

# Chapter 15

## Economic Development and Emerging Health Scenario in Punjab: A Need for State Support and Accountability

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Economic development and health status of people living in a developing economy/region are closely correlated and reinforcing each other; although positive improvements in people's health status are largely dependent not only on the rising income, consumption and living standards, but also upon many other factors such as the access to adequate food, safe drinking water, proper housing, behaviour pattern, presence of robust public health care system, knowledge of diseases, treatment processes and cost of seeking treatment. It is true that the Punjab's economy during the decades of 1970s and 1980s had experienced impressive economic growth and steadily rising per capita income compared to all-India average and across all the major states. This has brought much acclaimed prosperity and affluence to the general masses in the state as the state was ranked number one in terms of per capita income till 2001–02 (Jain 2014). These remarkable achievements have been attributed to the state sponsored efforts, under which heavy amount of public investment in the agricultural related sectors such as the dams, canals, electricity, rural roads and credit facilities; and other social sectors such as the education and health services were made. Further, Punjab's economy stimulated by the public and private initiatives and enterprises progressed well in the industrial, business and services sectors also, especially of small-scale variety. On the social front, these activities contributed a lot in raising per capita income and health related indicators in the state; although many researchers stated that such achievements were iniquitous and exclusionary in nature (Jain 2014).

Till the 1980s, growth drivers of Punjab's economy were revolved around the new agricultural technology and the state efforts. After that, farm productivity in the state, having dearth of new innovations, reached a plateau and the farming sector has become an enterprise of diminishing returns (Singh 2013). Further, future growth potential of Punjab's agricultural sector having finite resources (land, water, seeds, etc.) has become a subject of debate; which could be answered with the help of 'limits to growth' propagated by Meadows's growth model (Meadows et al. 1972). It means

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that the farming sector in the long run has a limited capacity to grow and unable to become a leading sector of the economy to bring out many desirable changes in the other vital sectors of economy. Further, the political turmoil of the 1980s pushed the Punjab state into severe resource crunch and non-responsive state administration to revive its growth agenda. Even, the Punjab's economy did not get any worthwhile benefits with the adoption of New Economic Policy in 1991 (NEP). In fact, growth of Punjab economy in the post-liberalization era, instead of getting momentum, has been slowed down. Facing a severe resource crunch, the state is seeking ways and means to trim/reduce public spending on many vital sectors of economy such as agriculture, education, health and other social welfare sectors. This has brought out a faster deterioration in the functioning of public services in Punjab, especially the education, health and agricultural extension services (Gill et al. 2010). High degree of rent-seeking behaviour of political and business elites had made the state's institutional framework and governance very weak and dysfunctional (Singh 2015).

In the light of these observations and policy changes, this chapter examines the nature and extent of economic slowdown, its impacts on emerging health scenario, and urgency of radical reforms in Punjab's health policy. The chapter is divided into five sections. Section 15.1 analyzes, in brief, how the economic slowdown and NEP parameters have impacted the Punjab's health sector. Section 15.2 examines the incidence and changing pattern of diseases in Punjab. Pattern of public expenditure on health services in the state has been discussed in Sect. 15.3. Section 15.4 deals with growing health infrastructure in the state, its non-functional and dismal performance. And, emerging consequences and public policy issues are set forth in Sect. 15.5.

## 15.1 Economic Slowdown, New Economic Policy and Health Sector

No doubt, Punjab economy had experienced an impressive growth rate during the decades of 1970s and 1980s of the twentieth century. For instance, average annual growth rate in state income was found to be 5.1 % during the decade of 1970 (1970–79) compared the all-India average of 3.6 % per annum (Table 15.1). During the Sixth Five Year Plan (1980–85), growth rate of Punjab economy was recorded at 5.3 % per annum compared India's growth rate of 5.3 % per annum. In the Seventh Five year Plan (1985–90), Punjab's growth rate of 6.0 % per annum was slightly higher than that of India's growth rate (5.8 %). After the 1991, however, annual growth rate of Punjab economy decelerated in all subsequent Five Year Plans. In the Eighth Five year Plan (1992–97), average annual growth rates of Punjab economy was 4.8 %, whereas it was 6.8 % in the case of Indian economy. Similarly, the economy of Punjab grew at 3.9 % per annum compared to national average growth rate of 5.5 % during the Ninth Five Year Plan (1997–2002). In the Tenth Five Year Plan (2002–07) and Eleventh Five Year Plan (2007–12), Punjab again recorded very lower average annual growth rates of 5.1 and 6.9 % compared to all-India's rates of 7.8 and 9.0 %, respectively. Further, the state has targeted to

**Table 15.1** Average annual compound growth rate of Punjab economy versus Indian economy

Time/plan period	CGR in state income by sector (% per year)					Base prices
	State	Primary	Secondary	Tertiary	Overall	
1970–71 to 1978–79	Punjab	4.3	6.8	5.9	<b>5.1</b>	1970–71 = 100
	India	2.1	5.0	4.8	3.6	
Fifth Five Year Plan (1974–79)	Punjab	5.6	8.4	8.2	<b>6.8</b>	1970–71 = 100
	India	3.6	6.4	6.5	5.1	
Sixth Five Year Plan (1980–85)	Punjab	5.3	5.0	5.1	<b>5.3</b>	1980–81 = 100
	India	5.6	6.1	5.4	5.7	
Seventh Five Year Plan (1985–90)	Punjab	5.2	8.7	5.2	<b>6.0</b>	1980–81 = 100
	India	3.6	6.5	7.4	5.8	
Eighth Five Year Plan (1992–97)	Punjab	3.1	7.1	5.8	<b>4.8</b>	1993–94 = 100
	India	3.8	8.3	7.9	6.8	
Ninth Five Year Plan (1997–2002)	Punjab	1.9	4.9	5.8	<b>3.9</b>	1993–94 = 100
	India	2.2	4.6	8.1	5.5	
Tenth Five Year Plan (2002–07)	Punjab	2.3	7.7	6.0	<b>5.1</b>	1999–00 = 100
	India	2.7	9.4	9.4	7.8	
Eleventh Five Year Plan (2007–12)	Punjab	1.9	7.8	8.0	<b>6.9</b>	2004–05 = 100
	India	3.6	7.6	9.7	9.0	
Twelfth Five Year Plan (2012–17) <sup>a</sup>	Punjab	1.6	7.5	8.0	<b>6.4</b>	
	India	4.0	8.1	9.1	8.2	

<sup>a</sup>Target Growth Rate

Source GOP, Statistical Abstract of Punjab (Different Years) and GOI, Twelfth Five Year Plan 2012–17, Vol. I

grow at 6.4 % per annum against the national average of 8.2 % during the Twelfth Five Year Plan (2012–17).

This slowdown has also been found in its three subsectors: primary, secondary and tertiary sectors. For instance, the agriculture sector, which forms the backbone of Punjab economy, is suffering very seriously from this slowdown since the Eighth Five Year Plan (1992–97). The severity of agricultural crisis is manifested in the form of stagnating yields and diminishing returns to the farmers. This has pushed a large proportion of small and marginal farmers into debt trap (Shergill 2010) and many of them committed suicides (Gill and Singh 2006; Gill 2010). Mechanization of agriculture drastically reduced physical efforts as well as number of employment days in this sector. Intensive agriculture has also polluted the state's ecology—water, soils, flora and fauna—to a great extent. Poisoning of soils and water resources largely due to the high/intensive use of fertilizers, insecticides and pesticides have created several undesirable health problems such as the cancer, diabetes, blood pressure and heart ailments along with continuation of traditional water borne diseases (Shiva 1992; Khurana 2011).

Further, economic surpluses generated across the rural areas could not be invested in agroprocessing and other industrial activities. Instead, these surpluses through the banking mechanism were syphoned-off to other parts of the country.

Industrial incentives given to the neighbouring hill states further hit the industrial base of the state. Investment–GDP ratio in the state remained below 20 %—the lowest among the fourteen major states of India (CDEIS 2012). In the post-reforms, state could not devise a smart strategy to attract foreign direct investment (FDI) in the state despite having rich diaspora connections. In the national level policy making, Punjab state is now relegated to background and its economy has continuously been faced an economic slowdown (Singh 2015). Consequently, Punjab slipped down in terms of per capita income ranking across all major Indian states from the first rank in 1991–92 to the second rank in 1992–93 and sixth rank in 2009–10 (GOI 2013a, b). This has happened because in the era of globalization, Punjab economy has been experienced a slower growth rate than that of the fast growing states such as Haryana, Maharashtra, Kerala, Gujarat and Tamil Nadu, which have now overtaken the Punjab's per capita income. In 1999–2000, Punjab's per capita income was 61.4 % higher than that of the all-India average, which in 2009–10 had come down to mere 34.2 % more than all-India average. It means that in the post-reforms era, India's economy has entered into an accelerated growth path, but Punjab's economy has been facing a stagnating growth path.

Moreover, the NEP has been influencing India's health sector in many ways (Misra et al. 2003). In its true essence, the NEP means the growing economic interdependence of nation–states through the increasing volume and variety of cross-border transactions of goods/services, free movement of capital, people, ideas and knowledge, and more importantly, diffusion of new technology at an astonished speed (Gill et al. 2010), which, indeed, affects the people's health and health delivery system both positively and negatively through the direct/indirect mechanisms. Its positive impacts may be observed in the form of better health outcomes (more incomes, better living conditions, rising life expectancy, easy access to health technology/medicine, etc.). And, its highly deleterious impacts can be seen in rising treatment costs, high incidence of man-made diseases, irrational use of drugs/technology, elite-oriented health policies, stressful life, etc.

Directly, the global forces will influence a nation's health positively mainly through: (i) enhanced movement of pharmaceutical products, health personals and patients across the national boundaries; (ii) increased output of pharmaceutical products; (iii) medical tourism via the Internet and other information means; (iv) easy availability of new therapeutic and diagnostic techniques; and (iv) establishment of big corporate hospitals with five star medical facilities. Similarly, increasing mobility of people raises more chances of spreading/contracting diseases (e.g. bird flu) across the nation's borders (Gill et al. 2010). Further, it is feared that the globalization if accompanied by low allocation of public funds to the health sector will play havoc with the health of poor people in the developing countries (Baum 2001).

These forces also affect the people's health indirectly via the heightened industrial activities, depletion of natural resources, indiscriminate use of insecticides/pesticides, increasing environmental pollution (air and water pollution), unsafe/untreated disposal of industrial waste, etc. Moreover, high consumption of tobacco/alcohol, packed/frozen foods and aerated beverages has also affecting the

people's health negatively. The emergence of high risk chronic and life style diseases such as the diabetes, cancer, heart disease, and other life style diseases (TB, HIV/AIDS, etc.) can be linked to the global economic policies (Mohan et al. 2011). For the resource-poor people, falling prey to these catastrophic diseases means more incidence of poverty and malnutrition of women/children in the family (Cornia 2001; Raman and Bjorkman 2009).

In India, with the adoption of NEP in 1991, integration of nation's economy to the global economy has become a reality. As a consequence, state funding to public health sector has relatively been decreased in India and across all states. The prescriptions of international funding agencies began to dominate India's health sector. The World Bank piloted health sector schemes/reforms initiated in India or elsewhere has been advocated the private sector initiatives, put more emphasis on the non-government bodies, and other forms of organization (PPP) in health sector delivery and management systems. In nutshell, these health sector reforms initiated in the country revolves around: curtailing public health investments, opening up of health care to the private sector, levying of users' charges, contracting out some services of public hospitals and relying upon purely technocentric public health interventions (Qadeer 2000).

It is also feared that this paradigm shift in health policy, especially cutbacks in public health funds, may adversely affect primary health care In India (Qadeer 2000). Further, in the absence of liberal federal funding, various diseases control programmes are being disrupted; family welfare programme began to focus on the reproductive health of married women only; and mothers'/children' health and nutritional needs largely being ignored across all states. Side by side, handing over the health care to the private players, without any regulatory mechanism, quality aspects in the diagnostic techniques and treating patients are seriously being compromised both in urban and rural settings (Banerjee and Duflo 2009; Das et al. 2012). In such a scenario, state governments are unable to fulfil their constitutional obligations and are adversely affecting the equity principle in accessing public health services by the poor (Baru 1998). Surprisingly, all these policy prescriptions are now being implemented in Punjab more vigorously (Singh 2005; Gill et al. 2010). It means that the poor who lack resources (income/employment, assets, etc.) could not afford very high out-of-pocket health expenditure, particularly when they seek indoor treatment from the private sector owned institutions.

## **15.2 Rising Incidence and Emergence of New Diseases in Punjab**

As expected, an epidemiological transition has taken place in the state. It has been found that state's agriculture led growth has produced many undesirable impacts on state's environment and ecology, which in turn influenced the health and disease pattern in the state. Further, growing urbanization, industrial pollution, air pollution,

**Table 15.2** Growing number of ailing persons and incidence of morbidity in Punjab

Region/area	Number of ailing persons (in thousands)			CGR per annum		Incidence of morbidity 2004–05 (per thousand persons)		
	1973–74	1995–96	2004–05	1973/74–1995/96	1995/96–2004/05	Male	Female	All
<i>Punjab</i>								
Rural	545.6	1047.1	2116.8	3.01	8.13	114	160	136
Urban	143.6	535.0	813.0	6.16	4.76	100	115	107
Combined	689.2	1582.1	2929.8	3.85	7.09	109	146	127
<i>India</i>								
Rural	20047.1	35407.4	63193.4	2.62	6.65	83	93	88
Urban	518.4	11085.3	24267.7	3.56	9.10	91	108	99
Combined	25185.5	46492.7	87461.1	2.83	7.27	85	97	91

Note Estimates of ailing persons were generated on the basis of prevalence rates from data given in NSSO (1980), NSSO (1998) and NSSO (2006)

Source Singh (2009)

slums and ageing population have also posed many serious health hazards that are adversely affected the health of people. In fact, unrestricted use of agrochemicals, increasing intake of dietary fats, physical inactivity, adverse lifestyles and other behaviour patterns (anxiety, stressful life, etc.) have not only raised the burden of new diseases in the state, but also put a large proportion of population in the risky zone of attracting many serious non-communicable diseases like diabetes, cancers, high blood pressure, strokes, cardiovascular diseases and accidents/injuries (IIPS 2007). Further, it has been observed that, like the developed countries, demographic transition has been appeared in the state (Bobadilla et al. 1993; Mosley et al. 1993), where chronic, non-communicable, degenerative (ageing) and man-made diseases began to dominate compared to the earlier dominance of malnutritious, infectious and childhood-related diseases. All these negative forces seem to be working in the state, when one can see a significant rise in number of illness episodes as well as new pattern of disease.

An assessment of NSSO data revealed (Table 15.2) that number of ailing persons in Punjab grew at the rate of 7.09 % per annum during 1995–2004 compared to 3.85 % per annum during 1973–1995. However, the pace of growth rates amongst ailing persons differ considerably both in the rural and urban areas. Whereas per annum growth rate across ailing persons in rural areas has been doubled: rose from 3.01 % during 1973–1995 to 8.13 % during 1995–2004, but annual growth rate across urban ailing persons decelerated: from 6.16 to 4.76 % during same periods. The data also showed that on an average, 127 persons per thousand people were found to be suffering from one or other ailments in Punjab during 2004–05. Incidence of morbidity was much more in rural Punjab (136 per thousand people) than that of urban Punjab (107 per thousand people). Further, prevalence of morbidity was significantly higher among females both in the rural (160 per thousand

females) and urban (115 per thousand females) areas of state. Although male–female differentials in the morbidity rates were also prevailing in India as a whole, but male–female differentials in rural Punjab were almost three times high than that of India as a whole. Moreover, incidence of ailing persons was much higher in Punjab (127 per thousand people) than that of the country as a whole (91 per thousand people). The data clearly pointed out that number of ailing persons as well as incidence of morbidity has been increased over the time period in Punjab.

Further, it has been observed that general economic progress in the state yielded considerable improvements in living conditions of populace which in turn induced positive improvements in the life expectancy, mortality and fertility rates (Kumar 2011). In fact, morbidity load has been shifted from the younger to the older populations. It is also true that advancement in therapeutic science often postpones or averts death across the older people, but it does not cure the disease/s at all (Bobadilla et al. 1993). Along with environmental hazards, both demographic and epidemiologic transitions had showed emergence of new health problems such as chronic, non-communicable, ageing and man-made diseases (Mosley et al. 1993). The data also pointed out (Table 15.3) that leaving aside the mix group of diagnosed ailments, the respiratory/ENT diseases, unknown fevers, cardiovascular diseases, gastrointestinal infections, disorder of joints and bones and bronchial asthma emerged as the six top ranking ailments in the descending order of importance in Punjab. Together, these diseases cornered 54.27 % share of total ailments. These six top ranking diseases are followed by the accidents/injuries/burns, undiagnosed ailments, diabetes mellitus, gynaecological disorders, kidney/urinary tract infections, febrile illnesses, eye ailments, disabilities, neuro/psychiatric disorders, cancer/other tumours, dental problems and tuberculosis in terms of prevalence rate in Punjab.

Further, all those ailments that needed hospitalization were the accident/injury/burn victims, followed by the gastrointestinal diseases, unknown fevers, kidney/urinary tract infections, gynaecological disorders, cardiovascular diseases, bronchial asthma, neuro/psychiatric disorders, respiratory/ENT diseases and disorder of joints and bones. It is interesting to note that gastrointestinal diseases, cardiovascular diseases, respiratory/ENT diseases, bronchial asthma, disorder of joints and bones, unknown fevers and accidents/injuries/burns were eight important diseases that figured both in the top ten causes of outdoor ailments and hospitalization cases. It also showed that old set of communicable/infectious diseases (small pox, whooping cough, tetanus, polio, mumps, malaria, etc.) had declined rapidly, but another set of chronic non-communicable (cancers, cardiovascular diseases, diabetes, kidney disorders, pains in joints and bones) and man-made diseases (accident/injury/burns, psychiatric disorders, respiratory diseases, etc.) were went upward at an astonishing speed in the state. It means that the people in Punjab have been facing a new pattern of diseases as has been experienced in many developed countries of world (GOI 2005).

The NFHS-3 data for 2005–06 presented a mixed picture of disease pattern in the state. It showed that, during 2005–06, incidence of tuberculosis in the state was low as just 201 persons per lakh population were suffering from tuberculosis compared to overall figure of 445 persons per lakh people in India (IIPS 2007).

**Table 15.3** Number of outdoor and indoor treated illness episodes by broad group, 2004–05

Ailment group	Number of treated ailment episodes											
	Outdoor				Indoor				Both			
	Number	% share	Rank	Number	% share	Rank	Number	% share	Rank	Number	% share	Rank
Gastrointestinal	181,488	9.05	5	55,540	10.55	3	237,028	9.36	5			
Cardiovascular	215,970	10.77	4	31,168	5.92	7	247,138	9.76	4			
Respiratory/ENT	290,662	14.50	2	19,165	3.64	10	309,827	12.24	2			
Tuberculosis	9461	0.47	20	13,263	2.52	13	22,724	0.90	19			
Bronchial asthma	91,825	4.58	7	29,247	5.55	8	121,072	4.78	7			
Disorder of joints and bones	144,414	7.20	6	18,892	3.59	11	163,306	6.45	6			
Kidney/urinary tract infections	19,896	0.99	18	35,576	6.75	5	55,472	2.19	12			
Gynaecological disorders	30,510	1.52	13	32,407	6.15	6	62,917	2.49	11			
Neuro/psychiatric disorders	21,413	1.07	16	20,463	3.89	9	41,876	1.65	16			
Eye ailments	42,782	2.13	11	5531	1.05	18	48,313	1.91	14			
Diabetes mellitus	71,758	3.58	9	10,843	2.06	15	82,601	3.26	10			
Anaemia/malnutrition	10,696	0.53	19	9502	1.80	16	20,198	0.80	20			
STD infections	5962	0.30	21	1943	0.37	21	7905	0.31	21			
Febrile illnesses	45,085	2.25	10	4169	0.79	20	49,254	1.95	13			
Unknown fevers	251,573	12.55	3	43,657	8.29	4	295,230	11.66	3			
Disabilities	28,258	1.41	14	13,824	2.62	12	42,082	1.66	15			
Dental problems	27,035	1.35	15	4320	0.82	19	31,355	1.24	18			
Accidents/injuries/burns	34,602	1.73	12	74,872	14.22	2	109,474	4.32	8			
Cancer and other tumours	21,314	1.06	17	11,434	2.17	14	32,748	1.29	17			
Undiagnosed ailments	83,584	4.17	8	8469	1.61	17	92,053	3.64	9			
Other diagnosed ailments <sup>a</sup>	376,257	18.77	1	82,409	15.65	1	458,666	18.12	1			
Total	2,004,545	100		526,694	100		2,531,239	100				

<sup>a</sup>Includes all other diagnosed ailments

Source Derived from the data given in Singh (2009)



Further, incidence of diabetes, asthma and goitre/other thyroid disorders across the Punjabi women was found to be quite high compared to the Punjabi men. In the case of diabetes, 849 women compared to 802 men per lakh population were found to be suffered during 2005–06. Similarly, 945 women compared to 802 men per lakh population were suffering from the asthma. In the case of goitre/other thyroid disorders, 601 women compared to 241 men per lakh population were found to be suffering from such a common but easily preventable disease/s (IIPS 2007).

The NFHS-3 data also highlighted the widespread malnutrition in the state. The data revealed that a little less than one-half of women (48.8 %) aged 15–49 years were underweight/having thin body (18.9 %) or victims of overweight/obesity (29.9 %). Similarly, 20.6 % men aged 15–49 years were underweight or having thin body and another 22.2 % were overweight or with obesity features. Further, nearly one-fourth of children aged 6–59 months were showing malnutrition feature during 2005–06 (IIPS 2007). Moreover, 66.4 % children aged 6–59 months, 38 % women and 13.6 % men aged 15–49 years were found to be anaemic in the state during 2005–06 (IIPS 2008). It means that the Punjab state has also become a storehouse of many undesirable diseases such as the malnutrition related infectious/parasitic diseases on one side and non-communicable/life style diseases on the other.

Surprisingly, cancer has acquired endemic proportion in the state. In 2009, there were 7738 cancer patients in Punjab; of which 2576 patients (33.29 %) were found in five districts, namely, Mukatsar, Bathinda, Barnala, Mansa, and Faridkot (GOP 2012). The latest door-to-door Cancer Survey of 2013 identified 23,874 patients as confirmed/diagnosed cancer cases, and 84,453 persons were put in the category of suspected cancer cases (Table 15.4). Further, 33,318 cancer deaths were reported in the state during the last 5 years. Incidence of cancer disease measured per lakh population is very high: 90 patients in the case of confirmed/diagnosed cases and 319 patients in the case of suspected cancers cases. In the last 5 years, 18 people died each day in Punjab due to the cancer disease. Across different regions of Punjab, the Malwa region has recorded the highest incidence of cancer disease: 107 patients per lakh people in the category of confirmed/diagnosed cases and 390 patients per lakh people in the category of suspected cancers cases. Although there

**Table 15.4** Number of cancer cases/patients and deaths in punjab by region, 2013

Region	Population surveyed (lakh)	Total number cancer cases/deaths			Cancer incidence (per lakh population)		
		Confirmed	Suspected	Deaths <sup>a</sup>	Confirmed	Suspected	Deaths <sup>a</sup>
Punjab	264.84	23,874	84,453	33,318	90.1	318.9	125.8
<i>By Region</i>							
Malwa	102.43	11,005	39,992	14,682	107.4	390.4	143.9
Majha	57.19	3700	20,648	5790	64.7	361.0	101.2
Doaba	50.51	4451	14,770	6890	88.1	292.4	136.4
Unclassified	54.71	4718	9043	5956	86.2	165.3	108.9
Total	264.84	23,874	84,453	33,318	90.1	318.9	125.8

<sup>a</sup>During Last Five Years

Source GOP (2013)

is no authenticated scientific evidence to suggest which factor/s is/are behind rising incidence of cancer disease in Punjab, yet the leading health professionals, academia and policy makers in the state generally attributed occurrence of cancer disease to the rising utilization of agrochemicals (insecticides, pesticides, etc.), presence of uranium, poor quality of drinking water, polluted environment, unhygienic living conditions and ageing of population.

### 15.3 Decreasing Public Health Expenditure in Punjab

Now the question arises whether the state has been allocating adequate public funds to tackle emerging disease pattern in Punjab. It is true that public health expenditure is a powerful instrument in the hands of state to improve health conditions of the poor (Walle and Nead 1995). Such expenditure also produces a number of externalities such as controlling population by reducing fertility and child mortality rates. As public health sector has to compete with other development sectors for public funds, it is interesting to examine its behaviour pattern over the longer period of time. An analysis of data revealed (Table 15.5) that, although the total expenditure on health services (in real terms at 1993–94 prices) has spiralled from Rs. 138.81 crore by the triennium ending 1980–81 to Rs. 713.78. crore by the triennium ending 2007–08, yet health sector's share out of total budgetary expenditure, development expenditure and state income has shown a decreasing share. For instance, health sector's share had remained around 9 % between the triennium ending period of 1980–81 and 1986–87. And after that, it decreased to 6.97 % by the triennium ending 1989–90, 5.46 % by the triennium ending 1992–93, 4.35 % by the triennium ending 1995–96; slightly rose to 5.48 % by the triennium ending 1998–99 and fell to 4.02 % by the triennium ending 2004–05 and 3.58 % by the triennium ending 2007–08.

Surprisingly, public health expenditure as a proportion of NSDP in Punjab never reached to 1 % for the most of years against the normative ratio of 3 % of national income. The share, instead of rising, has declined to the lowest ebb (0.62 %) by the triennium ending year of 2007–08. The analysis makes it clear that public health sector expenditure in the state has been decelerated over the time period, especially in the post-reforms period. In the absence of adequate public health funds, public health services provided by the state-run hospitals, CHCs/PHCs and dispensaries had become very weak. Many micro-level studies showed a poor utilization of public health infrastructure by the people in the state (Singh 1991, 2013b; Kumar 2011). Moreover, quality of infrastructure in public health institutions found to be unimpressive. Most rural patients felt shy and avoided to visit public health facility for getting treatment because they did not find it useful either due to non-presence of health staff or unfriendly environment (rude behaviour) or non-availability of medicines in the facility (Kumar 2011; Singh 2011). The poor people are pushed to unregulated private health care providers (RMPs, Hakims, faith healers, etc.). Inefficiency, low preference and rent-seeking behaviour of public health servants

**Table 15.5** Distribution of public expenditure in punjab by major heads (revenue account) (Figures in Rs. crores at 1993–94 prices)

Average for triennium ending year	Total expenditure (all heads)	Non-development expenditure	Development expenditure	Social services	Health and family welfare	Health and FW as % age of			Per capita expenditure Rs.
						Social services	Development expenditure	NSDP	
1980–81	1520.24 (100.00)	410.71 (26.66)	1109.54 (73.34)	625.73 (41.00)	139.81 (9.30)	22.34	12.68	1.08	87
1983–84	1889.60 (100.00)	571.45 (30.67)	1318.14 (69.33)	741.97 (39.00)	172.42 (8.98)	23.24	12.95	1.29	101
1986–87	2383.50 (100.00)	837.89 (34.51)	1545.62 (65.49)	932.16 (39.48)	211.71 (9.18)	22.71	14.01	0.99	117
1989–90	2994.60 (100.00)	955.39 (30.69)	2039.17 (69.31)	1330.45 (45.01)	215.49 (6.97)	16.20	10.05	0.82	112
1992–93	4025.37 (100.00)	1365.99 (31.28)	2689.78 (69.67)	1153.73 (28.25)	223.34 (5.46)	19.36	7.83	0.75	110
1995–96	4686.01 (100.00)	2676.80 (59.06)	2009.18 (40.94)	1161.97 (24.06)	214.95 (4.35)	18.50	10.62	0.89	100
1998–99	5537.74 (100.00)	2697.89 (50.14)	2839.84 (49.86)	1476.69 (27.65)	292.82 (5.48)	19.83	10.98	0.91	124
2001–02	7044.19 (100.00)	4108.59 (58.98)	2935.60 (41.02)	1780.51 (24.97)	371.05 (5.23)	19.84	11.76	0.87	154
2004–05	9152.56 (100.00)	5395.67 (60.24)	3756.89 (39.76)	1992.08 (21.67)	371.73 (4.02)	18.66	10.12	0.81	147
2007–08 <sup>a</sup>	19937.13 (100.00)	11601.50 (58.19)	8335.63 (41.81)	4013.78 (20.13)	713.78 (3.58)	17.78	8.56	0.62	260

<sup>a</sup>Expenditure data at current prices. *Note* Figures in parentheses are percent shares

*Source* **Statistical Abstract of Punjab**, (Various Issues), Economic Advisor to Government of Punjab

have become hallmark of public health sector in the state. Lack of political will and inadequate socio-economic movements, further, encourages the growth of unqualified health care providers, who are mushrooming in numbers in every hook and corner of the state. In the absence of monitoring and control, they indeed played with health of the people.

## **15.4 Pitfalls of Public Health Delivery System in Punjab**

Punjab's public health delivery system has been operating at three levels: (i) at the primary level, (CHC, PHCs and dispensaries); (ii) at the secondary level, (district and tehsil hospitals); and (iii) at the tertiary level (hospitals attached with medical colleges and of centrally funded PGI). In large urban towns, public hospitals attached with the Medical Colleges are providing advance tertiary health care facilities. In medium/smaller towns and few larger villages, the state government runs an extensive network of districts hospitals, tehsil hospitals, CHCs and rural hospitals (RHs). Similarly, an extensive network of CHCs/RHs, PHCs and dispensaries have been serving the rural people. On paper, Punjab's public health care system looks alike an ideal model for delivering universal health care to all including the poor. Its comprehensive three tier design ensures that all households, rural and urban, are closer to a public health facility in the state. For instance, an average household in Punjab can access nearest public facility within 2 km distance; yet this system quite apparently failed to deliver. Widespread absenteeism amongst the health employees and non-accountability had reached nadir in the state. Now, a question arises, whether available the public health infrastructure in the state is adequate or any new reform was introduced over the time period?

### ***15.4.1 Stagnated Public Health Infrastructure***

Undoubtedly, public health facilities in Punjab were increased till the mid-1980s mainly due to increased allocation of central funds to state health sector and pro-rural policy of the state (Singh 2005). After that, public funds to the state health services have declined drastically and there was no appreciable increase in public health infrastructure in the state (Table 15.6). Instead, total number of hospitals decreased from 244 to 219 between the triennium ending periods of 1980–81 and 2007–08. On the other side, number of PHCs increased from 129 to 441, and of dispensaries from 1255 to 1453 during the same period. There were progressive decline in the proportions of rural hospitals from 43.77 % by the triennium ending 1986–87 to 35.10 % by the triennium ending 1995–96, and 33.33 % by the triennium ending 2007–08. The proportion of rurally located dispensaries also showed a marginal decrease (from 85.31 % by the triennium ending 1980–81 to 83.20 % by the triennium ending 2007–08), despite the more allocation of central

**Table 15.6** Growth of health care infrastructure in Punjab

Average for triennium ending year	Type of health care infrastructure										Population served per institution				Population served per bed				
	All types of institutions										Allopathic				H & D		Total	Rural	Urban
	Allopathic			CHCs			Total				H	D	Rural PHC <sup>a</sup>	Non-A					
H	PHC	D	D	CHCs	Total	H	D	D	Total	H & D	Non-A	Total	Rural	Urban					
1980-81	244 (40.98)	129 (81.65)	1255 (85.31)	-	-	1630 (78.25)	0.67	0.13	1.13	0.36		854	1558	387					
1983-84	256 (43.43)	130 (85.38)	1742 (87.92)	-	-	2137 (82.05)	0.68	0.10	1.13	0.33		802	1276	410					
1986-87	264 (43.43)	143 (86.51)	1779 (87.49)	-	-	2187 (82.10)	0.70	0.10	1.06	0.33		811	1283	422					
1989-90	250 (42.72)	362 (93.38)	1564 (85.57)	23 (61.43)	2199 (81.74)	0.78	0.12	0.40	0.32			814	1291	436					
1992-93	210 (38.16)	441 (95.23)	1470 (84.06)	93 (60.79)	2213 (80.96)	0.98	0.14	0.34	0.33			841	1339	449					
1995-96	208 (35.10)	446 (94.62)	1465 (83.30)	104 (57.69)	2223 (79.86)	1.05	0.15	0.35	0.34			873	1408	477					
1998-99	208 (34.99)	444 (94.74)	1468 (83.04)	110 (58.36)	2229 (79.68)	1.16	0.16	0.37	0.38			954	1446	589					
2001-02	216 (33.69)	441 (94.55)	1476 (82.70)	108 (60.99)	2240 (79.27)	1.13	0.16	0.39	0.38			957	1483	566					
2004-05	219 (33.33)	441 (94.33)	1479 (82.56)	103 (62.14)	2242 (79.13)	1.17	0.17	0.40	0.40			1018	1555	624					
2007-08	219 (33.33)	441 (94.33)	1453 (83.20)	117 (60.18)	2226 (79.33)	1.23	0.18	0.40	0.42			1025	1600	677					

<sup>a</sup>Rural Population, Non-A means non-allopathic which includes Ayurvedic, Unani and Homoeopathic

H Hospital, D Dispensary, PHC Primary Health Centres, CHC Community Health Centres

Figures in parentheses are percent share of rural areas

Source Culled from the **Health Information of Punjab**, (Various Issues), Directorate of Health and Family Welfare, Government of Punjab, Chandigarh

funds to rural health under the Minimum Needs Programme started since the Fifth Five Year Plan (1974–79). This decrease in proportion of rurally located dispensaries is largely due to the upgradation of many rural dispensaries into CHCs/PHCs in the same area during 1984–2000 (Singh 2005).

Further, population served per institution did not show a progressive decline. For instance, population served per hospital, which was 0.67 lakh during the triennium ending 1980–81, rose to 1.23 lakh during the triennium ending 2007–08. In the case of PHCs that are exclusively for the rural areas, a different picture has been emerged. Actually, due to a sharp increase in number of PHCs over the years, population served per PHC fell from 1.13 lakh persons during the triennium ending 1980–81 to 0.34 lakh during the triennium ending 1989–90, but rose to 0.40 lakh during the triennium ending 2007–08 (Table 15.6). Still, Punjab state is far away from the norms set by the Union Government in terms of population served per PHC (i.e. 30,000 populations per PHC). Similarly, population served per bed did not show any improvement in the state; instead this ratio rose to 1025 persons per bed during the triennium ending 2007–08. Population served per bed also showed wide variations across the rural and urban areas. In rural areas, a bed was for 1276 persons (410 persons in the case of urban areas) by the triennium ending 1983–84 but this ratio rose to 1600 persons (677 persons in the case of urban areas) by the triennium ending 2007–08. The analysis makes it clear that no effort was made by the state government to establish more beds in public owned health institutions of the state. In fact, indoor treatment facility has been deteriorated in the state-run institutions during the post-reforms period (Kumar 2011).

Moreover, one can observe many glaring deficiencies public health facilities in terms of non-presence of health staff, non-availability of health machinery, equipments, buildings and residential accommodation, particularly located in the rural areas. As the entire burden of health care (promotive, preventive and curative cares) in rural Punjab was fell on the rural CHCs/PHCs, which were not adequately equipped (Singh 1991; Kumar 2011) and suffered from rampant absenteeism of health staff (Chaudhury et al. 2006). In fact, an overwhelming majority of rural CHCs/PHCs even today are consultation clinics (OPDs). Hospitalization, trauma care and emergency services (indoor treatment) are almost non-existence in these institutions. At the micro-level, the data revealed no bed occupancy in all rural PHCs and dispensaries in Patiala district during 2008–09 (Office of Civil Surgeon, Patiala District 2009). These findings were also true in the case of other districts of Punjab.

Another dismal aspect is related to non-filling sanctioned post of doctors (specialists as well as generalists) and paramedical staff in public health institutions. Without adequate medical staff, one can imagine the working of these institutions. These posts are deliberately kept vacant by banning recruitment, which is largely due to the pressure of NEP-1991 and of severe resource crunch faced by the state in the post-1990s era. The data in Table 15.7 showed that about one-fifth of sanctioned posts (18.68 %) in state health department were lying vacant in 2005. Interestingly, one-sixth posts of medical officers (16.80 %) were also lying vacant, whereas a large numbers of qualified doctors as unemployed were available in the state.

**Table 15.7** Position of doctors, paramedical staff and district health officers in Punjab, 2005

Name of post	Number of posts			% age of vacant posts
	Sanctioned	Filled	Vacant	
Medical officers <sup>a</sup>	4380	3644	736	16.80
Paramedical staff <sup>b</sup>	15,131	12,350	2781	18.38
District health extension officers/supporting staff <sup>c</sup>	278	121	157	56.47
Drivers	532	410	122	22.93
All posts	20,321	16,525	3796	18.68

*Note* <sup>a</sup>It includes Dental Doctors

<sup>b</sup>It includes Pharmacists, Ophthalmic Technicians, Radiographers, Laboratory Technicians, Staff Nurses, Lady Health Visitors, Supervisors, ANMs, MPWs (M/F), etc

<sup>c</sup>It Includes DMIEOs, District Drug Inspectors, Principal Tutors, Nursing Superintends, District Public Health Nurses, Food Inspectors, Block Extension Educators, Artist-cum-Photographer, etc

*Source* **Office of Director Health Services**, Department of Health and Family Welfare, Government of Punjab, Chandigarh

Similarly, more than one-sixth of sectioned positions of paramedical staff (18.38 %) and more than one-fifth posts of drivers (22.93 %) were kept vacant. Further, more than one-half of sanctioned posts of district level health extension officers (56.47 %) that provide a crucial link to maintain quality checks in health related fields were vacant. Due to not-filling of sanctioned posts of doctors, paramedical staff and district level health officers (supervisory and monitoring duty), efficiency of state-run public institutions reached a nadir in the state.

In the absence of health staff (doctors and paramedics), particularly in rural health institutions, the people are deprived of easily available, cost effective and good quality treatment supposed to be provided by these institutions at their door steps. Since the public health system in rural Punjab suffered from many weaknesses, one can observe mushrooming growth of quacks in rural areas that are playing havoc with the health of rural people, especially of the poor, by providing substandard treatment and charging exorbitantly high prices. Current dynamics of health care system revealed that still wide gaps were prevalent in the rural and urban health indicators and achievements. The data in Table 15.8 makes it clear that, though all these health indicators have shown positive changes over the time period, yet the rural–urban differences are clearly visible and remained static. For instance, during the triennium ending 2007–08, birth rate in Rural Punjab was 18.2 per thousand live births compared to urban Punjab’ birth rate of 16.4 per thousand live births. Similarly, rural death rate was 7.7 per thousand compared to 5.9 per thousand people in urban Punjab during the same period. As regards the infant mortality rate, it was 46.7 per thousand live births and 34.7 per thousand live births in the rural and urban Punjab, respectively. It means that rural areas are lagged behind so far as the progress in health related indicators are concerned.

**Table 15.8** Birth rate, death rate and infant mortality rate in punjab by location (rates per thousand)

Average for triennium ending year	Birth rate			Death rate			Infant mortality rate		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
1980–81	29.8	27.6	29.3	10.4	8.0	9.9	105.0	72.7	96.0
1983–84	30.8	28.7	30.3	9.8	6.9	9.1	84.7	57.7	78.7
1986–87	29.6	27.8	29.1	9.5	6.3	8.7	75.3	47.0	68.0
1989–90	29.1	27.5	28.4	8.8	7.0	8.3	66.0	55.7	63.3
1992–93	28.4	25.2	27.5	8.6	6.0	7.9	61.3	42.0	50.0
1995–96	26.6	21.8	25.3	8.3	5.9	7.6	59.0	37.7	54.0
1998–99	24.6	18.9	23.1	8.0	6.2	7.5	55.7	39.3	52.3
2001–03	22.4	18.6	21.4	7.7	6.1	7.3	56.0	38.0	52.3
2004–05	21.6	18.0	20.7	7.3	6.1	7.0	53.7	34.3	49.7
2007–08	18.2	16.4	17.6	7.7	5.9	7.0	46.7	34.7	42.7

Source **Health Information of Punjab**, (Various Issues), Directorate of Health and Family Welfare, Government of Punjab, Chandigarh

### 15.4.2 *Weak Initiatives to Improve Health Infrastructure*

The state government, despite being fully aware of these ground realities, did not initiate any planned effort to bring reforms in the public health infrastructure in the state since 1991. The only two initiatives, limited in scope, were taken to reorganize state health system in Punjab. **First initiative** is related to the corporatization of public health services in the state by establishing the Punjab Health Systems Corporation (PHSC) during the late 1990s. The PHSC has taken over only 154 public hospitals—ranging from district hospitals (17), subdivisional hospitals (45) to CHCs/PHCs (92). The main motives of the PHSC were to (i) upgrade the secondary health care system (on selective basis) and (ii) introduce the financing reforms, particularly levying of users' fee and contracting out many services to the private sector. This has been done with the help of World Bank loan of Rs. 422 crores. This has generated a debate and created many suspicions in the minds of intellectuals, policy makers, and health employees, and also among the general public of the state. Many of them fear that it is the implementation of the IMF-World Bank's prescriptions of commercialization and corporatization of health services in the state. Their doubts/fears came true with the introduction of users' charges for every service provided by these institutions and contracting out a part of services provided by the PHSC-owned institutions by allowing the establishment of private diagnostic facilities at these institutions' premises. On the other hand, however, the state government's defence in setting up the PHSC is resting on three counts: **One**, it will upgrade the secondary health care system in the state with the World Bank assistance, which is in bad shape and dire need of funds; **Two**, corporation will have inherent flexible mechanism of taking needy decisions that will otherwise take too



much time state bureaucratic set up. Further, it is possible for the corporation to govern their employees in a better way and offer various incentives/rewards on the basis of their performance; and **Three**, it will improve the utilization of public health services by attracting more patients on one hand, and generate internal funds at the institution level through the users' charges for further improvement or expansion of health services on the other.

**Second initiative** related to improving rural health delivery system in the state under NRHM started in 2005–06. Under this initiative, (i) liberal public funds were made available to upgrade rural health care infrastructure; and (ii) decentralization in the decision-making and administrative control was introduced by handing over 1310 rural dispensaries to district level PRIs (Zila Prishad) in the state. Nearly Rs. 1300 crore were spent by the Punjab government during the last 6 years, i.e. 2005–06 to 2010–11. And, state government has upgraded infrastructural facilities in almost all CHCs (115 out of 116) and 211 PHCs (43.6 %; out of 484) up to 2010–11. In the case of SHCs, service providers (Qualified Doctor) were appointed on the contract assignments @ Rs. 3.50 lakh per year per dispensary. Out of Rs. 3.50 lakh contract money, a service provider is responsible for hiring one pharmacist, one peon and maintaining the basic sanitation and other facilities in dispensary him/her self. On an average, one SHC headed by a service provider served 10 villages. As per initial reports, this contract system has been working very well; service providers are now available to the rural patients during specified hours as their attendance has been monitored by the village Panchayat. A tenfold increase in the number of outpatients has been recorded in these dispensaries. Institutional deliveries have also increased in the rural hospitals/PHCs/CHCs. Absenteeism among the health staff has been reduced. However, the critics point out that an administrative decentralization is no panacea for the basic ills of rural health delivery system in the state, which requires aggressive public health interventions, state support and efficient personnel. For success of decentralization in context of Punjab, it needs a process of devolution of powers, not just the delegation of responsibility by the state to the periphery. Actually, the former involves sharing of decision-making powers and control over the resources, not just the administrative decentralization or shifting the responsibility of resource mobilization, which often has a negative impact, especially on the poor living in the periphery (rural areas).

## 15.5 Low Efficiency of Public Health Sector

As already reported, there was no major rise in number of public health institutions and beds in the state since the 1990s. Besides, rising rent-seeking behaviour of health sector employees, weak monitoring mechanism and administration apathy during the militancy (1980–95) had attributed directly to low efficiency and low utilization of public health facilities by the patients. An assessment of bed occupancy ratio—a better measure to judge efficiency of any public health services—has shown a very dismal picture. For instance, district hospitals, which were

**Table 15.9** Bed occupancy ratio in Punjab by type of hospital

Year	Type of hospital								
	District	Tehsil	Women	T.B	50 beded	30 beded	25 beded	PHC	Whole state
1980	97.4	79.5	79.9	82.2	–	–	–	–	–
1985	100.6	100.5	72.2	77.2	–	–	–	–	–
1990	91.6	65.7	37.3	74.3	50.8	16.3	R-26.5	20.5	63.9
1991	89.2	68.0	39.6	67.6	59.9	17.3	18.2	13.3	54.6
1993	80.8	61.3	40.9	59.4	62.4	12.1	14.5	22.3	46.6
1994	84.6	62.8	38.4	55.6	60.3	14.7	16.7	18.3	48.3
1995	87.9	63.9	37.3	54.4	61.7	16.2	18.7	13.5	44.2
2001	58.1	District hospitals of PHSC							58.3
2005	57.0								na
2007	63.3								na

Source Health Information of Punjab (earlier Health Statistics Punjab), Directorate of Health and Family Welfare Punjab, Chandigarh (various issues)

+ The Tribune, August 12, 2001

overcrowded with the patients (bed occupancy ratio was more than 100 %) during the 1970s (Singh 2005), had shown a downward trend in the utilization of beds for indoor treatment (Table 15.9). A sharper downward trend in bed occupancy ratio was observed in the tehsil hospitals, hospitals exclusively for women and tuberculosis patients. The 30-bedded, 25-bedded and PHCs that were mostly located in rural areas had shown abysmally low level of bed occupancy. Interestingly, 17 district hospitals taken over by the PHSC did not shown any impressive improvements in the bed occupancy ratio, as it was 58.1 % in 2001, 57.0 % in 2005 and 63.3 % in 2007. Even the hospitals attached with state medical colleges providing tertiary care had also witnessed low bed occupancy, mainly due to the reduced funding, deterioration in quality care and high user' charges since May 1999. Consequently, the patients affording medicare prefer to get medical treatment from the private hospitals/nursing homes, which have already been grown in leaps and bounds in the state (Singh 2005; Kumar 2011).

Two micro-level studies based on primary data (Singh 1991; Kumar 2011) concluded that a large majority of people suffering from different types of diseases in Punjab preferred, instead of nearest public health institutions, going to private hospitals/clinics for treatment even from the untrained persons (called quacks in popular parlance). These studies highlighted that nearly one-third of patients (32.78 % in 1991 and 33.24 % in 2011) used public health centres, and the remaining two-third patients (67.22 % in 1991 and 66.76 % in 2011) preferred to get treatment either the private hospitals/nursing homes or the private clinics (Table 15.10). Regarding to quality of private health facility, the data revealed two interesting trends. First, a very small proportion of rural patients in 1991 (1.41 %) preferred private hospital/nursing homes, whereas 18.16 % of rural patients in 2011 got treatment from such hospital/nursing homes. Second, an overwhelming majority of rural patients who preferred private clinics were treated by unqualified health

**Table 15.10** Distribution of patients preferred treatment by type of diseases/illnesses and health centre—1991 and 2011

Type of health institution	Number of patients by type of disease/illness					
	1991			2011		
	Chronic diseases	Communicable and other diseases	Total	Chronic diseases	Communicable and other diseases	Total
<i>Public sector</i>						
Hospital	33 (17.74)	49 (8.28)	82 (10.54)	36 (23.84)	83 (40.10)	119 (33.24)
PHC/CHC/SHC	25 (13.44)	148 (25.00)	173 (22.24)			
Sub total	58 (31.18)	197 (33.28)	255 (32.78)	36 (23.84)	83 (40.10)	119 (33.24)
<i>Private sector</i>						
Hospital/nursing home	8 (4.30)	3 (0.51)	11 (1.41)	37 (24.84)	28 (13.53)	65 (18.16)
Clinic	120 (64.52)	392 (66.22)	512 (65.81)	78 (51.66)	96 (46.38)	174 (48.60)
Of which unqualified <sup>a</sup>	57 <sup>a</sup> (47.50)	207 <sup>a</sup> (52.81)	264 <sup>a</sup> (51.56)	38 <sup>a</sup> (48.72)	69 <sup>a</sup> (71.88)	107 <sup>a</sup> (61.60)
Total	186 (100.00)	592 (100.00)	(778) (100.00)	151 (100.00)	207 (100.00)	358 (100.00)

<sup>a</sup>It shows number of patients opted for private clinics owned by unqualified (Quacks) health personnel

Figures in brackets are percentages

Source Singh (1991), Kumar (2011)

persons. For instance, out of 65.81 % patients treated in private clinics during 1991, more than one-half patients (51.56 %) got treatment from unqualified health persons; whereas out of 48.60 % patients treated in private clinics during 2011, a little more than three-fifth patients (61.60 %) got treatment from unqualified health persons.

Another study by Paul et al. (2004) also confirms these findings. The study found that, although the rural respondents of more than three-fifths surveyed villages (62 %) in Punjab had reported easy access of public health facilities (near to home), yet nearly one-fourth of households (24 %) preferred public health facility for treatment of minor ailments (cough, cold, fever, wounds, loose motion, etc.). And, in the case of major ailments (surgery, fractures, complicated deliveries, strokes, etc.), a little more than two-fifths households (42 %) went to public health facility for treatment and the rest preferred the private health sector (Paul et al. 2004). Free/cheap treatment and easy accessibility were the main causes behind the preferences of surveyed villagers for utilizing public health services. However, only a small proportion of rural households (less than 3 %) that preferred public health institutions for treatment were fully satisfied with the service (Paul et al. 2004). Many other studies conducted in other states of India had similar conclusions (Banerjee et al. 2004; Hammer et al. 2007; Chaudhury et al. 2006).

## 15.6 Emerging Consequences and Public Policy Issues

The study clearly unravelled that the positive linkages and impacts of rising economic prosperity in Punjab on peoples' health and general well-being during the last few decades of development. It also demonstrates how an overemphasis on agricultural development put constraints on the future economic development of the state in the long run; how its ecology and environment has been deteriorated and polluted; and how the economic slowdown, in the absence of state support, adversely affected health status of the poor masses. It highlights that the moment global forces gained importance in India; public expenditure allocated to Punjab's health sector instead of rising has been reduced. In fact, it remained abysmally low (less than 1 % of NSDP against normative ratio of 3 %). And, no visible expansion and quality improvements were seen in state's public health infrastructure, except the upgradation of secondary health care (establishing PHSC in late 1990s) and rural health centres (NHRM since 2005–06). Thus, under the garb of health sector reforms, cutbacks in public expenditure, donor driven priorities, technocentric public health interventions and increasing reliance on private sector for solving health care problems have become the hallmark of new health strategy. Further, in the state, inadequate allocation of funds to other social sectors (education, rural development, social security, labour welfare, etc.) reduced additional intersectoral state supports to the health of poor people. In such a scenario, people living at subsistence levels (BPL) are becoming more vulnerable to ill-health/diseases and have a weak voice in the system.

The poor and vulnerable sections of society who lack resources (income/employment, assets, etc.) could not afford very high out-of-pocket health expenditure, particularly of the private sector's indoor treatment. When a serious illness/injury/disease strikes in such households, many of them do not seek treatment or delay treatment; and those who seek treatment do face financial hardships or fall into indebtedness or collapse ultimately. Many research studies convincingly demonstrated that ill-health in rural areas has become a major cause of indebtedness (Singh 1991; Kumar and Singh 2010; Singh 2010; Kumar 2011; Singh 2011). Moreover, emerging disease patterns—rising cases of cancers, blood pressure, heart diseases, diabetes, accidents, multiple addictions, violence, etc.—have posed many serious socio-economic problems for the poor who want to get rid of such diseases. A pro-poor health insurance such as the RSBY with much wider scope and official accountability did not working efficiently in the state.

Already, there are reports about gross underutilization and inefficiency in the working of public health services in the state. Truly, high absenteeism along with the absence of essential medicines, diagnostic facilities, first-aid kits and proper buildings, these health care institutions, particularly in rural areas, are acting primarily as the consultation clinics or first-aid centres. This has created a mistrust amongst the beneficiaries and led to rapid growth of private health services. Side by side, the rich and middle income groups, who become health conscious or capacity to pay, began to patronize private hospitals/nursing homes. This led to the

establishment of many good private hospitals in the state. Already, 2174 health care facilities with 22,337 beds were working in Punjab's private health sector (PPCB 2012). Many of these hospitals and doctors have very good reputation in providing quality health care in the state. Such hospitals and doctors have the capacity to attract medical tourism in the state, which should be encouraged in the state.

This demand–supply mis-match in Punjab's health sector has been filled by growing number of private hospitals/nursing homes and clinics in the urban areas which are generally concentrated on low risk surgeries and other cases. In rural areas, one can find the mushrooming growth of unqualified health persons that are providing substandard treatment by charging comparatively high prices. Moreover, ever growing private health sector is largely unmonitored and unregulated, with no norms with regard to quality or price of treatment in the state. National Health Policy 2001 also did not suggest any necessary steps to regulate fee, bed charges and standard of treatment provided by the private health institutions. Further, inequities in income may lead to differential access as well as utilization pattern of health services in the state. In the future, these trends, if not regulated/controlled, will seriously jeopardize the human resource development, formation of human capital, its maintenance/improvements and future economic growth in the state.

It is, therefore, suggested that the state should urgently take a long-range view of the economic agenda to follow and integrate it to health policy and other components of state's development strategy. For this, state's economic agenda must be put on the rails by removing undesirable resource crunch and other growth impediments at the earliest. Similarly, state health policy should concentrate on three parameters: (i) raising the demand for 'improved health'; (ii) improving the quality of public health services; and (iii) making the health system more accountable to the users, particularly to the poor.

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