CHAPTER II
REVIEW OF LITERATURE

To understand the problem precisely and to focus on the rationale of the study, it becomes urgent to have an idea about the studies conducted so far related directly or indirectly with the problem.

The present chapter reviews some available empirical studies regarding different aspects of health status in India and its respective states. The review of these studies provides a broad scenario of various dimensions of health status. For this purpose, the whole chapter has been divided into three sections.

Section I
Health Status in India and its States

It covered articles relating to health status in India and of its different states. The reviews of studies covered in this section are as follows:

According to Aggarwal (1977) persistent high fertility caused important health problems not only because economic improvements which were essential for good health get restricted, but also because it posed an immediate health problem for the mother and the child. In the most developing countries married women aged between 17-37 were characterized by continuous nutritional drain from repeated pregnancies and lactation resulting in material depletion and measured risk of maternal mortality which increased with every pregnancy beyond the third. Study concluded that in recent years there has been a growing concern about the widening gap between population growth and food supply in developing countries in view of rapid population growth. Available food supplies were inadequate in nutritive quantity for a healthy and active life. Retarded development and poor health were responsible for low stamina and low physical activity. Low physical activity resulted in low productivity, which in turn caused more poverty and more inadequate food supply. Unless this vicious circle is broken, future generations will have reduced stature, lower body weights, and lower level of physical capacity and consequently reduced working efficiency.
Sharma, (1978) in his study on “Assessment of Medical Manpower Needs of the CGHS” (Central Government Health Services) have attempted to find out the gaps between the available manpower and manpower needed to provide adequate medical care to the beneficiaries. Study examined the workload of four sampled dispensaries in terms of number of cardholders, number of beneficiaries, number of attendance per day etc. The standard time required for providing adequate medical care has been derived on the basis of Delphi technique wherein experts provided the estimate of time for medical care service for old and new patients and for different income groups. The medical manpower requirement was derived with the help of these estimates and workload was found using the approaches of norm for hours of work and work load norm. Study found out that the gap between available manpower and actual requirement varied from one to seven medical officers in the sampled dispensaries. The norm derived for medical officer on the basis of the second approach was estimated to be six medical officers for 10,000 beneficiaries.

The study on “Global Strategy for Health for all by the year 2000” conducted by World Health Organization (1981) showed that nearly 1000 million people were trapped in vicious circle of poverty, malnutrition, disease and despair that saps their energy and reduced their work capacity. It was stated that most deaths in many developing countries resulted from infections and parasitic diseases. In many countries the health personnel were not appropriately trained for the tasks they were expected to perform. The proportion of GNP spent on health ranges from far less than 1 percent in many developing countries. Empirical evidence regarding world health and socio economic situation was presented by means of a number of indicators like infant mortality rate, life expectancy, adult literacy rate, coverage of safe water supply and per capita public expenditure on health.

Walter, Breeze (1985) study focused on strategies for the monitoring of the performance of National Health Services. They recognized three major components for evaluation: economic efficiency, social acceptability and medical efficacy. They had used different indicators and data set to achieve each of its objectives. As a means of monitoring the quality of curative services which were based on routinely collected statistics they selected 14 disease groups for which mortality was taken as an outcome indicator for the study. Age Standardized Mortality Ratios (SMR’s) were calculated in
98 areas for age ranges in which medical care was most likely to be effective. The indicators appeared to be effective and stable overtime and also identified significant variation between areas. The major problem while attempting this study regarding the performance of the health services was regarding the accuracy of information. The study observed that UK and USA has achieved similar reductions in mortality.

Khan, M.E. (1987) study aimed at analyzing peoples' perception about the functioning of the PHC / Sub center and the reason for its non-utilization. The study was conducted in Bihar, Gujarat and Himachal Pradesh. Within each state 2 districts and within each district one PHC was selected. One PHC in one district of each state selected was a tribal or a remote primary health center. A multi disciplinary approach was adopted. The data for the study was collected using anthropological approach as well as through intensive in-depth discussion with state and district level officials, PHC doctors and field staff, village health practitioners, and community members. The study concluded that in all the states excessive emphasis was given to the achievement of family planning targets by the district and PHC level authorities, at the cost of other health care programmes. In all the three states, the performance of workers was evaluated by her/his sterilization target achievements and those who were not able to achieve the target have to pay bribes. Corruption and weak administration, inadequate logistic support in the form of material and manpower training, inaccessibility of healthcare services, absence of proper monitoring system and overemphasis on achievement of sterilization targets, were some of the obstacles in the healthcare system in all the three states. In Bihar, it was found out that PHC doctors were primarily busy in private practice as government had allowed them to practice privately during their off-time. Doctors were available at PHC’s only for two hours a day in Bihar, in Gujarat three hours a day. Government health care services were worse in Bihar followed by Gujarat.

Ram and Mohanty (1989) in their paper attempted to access the variation in human progress and human deprivation among the major states of India like Punjab, Tamil Nadu, Bihar, Orissa, Kerala etc. The study has examined the nature and linkage between human resource development and demographic parameters at state level. Two indicators of human resource development namely Human Development Index (HDI) and Capability Poverty Measure (CPM) had been constructed at state level. It
was found that there was wide variation in human progress and human deprivation across the country. Study found that greater investment in human resources with particular attention to poor states was essential for reducing poverty and population growth of our country. Human development brought together the production and distribution of commodities and expansion and use of human capabilities.

Rao (1991) in his paper "Estimation of Community Health Status Index on the Basis of MIMIC Model" presented a multiple Indicators Multiple Causes (MIMIC) model, which treated the health status of the community as an unobservable variable. On the basis of this model, a community health status index (CHSI) has been estimated for 15 states of India using cross-section data on health indicators and health causes separately for the year 1971 and 1981. The index used by him was very useful in ranking the states in terms of their health status and in monitoring their progress. The estimated values of the structural coefficients in the model throw light on the differential marginal impact of improvement in health causes on the CHSI and also on the different indicators.

Soman Krishna (1992) studied the family dynamics of women’s health and illness and their interaction with the larger social processes. For this study the complete census of the socio-economic status of households was conducted. The sample was taken of 272 households. There were 971 individuals in the specified age group of 15 and above and 456 were women. The study found out that women continued to stay within the boundaries of households, performed labour without actively participating in decision making process. Estimates of annual reported illness of women showed direct differentials in socio-economic categories. For illness, women were dependant upon the private practitioners in the village who did not have any medical qualification. Women in the poorer section mostly used government services for immunization and iron supplementation. The reasons for women’s restraint in seeking medical treatment were their perceptions severity, sense of responsibility towards family, its economic conditions and priorities of men. At the larger level, it was the balance of power within the patrilenial structure of the society that kept women away from the quality health.

Nandraj (1992) study aimed to find out the conditions of private nursing homes/hospitals in the city of Bombay and to find out the functioning of private
nursing homes/hospitals. This study was undertaken for the committee set up by the Bombay High Court to go into the regulation and the laying down of minimum standards for nursing homes and hospitals. The nursing homes/hospitals were selected on a random sample basis from each of the wards in the Eastern zone of Bombay. The researcher visited twenty-four nursing homes/hospitals and physical verification was done along with a checklist and an interview guide. The study found out that fifty percent of the nursing homes were either in a poorly maintained building or they were in dilapidated condition. Most of the nursing homes were congested, lack adequate space. The passages were congested, and entrances were narrow and crowded. Seventy-seven percent do not have scrubbing rooms. Less than a third had qualified nurses. Seventy-seven percent of the nursing homes that had an Operation Theatre did not have a sterilization room, while 66.7 percent did not have a generator. None of the nursing homes incinerate infectious waste material but instead dump it in municipal bins. None of them keep records of notifiable diseases.

Medico Friend circle (1993) study aimed to understand the patient’s views on present healthcare system to look at their experiences with the various health systems and to study their perception on various aspects of present healthcare system in Maharashtra state. A short questionnaire was prepared and the results depicted that nearly 77 percent of total respondents of 208 reported approached private health care. Among these 69.7 percent suffered from acute illness, 34.6 percent of respondents received consultant care. With regard to waiting period 61.1 percent of respondents felt that they have to wait for 20 minutes. With reference to the information on side-effects, 53.4 percent reported that they were not given any information. Question on the reliability of charges, 44.2 percent felt the charges were unreasonable. An equal no, 45.2 percent felt the charges were reasonable. The main expenditure per acute respondent for non-hospital cases was Rupees 182.

Juncari, Bhushan (1993) study objective was to understand the state of Medicare facilities provided by medical practitioners in the city of Agra. It also examined the emerging trends such as commercialization and malpractice in the Medicare system by exploring the conditions under which these practitioners operate. A quantitative research design was used in which a sample of 25 qualified practitioners was selected out of 870 practitioners from three localities of Agra viz.
Shahagany, Kharia and Sadar areas. The study came to the conclusion that the lower classes in the city were unable to meet the high cost of medical services prescribed by the medical practitioners. Medical care provided by the private sector had become very commercial and as a result malpractices were common. These practitioners possessed an MBBS degree as their academic qualification, and none of them had post graduate degrees. About 50 percent of them had undergone specialized diploma courses and post graduate diploma courses. More than 50 percent of practitioners were general practitioners. More than 75 percent of the respondents also dispensed medicines as their mode of practice. The obvious reason was that dispensing ensures greater patient load and thereby more income. A compounder supported each of these doctors. The compounders were not illiterate but their employment with the doctor was temporary in nature. Only 32 percent of the respondents provided their services in their respective clinics. Some of these doctors were permanent employees of the government hospitals. All of them provided first aid facilities at their clinics, none of them provided anti rabies or anti toxic treatment, and very few of them provided immunization services. More than 80 percent of the respondents charged consultation fees below Rs. 35/-, which they perceived as affordable by the patients. None of these practitioners referred their cases to other professionals. These professionals served mainly lower and lower middle class patients. This study gave some insights into those who practice as qualified general practitioners, and these were mainly MBBS doctors. Their practice was mainly curative and they provided very little preventive input. This study also showed that some government doctors had a private practice. These qualified practitioners cater mainly to the lower middle classes and their role in providing preventive medical care was minimal.

Uplekar (1996) study attempted to understand the nature of the social and operational constraints affecting TB control and identified ways to remedy them. The study was conducted in the rural and urban areas of Pune district, Maharashtra. Data collected was both qualitative and quantitative in nature. Interviews were held of 605 households in 12 villages (in 6 primary health centre areas) and 408 households in urban areas in 42 census blocks, a total of 1013 households. Informal interviews with 299 TB patients in 6 PHCs and 3 urban TB clinics were conducted. Data was collected from the healthcare providers such as the health functionaries at different levels of PHCs and urban clinics and private medical practitioners in selected rural
and urban areas. Data was also collected from the supervisory and administrative staff at the district TB center and the state TB directorate. Other sources of data collection included observations, informal interactions and focused group discussions, case studies with both the users and providers of health services.

The study found out that the people who developed symptoms of TB generally went to private medical practitioners for treatment. The patients were rarely subjected to sputum examination. The emphasis always was on diagnosis based on the x-ray of the chest. Patients of TB preferred the services of private doctors for 2 reasons- less waiting time and convenience of clinic timings. But patients did end up in the public health services either by themselves or referred by private doctors chiefly due to their inability to pay for prolonged care in the private sector. Non-adherence to treatment by patients is known to be a major impediment in controlling TB. The reasons for this were high cost of care, disappearance of most of the troublesome symptoms on partial treatment, and also non-availability of services, low image of public services in people's mind. According to the study, about a third of the patients had incurred debts in order to bear the expenses of their treatment. Rural patients had spent almost double the amount spent by their urban counter parts. In the private sector, drugs and doctors were the main item of expenditure. In rural and urban areas, all kinds of private medical practitioners entertained patients of TB. They were oblivious to the detrimental effects of their management practices like x-ray based diagnosis, use of multiple irrational drug regimens, lack of education of patients, lack of patient follow up and total absence of maintenance of any kinds of records. These practices were due to inadequate basic training and lack of continuing education. So, training must be done and it must be made simple, demonstrative, on-site, periodic and cover not only the technical and managerial aspect but also the social and behavioral dimensions to help them tackle effectively the problems of non-adherence to treatment at the field level. PHCs have to be strengthened by providing them with adequate resources, and this need proper monitoring and surveillance from the levels above.

Kabra, Patni (1998) collected and analyzed a representative sample of baseline data of private healthcare facilities in Jaipur. The objectives of the study were: to study the rate and extent of privatization and to study the use of the private facilities by both the inpatients and outpatients in the hospitals. To conduct this study a list of
all private nursing homes was compiled from various institutions, doctors, pharmacists etc. Sample of 50 private health institutions were selected. Study found that the number of patients who visited the out patient departments per annum was 6 lakhs. The Indoor Patient Department (IPD) figure per annum was approx 60000. The total beds strength of all the hospitals was 1283 beds. The cumulative growth rate of the bed strength over the period from 1960 to 1992 was 95.64 percent. Thus, it grew 9.5 times over this period. The cumulative growth rate in IPD was 1689.91 percent that was 16.90 times growth. The number of Out Patient Department (OPD) and Indoor Patient Department (IPD) patients rose to 611659 and 60857 respectively in the above mentioned period. An average of 400 beds was added per decade. The health care services provided by the nursing homes grew at a decreasing rate. The study states that the sharp increase in the private health care facilities in the last decade indicated the new trend of privatization, which began in 1991. The study also indicated that the capacity of the people to pay for the health services was increasing and at the same time they were not satisfied with the government services. Lastly, the study has emphasized the need of carrying out more such studies as this kind of database would be useful for determining areas of government intervention. This was necessary to maintain standards in the private health sector and check it from becoming exploitative.

McKinsey (1998) conducted in association with Chartered of Indian Industries (CII) found out that the healthcare system in India is quite poor. The study noticed that demand for healthcare has grown up in last 10 years, thus it required hard work and collaborations between government and private sector. Further, India has low levels of pre-payment and lack of competition between healthcare providers. The industry was unorganized in India with low spending on in-patient care, low affordability in industry, lack of standards and malpractices.

Nandraj S, Jesani, Sinha (1998) study aimed to document and analytically understand the perceived morbidity patterns, access and constraints of women to health care facilities and their utilization and expenditures by households on women's health problems with special reference to socio economic differentials. The study was conducted in the 'L' ward of Greater Mumbai City, a congested pocket with residential units as well as small-scale factories and commercial establishments.
A stratified random sampling method was used in the five clusters, two slums, two chawls and one apartment block. A household interview schedule was administered in the study area. Since women were the focus of the study, women investigators conducted the interviews and the respondents were all women. The sample consisted of 430 households. The findings were quite revealing. The monthly prevalence rate of illness worked out to 363 per thousand. Due to the modifications that were made in the methodology, the researchers were able to record a significantly higher burden of morbidity among women. The study attempted to create an environment, which encouraged women to feel, unhindered to speak about their health problems even while a deliberate attempt was being made to elicit information about unreported illness through the probe list. Morbidity by physical environment revealed that the non-slum population, who comprised 41 percent of the total population, had 31.79 percent of total morbidity and the morbidity among slum dwellers was 10 percent higher than that of the total population. Reproductive illnesses form the largest group of problems accounting for 28.2 percent of all episodes among females. The study found that 127 out of the 167 reproductive episodes reported by women were related to menstruation and child bearing (Menstrual problems, uterine prolapse, low back ache and lower abdomen pain). The study found a steady rise in the morbidity rates with age of females. Forty-three of the pregnant women did not utilize any facilities. These findings clearly showed that Mumbai in spite of some of the best health facilities in the country, people residing within the city were not able to access them. The study found a very high utilization of the private health services and the limited role played by the public sector in the city of Mumbai for provision of health care. The private practitioners mostly treated illnesses such as fever, respiratory and gastrointestinal problems. In case of the reproductive illnesses, about 70 percent of the facilities utilized were private. Of those pregnant women who utilized health facilities, 57 percent utilized private facility and only 32 percent utilized public facilities. With regard to deliveries the public sector accounted for only 30 percent of the deliveries as compared to the private sector, which accounted for 31.7 percent. The average expenditure incurred per capita per case was Rs. 95.45 working out to Rs. 415.68 per year. In terms of gender difference per case cost worked out to Rs. 148.56 for males and Rs. 78.59 for females. In 90 percent of all the illness cases, the combined expenditure was incurred on the fees paid to the doctor and the purchase of
medicines. The expenditure incurred was much higher than what was spent by the government which was just Rs.250 per person in Mumbai city and very much less than the national per capita expenditure of Rs. 90. There was a high expenditure incurred on pregnancy, which works out to Rs. 213.08, Rs. 2428.90 for a delivery and Rs. 989 for an abortion. The strong gender bias was very much evident right across the findings of the whole study. Women received a raw deal both in terms of utilization and the expenditure incurred on their illness and non-illness events. One found out that irrespective of the age, education, occupation, earning status, location of the households there was a wide difference among men and women in terms of utilization.

In both slum and non-slum areas households were spending less on women's health. The study had brought out these and many other important issues related with women's health, which required proper attention and corrective action. The study has emphasized the need of examination of these issues at a broader level and in a more gender sensitive manner. This study throws up the issue of non-utilization of health services especially women who suffered from various illnesses and for deliveries even in a premier city such as Mumbai that has more public health facilities compared to other parts of the country. This raised the question that though the services may be available, the access to them was determined by factors operating within the household and outside.

Bhat, Ramesh (1999) study gave an account of the policy initiatives by State Governments of Punjab, Rajasthan, Tamil Nadu, West Bengal and Maharashtra to develop relationships between public and private sector. Secondary data was used for the study. The study had concluded that in our country the public-private initiatives were in premature state. While designing a PPP venture, the government should pay attention on following aspects: Information, Public goal and Private initiative, Coordination and monitoring, Market subsidy and incentives, Institution and Organization. The study had emphasized on the importance of PPP as a form of privatization. If these measures were implemented properly, the ventures could provide an efficient and equitable option of healthcare delivery.

Parmar (1999) aimed to study the extent to which patients' rights were respected or violated by private Intensive Care Unit (ICU) / Intensive Critical Care
Unit (ICCU) in Mumbai. To study about the infrastructure, equipment, staffing and overall functioning and finally to examine the existence and non existence of regulation by various bodies expected to be responsible and their role. For this study, 40 private hospitals were selected from the central and western suburbs of Mumbai which displayed an ICU / ICCU board. The questionnaires were prepared based on a review of standard critical care books and literature available. The study found out that there was absence of new and sophisticated gadgets that were needed for critical care. Life saving drugs was not stored in sufficient quantity. All hospitals in the sample employed non-allopathic doctors on a round the clock duty for critical care, where experienced, qualified specialists were needed. Basic cleanliness was absent. The charges per day levied on patients were exorbitant. There was total lack of holistic approach and teamwork amongst the specialists. There were no attempts made to upgrade the unit or the application of basic knowledge and concepts in critical care. The study found that many of those deaths in private ICU / ICCU could have been prevented, if the admission had been made in higher level institution. Many of the deaths were hushed up and the belief of the public that 'death in ICU / ICCU is expected' was taken advantage of. The lack of awareness about what was expected in terms of 'critical care' has helped the mushrooming of these units. The study also found out that the phenomenal mushrooming of private ICU / ICCU hospitals paralleled the commercialization of the medical profession after 1985. Kickbacks and commission in medical practice has been responsible for admissions to such units. Thus, as a solution people and doctors should be made aware of their rights and doctors their duty vis-à-vis health care for people. There is a need to lay down standards for every hospital and nursing homes, and they must be made legally binding. There is also a need to formulate laws, rules and regulations for private hospitals. Lastly, current private ICU / ICCU hospitals in Mumbai must recognize and adapt to the realities of available resources rather than permitting inadequate care detrimental to the health and life of the public and against all human rights.

Mahal, Srivastav and Janan (2000) paper has two main objectives: to trace the progress of decentralization in the provision of social services and to test the hypothesis that decentralization in the system of public service delivery in primary health care and education leading to improved outcomes in rural India. On the first point, the paper found that prior to 1992, with the exception of a few states (Gujarat
and Maharashtra) and to lesser extent (Kerala and West Bengal); there had been little or no progress on decentralization. Local government bodies in rural India had little control over finances, administration or in expenditure and acted mainly as executing agents for other government line agencies. A number of indicators of democratization and public participation—frequency of elections, presence of NGO’s and parent teacher associations etc.—generally have positive effects; but these effects are however not always statistically significant. The authors concluded by recommending further work on developing better measures of decentralization and social participation and suggested that village-level case studies should be undertaken.

Mahal, Ajay (2001) summarized the empirical findings on the use of health services by the poor, providing a national-level analysis as well as state level comparisons. It found that as in most developing countries, publicly financed and delivered curative health care services in India were more likely to service the richer segments of the population than the poor. The delivery of private services was more skewed in favor of the rich. Secondly, it found that those below the poverty line continued to rely on the public sector. Thirdly and importantly, the richest quintile used tertiary level hospital services both in and out patient more likely than the poorest quintile. Further, it was found out that public services in urban areas were found to be more equitably used than those in rural areas. Gender and caste and tribal affiliations on aggregate do not appear to affect utilization rates. Finally, large variations were found across states in public and private service delivery.

Reddy (2002) in his study has considered health indicators and determinants of health status of people for 21 states of India for the year 1951-1981. They studied the relationship between percentage of literacy and expectation of life in India. The correlation coefficient in case of males came out to be 0.97 and in case of females 0.93. Of the eight determinants, female literacy turned out to be the most important determinant of health status. Hence, it was pointed out that the spread of literacy must be paid due attention for the enhancement of health status.

Wagstaff (2002) in his study tried to quantify the trade-off between the health costs of rising incomes against the health benefits. Results showed that reducing income inequality and raising the share of health expenditure financed publicly might reduce health inequalities, but neither the effect is at all strong and nor is statistically
significant. It is clear from the results that economic growth tended to increase health inequalities. Countries that were successful in raising their per capita incomes have paid their price in terms of higher health inequalities. Another finding of the study was that the countries with the lowest average rates of under-five mortality and malnutrition have the largest gaps between poor and non-poor children. Evidence from trends in health inequalities showed that health inequalities have tended to grow both in developing and developed countries at times of economic growth. The study suggested that this is probably due to technological change going hand-in-hand with economic growth, and a tendency for the better off to assimilate technology ahead of the poor.

Shresthova (2002) assessed the use of personal and professional transport use among women’s trade unions association in India and found out that in the majority of cases women and their families used public buses or walked to health outlets. Further, it reveals that women participating in his study were less likely to hire a rickshaw in cases of personal health emergencies (8 percent) than for the other family members (14 percent) which illustrated that even where intermediate forms of transport were available to access emergency health services, even better off professional women were less likely than other family members to use them.

Soman, Krishna (2002) looked at the health care sector in the primarily agricultural district of West Bengal. In this district, new privatization initiatives were being undertaken by the government in collaboration with external funding agencies. In addition to public health care facilities, a range of private sector providers existed, practicing different systems of medicines (homeopathy, allopathy, ayurveda and other traditional systems) with different ownership types (profit, not-for-profit). Many practitioners engaged in informal, holistic practices combined traditional healing with homeopathy and allopathic medicine. For a range of cultural reasons, a substantial portion of villagers (estimated at over a third) prefered such services- often run out of practitioners homes, grocery shops, or even door-to-door to formal health institutions.

Gupta, Indrani and Purnamita (2002) study attempted to derive demand functions for healthcare in rural India. The study found out that income and price were strongly correlated. Further, it was found out that age was positively correlated with medical care utilization and education was found out to be an important
determinant of provider choice. Lower levels of education were associated with increased demand for medical care. The most important finding of the study, from a policy perspective was concerned with the price elasticity of demand for health care services across rural India and for different fee ranges and income levels the demand for health services was found to be highly price inelastic. Within the highest fee range; a 10 percent increase in fees was associated with a small 0.03 percent decrease in demand. The richer segments of rural India were particularly insensitive to price increases. Price elastic ties were even lower for private health services than they were for government-provided services; thus reflected a clear preference for private healthcare provision. The authors found out that limited options explained these low elastic ties consequently, increased prices for public health care services without a corresponding improvement in the quality of such services, it was found to be the poor policy option. On the other hand, an improvement in quality was likely to increase demand for healthcare services.

Savedoff (2003) has identified at least four different approaches for answering the question of "how much" a country should spend on health. These four approaches range from rough comparisons with other countries to a full budgeting framework. In general, the peer pressure approach was the easiest to quantify but probably the least informative. The political economy approach focused attention on the process of political decision-making, but is less likely to produce a quantitative estimate of requirements. Only the budget approach appeared to be both feasible and directly confronting the issues of current and desired health status, prices, effectiveness and tradeoffs. According to author, fundamentally there was no shortcut. This seemingly straightforward question cannot be adequately answered without doing the hard work of addressing these four basic questions together.

a) What health problems together.
b) What health status do we aspire to?
c) How effective are our health services, activities and policies?
d) What are the processes of inputs?

Pandey, Roy (2004) studied the pattern and correlates the utilization of antenatal care services and assistance received during delivery in the three states, which had distinct geographical and topographical characteristics. The study had
obtained results specific to the particular features of the 3 states. The study discussed on antenatal check-up and showed that women living in Jharkhand and Chhatisgarh were more likely to use Antenatal Checkup (ANC) services than their counterparts living in Uttarakhand. The hilly terrain in Uttarakhand was responsible for the low utilization of antenatal care services. Women with lower birth order were more likely to use ANC services than women with higher birth order. The findings suggested that there was a need to apprise women and those with higher birth order about the importance of ANC services in all three states. Delivery care in the three states varied with the socio-economic characteristics of its population. The delivery care was utilized more by women from Uttarakhand than women living in Jharkhand. This finding was reversed to what emerged in utilization of antenatal care services. Thus, it was necessary for the reproductive and child health programmes to evolve a strategy giving due consideration to the geographical and socio-economic factors.

Arora, Lonnoth (2004) study area was a partnership unit in an urban context named as Mahavir Trust, which is a non profit hospital in Hyderabad that was acting as an intermediary between private practitioners at the primary level and the program. This partnership was initiated in an urban area where there was almost no government service available and individual private medical practitioners were involved in the programme as they were the first point of contact for most patients. They noted that Mahavir Trust hospital acted as a coordinator, intermediary and supervisor between the government and private medical practitioners (PMPS). The Mahavir Trust and nursing homes kept the records for the government. The government provided TB control policy, training, drugs and laboratory supplies. This study also incorporated five outreach workers who followed defaulters and motivated them to continue treatment. This partnership illustrated the presence of several actors performing multiple roles ad their success is dependant on the optimal functioning of each of the actors and their interaction with one another. This trust provided space and staff for the programme free of cost and also receives drug kits. Thus, process building, value orientation of the organization, its commitment and trust with the community was noted as the necessary and the sufficient condition for the success of this partnership to last long forever.
Sankar and Kathuria (2004) in their paper attempted to analyze the performance of rural public health system of sixteen major states in India. The study concluded that investment in the health sector alone would not result in better health indicators, efficient management of investments is required. The analysis of variation across states in the health systems in the rural areas suggested that there were two critical ways to improve health outcomes. The first was to enhance the efficiency of health sector. The second was to create more infrastructure and thus provide better health access to rural people and make more physicians available in rural areas. So, in order to cure what ails the health system in many Indian states, efforts need to be made in the direction not only of providing more infrastructure but also using them in the most efficient way. This demonstrated that states should not only increase their investments in the health sector, but should also manage it more efficiently in order to achieve better health outcomes.

Radhakrishna and Ravi (2004) in their paper have analyzed the trend in malnutrition over the past two decades and showed that improvement in health status have not kept pace with the reduction in poverty. About half of the population particularly children and women- the most vulnerable groups- suffer from various forms of malnutrition. This is seriously retarding improvement in human development and further reduction of mortality. The study showed that malnutrition is uneven across states. Some middle-income states such as Tamil Nadu and Kerala had comparatively better nutritional achievements than higher income states like Gujarat and Maharashtra. North-eastern states were comparatively better performing states and some of them have even out-performed Kerala. Concentrated efforts were needed to break the vicious circle of malnutrition among the poor. Improvement in incomes of the poor and the support of health services are the long term solutions to eradication of malnutrition.

Roy, Kulkarni, Vaidehi (2004) assessed the extent of inequalities in health care and nutritional status across states with a focus on tribe and caste. The study utilized data from National Family Health Survey-2 (NFHS-2), a large scale survey on demography and health conducted in India in 1998-99. Inequality by caste and tribe was examined in this paper with regard to the four Socio-Economic Indicators
(SEI): low standard of living, Illiteracy, No exposure to media, No health facility within locality. Two Programme indicators of utilization of health services: unsafe delivery and non utilization of ANC services and two nutritional status indicators: low body mass index and anemia were taken. Chi-Square test and Logistic Regression tools were used to find the results. Analysis of differentials between four major groups in Indian society, presented in his paper has brought out that the situation in four North states- Uttar Pradesh, Madhya Pradesh, Bihar and Rajasthan was unfavorable. In terms of SEI, the inequality was quite low in West Bengal, but situation was relatively better in Orrisa. Karnataka and Maharashtra showed the least inequality. Further, SC women were less likely to be without ANC, OBC women were less likely to have unsafe delivery, less likely to be anemic and ST women were less likely to be anemic.

Rao (2004) study objectives were to identify and assess the impact of critical factors that have a bearing on executive health, which included lifestyle and habits, stress level, common health problems, preventive measures adopted and facilities at the workplace. A survey on executive health was conducted on a representative sample of 275 participants during 2001-02. Over two-third of the respondents admitted that they have one or more health problems that have bothered them for more than three months. Among them, over half of them reported two or three health problems. Hypertension, gastric problems, headache and obesity were the major areas of concern. Junior and middle level executives suffered more from gastric and postural problems than their seniors. Obesity was dominant in the middle management level. Over two-thirds of the respondents took non-vegetarian food, go out for business lunches and undertake outstation travel; a little less than half sit for seven or more hours during a working day and consume alcohol in one form or the other and over one-fourth smoke. The stress profile of the sample was not alarming. But stress does contribute to health problems. Thus, this study pointed to the fact that employee health was a crucial determinant in organizational competitiveness and success. Further, greater insights were possible when executive health was correlated with other organizational factors.
Bloom (2005) in his study entitled “Public Health in Transition” explored the epidemiological transition of countries with rapidly expanding economies where chronic diseases were becoming the greatest challenge to health systems. In these countries people were living longer and developing diseases such as obesity, diabetes and heart diseases, which occurred more typically in developed nations like the United States. Bloom illustrated the economic benefits of using measures to prevent or reduce both infectious and chronic diseases. According to the study although health threats often cross national boundaries, there was no global organization in place to develop and coordinate an integrated response to such threats. A study listed eight recommendations that, if implemented, would have significant impact on health around the world.

Deewan, Puneet, Chauhan (2006) study observed that a strong public sector TB control programme proved critical for provision of necessary advocacy, supervision in relation to building and sustaining partnerships with the private sector. Their study was held in a district of Kerala for detecting Tuberculosis (TB) patients and study found that there was a significant improvement in case detection. It was possible because of existence of a strong local government TB programme which was having adequate staffing, medication and capacity to monitor the partnership while continuing routine diagnostic and treatment services for the most of the TB patients. The Indian Revised National TB control programme has developed formal guidelines to help local programmes structure collaborations with private healthcare providers and non government organizations. These guidelines offered a diverse group of plans for the community of private providers, with options to participate in the referral, diagnosis and treatment of patients with TB. Further, the Indian TB program also made financial incentives available for local programmes to distribute to cooperating providers, although these incentives were not always used.

Gudipati (2006) assessed the India’s current health care system and its effect on India’s rural population and looked at the impact this may have on the country’s future. The Indian government has created an extensive network of public health centers throughout the country. While the network existed to serve rural and poor areas, these centers were grossly underfunded and understaffed. Evaluating the public
health system requires looking at the current infrastructure of the system, the resource allocation within each public health center and at the qualification of the staff. Finally, it looked at public demand of the services provided by the public health systems.

Anant Kumar (2007) reviewed the scope and limitations of self help groups in improving women’s health, focusing on their implementation in the state of Bihar in India. It critically assessed the extent to which SHG’s can be involved in attaining better health for women and children by exploring the crucial role of caste and class in access to health services. His study concluded that SHG’s failed to capture local structural contexts such as caste and class, and as a result, develop approaches that produced equitable health services provision to marginalized and poor people.

Amit (2007) study revealed that about 30 percent of cardiovascular patients who succumb to death in India fall in the age category of 35-64. About 15.2 million diabetic patients were there in India. The important observation was that the public health expenditure was far lower than that of Bangladesh, Pakistan and China with just 20.7 percent against 25 percent in Bangladesh, 34.9 percent of Pakistan and 45 percent of China. It revealed that the percentage of cardiovascular patients who succumb to death in India were estimated at 30 percent within the age group of 35-64 as compared to 12 percent in US,22 percent in China, 25 percent in Russia and 40 percent South Africa. He concluded that increased health budget should check the increased pressure of globalization, which could be the one reason for the same.

Gupta (2007) have assessed that India have relatively poor health outcomes, despite having a well developed administrative system, good technical skills in many fields and an extensive network of public health institutions for research and training. This suggested that the health system was misdirecting its efforts, or was poorly designed. To explore this, the author used instruments developed to assess the performance of public health systems. Their data indicated that the reported strengths of the system lie in having the capacity to carry out most of the public health functions. Its reported weaknesses lie in three broad areas: it has overlooked some fundamental public health functions such as public health regulations and their enforcement; deep management flaws hindered effective use of resources, the central government functions too much in isolation and needs to work more closely with
other key actors, especially with sub-national governments, as well as, with private sectors. The author concluded that with some reassessment of priorities and better management practices, health outcomes can be substantially improved.

Section II

Public Health Expenditure

This section covered articles which were related with public health expenditure overtime. Public health expenditure is linked with expenditure done on different sectors of health overtime to improve the health status of the people. The studies relating to this are:

Sukanya, S. (1994) study aimed to: understand the pattern of investment in medical equipment in private hospitals in city of Madras, to determine the influence of financial and non financial factors on investment decisions, to understand the role of stakeholders in the decision making process for investment in medical equipment. This study was confined to “for profit” hospitals, offering multi-specialties in allopathic medicines. Purposive Sampling method was used in selecting the hospitals for survey. Study chose 50 hospitals, out of these 25 were self-proprietary, 10 were in partnership and remaining 15 were corporate hospitals. A structured questionnaire was used to collect data. The study concluded that hospitals with a high bed capacity (more than 90) and corporate hospitals invested more on intensive care and therapy equipment and less on laboratory equipment, while the reverse is true with smaller hospitals. Investment in imaging equipment is highest and that in lab is lowest. Investment in imaging equipment accounted for 50 percent of total investment. Capital budgeting techniques were not used by most hospitals in investment evaluations. Under the existing payment mechanisms, heavy capital investments were likely to make provider both over utilize and charge high for the services.

Ramamani (1995) study based on NCAER’s Market Information Survey of Households (MISH) presented aggregated (all-India) and disaggregated (state level) data on household health care expenditure and utilization. The MISH survey was conducted over a one month period in mid-1993 and gathered detailed data on the prevalence of illness, utilization and source of health services, types of providers,
system of medicine used, expenditure associated with each illness case and the distance traveled to seek treatment. This study provided a number of valuable insights on the nature of health care utilization in India. It found out that the number of reported hospitalization cases (per 000 of population) was considerably higher in urban than in rural areas, perhaps due to differences in access to hospital facilities. Further, the survey found out that there was high dependence on private sector facilities for out-patients care; moreover this dependence on the private sector was higher for higher-income groups and for highly educated urban residents. In sharp contrast, when hospitalization became necessary, both urban and rural residents tended to use public health care facilities more than private facilities and this was especially true in case of Himachal Pradesh, Madhya Pradesh, Orrisa and Rajasthan. Further, it was found out that the residents of rural areas traveled considerably greater distances on an average to reach health care facilities.

Charu, C. (1998) study’s basic aim was to develop a national health accounts framework for India. Using the framework, his paper proposed to describe the various sources from where the funds come from, how they flow through various financial intermediaries and finally how different providers and socio-income groups used these funds. Karnataka was taken as a case study to understand, describe and measure these flows. For this study, data was taken of the year 1993-94. Further, household survey of healthcare utilization and expenditure was carried out using sample of 18693 households: 6354 rural and 12339 urban. The survey collected information on morbidity, utilization of health services by type of providers, system of medicines, untreated illness episodes, breakdown of expenditure for treated patients. The study found out that after 1992, percentage of non-plan expenditure has declined marginally for medical and public health activities. State government also raised their own tax and non tax revenue which accounted for approximately one-third of total revenues raised by government. The revenue for the state department of health was calculated from the audited accounts of government from budget documents. Further, it was observed that 63 percent of expenditure was used for medical and public health activities, out of which 5 percent was used for public health. About 25 percent of expenditure was used under the general category, which included transfers to local government and rest 12 percent was used for family welfare activities.
M., Mahinen (2000) in their research work used existing data from national surveys of eight countries: Burkina Faso, Paraguay, Kazakhstan, Thailand, Kyrgyzstan, Zambia, Guatemala and South Africa. They compared in their study how rich and poor people use health services and how much of their income they spend. Policy makers in developing regions and countries in transition needed reliable information to make decisions about how to allocate healthcare expenditure and resources. Yet, accurate quantitative data on healthcare inequalities in countries were rare. Results of their study showed that: 1) Wealthier people were more likely to be seen by a doctor than a poor individual. 2) Richer groups spend the most on health care. 3) Wealthier groups in Burkina Faso, Paraguay and Thailand spend a smaller percentage of their household income on healthcare than do poorer groups. However, the reverse was true in case of South Africa and Guatemala. These results provided the basis for number of possible policy measures, such as increasing amount of publicly funded health services used by the poor. Strategies to achieve this goal included building health facilities and increasing health personnel numbers in disadvantaged areas.

Gupta (2000) in his paper presented a comprehensive review of the existing pattern of health care and it's financing in India. In their opinion, there was growing evidence that the level of health care spending in India - currently at over 6 percent of its total GDP - was considerably higher than in many other developing countries. This evidence also suggested that more than three quarters of this spending included private out-of-pocket expenses. Despite, such a high share of expenditure by individuals, the provision of health care and the outcome of these expenses were not satisfactory. Particularly, public delivery of health care was poor in quality, presumably for reasons of inadequate financing. His paper, therefore, highlighted the need for alternative finances, including provision for medical insurance at a much wider level. The authors in their paper examined that the majority of the low-income people were left to suffer either from poor health care delivery or to incur high out-of-pocket expenses or both. Therefore, a revamp of health system with expanded and improved health insurance facilities was required. The authors besides this also took the critical appreciation of insurance and re-imbursement schemes such as mediclaim policy of General Insurance Corporation and Life Insurance Corporation. They
suggested that besides revamping the public health care system there is an urgent need to reconstruct the existing schemes and mediclaim policies.

Duggal and Nandraz (2000) in their analysis have showed that there was an overwhelming domination of the private sector in the health care, bought out by the gross underdevelopment of the public sector and by the complete lack of regulation and planning for the private sector. Their study showed that the investment by the public sector for health has been inadequate, so much so that the state has never committed more than 3.5 percent of its resources to the health sector. Further, from 1970’s there has been a steady decline in public sector investment, which reached to its lowest level in 1994-95, being only 2.6 percent of total government expenditure. The health care expenditure has not kept pace with increase in total government expenditure. Further, the public health expenditure’s share in national income peaked at 1.3 percent of per capita GNP in 1980’s, but after then declined to 0.95 percent. The share of the central grants for public health declined from 27.9 percent in 1984-85 to 17.17 percent in 1992-93. The rural-urban gap was very wide in terms of investment, infrastructure development and availability of health care as the expenditures by states accounted for around 90 percent of all PHE’s and moreover the better-developed states like Goa, Karnataka, Maharashtra, Gujarat, Punjab, Haryana have higher per capita expenditure as compared to states of UP, Orrisa, Bihar and MP. The exception being Kerala which despite being economically under-developed has a higher expenditure on health.

Shordis, Das (2001) study have analyzed spending on maternity care in urban slum communities in Mumbai. Objective of the study was to understand about the household’s spending pattern on health. Expenditure data for maternal and neonatal care was collected by Interview method. Interviews were conducted in 2005-06 with a sample of 1200 slum residents in Mumbai. Data was collected on Socio-economic status (SES). Results depicted that a high proportion of respondents spent catastrophically on care. Lower SES was associated with a higher proportion of informal payments. Indirect health expenditure was found to be regressive as the poorest were more likely to use their income to meet health expenses, while the less poor were more likely to use their savings.
Sadanandan, Rajiv (2001) provided a historical overview of the health care sector in Kerala, reviewing investment decisions and budgetary allocations in the pre and post independence periods. This paper examined the impact that these decisions have had on the quality and distribution of health care facilities and the private sector’s response. The article found out that the erstwhile princely states invested heavily in modern health services, especially when compared with the rest of India. As a result, Kerala enjoyed relatively wide and deep spread of hospitals and other health care facilities. This trend continued up to 1970’s when Kerala’s fiscal problems caused a decline in budgetary allocations to health care and a subsequent decline in the availability of healthcare, especially in rural areas. Importantly, the paper found out that there was a large increase in the share of salaries and other overheads in the total healthcare budget since 1970’s and consequently a large drop in the share of expenditure on medicine and hospital equipment and accessories. Although, the private sector has filled some of the gaps, (importantly in rural areas), arising from the government’s declining involvement in healthcare; it has been unable or unwilling to extend the reach of services to historically under-served areas. This paper noted that although Kerala has achieved a remarkable health transition in the few past decades the sector suffered from a high degree of spatial inequity that is there were wide urban-rural and district wise disparities in access to healthcare. It was suggested that decentralization can mitigate some of these problems.

Mahal, Berman (2003) report developed AIDS-Specific national health expenditure accounts for Nigeria. Researchers worked in six countries in European region to carry out detailed studies to estimate out-of-pocket and informal payment in health systems. Study covered countries- Poland, Czech Republic, Hungary, Croatia and Romania Aurora. The results of the report displayed that in these countries informal payments were quite significant. But the patterns were very different across countries, with much lower payments in the Czech Republic. In all the countries, where informal payments were significant, it acted as an important constraint to effective health financing reform.

Jain, Sanjay (2003) study found out that during 1983, 4.37 percent of per capita monthly expenditure was incurred on health which went up to 5.72 percent in 1999, which made India’s per capita private spending on health one of the highest in
the world. During 1990, private health expenditure grew 7.5 percent per annum against 4.6 percent hike in private final consumption expenditure. Further, in 1983 Muslims spent Rs. 4.86 per capita per month on health against Rs. 5.82 for Hindus. In 1999 health expenditure by Muslims went up to Rs. 30.64 but it remained constant at around Rs. 84 for Hindus. Similarly, health expenditure by SC/ST rose from Rs. 3.96 to 23.97 during this period, but remained at around a third lower than that for Hindus. The results hold true for almost all the income classes. On the whole, however, the study concluded that India’s health performance is poor. Even basic health parameters like IMR, below five-mortality rate or population with access to essential drugs were lower than that for countries like China. Thus, this study explained the sharp surge in private health expenditure.

Maathai, K. Mathiyazhagan (2003) study tried to analyze the rural household characteristics and health expenditure in India. The study used a national level household survey and found that the health expenditure of the members of rural households in India was sensitive to changes in their income levels. The elasticity of health expenditure with respect to income was largest for high income groups with the income elasticity of health expenditure more than one. It indicated an income elastic situation for spending on treating both short term morbidity (STM) and long term morbidity (LTM) by the upper income groups. It was also true in case of drugs and medical expenditures. The results also suggested that households incur higher total health expenditure on drugs and medicine for getting treated from formal health care providers in rural areas.

Bhatt and Jain (2004) in their study have analyzed about public expenditures on health using state level public health expenditure data. Their findings suggested that state level government have target of allocating only about 0.43 percent of state gross domestic product to health and medical care. This does not include the allocations received under central sponsored programmes such as family welfare. Given this level of spending at current levels and fiscal position of state governments the goal of spending 2 to 3 percent of GDP on health looked very ambitious task. The analysis also found out the elasticity of health expenditure in states and revealed that for every one percent increase in state per capita income, the per capita health care expenditure increased by around 0.68 percent.
Joshi (2006) attempted to analyze the expenditures incurred by the central and state governments on social sector during the pre-reform and post-reform period. He stated that the social sector expenditure of the centre as a percentage of aggregate expenditure and gross domestic product have increased during the reform period. However, a fact which could not be neglected that higher expenditures incurred by the central government on social sector was at the cost of lower allocations made from central plan outlay to the states. Author observed the declining trend of health expenditure in the post-reform period and remarked that in spite of noticeable improvements in key social indicators, a vast majority of the Indian population continued to remain poor. The study also emphasized that the rising cases of HIV/AIDS in India, demanded an immediate and response from the government.

Rahman (2008) study examined the trend of public health expenditure in India. A panel data model was used to explain the main factors which affected public health expenditure in the period 1971 to 1991. The empirical results showed that the key determinants causing the regional variations in health expenditure were real state per capita income and literacy rate, while other structural demand variables such as the proportion of the state population over the age of sixty, population per primary health care centre and population per doctor were statistically insignificant factors. An income elasticity of 0.47 implied that health care was not a luxury good.

Section III

Health Status and Public Health Expenditure

This section covers articles which were related with studying the relationship between health status and public health expenditure over time.

According to Teresa (1982) there was a close interactive relationship between health and level of income. The attainment of a higher income level affords an individual access to better health. He may not necessarily choose to maximize his health status but at least has the means to attain improved health. Difference in mortality rates among rich and poor countries were paralleled by differences in diseases patterns. In the early stages of development, infectious and parasitic diseases coupled with malnutrition, affected infants and children. As income level,
environmental conditions and life styles changes, problem of infectious diseases and malnutrition were contained and non-infectious diseases such as diseases of the circulatory system emerged as principle causes of illness and death, affecting children less and adults more.

George and Nandraj (1993) in their article on ‘State of Health Care in Maharashtra – a comparative analysis’ studied health development in Maharashtra with respect to other socio-economic indicators. In their article, they tried to examine the relationship between health sector development and capitalist’s growth. Their results showed that Maharashtra and Punjab have attained high growth with respect to health indicators having high per capita income (PCI) and good economic development. About Kerala, they noticed a good development in the health sector; inspite of low PCI, low level of industrialization and the state was associated with good infrastructural indicators. According to the authors, the pattern followed in Maharashtra could be due to trickledown effect of capitalist’s modernization of the industrial-cum-agrarian variety. They viewed that socio-political, geographic and demographic peculiarities of Kerala were the root causes for the pattern followed in this particular state.

Baru, Qadeer and Priya (2000) throw light on the efficiency of the private sector in providing health services to the people. Study showed that though it was assumed that private sector was more efficient and provides better quality care, it does not stand up to empirical scrutiny. According to the study, Delhi's private hospitals followed questionable management practices with regard to workers as well as patient care. Expenditure on wages in these hospitals was kept low through contractualisation of fourth class employees. Thus, these private hospitals were having many loopholes like more emphasis on profit motive leading to cutting of costs which has a direct bearing on the quality of care, practice of discharging patients early in order to ensure quick turnover and increased intervention. Study concluded that it was imperative for these hospitals to ensure certain minimum working conditions expected in all industries for the employees. The study suggested that the states should have effective administrative mechanisms that can ensure that these private hospitals comply with conditional ties for receiving subsidies like quality and equity in the provision of
services. Regulatory framework for medical care would certainly help in improving the performance of medical industry in health services delivery.

Nobuhide (2001) in his article have analyzed that like education, health is regarded as a necessary source of productivity because it can be a proxy of labour quality. Health can be an investment for future economic return and this positive impact of health on economy has been tested in many micro studies. The author demonstrated that health measured by life expectancy has a positive impact on economic growth. Health status also has indirect impact on economy through its influence on education. The author stated that particularly in developing countries, economic factors were very relevant in determining the state of health.

Chakrobarti, Rao (2001) paper’s basic query centered on the role played by income in determining the extent of fund allocated by Indian states for the improvement of health of its population. Drawing data from the 14 major states of India over a time span of 23 financial years (1974 to 1996) and using recent advances on panel data time series econometrics, this paper documented the presence of a long run relationship between income and health expenditure. The long run elasticity estimated that publicly provided health services should be considered as “necessities”. Results from the Panel Error Correction model demonstrated that ageing of the population and proportion of rural areas were only non-income factors which found to exert a significant positive impact on real per capita health expenditure. They suggested that this was important in view of the demographic transition that India is passing through.

Devarajan, Miller and Swanson (2002) paper assessed the relationship between public expenditure and outcomes at country level. The relationship between public expenditure and outcomes is complex, and empirical evidence from developing countries suggested a weak link between public spending on education and school enrollments and hence between health expenditures and mortality. They observed that these human development outcomes depended on household characteristics, such as whether the mother is educated, or the family can afford to send the children to school, there was a difference between the average cost of producing services and the incremental cost of enrolling a child or treating a patient, public spending does not always translate to outcomes because the delivery of public services, which was the vehicle for translating policies into desired outcomes, is often highly inefficient.
Further, in case of IMR and maternal mortality, data quality was so poor that it was difficult to estimate the size of the problem and estimate its cost.

Misra (2003) study put together two concepts of health- inequality in health status and inequity in health spending. Childhood diseases like diarrhea, anemia etc. were more prevalent among low income households compared to high income household. If one looks at the institutional deliveries per 1000 live births then it was clear from the study that poor had much lower rate of institutional deliveries. Further, when total illness cases treated during the last 15 days of the survey was considered then the poorest 20 percent obtained treatment 3 times less than the richest 20 percent. For hospitalization the difference observed was six times.

Gupta, Monica Das (2004) in her paper focused on health system in India and its functioning at national level. According to her, India has relatively poor health outcomes despite having a well developed administrative system, good technical skills in many fields and an extensive network of public health institutions. She underlined the fact that this is all because of misallocation of resources, inadequate focus on evaluation, deep management flaws and inadequate funds at state level. So, by using its financial and political leverage the central government can persuade the states to work towards specific health objectives and priorities.

Himanshu, Sekhar (2006) study examined the micro aspects of health economics. It examined the effect of income and education of the household on its health expenditure based on primary data. The descriptive statistics for tribal area of Orrisa in their study showed that per capita health income was Rs. 5143.75 per annum with 2555.27 and 0.5 as standard deviation and coefficient of variation respectively, whereas per head health expenditure (PHE) was Rs. 108.13 per annum and 91.36 and 0.84 as standard deviation and coefficient of variation respectively.

Kaushik (2006) examined the relationship between health status, expenditure on health and education and per capita income in respect of the state of Himachal Pradesh, using the data for the period 1971-2001. The authors used Johansen’s methodology to test the existence and uniqueness of co-integrating vectors among the different variables. Their results suggested that the health expenditure- health status relationship was different from the health expenditure- income relationship, as there was a lack of causality in the latter relationship. They further observed that causality that flowed from per capita expenditure on education to infant mortality rate was
stronger than the impact of real per capita income on health status. Thus, the implication of his study was that increasing public expenditures on health was a necessary policy intervention for accelerating the economy’s health status of the state’s population. In conclusion, the authors remarked that the health expenditures was an important determinant of better health status and was, therefore, a key tool available to policy makers.

Malhotra and Shweta (2006) attempted to study the pattern of public health expenditure in various states and analyzed the extent to which state was fulfilling its responsibility in providing public health facilities. They used Regression for studying the relation between per capita health expenditure and level of economic development as measured by per capita Net State Domestic Product (NSDP) in various states. They also analyzed the relations between major indicators of health viz; crude birth rate (CBR), crude death rate (CDR), infant mortality rate (IMR), expected life for male (ELM), expected life for female, and their major determinants viz, per capita net state domestic product (PCNSDP), per capita health expenditure (PCHE) and literacy rate (LR). The results of inter-state disparities in case of health indicators showed that the basic health indicators in various states have improved over time but still were far behind many developed countries. The results of relationship between health indicators and per capita health expenditure (PCHE) showed that Infant Mortality Rate (IMR), Crude Death Rate (CDR) and Crude Birth Rate (CBR) had significant and negative relationship with per capita health expenditure. Similarly, life expectancy both for males and females were highly significant and have positive relationship with per capita state health expenditure. Values of $R^2$ and $\bar{R}^2$ are relatively low because health was also affected by factors other than per capita health expenditure like gender empowerment, poverty, education, adequate housing, clean drinking water and sanitation etc.

Thus, in this chapter an attempt has been made to review different aspects relating to health status, public health expenditure and relationship between health status and public health expenditure of India and of its various states. The review of literature for this study is not exhaustive in so much as number of aspects still need to/ can be delved into.