Economics of health has emerged as an important branch of economics. It has now received adequate attention of researchers in social sciences because economics of health as a discipline within the field of economics has developed which deals with economic facets of health and illness and the socio-economic functions of health institutions and organizations besides studying the economic behaviour of health care providers and those people who are consumers of health care. These issues have been more relevant in the Indian context where a large population is seeking and expecting the better health care services from limited health care resources. The purpose of this chapter, therefore is to provide a background of the economic aspects of health and health care and its role in development. An attempt has been made here to piece together various studies conducted relating to health status, its determinants, utilization of health care services, health expenditure and its financing etc. in order to view the problem in a wider perspective.

National Council for Applied Economic Research (1992) in its study examined the nature and type of illness suffered by households, the system of medicine used and their perceptions of the efficacy of the systems used. The study was based on an all-India survey which covered both rural and urban areas in all states and Union Territories except Manipur, Nagaland, Sikkim, Tripura, Arunachal Pradesh, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Lakshadweep and Mizoram. The prevalence rate of treated illness for the country as a whole was found to be 67.70 episodes in urban areas and 79.06 illness episodes in rural areas per 1000 population. In almost
all the states the reported prevalence rate of illness for which treatment was sought worked out to be lower for the females than males for both adults and children up to the age of 14 years. Fever was found to be the most common ailment treated, followed by illness due to respiratory and gastrointestinal infections. There was not much difference in the pattern of illness by place of residence (rural and urban). Eighty per cent of the illness episodes in the urban areas and 75 per cent of the cases in rural areas were treated under the allopathic system of medicine. In 55 per cent of illness episodes treatment was sought from private facilities, whereas for 33 to 39 per cent of cases treatment was sought from government facilities. It was found that people residing in rural areas had to travel through longer distances as compared to their urban counterparts. This increased the average cost of treatment of illnesses. In urban areas the average cost of treating each illness episode was Rs. 142.60 as compared to Rs. 151.81 for rural areas. The average expenditure of treatment was high under the allopathic system followed by the homeopathic system of medicine. The study also revealed that the urban households spent a lot in treating accident cases, whereas in rural areas the average expenditure on treatment of degenerative diseases was as high as Rs. 776.23. The average expenditure on treating respiratory illness was quite low in both rural and urban areas.

Purohit Brijesh C. and Tasleem A. Siddiqui (1994) analyzed the utilization aspect of health services in India from various angles. The degree of utilization was seen through a comparative picture across three state categories, viz, low, medium and high expenditure groups. It had been found that the planned efforts led to the development and increased utilization of Indian and other non-allopathic systems of medicines. The level of
utilization was found to be higher in states with higher per capita governmental expenditure on health care, while the states with lower per capita governmental expenditures depicted lower levels of utilization. It was observed that majority of out-patients utilized the services of private doctors followed by utilization of public and private hospitals. The inpatient care, however, was availed more at the public hospitals. The distribution of inpatients across three types of wards, namely, free, general and special, suggested that the free wards of public health institutions, namely, public hospitals and PHCs, had been utilized more in each of the state groups. Unlike this the other types of wards, namely, paying general as well as paying special, were utilized more at the non-governmental institutions. The utilization levels in OPD as well as inpatient services were found to be higher in rural areas relative to their urban counterparts. The pattern in rural area had an inverse correspondence with the level of government expenditure on health. In the high expenditure group of states, both OPD and inpatient utilization was lower than their counterparts in other expenditure groups. It therefore emerged that more of the per capita expenditure on health in high expenditure states was going towards expensive care in urban sector. The break-up of health facilities in terms of five items, namely, medicines, X-ray/ECG/EEG, any other diagnostic treatment, surgical treatment and any other treatment depicted wider spread of private sector in OPD care. In the years 1986-87 and 1990, the proportion of households’ income being spent on health remained almost invariant around 3 per cent. The states where the government expenditure was found to be lower, the households have tended to spend more. Thus, an urgent need for serious governmental initiative was suggested to encourage appropriate utilization by means of devising health insurance and other cost recovery mechanisms.
Pandey Arvind, Minja Kim Choe, Norman Y. Luther, Damodar Sahu and Jagdish Chand (1998) examined infant and child mortality and their determinants for India as a whole and for individual states, using data from the 1992-93 National Family Health Survey. They revealed that infant mortality declined by 23 per cent in India between 1981 and 1990, and child mortality declined by 34 per cent during the same period. They also found substantial variations among individual states. They found sex differentials in infant and child mortality which reflected strong son preference in many states. In the country as a whole, female child mortality was 40 per cent higher than male child mortality. They observed that economic status, rural-urban residence, mother’s literacy and her exposure to mass media had substantial effect on infant and child mortality. It was found that mortality was particularly high for children born to mothers under the age of 20 years. The results indicated that the families that had already experienced death of an infant or child were at much greater risk than the other families. The authors suggested that family health programmes should be strengthened to provide basic healthcare services to all the pregnant women.

Panikar P.G. (1998) revealed that Kerala entered the final phase of demographic transition characterized by low death rate and declining birth rate leading to a slow down in growth rate of population. In 1991, the birth rate in Kerala was estimated as a little over 18 (per 1000 population), as against 30 for all-India and an average of 28 for low income and 24 for middle income countries. The crude death rate of Kerala in 1991 was 6 (per thousand population), compared to the national average of 11, and an average of 10 for low income and 8 for middle income countries. He observed that the population coverage of healthcare facilities, i.e. the ratio of
population to total number of medical care institutions, was far better for Kerala than in all other states. The number of persons per hospital worked out to be 14,264 in Kerala as compared to the all-states average of 61,810.

Indrayan Abhaya (2000) examined the trend in accessibility of medical and health services in rural areas of India. He observed that Indian rural areas made great progress over past 50 years. Health indicators had shown a tremendous improvement. Indian rural areas had a wide network of primary health centres (PHCs). The number of PHCs increased from 620 in the year 1955 to 21693 in the year 1995. The area covered per PHC reduced from 681 square km in the year 1965 to only 144 square km in the year 1995. In the year 1999, it stood at 137 square km. However, some of these PHCs had vacant positions. For example, as per the 1999 report (GOI 1999), more than 4000 positions of PHC doctors were lying vacant. More than 1300 PHCs were without any doctor. More than 5000 were without a laboratory technician. Nearly 24000 positions of health worker were vacant. Not many competent professionals were willing to work in rural areas. Incentives were sometimes provided but those were seldom considered adequate and failed to address the problem. He concluded that despite availability of a PHC not too far away, many families still went to a city for medical care.

Raman Kutty V. (2000) analyzed the development of healthcare facilities in Kerala state. He observed that health sector spending continued to grow even after 1980 when generally the fiscal deficit in the state budget was growing and government was looking for ways to control expenditure. But growth in the number of beds and institutions in the public sector had slowed down by the mid-1980s. He also revealed that from 1986-1996, growth in the private sector surpassed that in the public sector by a wide
margin. The number of beds in government institutions grew around 36000 to 38000 in the 10 year period from 1986 to 1996; in the same period, beds in private institutions grew from 49000 to 67500. He found that the health sector development in Kerala after the mid-1980s had been dominated by the private sector. Expansion in private facilities in health was closely linked to developments in the government health sector. Public institutions played the dominant role in training personnel. They also sensitized people to the need for timely health interventions and thus helped to create demand. The author suggested that the government must take lead in quality maintenance and setting of standards.

Gupta Indrani and Purnamita Dasgupta (2000) analyzed the health treatment seeking behaviour and its determinants in urban Delhi. They revealed that the government hospitals were mainly used by high and middle-income households, 26 per cent of high income and about 22 per cent middle-income households used government hospitals as against 17 per cent of low income households. They found that lower income households mainly used private clinics and even the poorer households in the rural areas did not rely much on traditional healers or on charitable facilities, in fact this category was mostly being accessed by the middle class. They observed preference for allopathic treatment across all socio-economic categories, both homeopathic and ayurvedic systems of medicine were more important for the middle and upper income households. They revealed that a person’s work status, marital status, monthly household income and educational attainment were significant determinants of health treatment seeking behaviour.
Gupta Sanjeev, Marijn Verhoeven and Erwin Tiongson (2001) estimated the impact of public spending on poor’s health status in over 70 countries. It was found that the poor had significantly worse health status than the non-poor and the poor were more strongly affected by public spending on health care in comparison with the non-poor. The authors also observed that the relationship between public spending on health care and the health status of the poor was stronger among low-income countries, which indicated that there were higher returns to health spending in low income countries, when compared to other countries.

Sundar Ramamani and Abhilasha Sharma (2002) examined the patterns of morbidity and health care utilization by the urban poor living in slums and resettlement colonies in Delhi and Chennai, and compared the health status of two segments. The study was based on the household survey conducted by the NCAER during April-July 2000. A sample of 2000 poor and low-income households living in the slum clusters and resettlement colonies i.e. 1000 households each, in Delhi and Chennai, were selected for the study using a stratified random sampling procedure. It was found that the overall morbidity rate of any illness (acute plus chronic) was marginally higher for Delhi than Chennai in the case of both slums and resettlement colonies. The morbidity rates were much lower for the population living in the resettlement colonies compared with the rates for the slum dwellers in both Delhi and Chennai, due to better environmental conditions in the resettlement colonies. It was revealed that the prevalent rate of illnesses (acute and chronic) increased with the increase in the household income in Chennai whereas in Delhi it formed an inverted U-shaped curve. Also, in both the cities, there was a sharp increase in the reporting of morbidity as
one moved from households where no one was literate to those households where the highest level of education was either primary or middle school (from 87 to 114 per 1000 population in Delhi and 80 to 88 per 1000 population in Chennai). In both the cities people seemed to suffer more from the infectious diseases; which accounted for 51.7 per cent and 58.5 per cent of the total number of reported illness episodes in Delhi and Chennai respectively. Further it was found that in spite of the proximity of the presence of health facilities, the sample population living in the slums/colonies did not seek treatment. In Delhi the percentage of illness episodes for which no treatment was sought worked out to be much higher for the slums (14.1 per cent) than the resettlement colonies (8.7 per cent). However in the case of Chennai, this percentage was marginally higher for the resettlement colonies (7.8 per cent for the slums as against 10.7 per cent for the resettlement colonies). The most important reason for not seeking treatment turned out to be ‘illness not considered serious’. Other than this, in both Delhi and Chennai financial constraints appeared to be an important reason for females while lack of time/long waiting was more important reason for males. For non-hospitalized illness episodes and inpatient treatment the sample households seemed to be mostly dependent on the government health facilities.

Dilip T.R. and Ravi Duggal (2002) analyzed the household level financing of hospitalization care services in urban India using the 52nd Round National Sample Survey Data Sets. Data on source of financing for 12437 persons who were hospitalized during last one year prior to the survey date had been analyzed. Results showed that about 25 per cent of households were meeting expenditure on inpatient care of a member through sale of
animals/sale of ornaments/sale of physical assets/borrowings. The percentage of households falling into debt trap because of incidence of hospitalization was 30 per cent if treatment was sought from private health care sector and 20 per cent if treatment was sought from public health care sector. Class differentials showed that the proportion of the ailing person’s households falling into debt increased between richest and poorest subgroups from 17 per cent to 26 per cent if treatment was sought from public sector and from 23 per cent to 41 per cent if treatment was sought from private sector. The authors also observed that the households covered under health security schemes benefited from such schemes.

Xu Ke, David B. Evans, Kei Kawabata, Riadh Zeramidini, Jan Klavus, Christopher J. L. Murray (2003) used a cross country analysis design. Data from household surveys in 59 countries was used to explore variables associated with catastrophic health expenditure. The findings of the study indicated that the proportion of household facing catastrophic payments from out-of-pocket health expenses varied widely between countries, from less than 0.01 per cent in Czech Republic and Slovakia to 10.5 per cent in Vietnam. Catastrophic spending rates were highest in some countries in transition, and in some Latin American countries. Three preconditions for catastrophic payments were identified: the availability of health services requiring payment, low capacity to pay, and the lack of prepayment of health insurance. The authors observed an overall positive relation between the proportion of households with catastrophic health expenditure and the share of out-of-pocket payments in total health expenditure. The results confirmed that countries with a higher share of out-of-pocket payments in total health expenditures were more likely to have a higher proportion of households
facing catastrophic expenditures after controlling for other possible determinants.

Gupta Indrani and Arindam Datta (2003) examined the inequities in health and health care in India using data from 52\textsuperscript{nd} Round of National Sample Survey Organization. The study indicated that the poor had much higher levels of mortality, malnutrition and fertility than the rich. They found that the poorer households especially in rural areas, bore the greatest brunt of acute illnesses and spent more on acute illnesses compared to the richer households. The choice of facility revealed that the vulnerable sections like SC/STs and labourers had a higher probability of visiting the government facilities mainly because of price differentials. The poor and uneducated preferred unregistered practitioners. Self-care was an important choice for a significant percentage of population, especially in rural areas. They also revealed that economic status was negatively related to the probability of seeking care in government facility. The no-care option was found to be negatively related to education. It was also estimated that the adults and elderly had higher health expenditure than children. Income influenced health expenditure positively. Another important finding was that the presence of reimbursement mechanism exerted a downward pressure on health expenditure.

Balaji Rajeswari, T.R. Dilip and Ravi Duggal (2003) explored the link between uses of institutional facility for delivery care and cost of delivery care services. The analysis was based on expenditure on delivery care services collected during a community based survey on women’s health in Nashik district. The average expenditure incurred per delivery was found to be Rs. 512. The expenditure varied from Rs. 193 if it was a home delivery to
Rs. 423 and Rs. 2613 if the delivery had taken place in public and private institutions respectively. This wide differential in costs was definitely a critical factor influencing the decision on source of delivery sought. They found that in rural areas, 77 per cent of deliveries were home deliveries, in contrast to only 39 per cent in urban areas. It indicated that higher incidence of home deliveries in rural areas than in urban areas was due to their lack of access to delivery care at a nominal cost. They also observed that the chances of going for an institutional delivery were higher if the women experienced problems during pregnancy. The authors stressed the need to strengthen public health care infrastructure for promotion of institutional deliveries in the country.

A Study of the Health of the Poor in Urban India (2004) revealed that the health situation of the urban poor was not very different from that of the rural poor and in some respects such as immunization, the rates were even worse. In fact, health outcomes such as death rate and infant mortality rate showed a slower decline than for rural populations. It was observed that there was less success in creating primary health care networks in urban areas. Despite legal provisions for public responsibility, municipalities were not able to provide the services that the poor could utilize in times of need. The study showed that the poor preferred private sources of ambulatory care; public facilities were more likely to be utilized in the event of fewer options, or lack of options. For the urban poor, the utilization of public hospitals for inpatient treatment was much higher than that for ambulatory care.

Deogaonkar Milind (2004) reviewed the effects of growing socio-economic inequality in Indian population and its effect on the health care system. In his study he revealed that the ratio of hospital beds to
population in rural areas was fifteen times lower than that for urban areas. The ratio of doctors to population in rural areas was almost six times lower than that in the urban areas. He found that per capita expenditure on public health was seven times lower in rural areas, compared to government health spending for urban areas. Only 17 per cent of all health expenditure in the country was borne by the state and 82 per cent came as ‘out of pocket payments by the people. The health outcome indicators reflected a very disappointing state of public health care. He also observed that the dominance of the unregulated private health care sector made the gap between rich and poor more apparent.

Gupta Indrani and Arup Mitra (2004) analyzed the possible links between economic growth, poverty and health based on data for 15 major states in India for the years 1970s, 1980s and 1990s. They found that growth and health status were positively linked and seemed to have a two-way relationship, suggesting that better health enhanced growth by improving productivity, and higher growth allowed better human capital formation. The results implied that poverty could be reduced by making significant improvements in the health condition of the people. Secondly, health conditions could be improved by improved investment in health. They also observed that per capita health expenditure unambiguously and positively affected health status. The study suggested that health sector investment needs to be made on a large scale, as a rise in health expenditure per capita yields both higher growth and better quality of life.

Purohit BC (2004) examined the performance of health care sector in 15 major states in India through a comparative analysis of various parameters depicting availability of health services, their utilization and
health outcomes. The analysis depicted the prevalence of considerable inequity favoring high income group states. The results indicated that the high income states held a superior position in terms of per capita government expenditure on medical and public health, total number of hospitals and dispensaries, per capita availability of beds in hospitals and dispensaries and health manpower in rural and urban areas. A greater financial burden in availing treatment at outpatient and inpatient was found in low income states. In line with the higher financial burden and low per capita health expenditure, the health outcome indicators also depicted a disconcerting situation in regard to low income states. The author suggested the establishment and maintenance of proper linkages between socio-economic development and health care planning to protect the poor and vulnerable from financial burden.

Sankar Deepa and Vinish Kathuria (2004) analyzed the performance of rural public health systems of 16 major states in India in improving the health indicators of their population. In order to measure their performance, they used data for the period 1986-97. One of the most important finding was that the health outcomes in rural areas of Indian states was positively related to the level of health infrastructure. The efficiency of the health systems depended on the extent of education in the state. States varied enormously in their levels of infant mortality. It was found that not all states with better health indicators had efficient health systems. Contrary to the belief that all the ‘bimaru’ states perform poorly, Bihar was not a badly performing state in the efficiency analysis. On the other hand, states like Tamil Nadu and Karnataka, which are believed to have improved their health indicators, showed poor efficiency in performance. Relative
efficiencies differed across states and this was due to differences in not only in the health sector endowment, but also its efficient use. The authors suggested that states should not only increase their investment in health sector, but also manage it efficiently to achieve better health outcomes.

Banerjee Abhijit, Angus Deaton and Esther Duflo (2004) examined the delivery of health care and the impact it had on the health status of the poor population based on a survey conducted in rural Udaipur. The study observed that villagers’ health was poor despite the fact that they heavily used health care facilities and spent a lot on health care. Poor spent 13 per cent of their total health expenditure at public facilities, 23 per cent on bhopas (traditional healers), and the rest at private facilities. The rich spent 23 per cent of their total health expenditures at public facilities, and less than 10 per cent on bhopas, while the middle group spent more than 17 per cent of their health expenditures on bhopas and 13 per cent at public facilities. According to them, the quality of the public service was abysmal and unregulated and private providers who are often unqualified provided the bulk of health care in the area. They found people’s expectations of health care providers to be generally low and suggested that state must take up the task of being the provider or regulator.

Singh Sukhwinder (2004) examined the growth and pattern of public expenditure on health and rural health infrastructure and services in Punjab. It was revealed that in Punjab, an overwhelming proportion of public expenditure on revenue account was spent on development purposes. Expenditure on social services always occupied a high priority vis-à-vis economic services. Within the social services, expenditure on health sector experienced a deceleration in the growth rate, particularly in 1990s after the
introduction of National Economic Policy (NEP)-1991. The Union Government’s share in Punjab’s planned health sector expenditure increased sharply from 44.80 per cent in the Annual Plans (1966-69) to 49.82 per cent in the Eighth Five Year Plan. The family welfare and control/eradication of communicable diseases emerged as priority areas in Punjab’s health plans, especially at the cost of other crucial health programmes. Further, it as observed that fast growth of health related infrastructure in 1970s and 1980s in rural Punjab brought significant benefits to rural people. For instance, the number of rural hospitals shot up from 11 hospitals in 1969 to 75 hospitals in 2000 and that of dispensaries from 183 to 1217. Similarly rural hospital beds rose from 539 beds in 1969 to 2335 beds in 2000, and that of dispensary beds from 486 to 4837. Since 1991, no expansion of health infrastructure was made by the state government both in rural and urban areas, except the establishment of PHSC only to upgrade secondary health care.

Punjab Human Development Report (2004) revealed that the health indicators in Punjab showed a lot of improvement but still a lot more needs to be done. It also stated that Punjab’s infant mortality rate (IMR) was higher than the IMR achieved by Kerala. Gender and spatial differentials were observed in case of life expectancy at birth. The health indicators like birth rate (BR), death rate (DR), life expectancy and infant mortality rate (IMR) also revealed that urban areas in Punjab had better health status than rural areas. In the provisioning of health services there existed inter-sector and inter-district disparities. Rural health services had been a neglected area, both in prices and infrastructure. Public investment in health was found to be very low and also the financial allocation by the state for primary and
secondary health care sector was very less. The report stressed on the need to strengthen health in Punjab.

Garg Charu C. and Anup K. Karan (2005) examined one of the financing dimensions of health - out-of-pocket payments (OOP) and also showed how it affected poverty. They found that on an average, the share of OOP to total consumption expenditure in India was 5 per cent which was equivalent to 11 per cent of the total non-food expenditure. The share of rural OOP was more than the urban OOP as proportion of both total as well as non-food expenditure. The average OOP share for 17 major states was found to be 4.8 per cent of total consumption expenditure. Punjab, Haryana, Maharashtra and Kerala had higher share of OOP (more than 5 per cent) compared to 2 per cent to 4.5 per cent range in poorer states, viz. Bihar, Jammu and Kashmir, Orissa, Rajasthan, West Bengal and Assam. Most of the middle income states like West Bengal, Andhra Pradesh, Karnataka and Himachal Pradesh had their shares of OOP between 4 and 4.5 per cent of total expenditures. Poorer states had low OOP because of low incomes, limited access to health care, lack of awareness and poor infrastructure. Conversely, richer states generally had high OOP mainly on account of greater provider choice and higher quality of public/private care. It was found that OOP payments had a severe impact on increasing the poverty ratios in the country. The estimate for 1999-2000 revealed that approximately 32.5 million people plunged into poverty because of health care payments. The authors stressed on the need to totally subsidize the urban poor and rural areas to reduce the poverty impact of OOP payments.

George Asish Thomas (2005), in his study based on NSSO 55th round data found that a high percentage of the population in Kerala spent a
substantial amount of its monthly income on health care. This could be compromising expenditure on essential items like food, clothing and fuel. The study confirmed that Keralites spent a disproportionate share of their total expenditure on health and the poor in the state bore a larger share of this increasing health expenditure. This goes quite against the egalitarian tradition of the state. It is the poor who are more vulnerable to ill health. Given Kerala’s growing unregulated private health sector and the limited coverage by public health care, there is a need to have ‘good health at low cost’.

Praveen Lal K., N.R. Arun Kishore, K.S. Shaji and B.K. Ajitha (2005) analyzed the impact of a hike in user charge for health care services and its subsequent withdrawal, in the Chest Hospital of Thrissur Medical College, Kerala. They found that the impact of rise in user charge was a sudden fall in the number of patients in the outpatient and inpatient admission. According to them, the reason could be the majority of patients coming to the hospital belonged to the BPL (below poverty line) families and they could not afford the increased user charge. The study also showed that a mere increase in the user charge to generate resources could not achieve the goal of providing free medical care for the poor while charging the non-poor. Proper guidelines and an efficient system need to be put in place to identify poor patients.

Chopra Vipla (2006) analyzed the health and healthcare in India by examining the health indicators, health infrastructure and health expenditure in India over a period of time. It was found that India made substantial progress in the health indicators over the past few decades, but the situation was far from satisfactory as it continued to lag behind several other countries
of the world. Moreover, within the country urban areas were faring better than rural areas in terms of the health indicators. The trend in health infrastructure revealed that the number of hospital beds went up from 1.17 lakhs in 1951 to 9.15 lakhs in 2002 and the number of doctors (modern system) increased from 62 thousand in 1951 to 6 lakhs 25 thousand in 2004. The number of nursing personnel climbed up from 18 thousand in 1951 to 8.36 lakhs in 2004. Similarly total number of dispensaries and hospitals zoomed up from 9209 to 38,031 during 1951-2002. The health expenditure as a percentage of GDP rose from 0.80 per cent in 1980-81 to 0.92 per cent in 1989-90 and then from 0.83 per cent in 1991-92 to 0.89 per cent in 1992-93 and settled down at 0.76 per cent in 1997-98.

Duggal Ravi (2006) examined the utilization of health care services in India using NSSO utilization surveys, NCAER surveys and NFHS surveys. It revealed that the share of the public sector in the provision of outpatient care was not only small but also declining. The share of outpatient services provided by public institutions declined from 26 per cent to 23 per cent in rural areas over the decade (1986-1996) and from 27 per cent to 22 per cent in urban areas. The public sector was found to be the major provider in the case of inpatient care but here too a declining trend was observed. In 1986-87, the public institutions accounted for 60 per cent of all hospitalizations which came down to 44 per cent in 1995-96, the decline being 40 per cent in urban areas and 36 per cent in rural areas. Further, in terms of consumption expenditure classes in rural areas, public facility use, especially public hospitals, for OPDs increased with mean consumption expenditure, but interestingly, for PHCs, it was the reverse with the lower fractiles showing larger utilization; the gap between the lowest and highest fractiles was found
to be of a large magnitude-5.6 times. In urban areas the situation was reversed with the poorer groups being the larger users of public facilities, especially the hospitals, and the gap here was 2.2 times between the lowest and highest fractiles. For inpatient care, the pattern was the same with the richer classes using public hospitals in numbers much larger than their proportion in the population. The utilization data of public facilities in the context of public investment and expenditures on health care revealed that the late seventies and eighties were a major growth phase for public health infrastructure, especially in rural areas. The analysis revealed that the curative care was mostly provided by the private sector and preventive care by the public sector. The public health sector accounted for over three-fourths of all preventive health care services. Regarding the utilization of private health services it was found that over 80 per cent of ambulatory care was provided by the private sector. Within the private sector the share of the individual practitioner was nearly 70 per cent of all private OPD care and that of private hospitals was 23 per cent. For inpatient care, the private sector accounted for 55 per cent of all users. There was an increase of 38 per cent in its share of hospitalization over the decade from 1986-87 to 1995-96. Class and social group differentials showed that for all classes and social groups, the private practitioners was the dominant provider for OPD care and this was followed by the private hospitals for the richer groups and the public hospitals/PHC for the poorer groups. The tribals had the lowest proportion of use of private facilities for OPD care. With regard to hospitalization, there was a clear pattern of the rich using more of private care than the poor.
Economic Research Foundation conducted a benchmark study on government health expenditure in India (2006) and examined the actual pattern of government spending on health by both central and state governments for 14 major states in India. The study found that absolute levels of total government spending on health, family welfare and child development were absurdly low by international standards. The study revealed that government spending on health amounted to less than 1 per cent of GDP, which meant that a disproportionately large and growing share of the burden of health care was borne by households in the form of out-of-pocket expenses. The central government accounted for roughly one-third of total government expenditure on health, on an average 0.35 per cent of GDP over the past decade. The analysis of state budgets indicated wide variations in health spending across states, it also indicated wide and growing rural-urban disparities in most states. Across states, the per capita spending was found to be strongly correlated with various health indicators.

Joshi Seema (2006) analyzed the expenditures incurred by the central and state governments on social sector during the pre-reform and post-reform period. She observed that in case of central government (plan and non-plan) expenditure, the social sector spending (as a per cent of aggregate expenditure) increased significantly from 10.59 per cent in the pre-reform period (1986-87 to 1990-91) to 13.87 per cent in the post-reform period (1991-92 to 2002-03). She also found that there had been a rise in health expenditure from 0.8 per cent of GDP in 1980-81 to 0.92 per cent in 1989-90 (i.e., during pre-reform period). During the post reform period, the expenditure incurred on health sector rose from 0.83 per cent of GDP in 1991-92 to 0.89 per cent in 1992-93 and settled down at 0.76 per cent of
GDP in 1997-98. The study concluded that India indeed had made noticeable improvements in key health indicators since the 1980s, mainly as a result of large-scale government programmes. But even then the conditions with respect to social sector development in India were appalling when compared with conditions prevailing in countries like Sri Lanka, China and some countries of south-east Asia. The health status of a majority of the population continues to remain poor even after a decade of reforms.

Rawat Deepa, Kalpna Aggarwal and Manish Dev (2006) observed that health indicators in India showed a remarkable improvement since independence but still it lagged far behind other developing countries like China, Sri Lanka, Brazil etc., besides the developed countries. They also revealed the structure of government health care services. They estimated 22271 primary health centres and 137271 sub-centres at the primary care (in rural areas) level; 1200 PSU (public sector unit) hospitals, 4400 district hospitals and 2935 community health care centres at secondary care (health care centres in smaller towns and cities) level and 117 medical colleges and hospitals at tertiary care level. They observed that total private health spending as percentage of GDP was 4 per cent. They suggested that besides increasing expenditure on health and family welfare, government should improve the quality of services provided.

Bhat Ramesh and Nishant Jain (2006) examined the relationship between income and public and private health care expenditures. They estimated the relationship between real per capita gross state domestic product (GSDP representing income of 14 states that account for more than 90 per cent of the total population of the country) and real per capita state public health expenditure (PHCE). They found that for every 1 per cent
increase in state per capita income, the public health expenditure increased by a mere 0.68 per cent. They also examined the relationship between per capita private health expenditure (PHE) and per capita income (PCI). They found that for each 1 per cent increase in real per capita income, private health expenditure had gone up by 1.95 per cent. This showed that increase in per capita income had a greater effect on PHE than on PHCE.

Garg Charu. C and Anup K. Karan (2006) analyzed the magnitude and dimensions of catastrophic payments that occur because of OOP, rural-urban disparities in catastrophic payments, state level variation in catastrophic payments and the underlying inequality for OOP (out-of-pocket) payments and intensity of catastrophic payments using the data on household’s consumption expenditure collected by National Sample Survey Organisation (NSSO) for 1999-2000. It was found that the mean per capita OOP was Rs. 33 at the all India level, with higher payments in urban (Rs. 43.33) than in rural areas (Rs. 29.62). However, even with lower mean OOP, the share of OOP to total consumption expenditure was higher in rural areas (5 per cent) as compared to urban areas (4.38 per cent). It has also been assessed that more than 6 million households make OOP payments which was more than 40 per cent of their total non-food consumption expenditure. Even with low per capita OOP, the catastrophic headcount was higher in rural areas. Rural areas bore a greater brunt of catastrophic payments as compared to urban areas and at higher thresholds the difference in catastrophic head counts was almost twice as much in rural areas as compared to urban areas. Though the catastrophic headcount in general was higher in the richer states, at higher thresholds of OOP as a share of household consumption expenditure, poorer states such as Bihar, Madhya
Pradesh, Orissa and Uttar Pradesh had a much higher catastrophic headcount. Further, the intensity was much higher in poorer states at all threshold levels. At higher thresholds, high OOP states such as Maharashtra and Punjab also bore greater intensity of catastrophic payments.

Malhotra Neena and Shweta (2006) in their study observed that there were numerous factors which influenced health, but the most important socio-economic factors affecting health were per capita health expenditure, per capita income and literacy, all being related with each other as well. Public spending on health in India was miserably low, less than even one per cent of gross domestic product (GDP), in comparison with 6-8 per cent of GDP in developed countries. They also examined the pattern of public health expenditure in various states and the extent to which each state was fulfilling its responsibility in providing public health facilities. They found that inter-state disparities in per capita health expenditure had not changed much over time. In 1991, the states having high per capita health expenditure were Punjab (Rs. 98.47) and Kerala (Rs. 79.97). In 2001, Punjab again had a high per capita health expenditure of Rs. 146 and Kerala had per capita health expenditure of Rs. 101. Other better performing states were found to be Tamil Nadu, Gujarat and Maharashtra and low performing states were Bihar, Assam, Rajasthan and Andhra Pradesh. The study showed that inter-state disparities in health attainment were significantly correlated with interstate differences in per capita health expenditure, per capita net state domestic product (NSDP) and literacy.

Himachal Pradesh. They found that per capita health expenditure and per capita expenditure on education had significant impact on health status. They also found that per capita income also affected health status, although in terms of statistical significance, the impact of per capita income on health status appeared to be more important than the reverse relationship. The most consistent finding was that expenditure on medical and public health per capita influenced health status but it did not have a strong effect on reducing infant mortality, which was crucial in designing public policy to reduce excess mortality in developing economies. The study showed that real per capita expenditure on medical and public health had grown substantially faster than real per capita incomes.

Rout Himanshu Sekhar (2006) examined the effect of income and education of the household on its health expenditure based on primary data collected from Jajpur district of Orissa. For finding out the impact of income and education on health expenditure, a linear regression model was fitted which showed that income had greater positive effect on health expenditure than education. The study also observed that as disposable income of the household increased, individual took more care of his life, hence health expenditure increased but at a particular level of income, due to high risk, health expenditure became independent of income and perfectly elastic, which was termed as “High Life Risk Path (HLRP)”. The health expenditure during HLRP depended on household’s past saving and loanable capacity.

characteristics associated with utilization and source of outpatient care was conducted by the National Sample Survey Organization survey on health care in urban Kerala. The study confirmed high utilization of private outpatient care in Kerala (among all users, 77 per cent resorted to a private source of care). Most respondents explained their choice of a private provider by their dissatisfaction with previous treatments, problems of access in the public sector and/or the higher availability of private providers. The authors were of the view that the development of the private sector to respond to increasing health care needs could create inequalities in access. They stressed on the need for continuing improvements and development of public health systems as a means to promote equity.

Ghuman B.S. and Akshat Mehta (2006) examined health care for the poor in India, particularly in the state of Punjab. The study used both primary and secondary data. The primary data was collected with the help of a structured questionnaire given to 100 respondents, mainly residents of Mundi Kharar village in the Kharar development block of Ropar district in Punjab state. The data gathered indicated that the promised free treatment for the poor had not materialized. Primary data showed that only a negligible proportion of people below the poverty line availed themselves of exemptions from user charges at government hospitals. The yellow card holders treated free of cost made only 0.4 per cent of the patients treated in the outpatient department of the Kharar civil hospital in Punjab in 2002-03, and this proportion further declined to 0.008 per cent in 2004-05. In the district hospital of Ropar, of the 148300 patients in 2004-05, only 4 were yellow card holders. Lack of adequate health services from the government compelled the poor to depend mainly on their own resources for health care.
On an average poor households spent Rs. 428 per month on health care or about 25 per cent of their mean household income (Rs. 1730). The field survey revealed that none of the respondents was aware of the health insurance policies announced by the government and the NGOs; illiteracy restricted their access to the policies.

Nair Arun Bahuleyan and Varatharajan Durairaj (2007) explored the shift in health care utilization pattern and cost of treatment across major Indian states. They used consecutive rounds of NSSO survey data for this purpose. According to them there had been a considerable increase in utilization of non-government health facilities for the treatment of non-hospitalized ailments in rural (78 per cent) and urban (81 per cent) areas. Utilization of government facilities for inpatient care declined from 60 per cent in 1986-87 to 40 per cent in 2004. Only 30 per cent of rural (26 per cent of urban) people in the lowest quintile and 18 per cent (11 per cent in urban areas) in the highest quintile sought treatment from government facilities. As a result, there was an increase in the household out-of-pocket spending. The lowest social class (SC/ST), however was found to utilize government facilities. It was observed that during last two decades utilization of government facilities increased in Orissa, Himachal Pradesh, Karnataka and West Bengal while it declined in Bihar, Haryana, Kerala, Maharashtra and Tamil Nadu. Average expenditure on non-hospitalized treatment was high in urban areas in states with more private facilities. Loss of household income due to non-hospitalized care was high in Andhra Pradesh, Bihar, Jharkhand and Orissa. Burden of hospitalization was high in Andhra Pradesh, Assam, Himachal Pradesh and Jharkhand.

Sodani P.R (2007) examined the health care seeking behaviour,
utilization of health care services, household health care expenditure at the household level for both rural and urban segments of the tribal area of Rajasthan. The data was collected from a representative sample of 450 households, 225 from rural areas and 225 from urban areas of three districts (Banswara, Dungarpur and Udaipur) during the months of June-August 1996. In rural areas, the most commonly approached source of care was traditional practitioners (50.7 per cent) while in the urban areas it was public facility (45.1 per cent). There was a substantial rural-urban differential in the average expenditure per illness episode. On an average, rural people incurred an expenditure of Rs. 931.7 per illness episode, while the urban people incurred Rs. 610.8. Rural people spent one and a half times more on treatment of illness than urban people, taking acute and chronic illnesses together. However, this differential was more pronounced for acute illnesses (1.5 times) as compared to chronic illnesses (1.09 times). Another important finding is that rural people spent 1.6 times more on provider’s fee and 1.5 times more on medicines per illness episode compared to urban people. These two items mainly accounted for a major share of direct expenses. Rural people incurred seven times more on special diet for sick person compared to the urban people. It has been suggested that the health services should be easily available and early treatment should be made available to the tribal community to reduce their financial burden.

Mukherjee Anit N.and Krishanu Karmarkar (2008) investigated the health-seeking behaviour of the respondents of the survey, and explored three avenues through which health and human development outcomes may be related-demographic characteristics, education level of the head of the household, and expenditure groups. The problem of poor health outcomes in
India was studied from the demand side, using the unit level data from the 60\textsuperscript{th} round of the National Sample Survey and the determinants of not accessing medical care were analyzed. It was found that intra-family relationships as well as the level of education of the head of the household exerted considerable influence on the health seeking behaviour. While in the rural areas, the demand for healthcare increased significantly with the education level of the head of the household; in the urban areas the evidence was mixed. Richer economic sections constituted a larger proportion of sick persons who did not access medical care, especially in urban areas. Paradoxically, among poor households, which cited financial reasons for not accessing healthcare, it was found that women were less likely to be discriminated in rural than in urban areas.

Singh Balwant Mehta (2008) analyzed both public and private healthcare expenditure pattern in India based on secondary sources of information from the Reserve Bank of India and National Sample Survey Organisation. It was found that the average per capita health expenditure in the year 2002 turned out to be Rs. 617. However, average public per capita health expenditure (Rs. 170) was far less than household per capita health expenditure (Rs. 641). The developed states had less share of public expenditure than developing states. Less developed states such as Madhya Pradesh (1.3 per cent), Rajasthan (1.1 per cent), Bihar (1.3 per cent) and Orissa (1.1 per cent) barring Kerala (1.0 per cent), the share accounted for more than 1 per cent. However, in developed states like Karnataka (0.9 per cent), Punjab (0.8 per cent) and Tamil Nadu this share was below 1 per cent and abysmally low in Haryana (0.4 per cent). Contrary to this, private health expenditure pattern was found to be higher in the developed states like
Kerala (8.38 per cent), Punjab (7.51 per cent), Haryana (7.46 per cent) and Maharashtra (7.07 per cent) as compared to poorer states such as Orissa (6.05 per cent), Rajasthan (5.24 per cent), West Bengal (5.12 per cent), Bihar (4.39 per cent) and Assam (3.45 per cent). The distribution of the out of pocket (OOP) share across the expenditure quintile groups of households revealed that the OOP shares (both in rural and urban to total consumption expenditure) were higher among the richer expenditure quintiles in comparison with those among the poorer quintiles.

Joe William, US Mishra and K. Navaneetham (2008) utilized the National Family Health Survey-3 data and presented an empirical assessment of income-related health inequality in India. In order to examine income related health inequality, they adopted the standard technique of employing the concentration curves and concentration indices. It was found that the poorer sections of the population were beleaguered with ill-health, whether in the quest for child survival or due to anxieties pertaining to child nutrition. Further an attempt was made to comprehend the relationship between income inequality and health status in Indian context. It was revealed that the degree of health inequalities escalated when the rising average income levels of the population were accompanied by rising income inequalities. The income-poor sections had different needs and therefore, planning and intervention necessitated an understanding of the sources of inequality and recognition of the vulnerable groups to arrive at efficient resource allocation and policy decisions.

Selvaraj Sakthivel and Anup K. Karan (2009) examined the nature and significance of the growing burden of health expenditure on households on account of the increased dependence on private providers. They
compared the period of 1986-95 with that of 1996-2004, largely representing the pre- and post-liberalization periods, respectively. They found that during the period under consideration, the role of private sector in healthcare delivery had witnessed a manifold rise. In 2004, public sector provision of outpatient healthcare accounted for approximately one-fifth of the total outpatient care as against over one-fourth (26.1 per cent) in 1987-88. As far as hospitalization care was concerned, the share of public provisions which used to cater around 60 per cent in 1987-88, registered a steep decline to approximately 40 per cent in 2004. Further, the comparative cost of hospitalization indicated that households ended up in the private healthcare institutions paying more than double that in the government setting. Unfortunately, government healthcare facilities, which used to offer services free of cost, had been forcing patients to procure drugs and receive diagnostic services from private sector providers. The cost of treatment increased significantly over the years both for inpatients and outpatients. The real (inflation adjusted) cost of hospitalization doubled during the last one decade and a half. Hospitalization cost rose from less than Rs. 1000 in 1986-87 to approximately Rs. 2000 in 2004 at real prices. Similarly, per episode cost of treatment for outpatient increased in real terms from Rs. 33 in 1986-87 to Rs. 68 in 2004. The cost of treatment increased both in private and government sources. However, the increase was much faster in the former. The per episode hospitalization cost accelerated by more than 100 per cent in the private sector, while cost escalation was slower in the public sector. It was concluded that due to these developments, millions of households incurred catastrophic payments which not only pushed them below poverty line but also caused further deepening of poverty for already poor households.
Singh Narinder Deep (2010) estimated the level of credit acquisition for health care purposes by marginal and small farmers in Punjab using primary data collected from 300 farmers (i.e. 150 marginal and 150 small farmers) spread over two districts, namely, Amritsar and Gurdaspur. He also assessed the scenario of public health care services in rural areas of Punjab using data from government reports/publications, journals etc. Health care credit had a major share in the total borrowing by marginal and small farmers i.e. 20 per cent and 23.2 per cent respectively, as cheap medical facilities through government health services were inadequate, and not available at times. It was found that the actual requirement of medical institutions, on the basis of projected population estimates of rural Punjab for the year 2008, i.e., 1,84,62,672 persons was much higher—nearly 3,693 SCs, 615 PHCs and 154 CHCs were required which outstripped the actual availability of these institutions. Hence, these institutions in rural areas were overburdened in terms of both area and the number of persons dependent on them. Acute manpower shortages also existed in these institutions. One of the major reasons for such state of rural health care in Punjab was the ever-decreasing state government expenditure on health. It was revealed that in Punjab, households had undertaken nearly 76.1 per cent of the total health care spending from their own sources, whereas public spending was only 18 per cent, and all other sources like non-governmental organizations, charitable trusts, etc, contributed only 5.9 per cent of total health expenditure.

Singh Sawaran analysed the dynamics of population growth in Punjab and compared the health status and access to health infrastructure of Punjab with that of Kerala. He also indicated the rural-urban differentials. The study
found that Punjab lagged much behind Kerala in provisioning of maternal and child health (MCH) care to the pregnant women. Utilization of public infrastructure was very poor. Even the persons from the very poor households went to the private institutions for delivery purposes. Only 8 per cent of the pregnant women from low income households in Punjab went to public institutions for delivery whereas 19 per cent of the low income pregnant women went to private institutions (IIPS, 2001). A high incidence of anaemia among pregnant women and children in Punjab was a serious matter. Poor hygiene, sanitation, safe drinking water and water management seemed to be the significant contributors to anaemia in Punjab. He revealed vast rural-urban gap in almost all the indicators of well-being of population including health, education and other basic amenities of life. He observed that there was high total fertility and mortality among children in rural areas. Proportion of pregnant women utilizing ante-natal check up (ANC) given by doctor was almost half (34.8 per cent) in rural areas compared with 63.1 per cent in urban areas. The proportion of women undergoing safe delivery was much less in rural areas than in urban areas. The per capita outlay in rural health services in Punjab was approximately half the expenditure level in Kerala. Poor condition of rural health services and hence health status of rural population was mainly due to comparatively poor provisioning and inadequately equipped health services. The author suggested that the rural areas should be given top priority in various policies and programmes to bridge the rural-urban gap and to provide equitable justice to the rural population.
It is evident from the review of literature that there are a few fragmentary studies in India/states which examine one or the other aspect of health scenario but no comprehensive study has been done which deals with all the components of the problem together. In order to take a comprehensive view of the problem, there is a need for holistic approach taking various issues relating to health care simultaneously.