really (Benyoussef A.Wessen A.R., 1974).