Chapter – 1

Introduction
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INTRODUCTION

As the human resources are the key to all and every kind of progress, the sheer concept of a modern welfare State is to ensure as well as to promote the health and happiness of its people. It is not the health of the people but ultimately it is the health of the society, which is absolutely dependent on health indicators of that place. Health is now universally regarded as an important index of social development. A healthy community is the infrastructure upon which to build an economically viable society. There can be no two opinions about the fact that the Health is a basic to national progress. To quote Herophilas C, 300 B.C.

When health is absent,
Wisdom cannot reveal itself
Art cannot manifest
Strength cannot fight
Wealth becomes useless
And Intelligence cannot be applied.

What is Health? As defined by the World Health Organization (WHO), “Health is a State of complete physical, mental & social well being and not merely an absence of disease or infirmity & disease”.

It has been internationally recognized that the linkages of health to poverty reduction and long term economic growth are powerful and more stronger than is generally understood. The AIDS pandemic represents a unique challenge of unprecedented urgency and intensity. The single epidemic can cause tens of millions of deaths in India, China and other developing countries unless addressed by greatly increased efforts. The Millennium Development Goals (MDGs) adopted at the Millennium Summit of the United Nations in September 2000, call for a dramatic reduction in poverty and marked improvements in the health of the poor.
Following Millennium Development Goals are set to be achieved by 2015 (1990 is taken as the base year).

❖ HALVE EXTREME POVERTY AND HUNGER
❖ ACHIEVE UNIVERSAL PRIMARY EDUCATION
❖ EMPOWER WOMEN AND PROMOTE EQUALITY BETWEEN WOMEN AND MEN
❖ REDUCE UNDER-FIVE MORTALITY BY TWO-THIRD
❖ REDUCE MATERNAL MORTALITY BY THREE QUARTERS
❖ REVERSE THE SPREAD OF DISEASES, ESPECIALLY HIV/AIDS AND MALARIA
❖ ENSURE ENVIRONMENT SUSTAINABILITY
❖ CREATE A GLOBAL PARTNERSHIP FOR DEVELOPMENT WITH TARGETS FOR AID, TRADE AND DEBT RELIEF.

At this point of time (10 years after) it is important to assess how individual countries who took a collective commitment at the millennium summit in the year 2000 are performing, especially how India and China are doing. Progress achieved by these two big countries will have substantial impact on MDG.

Out of 8 goals, four are related to health sector. The target is to achieve 2/3 reduction in child mortality, ¾ reduction in maternal mortality and reversal of the upward trend in incidence of new HIV & Malaria cases. A close analysis of the rate of progress towards MDG reveals that some countries are well on track and likely to achieve MDG. Bangladesh is one of them. Other countries have made some progress but not at the desired pace. It is possible for them to achieve MDG if they can accelerate the progress adopting appropriate interventions. India falls in to this group. Of course there are countries who are unlikely to achieve MDG.

It is necessary to find out reasons why some countries like Vietnam are doing better and are on the right track and see whether some of
the lessons of these countries can be followed in other countries. There has been 2.7% decline in Child Mortality in India during 1980-90. But there has been wide variation in absolute numbers and rate of decline amongst various States. IMR in Kerala is 14 as opposed to 96 in Orissa. The rate of decline ranges from 1.3% to 6%.

PROFILE OF PUNJAB STATE AND HEALTH PLANNING ASPECTS: ECONOMY AND INFRASTRUCTURE:

Punjab is a classic example of a fast developing economy with agriculture as its base. It enjoys the credit of ushering the green revolution in the country. A progressive mix of irrigation, fertilizers and high-yielding variety seeds laid its foundation; a process, which was further strengthened by agricultural credit co-operative societies, rural link roads, village electrification and a variety of extension services. Punjab today contributes nearly 60 per cent of wheat and 40 per cent of rice procured for the central pool for distribution through the country-wide public distribution system. Along with this, the State went in for promoting the white revolution, resulting in the highest per capita availability of milk to the people. A regular agro-based and agro-oriented industrialization has been another prominent feature of the State economy. No less commendable have been the efforts at strengthening the infrastructure, particularly irrigation and power. The cumulative effect of all this is manifest in the highest per capita income of the State, a position of pride which Punjab has been holding for most of the years since its formation in 1966. A paradox may be Stated here and explained: Despite its relatively high-income level, the State is noted for considerable outmigration to other parts of India as also emigration to several countries. This is attributed not to any distressful situation at home but to attraction of greater prosperity outside.

Historically, Punjab has experienced many upheavals and turmoils, which, in turn, have influenced its path of development. In fact, the administrative map of Punjab has undergone stupendous changes in the past. At the time of the partition of the Indian sub-continent in 1947, Punjab was
bifurcated into two parts: West Punjab (Pakistan) and East Punjab (India). Of its 3,59,179 square kilometres and 29 districts only 1,52,649 square kilometres and 13 districts were left with Indian Punjab. The most prosperous and developed western part went to Pakistan and the relatively backward eastern part remained in India. With the subsequent bifurcation of the State into Punjab and Haryana, it has still squeezed to approximately 1/3 in Area.

Punjab now with an area of 50,362 square kilometres and a population of 2,42,89,296 persons is one of the smaller States of India. The State accounted for 1.5 per cent of the total area of the country and 2.4 per cent of the total population in 2001.

A HISTORICAL PERSPECTIVE:

Health Planning in India:

Health Planning in India started, as early as in 1943, when the Bhore Committee was appointed to go into health and medical needs of India. The committee recommended the control of major communicable diseases, and development of health organizations for providing health services to the people. Its recommendations were given due importance during the subsequent five year plans. At the time of independence in 1947, the health infrastructure was mainly urban and clinic-based, providing only curative health services. On 2 October, 1952, rural health services were launched through a Primary Health Centre (PHC) in each block, covering a population of 66,000. Along with the establishment of health-centre complexes, a number of disease control programmes were taken up (vertical programmes), to be integrated with rural health services. They were malaria, filaria and goitre in the 1950s: leprosy, tuberculosis and small pox in the 1960s; and the expanded immunization programme (EPI) and National Programme for Control of Blindness in the 1970s. Thus, by the end of the Third Five Year Plan, India laid the foundation of basic health services, originally defined by the WHO as ‘a network of coordinated, peripheral and intermediate health units with a central administration, capable of
performing effectively a selected group of functions essential for the health of a nation, and assuring the availability of competent professional and auxiliary personnel to perform these functions\(^1\). Subsequent five year plans focused on the need to integrate family planning with maternal and child health (MCH) and nutrition services and to intensify control of communicable diseases particularly malaria and small pox, and also the training programmes. The Sixth Five Year Plan (1980-85) adopted the goal of Health for All (HFA 2000 AD) and the net reproduction rate (NRR) of Unity by 2000 A.D. The plan provided for restructuring norms for rural health infrastructure and its vast expansion and development of promotive and preventive services along with curative facilities. In 1983, for the first time, a National Health Policy was formulated. It laid stress on preventive, promotive, public health and rehabilitative aspects of health care and pointed to the need for establishing comprehensive primary health care services to reach the population in the remotest areas of the country.

In the Seventh Five Year Plan (1985-90), the major thrust was laid on the consolidation of the health infrastructure already developed. The objectives of the Eighth Five Year Plan (1992-97) realized that the health facilities must reach the entire population by the end of the plan period. The HFA paradigm must take into account not only high risk vulnerable groups, i.e. mothers and children but also focus sharply on the underprivileged segments, and, therefore, within this strategy, ‘Health for Underprivileged’ would be promoted consciously and consistently. The Ninth Five Year Plan (1997-2002)\(^2\) observed that inappropriate location, poor access, poor maintenance, gaps in critical manpower, mismatch between personnel and equipment, lack of essential drugs/diagnostics, poor referral linkages, are some of the factors responsible for sub-optimal functioning of primary

\(^1\) Dutt, P.R., Primary Health Care Rural Communities, Vol. 1 (1983), Gandhigram Institute of Rural Health & Family Welfare Trust, Tamilnadu, India, p.4

health care institutions. The plan in general aims to improve the health-status of the population by optimizing coverage and quality of care by identifying and rectifying the critical gaps in infrastructure, manpower, equipment, essential diagnostic reagents and drugs.

Most recently, the Ministry of Health, Government of India has prepared the National Health Policy (NHP) 2002. The main objective of NHP-2002 is to achieve an acceptable standard of good health among the general population of the country.

*Health Planning in Punjab:*

Punjab, as such, does not have any specific health policy of its own. Health programmes in the State, as in most of the other Indian States, have continued to pursue, the policies of the Union Government. Even though health is a State subject, the policies and programmes framed by the Central Government are top priorities, as they are usually accompanied by a grant component, sometimes up to 100 per cent.

Prior to the beginning of the Fourth Five Year Plan, efforts had already been made to expand the health services to meet the requirements of the people of the State, according to the guidelines laid down by the Central Government. However, the problem of making these services adequate for the community was yet to be solved. The population served in 1966 was 2,758 per doctor, 8,119 per midwife, 7,797 per nurse and 1,384 per dai, which were
Map 1.1
grossly inadequate. The total number of beds available (8,737) in 1966 were much less, and on an average 72 beds were available per lakh of population. Moreover, there were large-scale disparities in the availability of beds. For example, three districts, namely, Amritsar, Ludhiana and Patiala had 57 per cent of the total beds available in the State. It was Stated in the Draft Outline of Fourth Plan that ‘there has been a steady increase in the health facilities available in the Punjab State but, unfortunately, the gains made had been absorbed by the growing population’. It was further felt that ‘there should also be qualitative improvements in the service rendered to the community. Whatever the deficiency in the registration of “Vital Statistics”, the high death rate as well as high infant mortality rate are indicative as much of the inadequacy and the low quality of health services available to the population in general’. It was felt that there is an urgent need to expand the health facilities at a faster rate than the rate of growth of population particularly in Sangrur, Bathinda, Ferozepur, Rupnagar, Hoshiarpur and Gurdaspur districts.

Based on the above, few priorities listed in the Fourth Plan, allocations were made to improve the quality of services particularly in rural areas and meet the need for special inducement and facilities provided to the medical and paramedical personnel. ‘Thus, during the Fourth Five Year Plan, efforts were made to provide medical and health facilities to the people, both in urban as well as in rural areas of the State. Efforts were made to improve the hospitals in the matter of staff, equipment and physical facilities and the highest priority was assigned to the family planning programme to check the growth of population in the State’. For the first time, Rupees 25 lakh were earmarked for ‘Child Health Care Campaign’ in the last year of the Fourth Plan (1973-74), out of which only Rupees 16.63 lakh were utilized.

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3 Draft outline Fourth Five Year Plan Punjab State, Planning Department, Government of Punjab, p. 75
4 ibid, p.75
5 Fifth Five Year Plan (1974-79), Planning Department, Government of Punjab, Chandigarh, p. 171.
The Fifth Five Year Plan laid emphasis on building the health infrastructure. It was proposed to establish health sub-centres at the rate of one each for a population of 10,000. Provisions were incorporated for upgradation of 29 PHCs to 30-bedded rural hospitals. Proposals were made for opening 150 new dispensaries in rural areas and to establish dental clinics in each block. There were proposals to open new Ayurvedic/Unani dispensaries, and to establish common medical facilities in rural areas, including diagnostic facilities such as X-ray, laboratory, operation theatre and library for doctors serving in these areas and completion and improvement of existing district hospitals.

In the Sixth Five Year Plan, it was strongly felt that the existing number of medical institutions in the State was sufficient to meet the needs of the people. Simultaneously, it was also felt that the expansion of these institutions had not been brought to a reasonable norm of efficient functioning. A number of shortcomings, such as shortages of para-medical staff, buildings, modern machinery and equipment in the working of public health system were noticed. As a result, it was considered appropriate to go slow with further expansion and concentrate on meeting existing deficiencies and improving operational efficiencies of medical institutions in the State. Thus, the Sixth Five Year Plan focused on improvement of infrastructure and provision of quality health services, under public health, the Seventh Plan provided adequate outlays for purchasing essential machinery and equipment, replacement of obsolete equipment and for the completion of slip-over work, so as to optimally utilize the investment already made. During this plan, 330 subsidiary health centres (SHCs) more commonly known as rural dispensaries, were upgraded to the level of Primary Health Centre (PHCs), raising the total to 460, i.e. one each for approximately 30,000 rural population. An additional community health officer, staff nurse, laboratory technician and two class-IV employees were provided to each PHC. In tune with the earlier FYPs, the Eighth Five Year Plan aimed at strengthening the infrastructure, provision of equipments and manpower development. A section on State-specific strategies laid down that for ‘State like Punjab and Haryana with above average level of infrastructure and
below average performance in some health indices, specific efforts need be made to identify the factors responsible for the relatively poor performance and correct them. Punjab’s Ninth Plan\(^6\) highlighted the need to strengthen the existing health infrastructure. It was felt that despite rapid expansion, the majority of the institutions were without proper buildings. The main role of the Ninth Plan envisaged consolidation and strengthening of existing medical institutions (Allopathic, Ayurvedic and Homoeopathic) in the State by meeting the existing deficiencies in building, machinery and equipment and provision of basic minimum services in the health sector. A proposal was also made to establish a four-bedded hospital each at 277 focal points in the State.

The Punjab Health Systems Corporation (PHSC) was set up in 1996-97 covering 150 hospitals at the level of Community Health Centres, Sub-Divisional Hospitals and District Hospitals. Among these, 86 Medical Institutions are situated in rural and 64 in urban areas. The corporation upgraded the facilities with the aid of a soft World Bank loan (70%), State Government (20%) and other loans (10%). User charges in the 150 hospitals are levied at the same rate as in other hospitals in the State. Collections through user charges are retained entirely by the hospitals concerned, unlike the collections from hospitals not covered by the corporation, which accrues to the State exchequer. Thus, the burden of servicing the World Bank loan (after a five year loan moratorium) will be borne by the State Government, to which the charges levied on beneficiaries of the loan at present do not accrue. It is thought that five years hence, user charges on all improved facilities could be enhanced. At that stage, there could perhaps be an earmarking of a portion of the enhanced user charges for servicing the loan\(^7\).

Most recently, the Tenth Five Year Plan of the Government of Punjab indicates that 70 per cent sub-centres, 67 per cent subsidiary health centres (dispensaries), 62 per cent Primary Health Centres and 51 per cent

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Community Health Centres are without proper buildings. A total sum of Rs.32,840 lakh would be needed to provide proper building for these institutions. Like the earlier plans, the major thrust of the Tenth Five Year Plan would be to consolidate and strengthen the existing medical institutions in the State in Allopathic, Ayurvedic and Homoeopathic medicines/systems, by removing the existing deficiencies in buildings, medicines, machinery and equipment and providing basic minimum services in the health sector. Besides, extending the targets covered in the Ninth Plan, the Tenth Plan has emphasized mental health care, biomedical waste and diagnostic services in the State, setting up an institute of paramedical services, opening new dispensaries in urban slum areas, provision of toilets and attendants, accommodation in medical institutions, establishment of new PHCs/upgradation of existing SHCs to PHCs and completion of the provision for four-bedded hospitals at the remaining 197 focal points out of the 277 selected.

From the above, it should be evident that during the formulation of all the Five Year Plans, the focus of the State government has largely remained on strengthening the health structure in the form of buildings, machinery, equipment and manpower for primary health care. It did not realize the importance of having a proper health management information system, which would have helped in setting need-based priorities. Moreover, the State has not made many efforts to establish referral linkages, management of life-style diseases – diabetes, cancer and cardiovascular diseases, regulation of private health care services and involving the voluntary sector in different health programmes.

RESOURCES ALLOCATION AND EXPENDITURE:

The major industrial countries of the world spend a substantial portion of government expenditure on health. For example, United States, Australia, Switzerland and United Kingdom spend between 14 to 20 per cent

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8 Tenth Five Year Plan and Annual Plan, Govt. of Punjab (2002-2003).
of their total expenditure on health. The Asian countries, such as Bhutan, Maldives, Thailand, Sri Lanka and Malaysia, spend six to ten per cent. While India spends a considerably low amount, at around 1.5 per cent of its total expenditure on health\(^9\).

In Punjab, analysis of allocations and expenditures indicate that during all Five Year Plans, outlays for MPH have remained between 1.9 per cent to 4.5 per cent of the total outlay, nutrition between 0.04 to 0.5 per cent and other social services between 12.3 to 28.3 per cent. On the other hand, expenditure patterns indicate that in reality the percentage share of MPH had been between 1.5 and 2.5 up to the Eight Plan, rising to 4.2 per cent during the Ninth Plan. The percentage share of nutrition was insignificantly low at 0.04 to 0.3 of the total expenditure during all the Five Year Plans. However, the share of expenditure on other social services (excluding MPH and nutrition) rose considerably during all the Plans, from 10.8 per cent in the Fourth Plan to 24.0 per cent in the Ninth Plan. This indicates clearly that health and nutrition has been accorded a low priority among the social services.

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Table 1.1

Sectoral Expenditure during Plan Periods, Punjab (Per cent)

<table>
<thead>
<tr>
<th>Major Sectors of Development</th>
<th>Fourth Plan</th>
<th>Fifth Plan</th>
<th>Sixth Plan</th>
<th>Seventh Plan</th>
<th>Eighth Plan</th>
<th>Ninth Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural and allied sectors</td>
<td>10.29</td>
<td>11.73</td>
<td>10.69</td>
<td>7.91</td>
<td>5.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Cooperation</td>
<td>1.47</td>
<td>1.22</td>
<td>2.09</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Irrigation and Power</td>
<td>59.44</td>
<td>51.73</td>
<td>60.25</td>
<td>66.06</td>
<td>58.81</td>
<td>51.09</td>
</tr>
<tr>
<td>Industry and Mineral</td>
<td>2.64</td>
<td>5.22</td>
<td>3.93</td>
<td>4.2</td>
<td>2.71</td>
<td>1.12</td>
</tr>
<tr>
<td>Transport and Communication</td>
<td>13.84</td>
<td>8.8</td>
<td>6.03</td>
<td>3.98</td>
<td>3.68</td>
<td>4.84</td>
</tr>
<tr>
<td>Social and Community Services</td>
<td>12.23</td>
<td>20.38</td>
<td>16.24</td>
<td>13.44</td>
<td>22.83</td>
<td>28.42</td>
</tr>
<tr>
<td>Economic Services</td>
<td>0.09</td>
<td>0.05</td>
<td>0.03</td>
<td>0.71</td>
<td>1.15</td>
<td>1.75</td>
</tr>
<tr>
<td>General Services</td>
<td>0.87</td>
<td>0.74</td>
<td>0.87</td>
<td>1.95</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>Rural Development</td>
<td></td>
<td></td>
<td></td>
<td>2.12</td>
<td>2.66</td>
<td>3.37</td>
</tr>
<tr>
<td>Special Area Programme</td>
<td>0.64</td>
<td>0.78</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sciences, Technology and Environment</td>
<td>0.07</td>
<td>0.03</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source:— Punjab Development Report.

Note:— Includes actual expenditure during 1997-01 and anticipated expenditure during 2001-02.

The Health Services are usually organized at three levels, each level supported by a higher level to which the patient is referred. These levels are:

a) **Primary Health Care**: This is the first level of contact between the individual and the health system where essential health care (Primary Health Care) is provided. A majority of prevailing health complaints and problems can be satisfactorily
Discussion with the Doctor regarding availability of various health facilities

View of Punjab Health System Corporation, Mohali

Discussion with the Doctor regarding availability of various health facilities
dealt with at this level. This level of care is closest to the people. In the Indian context, this care is provided by the Primary Health Centres, Mini-Primary Health Centres, Subsidiary Health Centres; and with community participation along with lot of health providers engaged in the various national programmes.

b) **Secondary Health Care:** At this level, more complex problems are dealt with. This care comprises essentially curative services and is provided by the District Hospitals, Sub-Divisional Hospitals, Area Hospitals, Rural Hospitals, and Community Health Centres. This level of services serve are the first referral level in the health system as the patients are referred to such medical institutes from the periphery health places.

c) **Tertiary Health Care:** This level offers super-specialty care. This care is provided by the regional/ central hospitals, teaching hospitals & super-specialty hospitals. These institutions provide not only highly specialized care, but are also planning and managerial skills and teaching for specialized staff/general staff.

**LINKAGES OF PRIMARY, SECONDARY, & TERTIARY LEVEL:**

Hospitals provide a wide variety of services, from basic care to highly specialized diagnosis and treatment, depending on the technological capacity of a specific hospital. There is considerable duplication of services provided at different levels. Tertiary hospitals though equipped with highly sophisticated equipment with advanced technical capacity has to divert considerable 3 Ms to deliver basic secondary and even primary health care. As either there is a lack of system for secondary & primary health care or the people don’t have confidence in them. These hospitals, however, are designed to treat only complicated cases and because of their composition of skilled staff and medical equipment, the cost of treating a patient is much
higher than the cost would be for the same type of patient in lower level or specialized alternative facilities in addition the inconvenience to both the patients and their attendants, including the relatives and other well-wishers. This undesirable use of the capacity of tertiary hospitals affects adversely outpatient and inpatient services.

The outpatient departments of large tertiary care hospitals often suffer from overcrowding; this situation is exacerbated by the presence of a large number of patients who require only basic curative care that could be provided in a lower-cost setting such as a district hospital or health centre like sub-divisional hospitals, CHCs or other lower rung medical centres. If patients requiring basic care could be shifted to medically appropriate lower-level or alternative treatment facilities, health system costs would be reduced and economic efficiency improved as the per capita cost of both out-door & indoor patients is too high in these hospitals.

Analysis of discharge information by cause and severity of the illness or condition is needed to assess the potential for reallocation of the case load within different hospital systems. In large tertiary facilities, perhaps 75% of outpatient care and 30% to 50% of inpatient care could be easily and effectively delivered in district hospitals or at lower levels. A comparison of the cost per outpatient visit or inpatient day between varying levels of hospitals suggests that the savings could be of the order of 50% of current costs per patient. Before we discuss about other aspects of Research Design relating to my thesis “Analysis of Secondary Health Care Administration in Punjab” let me discuss briefly about the profile, health situation and health administrative structure of Punjab since the topic deals with the State of Punjab.

**Public Sector Delivery System**

The public sector has an adequate number of health facilities at all levels. The Government of Punjab runs 208 public hospitals, 117 Community Health Centres (CHC), 484 Primary Health Centres (PHC), 1470 Subsidiary Health Centres (SHC), and 2852 Sub-Centres (SC). District and sub-district hospitals are based in urban areas with more PHCs and
SHCs based in rural areas. This results in the majority of beds available in urban areas. Given the ease of access and availability of transport in Punjab, even urban hospitals are easily accessible by rural populations.

Table 1.2:

**Public Health Care Facilities in Punjab, 2001.**

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of Institutions</th>
<th>No. of Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Hospital</td>
<td>73</td>
<td>135</td>
</tr>
<tr>
<td>Hospital/CHC</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>CHCs</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>PHC/CHC</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>PHCs</td>
<td>422</td>
<td>24</td>
</tr>
<tr>
<td>SHC/Disp./Clinic/Centres</td>
<td>1,220</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>1,776</td>
<td>453</td>
</tr>
</tbody>
</table>

Source: Statistical Abstract of Punjab.

Punjab’s public sector health infrastructure compares favourably with other Indian States. As Figure 1.1 shows, the public infrastructure seems to be adequate in comparison to that of the other Indian States. Moreover, the public sector alone is able to meet WHO norms of providing 1 bed per 1,000 population. With an additional 16,000 beds available in the private sector the State comfortably meets reasonable expectations for infrastructure provision at the aggregate level. We have no information on the quality of the infrastructure available in the primary sector.
Health sector professionals are highly concentrated in certain areas. There are close to 16,000 registered doctors (or 1 per 1,472 people) supported by a further 21,000 midwives and 12,000 nurses. However, these medical professionals are heavily concentrated in certain areas such as Amritsar, Patiala, Ludhiana and Jalandhar. Other districts such as Muktsar, Moga, Mansa and Nawanshahr are extremely poorly served. This pattern is repeated with respect to private sector facilities.

PRIVATE SECTOR DELIVERY SYSTEM

Formal Private Sector Facilities

Formal sector private facilities are heavily concentrated in urban areas despite being home to only a third of the total population. Two-thirds of the State’s 206 urban private sector hospitals are found in just 2 (Ludhiana and Jalandhar) of the 17 districts of Punjab. Rural areas and districts close to the border with Pakistan have much fewer private facilities at all levels. As one would expect, rural areas are also marked by a higher proportion of lower level facilities than urban areas. Table 1.3 below indicates the breakdown of health facilities by type.
Table 1.3:

Distribution by type of health facility

<table>
<thead>
<tr>
<th>Type of private facility</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>206</td>
<td>35</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>597</td>
<td>61</td>
</tr>
<tr>
<td>Poly Clinic</td>
<td>76</td>
<td>10</td>
</tr>
<tr>
<td>Clinic</td>
<td>2,554</td>
<td>384</td>
</tr>
<tr>
<td>Dispensary</td>
<td>37</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,507</td>
<td>524</td>
</tr>
<tr>
<td><strong>Total private beds</strong></td>
<td>15,004</td>
<td>1,018</td>
</tr>
</tbody>
</table>

Source: Survey of private practitioners in Punjab, Foundation for research and development of underprivileged groups

Most of the facilities are stand alone units often owned by an individual or single family. Only 5% of such facilities form part of a chain of two or more facilities under the same management.

According to a recent survey of private practitioners, these private facilities account for almost 8,000 doctors. 86 percent of these doctors are full time staff with the remainder made up of part-time and visiting staff. The largest number of private sector doctors is general practitioners operating in clinics. The specialists are concentrated in a few areas including medicine, eye, obstetrics and gynaecology and dentistry. The large number of obstetricians and gynaecologists in the private sector are mirrored by shortages in the public sector which deters many women from seeking institutional deliveries in the public sector. Although the majority of private facilities offer allopathic services other systems of medicine are mixed with allopathy in 28 percent of private facilities and this figure rises to 49 percent of facilities in rural areas where Ayurvedic, Unani and Homoeopathy are popular.
Rural Medical Practitioners and quacks

It is estimated that there are about 116,000 rural medical practitioners (RMPs) in Punjab. Approximately 28,368 of whom are unqualified medical practitioners and a further 88,000 are quacks. The former group includes registered medical practitioners (an estimated 7,000) and those qualified in other forms of medicine that are practicing allopathy as well as unregistered medical professionals such as compounders and pharmaceutical representatives. However, the Hon'ble Supreme Court has ruled that all such practitioners are quacks and are practicing illegally.

In rural locations where there are about 2 such informal providers per village they are often the only easily accessible source of medical care. A Punjab study illustrates that 90 percent of informal providers are located in the rural areas. The remaining 10 percent are located in urban and peri-urban areas. In rural areas 87 percent of unqualified providers were educated to matric (high school). This rate was as high as 94 percent in urban areas.

RMPs operate for profit and generally offer curative services of minor ailments such as headaches, pains and fever as well as referral to the nearest private facilities. Only 1 percent had in-patient beds and most of these are found in the urban areas where they are often used mostly for observation rather than proper in-patient treatment. It is estimated that the unqualified providers alone attend to 300,000 or more patients per day (between 13 and 14 patients each).

In some districts, Ferozepur, Gurdaspur and Amritsar, RMPs are involved in family welfare activities such as immunization and deliveries in both urban and rural areas. RMPs involved in such activities range between 5-10% of the total.
Table 1.4: RMPs by Type

<table>
<thead>
<tr>
<th>Provider</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered</td>
<td>7,684</td>
</tr>
<tr>
<td>Unregistered</td>
<td>14,676</td>
</tr>
<tr>
<td>Uncertain registration</td>
<td>6,008</td>
</tr>
<tr>
<td>Quacks</td>
<td>88,000</td>
</tr>
</tbody>
</table>

Source: Survey of private practitioners in Punjab, Foundation for research and development of underprivileged groups.

Health seeking behavior

The majority of people in Punjab seek care from the private sector. According to NSS data (1995-96), about 86 percent of OPD patients are catered for in the private sector. A further 9 percent attend public as well as private health care facilities (see Figure 1.2).

A similar pattern emerges with respect to in-patient care where the private sector also dominates the public sector. Even for those below the poverty line, 56 percent are treated as in-patients in the private sector (see Figure 2.1). Almost a quarter of towns and half the villages in Punjab only have private health facilities forcing those that seek public sector medical treatment to travel further.

Figure 1.2

Source: National Sample Survey 1995-96, 52nd Round
The poor in Punjab are overwhelmingly likely to use the private sector for health care. According to NFHS-2 data, even among the poorest group, only 16-17 percent utilize public facilities, whereas 82-83 percent rely on private for-profit providers (see Table 1.5).

Table 1.5: Source Of Health Care – Rural and Urban

<table>
<thead>
<tr>
<th>1.2 SOURCE</th>
<th>Quintile</th>
<th>Caste</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public medical sector</td>
<td>16.9</td>
<td>10.7</td>
<td>16.1</td>
</tr>
<tr>
<td>Govt./ municipal Hospital</td>
<td>8.9</td>
<td>8.4</td>
<td>9.5</td>
</tr>
<tr>
<td>NGO or TRUST</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Pvt. medical sector</td>
<td>82.7</td>
<td>88.8</td>
<td>83.5</td>
</tr>
<tr>
<td>Pvt. hospital/clinic</td>
<td>34.5</td>
<td>41.9</td>
<td>34.4</td>
</tr>
<tr>
<td>OTHER SOURCE</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Number of HHs: 650 587 1383 1584 930 2037 2967

Source: NFHS-2, 1998/99

The sex ratio in Punjab is worse than in any other State in India, and has deteriorated even further in recent years (See Figure 1.3 below). This issue is quickly getting worse as the State gets wealthier and parents desire smaller family sizes and preference for male child.

![Figure 1.3](image_url)
CURRENT HEALTH STATUS:

Although Punjab’s health indicators are better than India-wide averages, the State lags behind other States at similar or lower income levels. Comparative data indicates that Punjab’s health performance is better than the average for all India. However, by comparing key health indicators of Punjab and the best performing Indian States (Table 1.6), one can see that Punjab lags behind, in spite of having the highest level of per capita income and by far the lowest level of poverty in the country.

<table>
<thead>
<tr>
<th>Table 1.6 : Key Development and Health Outcome Indicators (1996-1998)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita Poverty Infant U5 Mortality Maternal</td>
</tr>
<tr>
<td>income (Rs Headcount Mortalty U5 Mortality</td>
</tr>
<tr>
<td>current prices Ratio- Rate- rate</td>
</tr>
<tr>
<td>prices (1999/00) (per 1,000) (per 1,000) rate</td>
</tr>
<tr>
<td>2001/02)</td>
</tr>
<tr>
<td>All India Average 20,198 26.1 67.6 94.9 453 45.5</td>
</tr>
<tr>
<td>29,973 6.2 57.1 72.1 369 39.2</td>
</tr>
<tr>
<td>Punjab</td>
</tr>
<tr>
<td>Marahastra 29,873 25.0 43.78 58.1 336 39.9</td>
</tr>
<tr>
<td>Kerala 26,603 12.7 16.3 18.8 87 21.9</td>
</tr>
<tr>
<td>Tamil Nadu 23,414 21.1 48.2 63.3 376 29.4</td>
</tr>
<tr>
<td>Karnataka 22,816 20.0 51.5 69.8 450 36.6</td>
</tr>
<tr>
<td>West Bengal 20,039 27.0 48.7 67.6 389 41.5</td>
</tr>
<tr>
<td>Andhra Pradesh 20,112 15.8 65.8 85.5 436 38.6</td>
</tr>
</tbody>
</table>

KEY DEVELOPMENT AND HEALTH OUTCOME INDICATORS (1996-98)

BURDEN OF DISEASE

Communicable diseases are still the major issue. Using population and census data from 1992, Punjab is estimated to have lost 5 million DALYs (or 242/1000 population) in 1992. This places Punjab behind Maharashtra but ahead of States such as Karnataka and Andhra Pradesh. A burden of disease
analysis\textsuperscript{10} indicates that the major cause of lost DALYs in Punjab is communicable diseases.

Table 1.7 below indicates the relative burden of disease caused by type of disease. Group I diseases include pre-transition disorders such as communicable diseases, maternal, peri-natal and nutritional deficiency. Group II and III includes non-communicable diseases and injuries and accidents respectively.\textsuperscript{11}

Table 1.7:

DALYs lost per 1,000 population by major cause groups in rural and urban areas

<table>
<thead>
<tr>
<th>State</th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>134.41</td>
<td>73.51</td>
<td>43.86</td>
<td>114.39</td>
<td>56.15</td>
<td>32.08</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>148.29</td>
<td>72.25</td>
<td>41.54</td>
<td>100.74</td>
<td>47.87</td>
<td>18.31</td>
</tr>
<tr>
<td>Karnataka</td>
<td>165.56</td>
<td>72.78</td>
<td>43.24</td>
<td>109.90</td>
<td>50.27</td>
<td>22.13</td>
</tr>
<tr>
<td>West Bengal</td>
<td>164.6</td>
<td>69.14</td>
<td>44.03</td>
<td>96.66</td>
<td>53.84</td>
<td>20.29</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>160.04</td>
<td>81.46</td>
<td>47.23</td>
<td>97.67</td>
<td>74.25</td>
<td>30.45</td>
</tr>
</tbody>
</table>


Non-communicable diseases are relatively more important in urban areas. The table indicates that in rural areas, Punjab, like most Indian States, still suffers mostly from communicable diseases. In urban population the epidemiological transition is under way, and the burden of disease is shifting towards non-communicable diseases. Note that urban population also enjoy improved health outcomes for all types of diseases. The potentially detrimental effects of a sedentary lifestyle and unhealthy diet are clearly outweighed by improved access to health care and improved education levels in urban centers. Unfortunately, Punjab leads the other States in injuries and accidents per 1,000 population in urban areas, although this pattern is not repeated in rural areas.

\textsuperscript{10} Comparative Assessment of the Burden of Disease Across Selected States in India, Administrative Staff College of India (ASCI) Research Paper Series, September 2001.

\textsuperscript{11} Ibid.
for road safety could play a major role in reducing the number of deaths and disabilities. More than 2,800 road traffic deaths were recorded in 2000, a number that has increased by 500 percent in the last 20 years. This is more than four times the number of murders in the State and even surpasses the number of militant killings in the late 1980s and early 1990s. Again it is worrying that girls are almost twice as likely to fall prey to injuries and accidents than boys.

**Figure 1.5 : Punjab Mortality Indicators by Sex 1988-1998**

Source : NFHS 2 (1998) report

1 Neonatal = 28 days, Post neonatal = 29 days -12 months, Infant = 0-1 year, Child = 1-5 years and Under 5 = 0-5 years.

**TB accounts for more DALYs lost than any other group I disease.** Disaggregating the data on Group I diseases in Punjab indicates that the major diseases affecting the State are TB, Diarrhoea, ARI, perinatal conditions and other diseases (including malaria, leprosy). Together these diseases account for approximately 85% of all DALYs lost to group I diseases in Punjab (see Figure 1.6). TB accounts for a higher percentage of DALYs than in any other StatPe in India. Maternal and perinatal causes account for 25% of DALYs lost in females and anaemia and malnutrition continue to impact health outcomes. These figures are a cause for concern in

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The vast majority of DALYs are lost in the 0-4 year category. Most DALYs are lost by infants succumbing to communicable diseases (see Figure 1.4). This argues strongly for increased resource allocation to Reproductive and Child Health, immunization and improved nutrition programs. In Punjab, as in other Indian States, the State could do much more to make available a basic package of good quality care consisting of communicable disease prevention together with emergency obstetric and pediatric care to the rural areas. Future reforms and initiatives to strengthen the health care system must give priority to the primary sector.

Figure 1.4:

Punjab, Group-Wise Distribution of DALYs lost per 1,000 population by age groups


There are huge gender discrepancies behind the aggregate figures. Mortality data for Punjab indicates that female children are much more susceptible to communicable diseases than their male counterparts. As explained above, the girl child in Punjab faces a number of challenges prior to birth. Following the birth, girls are not well fed, often not fully immunized and often liable to be abandoned. Such practices lead to a situation in which female child mortality is four times higher than male child mortality (see Figure 1.5).

Injuries and accidents continue to play an important role in DALYs lost in both rural and urban areas. Behavior change through education especially
a State which otherwise has high rates of literacy, good socio-economic conditions and food security.\textsuperscript{13}

\textbf{Figure 1.6 : Percentage of DALYs lost due to top 12 diseases in Group-I in Punjab.}


\section{II HEALTH CARE FINANCING}

\textbf{TOTAL HEALTH CARE SPENDING}

It is difficult to put an accurate figure on total health expenditure in Punjab as spending on private sector health care is not well documented. However, on the basis of NSS data 1995-96, we estimate that total per capita health expenditure in Punjab for the year 1995/96 was about Rs. 548 or approximately 3.35 percent of GSDP\textsuperscript{14}.


\textsuperscript{14} The estimate of total health expenditure is arrived at by adding a number of elements to total household health expenditure and documented government spending:

\begin{enumerate}
\item Foreign assistance which accounts for 1 percent of total health expenditure;
\item The amount spent by private firms on their own facilities or health insurance which accounts
\end{enumerate}
WHERE DOES THE MONEY COME FROM?

The two main sources of health financing are households’ out-of-pocket expenditure and government expenditure. The nascent health insurance sector in Punjab as in other Indian States accounts for a trivial portion of the total market. According to the NSS estimates (1995-96), households total health spending was equal to Rs 381 per capita in 1995-96. This was the second largest amount recorded across Indian States, after Kerala (see Figure 1.7 below).

Figure 1.7:
Total Out-Of-Pocket Expenditure in Public and Private Facilities in Various Indian States, 1995-96-Rs/Person/Years

The second source of financing is government. According to National Health Accounts estimates, based on 1995/6 information, total public expenditure was Rs 3,408 million or Rs. 148 per capita\textsuperscript{15}. Table 1.8 presents data on the various financing sources of public health expenditure excluding foreign assistance.

\textsuperscript{15} Ajay Mahal

for 1.5 percent of total health expenditure, and (iii) NGO financing which amounts to 0.39 percent of total health expenditure.

Projecting the above estimate of Rs. 548 per capita to fiscal year 2003-04, under the assumption of an increase in private health expenditure in line with GSDP nominal growth (income elasticity of demand for health services >=1) would give an estimate of THE equal to US$ 45-50 per capita.
Table 1.8
Sources of Public Expenditure
(Rs m 1995/6).

<table>
<thead>
<tr>
<th>Level of Government</th>
<th>Amount</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>926</td>
<td>27.2%</td>
</tr>
<tr>
<td>State</td>
<td>2,190</td>
<td>64.2%</td>
</tr>
<tr>
<td>Local</td>
<td>3</td>
<td>0.1%</td>
</tr>
<tr>
<td>Public Enterprises</td>
<td>290</td>
<td>8.5%</td>
</tr>
<tr>
<td>Total</td>
<td>3,409</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


WHERE DOES THE MONEY GO?

The vast majority of out-of-pocket expenditure is spent on private facilities (See Table 1.9). Note that private providers share accounts for 85 percent of total medical expenditure.

Table 1.9
Punjab : Total Out-of-Pocket Expenditure
(Rs/person/yr 1995/6)

<table>
<thead>
<tr>
<th></th>
<th>Outpatient</th>
<th>Inpatient</th>
<th>Total</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>25.82</td>
<td>30.40</td>
<td>56.22</td>
<td>15</td>
</tr>
<tr>
<td>Private</td>
<td>268.56</td>
<td>56.46</td>
<td>325.02</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>294.38</td>
<td>86.86</td>
<td>381.24</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Mahal, 2001; based on NSS 1995-96

Expenditure of central government includes financing of Centrally Sponsored Schemes (some of which are co-financed with the State, such as the TB program, and some other are exclusively financed by the central government, such as Reproductive and Child Health), as well as financing of health expenditure of other ministries, such as medical expenses of Union government military stationed in Punjab. Local government health
expenditure includes own-sources expenditure, i.e. expenditure financed by the Municipalities, and the Panchayats, as well as expenditure financed by the State government. Garg (2001) estimates that the Panchayats finance with their own sources 35 percent, and depend on grants from the State for 65 percent of their health expenditure. Public firms contribute to ESI health insurance premiums for their employees, or in certain cases (such as Railways/companies) utilize their own facilities. For the State component of health expenditure, we also dispose of more recent and precise information on its evolution over time, and its breakdown by level of care and by input.

Table 1.10

<table>
<thead>
<tr>
<th>Punjab State Expenditure on Health, various years (Rs. million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Table with data" /></td>
</tr>
</tbody>
</table>

* The data for 2001-02 relative to Tertiary and ESI expenditure seem controversial. We have reported the data taken from the official budgetary documents

Source: Punjab budget document, various years

Health sector spending accounts for approximately 4 percent of the State government budget, which is low by international standards, although similar to several other Indian States. As the table above illustrates, State government health sector expenditure in the last few years has been
characterized by sudden increases, followed by phases of consolidation or decline.

Public spending on primary care is currently 55 percent of total spending and declining over time. If we consider the break-down by levels of care, primary care appears to be slightly declining over time as a percentage of the total, and accounts for approximately 55 percent of the total, secondary care is stable at 25 percent of the total, and tertiary care is increasing accounting for roughly 20 percent of the total.

Salary expenditures accounts for 94 percent of the State health budget. A breakdown of government expenditure by inputs for fiscal year 2000-01, the last fiscal year for which actual figures are available, shows interesting results. Excluding Grant-in-Aid, which mainly consists of capital expenditure in secondary care facilities funded through the World Bank supported Health Systems Development Project, we find that salary expenditure accounts for almost 94 percent of total expenditure. This has squeezed the budget for drugs which, at approximately Rs. 90 million, is extremely low and results in chronic and repeated shortages. Moreover, given overall budget limitations, actual spending on drugs was just Rs. 81 million in fiscal year 2003-04.

There is no State budget for maintenance. There is no allocation for maintenance or for minor works. Informal discussions during our visits confirmed that the situation has not changed since 2000-01. Following repeated suggestions by government budgeted an amount of Rs 45 million (3 Crores for maintenance and 1.5 crore for cleaning) during the last fiscal year 2003-04. However, the amount was not released.
Table 1.11

State Health Expenditure By Inputs

<table>
<thead>
<tr>
<th>Inputs</th>
<th>2001-02 Actual</th>
<th>% of Total</th>
<th>% Excluding Grant in Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary and wages</td>
<td>4,839,737</td>
<td>78.29</td>
<td>93.78</td>
</tr>
<tr>
<td>Medical reimbursement</td>
<td>8,796</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>Supplies and material and drugs</td>
<td>91,631</td>
<td>1.48</td>
<td>1.78</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>17,497</td>
<td>0.28</td>
<td>0.34</td>
</tr>
<tr>
<td>Minor works</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Grant in Aid</td>
<td>1,021,221</td>
<td>16.52</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>202,838</td>
<td>3.28</td>
<td>3.92</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,181,720</strong></td>
<td><strong>99.99</strong></td>
<td><strong>99.99</strong></td>
</tr>
</tbody>
</table>

Source: Own computations on the basis of Punjab budget documents, various years

**ADDITIONAL SOURCES OF PUBLIC SPENDING**

The sources of public funding also include user fees and multilateral funds.

- **User fees** are rapidly growing as a source of public funding. Beginning from a small collection of Rs. 4.1 million in 1996-97, the PHSC hospitals collected Rs. 100 million in 2002-03 and, based on the collections in the first six months, it is estimated that the collections during 2003-04 will be over Rs. 135 million.

- **Multilateral funds** account for a significant proportion of health expenditure. They have been mainly utilized to finance capital expenditure in the secondary care public sector. The World Bank supported Punjab Health System Development Project resulted in expenditure of over Rs. 4 billion between 1995/6-2003/4.
• **Employees State Insurance Scheme (ESI):** The ESI provides health insurance to 383,000 formal sector workers in Punjab. The scheme is mandatory for employees earning up to Rs. 6,500.

**STATEMENT OF THE PROBLEM:**

The capacity of the health care system in India to effectively address the short & long term health needs of the country remains limited. The country needs to be prepared to deal with the evolving burden of disease in the next decade and to put in place a sustainable health system which would combine elements of public health and clinical services in providing an adequate and necessary package of basic health services. The package of basic health care services would integrate the primary health care with secondary level or first referral hospitals.

The 30th World Health Assembly (1977) resolved that the main social target for the subsequent decade should be “the attainment of a level of health by all citizens which will permit them to lead a socially and economically productive life”. Consequently, the declaration of Alma-Ata, to which India is a signatory, adopted in 1978 clearly states that the Primary Health Care is the key for attaining the goal of “Health for All” by 2000 AD. By health for all, the declaration means ensuring basic health facilities within the reach of everyone.

The primary health care services are being delivered through a chain of Primary Health Centres and Sub-Centres. The hospital services are playing a very vital and complementary role of Primary Health Care Services, as WHO has advanced the following principles to describe the role of secondary health care institutions:

1. A health care system based on Primary Health Care cannot exist without a network of hospitals with responsibilities for supporting primary care and hospital care. Both are essential parts of a well integrated health care system.

2. An effective primary health care system can only be achieved within the framework of a comprehensive district based health
care system serving a defined population, and the district itself must be a part of regional and national health care system.

Based upon preliminary survey of secondary health care institutions in Punjab, we are shocked to discern the poor State of affairs of these institutions. We mention here some of the basic problems which need serious attention of policy-makers and Health Experts in Punjab:

(i) dilapidated conditions of buildings and infrastructure;

(ii) top manpower lacks latest clinical, managerial and technical skills;

(iii) nursing personnel not having job satisfaction and thus have poor rapport with patients and not good relations with doctors;

(iv) lack of reliable Management Information System to regulate patient admissions and registration, medical records management, patient accounting, inventory control;

(v) dis-satisfaction of patients and their relatives to the services of the hospitals;

(vi) lack of linkages among various levels of care – primary, secondary & tertiary; and

(vii) deteriorating quality of Secondary Health Care has led to unnecessary rush at Tertiary Level and mushroom growth of private Nursing Homes, which unnecessarily fleeces the people sometimes.

The health transition, which is well underway in Punjab poses challenges of non-communicable diseases, such as cardio-vascular diseases, cataract blindness, dental caries, trauma, psychiatric problems, addictions, cancers and degenerative conditions. ‘The decline of Infant mortality leaves a situation where the infant deaths are largely due to neonatal causes, besides maternal mortality is a cause of concern. To tackle these problems it is

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necessary to define an effective package of secondary health care services. This can only be achieved by strengthening the secondary level health care system in the State. This would further strengthen the primary health care mechanisms by providing an effective referral system and reducing the load on tertiary care facilities.

To accomplish this goal, there is a need to know about and assess the existing secondary health care services – first referral system in Punjab. There is a need also to identify the deficiencies and problems being faced and suggesting measures to improve upon those deficiencies for providing effective, efficient and quality assured services by these secondary level health facilities. This would further strengthen the primary health care system by providing an effective referral system and reducing the load on tertiary care facilities. And, hence, the present study/project has been taken up. It may be added that no such study on Secondary Health Care Administration has been done in any State of the Indian Union including Punjab.

OBJECTIVES

- to understand and analyze the organizational structure engaged in the delivery of Health Care at all levels by the Government of Punjab;
- to review the adequacy of the infrastructure for Secondary Health Care services – buildings, equipment, laboratory services, transport system, etc.
- to examine the activities of secondary health care system – OPD, Wards, OT, ICU, etc. especially MIS for these services;
- to examine the capacity and capability of Nursing Services as they are vital to the functioning of the Secondary Health Care System;
- to analyze the allocation and utilization of finances for Secondary health Care System;
- to analyze the adequacy and quality of training arrangements for medical personnel to keep them abreast with the latest developments in Behavioural Services and Medical advancements;

- to examine the role of Punjab Health Systems Corporation in the development of Secondary Health Care System in Punjab; and

- to measure the patient’s satisfaction about the delivery of Secondary Health Systems.

REVIEW OF LITERATURE

Since health constitutes an important variable of Human Resource Development, a lot of literature is available in the form of books, research publications, articles in journals, etc. We may divide this, for convenience into the following three areas:

(i) National & State Governments;

(ii) Studies by International Specialized Agencies; and

(iii) Scholastic contributions by Scholars.

Before we embark upon brief description under the above heads, we may mention that it is not possible to survey the entire literature but we could make only a brief survey of limited and vital literature.

i) National & State Governments: The head of the Nation (British India) was reviewed by Bhore Committee in 1946 under the chairmanship of Sir Joseph Bhore (GOI, 1946) to review the Nation’s Health under: Public Health, Medical Relief, Professional Education, Medical Research, and International Health. In 1959, the Government of India instituted a “Health Survey & Planning Committee” under the chairmanship of Laxman Swami Mudliar. The committee recommended the need to strengthen sub-divisional and district hospitals so that these could function as referral centres: Five Years Plans, Budget Documents, Provide an insight into the
functioning of Health System. The National Health Policy (1983) presented an integrated plan reflecting philosophy approach, strategies and targets in order to achieve objectives of Alma-Ata Declaration.

Government of India through its autonomous institutions gets the basic and applied researches conducted for example Medical Council of India, All India Institute of Medical Sciences, Post-Graduate Institute of Medical Education & Research, Chandigarh, Indian Council of Medical Research, Central Health Education Bureau, Central Bureau of Health Intelligence, etc. Mention may be made of the design of Health Management Information System in pursuance of the National Health Policy for establishment of an efficient and effective MIS in the Health & Family Welfare sector in the country by Central Bureau of Health Intelligence. Institutes mentioned above concentrate more on technical and clinical aspects and less on managerial aspects.

National Institute of Health and Family Welfare, New Delhi, set up in 1977 is engaged in the promotion of Health & Family Welfare Programmes through education and training, research, evaluation, consultancy and advisory services. The Institute has carried out a large number of studies bearing on Health Administration and Management. Evaluation and standardization of Health Management Training in India, Follow-up Evaluation of Hospital Administration Courses conducted NIHFW, A Study of Hospital Management Information System in a city Hospital, Quality Assurance of Hospital Services, A Study of Hospital Waste Management.

The Punjab Government brings out various reports on health situation, which is of great value. Department of Health & Family Welfare, Government of Punjab has brought a “Project for the development of Secondary Level Health Care
System in Punjab”, in Sep 1985 which brings out the problems and potentialities of Secondary Health Care based upon facts and analysis, Punjab Government brings out” Statistical Abstract which would be of great help in getting facts in historical context.

ii) Studies by International Specialized Agencies : WHO and its six Regional Offices bring out a large number of publications.

We may review some of them. A Study by WHO Expert (Brain Abla, Smith, 1978) studied economics of health services and stressed the need of integration of health planning to national planning. On behalf of the World Bank, David de Ferranti (1985) presented an overview of the principal issues, problems and policy options in financing health services in developing countries. Annual Reports and Regional Committee Reports of the office of the South-East Asia Regional Office of the World Health Organization, New Delhi, brings out Annual Reports highlighting the problems of the Member-States including India. These reports are of great use as these help us in understanding the developments in Health System in neighbouring countries which can be relevant to improve our system in the country and the State of Punjab.

iii) Scholastic Contribution: S.L. Goel\textsuperscript{16} and R.Kumar, have brought out three volumes on Hospital Administration and Management. They covered a large area of Hospital Services aspects. They mentioned “Hospital Administration in Modern Times is faced with problems and challenges of increasing complexity and magnitude to ensure smooth functioning of various departments of a hospital. The ever increasing pressure of patients and their demands for hi-tech medical care along with rising cost of administration of services call for

\textsuperscript{16} S.L. Goel, Hospital Administration and Management (Deep & Deep, New Delhi), 1993.
Khandewala in his book "Health Administration and the Weaker Sections in an Indian Metropolis, (Devika, New Delhi, 1996), the author rightly mentions that Growing Trends in urbanization differential access to land use, have resulted in mushrooming of urban slums. Hence the study of administration of Health Services, its provision and utilization by urban masses in general and weaker sections in particular has gained more importance." S.L. Goel in his three Volumes on Health Care Administration (Sterling, New Delhi, 1984) – Ecology Principles and Modern Trends, Policy Making and Planning Levels and Aspects cover nature, scope, role and challenges of health Care Administration including policy & making, planning, nursing sciences administration, use of modern management techniques in improving delivery of Health Care System. Ravi Narayan (1989) suggested the need for a people oriented health system. Anita (1993) evaluated health care system in India. Dr K. Klinoubol in his Article "Hospital Planning & Administration in Thailand, In Development Planning & Administration (Eds. S. Bhatnagar and S.L. Goel). He concludes “we shall have to have a three pronged attack – increasing internal efficiency, mobilizing Government support, and enlisting people’s co-operation to ensure the reputation, prestige, a credibility and viability of the hospital services.

Besides the Department of Public Administration, Panjab University, Chandigarh, has done a pioneering work in

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17 Shreekant V. Khandewala : Health Administration and the Weaker Sections in an Indian Metropolis, (Devika, Delhi), 1996.
the area of Health & Hospital Administration through its Doctoral Research Programme. Mention may be made of.

The Panjab University, Chandigarh, has been taking keen interest in the area of Hospital Policy and Administration. Many doctoral thesis have been completed relating directly to Health & Family Planning Administration in the faculty of Arts relating to the discipline of the Public Administration (Health Admn.). For instance, Krienkrai Klinoboul in “Health & Family Welfare Administration in Thailand: A case study of Lampang Province: 1984,” Mohatma Barzegars on “Administration of Family Planning in Fars Province of Islamic Republic of Iran” (1993), R.K. Ranga on “Administration of Family Planning Programmes in India – A case study of Haryana,” 1988; Sandhya Ghai on “Nursing Service Administration: A case study of Nehru Hospital, PGIMER, Chandigarh (1998). Sarbjit Singh on MIS in a Hospital: A case study of General Hospital, Chandigarh.” Out of all these doctoral thesis Krienkrai has dealt extensively on Primary Health Care. To quote him “Government may help to set up a village health fund from the villagers for supporting the volunteer in giving all services in Primary Health Care to their Members in the village. The fund needs to be controlled by a group of elected villagers called “Village Health Committee”.

From this review of literature, one can infer that no study has been done in the area of Secondary Health Care Administration especially in the context of Punjab.

HYPOTHESES

1. Design of organization for Secondary Health Care influences effective and efficient functioning of Health Care System in Punjab;
2. Inadequate infrastructure in terms of Hospital buildings, residential accommodation, laboratory services, and transport system affect to a substantial extent the functioning of secondary health care;

3. Outdated and non-operational instruments and equipment create hurdles in right diagnoses of diseases and thus patients are deprived of the advantages of latest technology;

4. Lack of training in both the techniques of Behavioural Sciences and new medical science developments affect the morale and motivation of doctors in the institutions of Secondary Health Care;

5. Lack of effective Records managements creates administrative and medical problems.

6. Lack of effective Management Information System creates problems in decision-making, implementation and evaluation;

7. Lack of linkages among Primary, Secondary and Tertiary Health Care resulting in inefficient health care system;

8. Lack of adequate patient satisfaction courses results in low morale.

**RESEARCH METHODOLOGY:**

A number of Research tools and strategies have been required to study “Analysis of Secondary Health Care Administration in Punjab”. We may mention them briefly:

(a) Secondary Data : As already mentioned in the review of literature and bibliography, we have got a lot of information from the literature already published. Even, wherever possible unpublished material would also be studied to get full information.

(b) Primary Data : Primary Data have been collected as per the sample design through observation, interviews and discussions.
Modern Management Techniques: These techniques like MIS, Method study work measurement, HRD, organization analysis would be used to understand Hospital Services like OPD, Emergency, OT, etc.

Sampling: Samples have been used for analysis of health measures

Observation: All equipments and instruments to be seen in 25% district hospitals.

CHAPTERIZATION

1. Introduction
2. Organization and Functions of Health Deptt. in Punjab
3. District Hospital Administration with Case Studies of District Ropar and Jallandhar
4. Sub-Divisional Hospital Administration with a Case Study of Kharar.
5. Community Health Centre with a Case Study of Chamkaur Sahib and Mohali.
6. Analysis and Functioning of District Hospital Administration in Punjab.
7. Referral System.
8. Conclusions and Recommendations.