CHAPTER VIII
SUMMARY, CONCLUSIONS AND PUBLIC POLICY ISSUES

The contribution of health services to promote the human resources and economic growth of a country is well documented in economic literature. These services, on one hand, reduce pains or sufferings associated with an illness or a disease by providing medical treatment, and on the other, keep human beings physically and mentally fit by preventing occurrence of illness/disease. Generally, these services in state sector stand for the low cost and quality treatment, especially to the poor people. These services also enhance basic competencies of people to lead a better quality of life by (i) reducing number of working days lost due to the illness; and (ii) increasing economic opportunities for more earnings. Moreover, access to health care is considered to be everybody’s human right.

On the economic front, Punjab is one of the highly developed states of India as her people were found to be enjoyed the highest per capita income for more than two and half decades in the past. The economic theory states that high income raises an economy’s capacity to attract more investments, better health status and human resources. In Punjab, public health services were given major importance by allocating more state funds, particularly in the decades of 1970s and the mid-1980s. Naturally, it was expected that people living in Punjab would have better health levels compared to the people living in other Indian states.

However, this has not happened in Punjab compared to the people belonged to Kerala and Tamil Nadu states. Further, political turmoil of 1980s, followed by severe resource crunch, non-responsive administration and new policy regimes of 1990s, reduced allocation of public funds to health sector drastically in the state. This has brought out a faster deterioration in the services provided by public health institutions and over reliance on the private sector health services in
the state. All these aspects need a review and this study makes an attempt to examine critically the health scenario in the state.

Moreover, there is lack of research studies in Punjab on the relative importance of state and private health sectors, utilization pattern, morbidity burden and treatment cost. Official statistics about in-patients and out-patients treated in health institutions of Punjab serve only a limited purpose. A comprehensive household health survey can bridge this information gap by collecting useful data on the morbidity, utilization and expenditure incurred on health related matters. Further, important health issues like equity, alternate policy options and demand for health services are now taken up by economists in the planning of health care policies. The relevance and importance of the present study is, therefore, obvious.

8.1 Objectives of Study
The major objectives of the study are:
1. To examine the growth of public health expenditure and infrastructure in Punjab;
2. To study the households’ perception of diseases, alternate types of treatment and preferences of sampled households in Punjab;
3. To analyse the morbidity pattern, utilization of health facilities and socio-economic determinants across the sampled households;
4. To analyze the level and pattern of private (out-of-pocket) health expenditure incurred on treatment of diseases across the sampled households; and
5. To suggest various policy measures to improve upon available health infrastructure and its better utilization pattern in the state.

8.2 Hypotheses of Study
1. There exists an urban bias regarding availability of various types of health infrastructure in Punjab.
2. Morbidity rates are generally higher among the rural households and the low status households compared to the urban households and the high status households.

3. Better income and education level of households are positively related to utilization of health services across the urban-rural and other categories of households.

4. Treatment costs of diseases are high across the higher status households compared to the low status households.

8.3 Data Sources, Sampling Design and Methodology

The study is based on the primary as well as on the secondary data. The secondary data were collected from both published and unpublished government sources and such other research organizations that were dealing with health related statistics and problems. The secondary data for 1971-2007 time periods were used to examine the growth of health services in Punjab. For adequate interpretation of the data and to examine the different aspects of health sector, simple statistical tools such as percentages, ratios, means, trend growth rates, $\chi^2$ (Chi-Square) test (Yate’s corrections were applied, wherever necessary), etc. have been used.

Apart from it, the primary data have been generated through a comprehensive survey from 300 households (120 urban households and 180 rural households) spread across the state. For the purpose of collecting primary data, a multistage stratified random sampling technique has been used. The sampling design consists of five stages.

i. Selection of districts

ii. Selection of cities/towns and development blocks

iii. Selection of municipal wards/villages

iv. Selection of households

v. Categorization of households

i. Selection of Districts

At the very first stage, three districts out of 17 districts (for which the data were available) of Punjab were selected on the basis of twelve socio-economic development indicators. On the basis of final
Borda scores, these districts were divided into three categories. Six districts (Kapurthala, Ludhiana, Jalandhar, Rupnagar, Amritsar and Patiala) had fallen in the high level of development. Another set of six districts (Nawan Shahar, Faridkot, Sangrur, Fatehgarh Sahib, Hoshiarpur, and Gurdaspur) had medium level of development. And, the remaining five districts (Bathinda, Moga, Ferozepur, Mukatsar and Mansa) were included in the category of less developed districts. And, one district was selected randomly from each category of districts, i.e. Jalandhar, Bathinda and Fatehgarh Sahib from the highly, medium and less developed districts respectively.

**ii. Selection of Development Blocks and Cities/Towns**

Out of three selected districts (Jalandhar, Bathinda and Fatehgarh Sahib), (i) three development blocks were selected from each district on the basis of 10 development indicators, i.e., one each from less developed, medium developed and high developed blocks; and (ii) three cities/towns were selected from each district on the basis of certain available development indicators, i.e., one each from less developed, medium developed and high developed cities/towns. In this process, nine development blocks and nine cities/towns were selected across these three districts of Punjab.

**iii. Selection of Municipal Wards/Villages**

At the third stage, 18 municipal wards (two wards from each selected city/town) and 18 villages (two from each selected block) were selected by keeping into account their size, location, number of households, provision of health facility, etc. Out of two selected villages in each block, one village was having a public health facility and another village was without such facility. Similarly, out of two selected municipal wards of each city/town, one selected ward was either slum dominated or reserved for Schedule Castes category and another ward was the general ward.

**iv. Selection of Households**

At the last and fourth stage, all households of the selected municipal wards/villages were listed and stratified on the basis of an
objective criterion. And, a proportionate probability random technique was applied to select households by giving due weight-age to each stratum of households both in the urban and rural areas. Ultimately, 300 households (120 from urban areas and 180 from rural areas) were selected which duly represented all socio-economic groups within the state.

v. Categorization of households

All these sampled households were classified into three different socio-economic status i.e., high, medium and low by using the scale developed by Pareek and Trivedi for rural areas and Kuppuswamy modified by Kumar for urban areas. In these scales, educational level of household heads, main occupation of households and per capita income were scaled. However, in this study, per capita income was substituted with per capita consumption expenditure of households because more authenticity in measuring consumption expenditure of households. Following this criterion, out of 120 urban households, 34 households (28.33 percent), 48 households (40 percent) and 38 households (31.67 percent) were categorized as the low, the medium and the high status households respectively. Likewise, among 180 rural households, 68 households (37.78 percent), 83 households (46.11 percent) and 29 households (16.11 percent) were termed as the low, the medium and the high status households respectively.

8.4 Chapter Scheme

The study has been divided into eight chapters. Chapter I dealt with the introduction and issues related to sample and survey design. Chapter II provided a review of literature on the extent and burden of diseases, utilization pattern and treatment costs, etc. Chapter III examined growth of health services in Punjab during the pre-reform and post-reform periods. Chapter IV highlighted demographic, social and economic characteristics of sampled households to determine knowledge base of households. Chapter V assessed general perceptions and preferences of household heads about diseases and treatment that determine the households’ health priorities in getting
treatment. Chapter VI analysed the various facets of morbidity and utilization pattern of curative health services in Punjab. Per patient treatment expenditure across different types of diseases and health centres was analyzed in Chapter VII. Chapter VIII summarized the main findings and public policy suggestions of the study.

8.5 Main Findings

8.5.1 Health Services in Punjab

The study found that public expenditure on development heads vis-à-vis non-development heads in Punjab decreased consistently from 72.54 percent in 1972-73 to 36.57 percent in 2002-03, then increased to 44.01 percent in 2004-05, but decreased marginally to 42.12 percent in 2006-07. Within the development expenditure, social services as a whole were given a high priority in Punjab compared to economic services during the time period of 1972-73 to 2006-07. For instance, more than one-half of total development expenditure was incurred on social services (53.83 percent in 1972-73, 57.89 percent in 1980-81, 55.87 percent in 1990-91, 59.20 percent in 2000-01 and 52.54 percent in 2006-07). Amongst social services, the highest priority was given to the education sector as proportionate share of education sector lied between 28.97 percent and 44.95 percent over the time period under consideration. The next priority was accorded to the health sector, however, proportionate share of public expenditure on health sector decreased marginally from 11.60 percent in 1972-73 to 8.82 percent in 2006-07. Further, annual growth rate of public expenditure on health sector experienced a sharp decline from 6.23 percent during 1972-73 to 1989-90 compared to 4.54 percent during 1990-91 to 2006-07.

Allocation of more funds to health sector up to the end of 1980s led to faster growth in establishing rural health infrastructure in Punjab that has brought significant benefits, at least in term of accessibility, to the rural people. For example, proportion of rurally located health institutions increased from 57.46 percent in 1971 to 79.17 percent in 2007. The proportion of rural hospitals increased
from 9.02 percent in 1971 to 33.33 percent in 2007, and that of dispensaries from 64.24 percent to 83.01 percent during the same period. Except the CHCs, the number of other rural health institutions did not rise appreciably.

On the whole, population served per hospital in Punjab, however, increased from 1.11 lakh persons in 1971 to 1.23 persons in 2007, whereas in the case of dispensaries, it decreased from 0.46 lakh persons in 1971 to 0.10 lakh persons in 1986, but increased to 0.18 lakh persons in 2007, and that of PHCs from 1.07 lakh persons to 0.45 lakh persons in 1991, but increased to 0.61 lakh persons in 2007. Similarly, rural population per rural bed decreased from 5341 people in 1971 to 1268 people in 1986, but increased to 1600 people in 2007. On the other hand, urban population per urban bed increased from 405 people in 1971 to 677 people in 2007.

Further, utilization of indoor facilities in state’s public health institutions had shown a dismal picture. For example, district hospitals, which seem to be overcrowded with patients (bed occupancy ratio was around 100 percent during 1980-1985), had shown a downward trend. A sharper decline in bed occupancy ratio was observed in the tehsil hospitals, hospitals exclusively for women and tuberculosis patients. The 25/30 bedded hospitals and PHCs that were mostly located in rural areas had shown abysmally low level of bed occupancy. Even hospitals attached with state medical colleges providing tertiary care in Punjab have witnessed a fall of about 50 percent in bed occupancy. It means that patients who want quality and afford paying for medicare services prefer to get treatment from private hospitals/nursing homes, which are grown in leaps and bounds in the state.

Further, deterioration of quality treatment in public funded health institutions can be gazed from the large number of vacant posts of doctors, paramedical staff and other supporting staff. Clearly, about one-fifth of posts (18.68 percent) in health department of Punjab were lying vacant in 2005. Interestingly, more than one-sixth
posts of medical officers (16.80 percent) were vacant, despite a large numbers of qualified doctors but unemployed doctors were available for work in the state.

Although many health indicators have shown progress over the time period of study, yet rural-urban differences are clearly visible in the state. For instance, the birth rate in rural Punjab was 18.5 per thousand live births during the triennium ending 2006-07 compared to urban Punjab’ birth rate of 16.7 per thousand live births. Similarly, the rural death rate was 7.4 per thousand compared to 5.8 per thousand in urban Punjab during the same period. Similarly, infant mortality rate was 48 per thousand and 36 per thousand live births in the rural and urban Punjab during the triennium ending 2006-07. Further, 24.04 percent of state villages were still without the provision of safe drinking water facility in 2007. Clearly, health infrastructure has shown an urban bias.

In the case of health manpower in Punjab, number of qualified doctors increased more than three times (from 5239 to 19829), number of midwives increased more than 13 times (from 2138 to 28422), of nurses 8 times (from 2603 to 26257) and of dais more than 4 times (from 10563 to 46377) during the time period under study. The fast increase in their number had a favourable impact on population served per health personnel in Punjab.

8.5.2 Demographic, Social and Economic Characteristics

In overall, sex ratio was 952 females per 1000 males. It was higher in urban areas (1088 females) compared to rural areas (869 females). Regarding age composition of population, proportion of children/infants and aged persons was found more in the case of low status households and in the rural areas. Further, proportion of married persons was lowest in the low status households compared to the medium and the high status households. In the case of unmarried, widow/er and divorced/separated together, proportions tend to decrease with the increase in the status of households. There were
also many differences among sampled households with regard to the religion and castes.

Education level was comparatively higher in the high status households compared to the low status households. There were more illiterate persons in rural areas than in urban areas. As expected, education level was much higher among the males than that of the females. It was observed that the low status households, females and rural people have low education level. Due to this reason, they were found to have less knowledge about health diseases, their treatment and utilization pattern.

Further, majority of working population was found to be engaged in labour and other low income generating economic activities, especially in the low status households and rural areas. The share of regular/permanent workers was very low in the low status households compared to the medium and the high status households. The proportion of seasonal/casual and temporary workers combined was found to be very high in the low status households. The proportion of unemployed people was found more in urban areas than that in rural areas.

Regarding type of houses, one-third of the low status households (33.33) still live in katcha houses, whereas this proportion was negligible in the medium and the high status households. Use of cleaner cooking fuel (LPG) was significantly higher in urban areas. More than two-fifth of rural households (42.23 percent) used traditional fuel in the kitchen. About one-sixth of the low status households (15.69 percent) were not enjoying safe drinking water facility at their house premises. Further, about three-fourth of the low status households (71.57 percent) was without pacca drainage facility and about 80 percent of the households were having only up to 2 rooms. It means that the poor and low status people become the victims of overcrowding and congestion. Regarding to availability of separate bathroom and kitchen facility, there were wide differences across status and location of households. In nutshell, the low status
and rural households were bereft of enjoying the basic facilities that are conducive for good health.

Moreover, more than one-third of total households (34.33 percent) has no television facility and about two-third of rural households (65.00 percent) were without radio/transistor facility. Bicycles were owned by majority of households (74.67 percent). About two-third of urban households (65.83 percent) and one-fourth of rural households (25.00 percent) owned a motor cycle/scooter. None of the low status households owned car/jeep, tractor and truck except one household. On the whole, about 16 percent of total households covered under the Atta-Dal scheme. Only a little more than one-third of the low status households (35.29 percent) were having the benefits of Atta-Dal scheme. And, proportion of rural households covered under Atta-Dal scheme was about three times higher than that in the urban areas.

Interestingly, majority of household heads (79.00 percent) were in the age group of 30-49 years (58.67 percent) and 50-59 years (20.33 percent) when they were capable of taking rational decisions about families’ welfare, especially related to health seeking behaviour. Further, proportion of illiterate heads was very high in the rural and the low status households compared to the medium/high status and urban households. Surprisingly, no household head was educated beyond matriculation level in the low status households. Educational status of household heads declines as the status of households declines.

8.5.3 Perceptions and Preferences of Households about Diseases and Treatment

An analysis of perceptions and preferences of households about diseases and treatment revealed many interesting points: (i) unhealthy environment, changing climate and others (including bad food habits, pesticides, contaminated drinking water) in high status households; and the poverty, poor nutrition and unhealthy working conditions in the low status households emerged as most important causes of
occurring diseases; \(\text{ii}\) expensive treatment along with poor public health services were the main reasons for not seeking treatment as about one-half proportion of low status households (49.63 percent) reported these reasons; \(\text{iii}\) about one-third of households (31.00 percent) seek treatment immediately at the onset of disease/symptom. However, nearly three-fourth of the low status households (75 percent) seek treatment when it started affecting their day to day work or incapacitating them; \(\text{iv}\) only 7.33 percent of the households had very high level of knowledge in identifying various chronic and communicable diseases. This level of knowledge was very low in the low status households as 98.04 percent of such households could not identify more than 4 diseases correctly out of a list of 20 diseases; \(\text{v}\) a very small proportion of sampled households (17.00 percent) went for voluntary health check-up. Those households who did not go for health check-up, more than one-third of them (35.57 percent) reported its ‘ineffectiveness’ and another one-third (31.96 percent) reported ‘financial constraint’ as the main reasons; and \(\text{vi}\) the low status households preferred to get treatment either from ‘not so costly’ or ‘near home’ health facility compared to other categories of households. One may safely conclude that proportion of households not seeking treatment due to economic factors increased with the fall in the status of households.

8.5.4 Utilization Pattern of Health Services

The study examined utilization pattern of curative health services for communicable, chronic and other diseases separately. Overall, mean incidence of these diseases was 150.55, 156.67, and 42.84 patients per thousand populations respectively. The data showed wide differences in morbidity rates of these diseases across different categories of households. Incidence of communicable diseases increases and that of chronic diseases decreases as one move away from the low status to high status of households.
8.5.4 (i) Communicable Diseases

Amongst 246 communicable disease patients, 55.69 percent were males and 44.31 percent females. Truly, with an increase in the age group of patients, incidence of communicable diseases decreased. For instance, nearly one-third proportion of communicable disease patients (33.74 percent) were either children or infants (aged up to 14 years), followed by patients aged of 15-29 years (32.93 percent), of 30-49 years (25.20 percent), of 50-59 years (4.88 percent) and of 60 and more (3.25 percent). Further, about one-half communicable disease patients (50.41 percent) were married, followed by unmarried (47.56 percent) and others (2.03).

Further, about three-fifth patients (60.16 percent) were belonged either to the SC or BC/OBC categories compared to the general category (39.84 percent). As expected, patients from lower castes accounted for a very high proportion in the low status households (91.96 percent) and rural households (69.46 percent) compared to the medium (40.57 percent), the high (7.14 percent) and urban (40.51 percent) households. It indicated that people belonging to lower caste categories were more susceptible to unhygienic surroundings as well as diseases. It was found that proportion of communicable disease patients tend to decrease with the increase in the education level of patients. Further, proportion of illiterate and low education level (primary and middle passed) was very high across rural patients (79.64 percent) compared to urban area patients (40.5 percent). Similarly, this proportion was very high in the low status households (78.57 percent) than that of the medium (59.43 percent) and the high (50.00 percent) status households.

In overall, 84 patients (34.15 percent) were employed, followed by students (27.24 percent), housekeeping (17.48 percent), unable to do work due to old age/sickness, etc (15.85 percent), unemployed (3.25 percent) and living on pension/remittances (2.03 percent). There were no much differences in the activity status of patients across the different categories of households. Further, 39.29 percent patients
were doing labour of many varieties, followed by other low earning economic activities (17.86 percent), farming/crop cultivation (16.67 percent), shopkeeping/trading activities (15.48 percent) and various types of government and private services (10.71 percent). There were many variations in the occupational structure of patients across the different categories of patients.

The data revealed that, on an average, more than one-half of patients (54.06 percent) were living in semi-pacca (30.08 percent) and katcha (23.98 percent) houses, whereas this proportion was 74.11 percent (semi-pacca, 28.57 percent; katcha, 45.54 percent) in the low status patients and 62.87 percent (semi-pacca, 35.33 percent; katcha, 27.54 percent) across rural patients. Moreover, proportion of patients belonging to households with no water facility at house premises was high in the low status households (16.07 percent) and rural households (10.18 percent) than that of the high status households (0.00 percent) and urban households (1.27 percent). Overall, more than one-half of patients (52.04 percent) either used woods/sticks or dung cakes as cooking fuel in the kitchen compared to the better kitchen fuel, i.e., LPG (46.34 percent). And, use of inferior fuels was found to be very high in the low status households (82.14 percent) and rural households (64.07 percent).

Interestingly, morbidity prevalence rate decreased as status of households increased, i.e., 217.90, 138.38 and 79.10 patients per thousand people in the low, the medium and high status households respectively. Similarly, morbidity rate was lower in rural (118.98 per thousand of people) compared to urban (172.16 per thousand of people) areas. It is largely due to unhygienic living conditions in the rural and low status households.

Further, 32.93 percent patients did seek treatment from unqualified health professional. This proportion was higher in the low status (41.96 percent) and rural (38.32 percent) households compared to the medium status (31.13 percent), the high status (3.57 percent) and urban (21.52 percent) households. And, a vast majority of total
patients (89.02 percent) preferred allopathic medicine for treatment compared to the ayurvedic (4.07 percent) and homeopathy (1.63 percent) system of medicines. Nearly one-twentieth of patients (5.28 percent) used home based remedies for treating their illness.

Further, 62.60 percent patients sought treatment from the private health providers (formal sector, i.e., hospitals and clinics and informal sector, i.e. quacks, hakim/faith healers, chemists, etc.) and rest (37.40 percent) from government health services. Further, only 10.71 percent patients of the high status households preferred government health sector. About 42 percent and 38 percent patients belonged to low status and rural households respectively got treatment from unqualified health persons (quacks, hakim/faith healers, chemists, etc.). Clearly, benefits of public health system could not percolate to the poor masses.

An overwhelming majority of communicable disease patients (82.11 percent) got treatment as out-patients. There was no much difference found in the proportion of in-patients or out-patients across different categories of households. And, 65.84 percent out-patients got treatment from the private sector (both formal and informal). However, in the case of in-patients, more than one-half patients (52.27 percent) were preferred public health facilities for treatment. Further, more in-patients belonging to the low (54.55 percent), the medium (58.82 percent), and the rural (54.29 percent) households preferred public health facilities than that of the patients from the high (20.00 percent) and the urban (44.44 percent) households. It indicated that people from the weaker sections of society still preferred cheaper source of their hospitalized illness episode/s.

On an average, a patient belonged to the low and the medium status households traveled in the range of 4.25-4.55 km compared to 9.42 km in the case of the high status patients. It was largely due to the fact that the rich people in search of quality treatment accessed a specialized health facility far from their locality. Interestingly, about one-third of patients (32.52 percent) walked on foot for availing of
health facility, followed by the bus (24.80 percent), own motor cycle/scooter (18.70 percent), auto rickshaw/rickshaw (12.20 percent), car/taxi (6.91 percent) and the bicycle (4.88 percent). It also showed that cheaper means of transport were used by the patients of low status and of rural households.

Further, ‘nearest to home’ (30.90 percent), followed by ‘free/low cost treatment’ (21.95 percent), and ‘specialized treatment’ (15.85 percent) were the dominant reasons for preferring a particular health centre for treatment. On these reasons, however, considerable differences were noticed across the different status of households and rural/urban locations. For instance, patients of high status households and urban areas reasoned ‘specialized treatment’ (39.29 percent and 21.52 percent respectively), and ‘familiar/known doctor’ (21.43 percent and 13.92 percent respectively) for their choice. And, patients of low status households preferred a health centre which was either ‘nearest to home’ (33.04 percent) or ‘free/low cost treatment’ (28.57 percent).

8.5.4 (ii) Chronic Diseases

Chronic diseases are different in nature, extent and duration of illness. Aging, lifestyle patterns, various stresses/strains, etc. are major causes of prevalence of chronic diseases. Amongst 156 chronic patients, 51.56 percent were males and 48.44 percent females. Further, a majority of these patients (55.47 percent) fell either in age group of 50-59 years or 60 and more years, followed by age group of 30-49 years (34.77 percent), of 15-29 years (7.81 percent) and up to 14 years (1.95 percent). It means, contrary to younger age groups, aged people were afflicted more by chronic diseases. As expected, a high proportion of such patients was married (73.05 percent), followed by the widow/er (20.70 percent) and unmarried (6.25 percent). Further, a sizeable proportion of chronic patients belonged to general category (69.53 percent), followed by SC (23.83 percent) and BC/OBC category (6.64 percent).
In overall, about two-fifths of patients (41.41 percent) were illiterate, whereas a very high proportion of rural patients (56.95 percent) in comparison to urban patients (19.05 percent) were illiterate. As expected, proportion of illiterate patients was very high in the low status households (67.86 percent) than that of the medium (35.48 percent) and the high (31.58 percent) status households. Further, more than two-fifths of patients were employed (44.54 percent), followed by those involved in housekeeping activities (29.30 percent), persons unable (old, sick, etc.) to work (21.09 percent), unemployed (1.95 percent), persons living on rents/pensions/remittances (1.56 percent) and students (1.56 percent).

Further, people engaged in sitting occupations and lacking physical activity were more afflicted by chronic diseases. For instance, a high proportion of patients engaged in trading/service activities (40.36 percent) and gentlemen farming (35.96 percent). Viewing with aging and sedentary life-style, two-thirds patients were living in pacca houses (68.75 percent) than that of semi-pacca (22.66 percent) and katcha houses (8.59 percent). The study also elucidated that a high proportion of chronic disease patients belonged to rural and the low status households were still without better health facilities (safe drinking water, separate kitchen, drainage system, etc.) at house premises.

On an average, every sampled household had one chronic disease patient. Further, number of per household chronic patients tends to increase with the increase in the status of households. For instance, at least one-half patient per household (0.54 patient) was found in the low status households, followed by one patient (0.95 patient) in the medium status households and more than one patient (1.13 patient) in the high status households.

In overall, nearly two-third patients (57.81 percent) were suffering even before 2000 and remaining two-fifth patients (42.19 percent) since 2001. And, most affected part of body among chronic patients was heart/circulatory system (21.48 percent), followed closely
by stomach/digestive system (21.09 percent), arms/legs (15.63 percent), lungs/respiratory system (12.89 percent), eyes/ears/nose and other internal organs (12.50 percent each), and back spine (3.91 percent).

Interestingly, 15.23 percent of total patients did not seek qualified health professional for treatment. This proportion was higher in the case of low status households (30.36 percent). Further, 82.81 percent of chronic patients preferred allopathic system of medicine for treatment, whereas a small proportion of patients (7.81 percent favoured ayurvedic and 4.69 percent homeopathy medicines) tried alternate medicines.

Overall, private health sector swayed the preferences of chronic disease patients for treatment, whereas nearly two-thirds patients (65.62 percent) preferred private hospitals (26.56 percent) and clinics (39.06 percent) and another 15.24 percent patients got treatment from quacks, hakims/faith healers, etc.). Only one-fifth patients (19.14 percent) utilized public health services (hospitals, CHCs, PHCs, etc.) Further, formal private health services (hospitals and clinics) were used by the patients belonging to the high status and urban households (89.47 percent and 75.23 percent respectively) than that of the low status and rural households (31.36 percent and 58.94 percent respectively).

An overwhelming proportion of chronic patients (80.47 percent) preferred treatment as out-patients. There were no significant differences in the proportion of in-patients and out-patients across the different status households and rural-urban category. Again, private health services were preferred by the indoor as well as outdoor patients. For instance, 82.04 percent out-patients 76.00 percent indoor patients preferred treatment from the private health sector institutions. However, utilization of public health services was more in the low status households (38.64 percent for out-patient and 41.67 percent for in-patients) than that of the medium (14.56 percent for out-patient and 23.81 percent for in-patients) and the high status.
households (8.47 percent for out-patient and 11.76 percent for in-patients).

Since the chronic diseases require specialized treatment, a patient in search of such treatment traveled long distances. For instance, a chronic patient from low status households traveled 15.86 km to get the treatment compared to the medium (25.52 km) and the high (37.36 km) households. Further, rural patients had to cover a long distance (34.98 km) than that of urban patients (9.62 km). For traveling, cheap means of transport were used in the case of low status patients and rural patients compared to the high status patients and urban patients.

On an average, ‘specialized treatment’ (37.89 percent) followed by ‘doctor known’ (20.70 percent) and ‘nearest home’ (14.84 percent) were the dominant reasons for preferring a particular health centre for treatment. Only 8.20 percent patients reasoned ‘free/low cost treatment’ for their choice of preference. However, 21.43 percent patients in the case of low status patients favoured ‘free/low cost treatment’ as a reason for their preference compared to 5.65 percent and 2.63 percent patients belonged to the medium and high status households respectively.

Regarding regularity in treatment, 16.80 percent chronic patients did not take prescribed medicines/injections regularly. This proportion was higher in the patients belonged to the low status (33.93 percent) and rural (19.21 percent) households than that of patients from the medium status (15.32 percent), the high status (6.58 percent) and urban (13.33 percent) households. Further, more than one-third of patients (34.88 percent) did not take prescribed medicines regularly because of expensive treatment.

**8.5.4 (iii) Other Diseases**

Other diseases include all types of minor and major surgeries, injuries/accidents, insect/dog bite, anaemia, etc. Amongst 70 other disease patients, 58.57 percent were males and 41.43 percent females. The incident of other diseases was more in the age group of 30-49
years (45.71 percent) followed by age group of 50-59 years (27.14 percent) and of 15-29 years (14.29 percent). It also revealed that aged 60 years or more (8.57 percent) and infants/children aged up to 14 years (4.29 percent) were least afflicted by other diseases. A little more than three-fourths of other disease patients (75.72 percent) were married, followed by unmarried (17.14 percent) and others (7.14 percent).

Further, one-half patients (50 percent) were belonged either to SC or BC/OBC categories and the rest (50 percent) formed the general category. However, more patients from rural areas were belonged to the SC category (52.50 percent) compared to the urban areas (36.67 percent). It was found that other diseases were more prevalent in the lower and weaker section of the society, especially among the less educated persons. Proportion of illiterate and low educated patients (primary and middle passed) was very high across the low status (81.47 percent) and rural (77.50 percent) households compared to the high status (31.25 percent) and urban (46.66 percent) households.

In overall, 38 such patients (54.29 percent) were employed, followed by the housekeeping (30.00 percent), students (7.14 percent), unable to work (4.29 percent) and persons living on pension/remittances (1.43 percent). There were no much differences in the activity status of patients across rural and urban areas. Further, 28.95 percent of the patients were involved in farming/crop cultivation; followed by shop-keeping/trading (26.32 percent), labour of many varieties (23.68 percent), other economic activities (13.16 percent) and various types of government and private service (7.89 percent). A large proportion of other disease patients were concentrated in the farming (45.45 percent), and labour (31.82 percent) activities in rural areas, whereas in urban areas, the major occupation of patients was trading activities (37.50 percent) and other economic activities (25 percent).

On an average, a little less than one-half of patients (47.14 percent) were living in semi-pacca (28.57 percent) and katcha (18.57 percent).
percent) houses, whereas in the low status patients this proportion was 59.26 percent (semi-pacca, 18.52 percent; katcha, 40.74 percent). Moreover, proportion of patients belonging to households with no water facility at house premises was high in the low status households (14.81 percent) than that of the medium status (0.00 percent) and the high status (0.00 percent) households. Overall, more than three-fifth of patients (62.86 percent) used LPG, followed by those used wood/sticks (22.86 percent), dung cakes (12.86 percent), etc.

Interestingly, morbidity prevalence rate was slightly high in low status households (52.53 per thousand people) compared to the high (45.20 per thousand people) and medium (35.25 per thousand people) status households. There was no much difference in the morbidity prevalence rate across rural and urban areas. Further, accidents/fractures were more frequent in the high status households (11.30 per thousand people) than in the low (9.73 per thousand people) and the medium (5.22 per thousand people) status households. It is mainly because of the fact that households belonging to the high status possess more number of vehicles which exposes them to more accidents.

Further, 10.00 percent patients sought treatment from unqualified health professional. This proportion was higher in the low (22.22 percent) and rural (12.50 percent) patients compared to the medium (3.70 percent), the high (0.00 percent), and urban (6.67 percent) patients. A vast majority of other disease patients (88.57 percent) used allopathic medicine for treatment compared to ayurvedic (1.43 percent) and homeopathy (5.71 percent) system of medicines. Besides, a considerable proportion of patients from the low status (11.11 percent) and rural (7.50 percent) households used home based remedies for treating their illnesses.

More than one-half of patients (52.86 percent) sought treatment from the private health providers (formal sector, i.e., hospitals and clinics and informal sector, i.e. quacks, hakim/faith healers, chemists, etc.) and the rest (37.14 percent) from the government
health services. Further, 55.56 percent patients of low status households preferred public health services compared to the medium (29.63 percent) and the high (18.75 percent) status households. Further, an overwhelming majority of high status patients (81.25 percent) preferred private health providers for treatment. About 22.22 percent and 12.50 percent patients belonged to the low status and rural households respectively got treatment from unqualified health persons (quacks, hakim/faith healers, chemists, etc.).

Nearly two-third patients of other diseases (65.71 percent) got treatment as out-patients and 34.29 percent as in-patients. Further, 62.86 percent of such patients (65.22 percent out-patients and 58.33 percent in-patients) got treatment from the private sector (both formal and informal). However, private health sector’s preference was dominant in the case of high status patients (81.25 percent) than that of the low status (44.44 percent) patients. And, more than four-fifth of in-patients in the low status category (83.33 percent) used public health services compared to the medium status (38.46 percent) households. Interestingly, no in-patient from the high status households got treatment from public health institutions.

On an average, a patient had to cover a long distance (25.26 km) than that of the urban patients (15.36 km) for getting desired treatment. About one-half of low status (48.15 percent) and one-third of rural (32.50 percent) patients traveled by bus for availing health facility compared to patients belonged to the medium (14.81 percent), the high (0.00 percent) and urban (13.33 percent) households. It meant that cheaper means of transport were used more by patients belonged to the low status and rural households, while costlier transport means were used more in the case of high status and urban patients.

Further, ‘specialized treatment’ (47.14 percent), followed by the ‘free or low cost treatment’ (22.86 percent), ‘nearest to home’ (18.57 percent) were the dominant reasons for preferring a particular health centre for treatment. However, significant differences were noticed
across the different status of households and rural-urban locations as more patients from the high status (68.75 percent) and the medium status (62.96 percent) households preferred ‘specialized treatment’. And, the patients from low status households preferred ‘free or low cost treatment’ (48.15 percent). A significant proportion of the low status (14.81 percent) and rural (7.50 percent) households had reported that there was ‘no other option’ to opt a particular treatment like home remedies, religious person and faith healers because of lack of financial and physical resources.

8.5.5 Private Health Expenditure

The study analysed per patient expenditure incurred on treatment of diseases. The analysis reveals that, on an average, a patient of communicable disease/s incurred Rs. 863 on treatment compared to Rs. 2680 in case of treating other diseases and Rs. 5843 for chronic diseases. In relative terms, medicines/injections/surgical items (34.00 percent) and diagnostic tests (15.26 percent) held nearly one-half of per patient expenditure (49.26 percent) for treating communicable diseases; hospital stay (26.67 percent) and medicines/injections/surgical items (25.64 percent) together constituted more than one-half of per patient expenditure (52.31 percent) for treating chronic diseases; and medicines/injections and surgical items (30.00 percent) and hospital stay (27.21 percent) together cornered nearly two-fifth of per patient expenditure (57.21 percent) for treating other diseases.

There were considerable differences in per patient expenditure across urban/rural patients and patients belonged to different categories of households. For instance, an urban patient of communicable disease/s incurred Rs. 1045 compared to a rural patient (Rs. 777). Similarly, an urban patient of chronic diseases spent Rs. 6536 compared to Rs. 5361 by a rural patient. And, a rural patient in the case of other diseases shed slightly more (Rs. 2706) in contrast to Rs. 2646 incurred by an urban patient. Further, as status of households rises, per patient expenditure on different diseases also
increased. In the case of communicable diseases, a patient belonged to the low status households spent Rs. 693 compared to the medium (Rs. 870) and the high (Rs. 1517) status households. Per patient expenditure by chronic disease patients was Rs. 3569 in the low status households, followed by the medium (Rs. 5560) and the high (Rs. 7980) status households.

As expected, per patient expenditure on treatment of different diseases was higher in the private health sector compared to public health sector. It was also true across different categories of households. Similarly, in-patient expenditure on per capita basis was also very high compared to out-patient expenditure across different categories of diseases, households and locations. In nutshell, per patient cost of treatment was high in the case of chronic diseases (Rs. 5843) compared to communicable (Rs. 863) and other (Rs. 2680) diseases. It is largely due to the fact that chronic diseases, being diseases of longer duration, require treatment for considerable time period. Thus, cost of treating chronic diseases seem to very high compared to the communicable and other diseases.

### 8.6 Public Policy Issues

There is a strong preference across the patients in the state for availing of treatment from the private health sector both in rural and urban areas. The main reasons for preferring private health providers are many like easy availability at all hours, cost effectiveness, specialized skills of providers, promotional efforts, etc. Despite charging high treatment costs, private health providers in the state are posing a serious challenge to the public health institutions by providing health services at par to non-hospitalized as well as hospitalized illness episodes. Very less people in Punjab preferred to get low cost or free treatment provided by the public sector hospitals. It is also felt that this unregulated growth of private health sector has already resulted in widening of disparities in assessing and affordability of quality health care in the state across the poor sections of society. Moreover, unregulated private practice may lead to
unnecessary surgeries, over-the-counter medicines, malpractice in prescriptions, and over-reliance on diagnostic tests. Already, mushrooming growth of diagnostic facilities, fee splitting practices, etc are on rise in the state.

Further, existing number of public health institutions in the state seems to be inadequate to meet the future health care needs of people. At the same time, these existing health institutions have to bring a reasonable and normative efficiency in their basic functions. Moreover, many shortcomings in their functioning such as the non availability of medicines, inadequate medical staff, shortage of buildings and equipments must be removed on priority basis. Overwhelmingly, it is also felt that with rising urbanization trend, efforts must be made to improve the quality of secondary and tertiary care hospitals, growth of which has not kept pace with the changing requirements and changing pattern of diseases in the state.

On the priority basis, Punjab state should have its own state health policy, which clearly mention out the future health care needs of the people and requirements to tackle these priorities. The state is likely to face newer morbidity patterns because of rising urban population, ageing population, in-migration and industrialization of the state. Focused attention needs to be given to the curative aspects of health care in Punjab, where the proportionate share of number of patients treated in public health institutions has gone down considerably. Strengthening the existing public health services and widening their network through the involvement of private practitioners, voluntary or non-governmental organizations and research institutions would improve the health care services in the state. Trained manpower should be employed on regular basis, instead of contractual or voluntary basis, in the state to promote health care demand at the grassroots’ levels.

It is also suggested that the Punjab government and professional medical bodies evolve certain rules and regulations and develop appropriate strategies to regulate the private health sector.
More importantly, certain guidelines/directives regarding manufacturing, sale, quality and prescription of pharmaceutical drugs on the one hand, and medical and clinical practices, including license to practice, basic code of conduct and consumer complaints on the other must be designed in the state. The rating of private clinics, nursing homes and hospitals based on physical facilities, quality manpower, equipments and technology would be useful.

There is an urgent need to explore and analyze different financing options to tackle rising medical costs. Hospitalized treatment in both the public and private health sectors is very expensive; it leads to loss of life-long savings and leaving no money for future social security. It is suggested that the government should work out modalities for a viable health insurance policy to meet rising health care costs in public and private sectors.

For improving the accessibility and utilization of health services by the urban poor and slum dwellers, it would be better if the authority can provide mobile health care vans in their dwelling place during night and in the evening. Specific health risks such as traffic accidents, suicidal attempts and food poisoning are more frequent in urban areas than in rural areas and required varied type of services. Facilities should be created in urban dispensaries to treat the food poisoning and accident victims so that unnecessary delay and heavy rush in the general hospitals and district hospitals can be avoided and many accident victims can be saved from death.

Significant steps must be taken to make health care affordable and accessible. In the health care budget of the government more allocation of funds should be earmarked for medicines and supplies, so that the vulnerable and rural poor utilizing government health institutions will be benefited a lot. Moreover, specific standards should be fixed for organization and maintenance of equipments and also for services to be provided. Above all proper examining machinery for supervision, monitoring and evaluation should be created to ensure quality of services rendered. The basic infrastructure facilities
like safe drinking water, sanitation facilities, drainage facilities, etc. should be provided in the residential areas of poor and needy people and some income generating activities should also be undertaken for alleviating their poverty.

Special emphasis needs to be given to preventive measures, such as vaccination against communicable diseases and identification of high-risk pregnancies to detect deformities and disabilities. Impact of urbanization brings along with it mental stresses and strains. Efficient strategies need to be evolved to combat life-stresses, which lead to accidents, burns and suicides. More trauma wards need to be established in Punjab to meet such eventualities. Mental health specialists at each hospital can play a vital role in maintaining and upgrading the state of mental health of the people of Punjab. Guidance on nutritional intake of food to prevent deficiency-induced disabilities needs to be spread. Government should make infrastructural changes to make the life of the disabled convenient. Work places, transportation, traffic signals and roads have to be made more handicapped-friendly.

Besides, a few concerns that have become an integral part of the healthy human mind and body are the environment and occupational health, adequate availability of drinking water, hygienic living conditions, nutritious food, drug addiction of youth and other moral health hazards. Excessive use of alcohol and tobacco based products must be curbed particularly in the country-side of Punjab. The state’s future health design for the next generation should be based upon minimization of alcoholism and drug addiction. We visualize the need of extending the scope of interconnectivity and interdependence of the state within the region to ensure a disease free, and an environmentally clean society.

A number of primary studies should also be undertaken, through autonomous research institutions and university departments, to assess emerging future health care needs of the people. Last but not the least; a proper computerized health
management information system should be developed for immediate access to information on health and other such indicators as nutrition and disability at the grassroots level. This will largely help in planning area-specific and need-based policies and programmes in future.

Further, there are two important public policy issues for the future health scenario of the state. First, as an overwhelming majority of rural public health infrastructure and services became non-functional and grossly under-utilized, the people belonging to poor sections of society are being deprived of easily accessible, cost-effective and better quality treatment of public health services located nearest to their homes. And, the rich people who have capacity to pay are attracted towards urban located private hospitals/nursing homes for getting better treatment. In rural areas, the poor begin to rely upon unqualified health persons who provide sub-standard treatment at exorbitantly high costs. These trends will seriously jeopardize the optimal development of rural human resource.

Secondly, state policy is at present concerned exclusively with the expansion, not with quality, of rural health infrastructure. For want of funds and governance, these centres continue to be areas of neglect. In absence of essential medicines, test facilities and first-aid kits, they are primarily acting as consultation clinics. Emergency and hospitalization services are almost non-existent in majority of these rural institutions. Further, inequities in income would have resulted in differential access as well as use of health services in rural areas. These facts would certainly hamper progress to achieve better health status in rural areas. The state must take bold policy steps to improve quality of public health services and control ever-growing unhealthy practices of private providers in rural areas.