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**Economic Development and Emerging Health  
Scenario in Punjab: In the Shadow of Global  
Forces and State Neglect**

by

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## **Abstract**

The study clearly unraveled the positive and negative linkages and impacts of rising economic prosperity on the health of people during the last five decades of development of Punjab. It demonstrates how an over-emphasis on the agriculture sector put constraints on the further economic development of Punjab economy in the long-run; and how this economic slowdown, in the absence of state support, has adversely affected the poor's health. It highlights that since the global forces gained importance in India, public investment in Punjab's health sector has been remained abysmally low (less than 1 percent of GSDP) and there was no visible expansion and quality improvement in state's public health infrastructure, except a patch-work of up-gradation of few secondary health care and rural health centres under the NHRM since 2005-06. In fact, under the garb of health sector reforms, cutbacks in public expenditure, donor driven priorities, techno-centric public health interventions and increasing reliance on the private sector have become the hallmark of new health care strategy in the state. Further, cutbacks in other social sectors (education, rural development, TPDS, etc.) has reduced additional inter-sectoral state support to the lives of poor people who are now more vulnerable to ill-health/diseases. In the eventuality of ill-health, they could not afford very high out-of-pocket health expenditure, particularly of the private sector's indoor treatment and falls in debt trap.

Moreover, emerging disease patterns – rising cases of cancers, blood pressure, heart diseases, diabetes, accidents, multiple addictions, violence, etc. - have posed many other serious socio-economic and cultural problems for the masses like non-getting adequate treatment, ignoring old people's illnesses, etc. This demand-supply gap have led to mushrooming growth of unqualified health persons who are providing sub-standard treatment at exorbitantly high costs, with no norms to the price and quality of treatment. Further, inequities in income distribution seem to be resulted in differential access to and actual utilization of health services in the state. These trends, if not regulated/controlled, will seriously jeopardize the human resource development and, subsequently, the formation of human capital, its maintenance and future economic growth in the state.

## **Economic Development and Emerging Health Scenario in Punjab: In the Shadow of Global Forces and State Neglect**

Sukhwinder Singh\*

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 associated costs across the general masses. It is true that Punjab had experienced impressive economic growth and steadily rising per capita income in the past as compared to the economic growth rate achieved in India and across her all major states. This has brought much acclaimed prosperity and affluence to the general masses as the state had consistently enjoyed the highest rank in terms of per capita income till 2001-02 (Jain, 2014). These remarkable achievements have been attributed to the planned economic development initiated, particularly during the decades of 1970s and 1980s in the state, under which heavy doses 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 care services were developed. Further, the economy of Punjab stimulated by the public and private initiatives and enterprises had made much progress in the industrial, business and services sectors also, especially of small-scale variety. These efforts paid rich dividends to the people in terms of raising per capita income and improving health related indicators. But for many researchers, economic growth achieved in the state seems to be inequitable and exclusive (Jain, 2014).

In fact, the growth drivers of Punjab economy till the end of 1980s 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). In fact, future growth of Punjab's agricultural sector having finite resources (land, water, seeds, etc.) has become a subject of debate and could be explained in the context of theory of 'limits to growth' propagated by Meadows's growth model (Meadows et al., 1972). Thus, the farming sector has a limited capacity to grow in the long run and this sector is unable to bring out desirable changes in other vital sectors of the 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. In 1991, adoption of New Economic Policy (NEP) in India has brought paradigm shift in the growth drivers of economy. In the post-liberalization era, growth of Punjab economy, instead of getting momentum, has slowed down. Facing severe resource crunch, state government 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 such as the education, health and agricultural extension services (Gill, Singh and Brar, 2010).

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In the light of these observations and policy changes, this paper 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 paper has been divided into five sections. Part I analyzes, in brief, how the economic slowdown and NEP parameters have impacted the Punjab's health sector. Part II examines the incidence and changing pattern of diseases in Punjab. Pattern of public expenditure on health services in the state has been discussed in Part III. Part IV 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 Part V.

## I

### **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 20<sup>th</sup> century. For instance, average annual growth rate in state income was found to be 5.1 percent during the decade of 1970 (1970-79) compared the all-India average of 3.6 percent per annum (Table 1). During the Sixth Five Year Plan (1980-85), growth rate of Punjab economy was recorded at 5.3 percent per annum compared India's growth rate of 5.3 percent per annum. In the Seventh Five year Plan (1985-90), Punjab's growth rate of 6.0 percent per annum was slightly higher than that of India's growth rate (5.8 percent). 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 percent, whereas it was 6.8 percent in the case of Indian economy. Similarly, the economy of Punjab grew at 3.9 percent per annum compared to national average growth rate of 5.5 percent 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 percent and 6.9 percent compared to all-India's rates of 7.8 percent and 9.0 percent respectively. Further, the state has targeted to grow at 6.4 percent per annum against the national average of 8.2 per cent during the Twelfth Five Year Plan (2012-17).

This slowdown has also been found in its three sub-sectors: 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). Intensive agriculture has also polluted the state's ecology – water, soils, flora and fauna – to a great extent. Poisoning of soils and water resources due to high/intensive use of 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).

Table 1: Average Annual Compound Growth Rate of Punjab Economy vs. Indian Economy

Time/Plan Period	CGR in State Income by Sector (% per year)					Price Level
		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)*	Punjab	1.6	7.5	8.0	<b>6.4</b>	
	India	4.0	8.1	9.1	8.2	

\*Target Growth Rate

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

Further, due to economic slowdown, Punjab slipped down in terms of per capita income ranking across all major Indian states from the 1<sup>st</sup> rank in 1991-92 to the 2<sup>nd</sup> rank in 1992-93 and 6<sup>th</sup> rank in 2009-10 (GOI, 2013). This has happened because the economy of Punjab has been experiencing slow growth rate than that of the fast growing states like 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 per cent higher than that of the all-India average, which has now come down to be more than all-India average by 34.2 per cent in 2009-10. It showed that ever since India adopted the NEP, her economy has entered into an accelerated growth era, but the economy of Punjab has been facing stagnating growth rate.

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 astonishing speed (Gill, Singh and Brar, 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 forces of globalization influence a nation's health mainly through: (i) enhanced movement of pharmaceutical products, health personnels and patients across the national boundaries; (ii) elite-oriented health consumerism; (iii) medical tourism via the internet and other information means; and (iv) establishment of big corporate hospitals with Five Star medical facilities. Similarly, increasing mobility of people raises more chances of spreading/contracting diseases across the nation's borders (Gill, Singh and Brar, 2010). Further, the globalization if accompanied by low public funds to health sector plays havoc with the health of poor people in the developing countries (Baum, 2001).

Indirectly, these forces affect the peoples' health through 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 like 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 diseases means more incidence of poverty and mal-nutrition 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 techno-centric public health interventions (Qadeer, 2000).

And, this paradigm shift in health policy, especially cutbacks in public health funds has adversely affected the functioning of primary health centres (PHC) across all Indian states (Qadeer, 2000). Further, in the absence of liberal central funding, infectious diseases control programmes are being disrupted; family welfare programme began to focus on reproductive health of married women only; mothers'/children' health and their nutritional needs are largely ignored across all states. Side by side, handing over the health care to the private players, without any regulatory mechanism, and quality aspects in treating patients are being seriously compromised. By doing this, state is unable to fulfill its constitutional obligations and is adversely affecting the equity principle in accessing public health services by the poor (Baru, 1998). All these policy prescriptions are now being implemented in the state more vigorously (Singh, 2005; Gill, Singh and Brar, 2010). In such scenario, the poor who lacks resources (income/employment, assets, etc.) could not afford very high out-of-pocket health expenditure, particularly when they are seeking indoor treatment from the private sector owned institutions.

## II Rising Incidence and Emerging Diseases in Punjab

As expected, state's agriculture led growth has produced many undesirable impacts on state's environment and ecology, which in turn influenced the pattern of diseases in the state. Further, rising urbanization, industrial pollution, growing slums, ageing population, etc. have also posed many serious health hazards and challenges that are adversely affected the health of people. In fact, unrestricted use of agro-chemicals, 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 and epidemiologic transitions are likely to be appeared in the state (Bobadilla et al., 1993; Mosley et al., 1993), where the chronic non-communicable, degenerative (ageing) and man-made diseases begin to dominate compared to the earlier dominance of mal-nutritious, infectious and childhood related diseases. All these forces seem to be working in the state, due to which a significant rise in number of illness episodes has been witnessed as well as pattern of diseases has been changed in the state.

An assessment of NSSO data revealed (Table 2) that number of ailing persons in Punjab grew at the rate of 7.09 percent per annum during 1995-2004 compared to 3.85 percent per annum during 1973-1995. However, the pace of growth rates amongst the ailing persons differ considerably both in the rural and urban areas. Whereas the per annum growth rate across the ailing persons in rural areas has been doubled: rose from 3.01 percent during 1973-1995 to 8.13 percent during 1995-2004, but the growth rate across urban ailing persons decelerated: from 6.16 percent to 4.76 percent during the same two 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.

Table 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	1995/95-2004/05	Male	Female	All
<b>Punjab</b>								
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
<b>India</b>								
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.

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). Consequently, the load of morbidity has been shifted from the younger to the older populations. It is also true that advancement in the therapeutics often postpones or averts death across the older people, but does not cure the disease at all (Bobadilla et al., 1993). Along with environmental hazards, demographic and epidemiologic transitions led to emergence of new health problems such as the dominance of chronic non-communicable, ageing and man-made diseases (Mosley et al., 1993). The data also pointed out (Table 3) that leaving aside the mix-group of diagnosed ailments, the respiratory/ENT diseases, unknown fevers, cardiovascular diseases, gastro-intestinal infections, disorder of joints and bones and bronchial asthma emerged as the six top ranking ailments in the descending order of importance in rural Punjab. Together, these diseases cornered 54.27 percent share of total ailments. These six top raking diseases are followed by the accidents/injuries/burns, undiagnosed ailments, diabetes mellitus, gynecological disorders, kidney/urinary tract infections, febrile illnesses, eye ailments, disabilities, neuro/psychiatric disorders, cancer/other tumors, dental problems and tuberculosis in terms of prevalence rate in rural Punjab.

Further, all those ailments that needed hospitalization in rural areas are the accident/injury/burn victims, followed by the gastro-intestinal diseases, unknown fevers, kidney/urinary tract infections, gynecological disorders, cardiovascular diseases, bronchial asthma, neuro/psychiatric disorders, respiratory/ENT diseases and disorder of joints & bones. It is interesting to note that gastro-intestinal diseases, cardiovascular diseases, respiratory/ENT diseases, bronchial asthma, disorder of joints & bones, unknown fevers and accidents/injuries/burns are the eight diseases that figure both in the top ten causes of outdoor ailments and hospitalization cases. It also shows 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 & bones) and man-made diseases (accident/injury/burns, psychiatric disorders, respiratory diseases, etc.) are rising 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).

Table 3: Number of Outdoor and Indoor Treated Ailment 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
Gastro-intestinal	181488	9.05	5	55540	10.55	3	237028	9.36	5
Cardiovascular	215970	10.77	4	31168	5.92	7	247138	9.76	4
Respiratory/ENT	290662	14.50	2	19165	3.64	10	309827	12.24	2
Tuberculosis	9461	0.47	20	13263	2.52	13	22724	0.90	19
Bronchial Asthma	91825	4.58	7	29247	5.55	8	121072	4.78	7
Disorder of Joints and Bones	144414	7.20	6	18892	3.59	11	163306	6.45	6
Kidney/Urinary Tract Infections	19896	0.99	18	35576	6.75	5	55472	2.19	12
Gynecological Disorders	30510	1.52	13	32407	6.15	6	62917	2.49	11
Neuro/Psychiatric Disorders	21413	1.07	16	20463	3.89	9	41876	1.65	16
Eye Ailments	42782	2.13	11	5531	1.05	18	48313	1.91	14
Diabetes Mellitus	71758	3.58	9	10843	2.06	15	82601	3.26	10
Anemia/Malnutrition	10696	0.53	19	9502	1.80	16	20198	0.80	20
STD Infections	5962	0.30	21	1943	0.37	21	7905	0.31	21
Febrile Illnesses	45085	2.25	10	4169	0.79	20	49254	1.95	13
Unknown Fevers	251573	12.55	3	43657	8.29	4	295230	11.66	3
Disabilities	28258	1.41	14	13824	2.62	12	42082	1.66	15
Dental problems	27035	1.35	15	4320	0.82	19	31355	1.24	18
Accidents/Injuries/Burns	34602	1.73	12	74872	14.22	2	109474	4.32	8
Cancer and Other Tumors	21314	1.06	17	11434	2.17	14	32748	1.29	17
Undiagnosed Ailments	83584	4.17	8	8469	1.61	17	92053	3.64	9
Other Diagnosed Ailments*	376257	18.77	1	82409	15.65	1	458666	18.12	1
Total	2004545	100		526694	100		2531239	100	

\*Includes all other diagnosed ailments.

Source: Derived from the data given in Singh, 2009.

Regarding the major health problems faced by the people in Punjab, the NFHS-3 data presented a mixed picture of disease pattern. It showed that, during 2005-06, the number of persons suffering from tuberculosis in the state were just 201 per lakh people compared to overall figure of 445 per lakh persons in India (IIPS, 2007). 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. For instance, 849 women compared to 802 men per lakh population were suffering from the diabetes in the state. In the case of asthma, 945 women compared to 802 men per lakh population were suffering. 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 practices in the state. The data on the nutrition status of people revealed that a little less than one-half of women (48.8 percent) aged 15-49 years were either underweight or having thin body (18.9 percent) or victims of overweight or obesity (29.9 percent). Similarly, 20.6 percent men in the age group of 15-49 years were underweight or having thin body and another 22.2 percent 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 percent children aged 6-59 months, 38 percent women and 13.6 percent 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 store-house of many widespread diseases such as the malnutrition related infectious/parasitic diseases on one side and non-communicable diseases on the other side.

Surprisingly, cancer has acquired endemic proportion in the state. In 2009, there were 7738 cancer patients in Punjab; of which 2576 patients (33.29 percent) were found in five districts, namely, Mukatsar, Bathinda, Barnala, Mansa, and Faridkot (GOP, 2010). 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 4). Further, 33,318 cancer deaths were reported in the state during the last five 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 five years, 18 people died each day 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 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 higher occurrence of cancer disease to the rising use of agro-chemicals (insecticides, pesticides, etc.), poor quality of drinking water, polluted environment, unhygienic living conditions and ageing of population.

Table 4: Number of Cancer Cases/Patients and Deaths in Punjab by Region, 2013

Region	Population Surveyed (Lakh)	Total Number Cancer Cases/Cases/Deaths			Cancer Incidence (Per Lakh Population)		
		Confirmed	Suspected	Deaths*	Confirmed	Suspected	Deaths*
Punjab	264.84	23,874	84,453	33,318	90.1	318.9	125.8
By Region							
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

\*During Last Five Years.

Source: GOP, 2013

### III Decreasing Public Health Expenditure in Punjab

Now question arises whether the state has been allocating adequate funds to tackle emerging disease pattern in Punjab. Public health funds are a powerful instrument in the hands of state to improve health and living conditions of the poor (Walle and Nead, 1995). Such expenditures also produce a number of externalities such as controlling rising population by reducing fertility and mortality rates. As public health sector has to compete with other development and non-development services in the state, it is interesting to examine its behaviour pattern over the longer period of time. An analysis of data revealed (Table 5) that, although the total expenditure on health services (in real terms at 1993-94 prices) has spiraled from Rs. 138.81 crore by the triennium ending 1980-81 to Rs. 713.78.73 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 percent between the triennium ending period of 1980-81 and 1986-87. And after that, it decreased to 6.97 percent by the triennium ending 1989-90, 5.46 percent by the triennium ending 1992-93, 4.35 percent by the triennium ending 1995-96; slightly rose to 5.48 percent by the triennium ending 1998-99 and fell to 4.02 percent by the triennium ending 2004-05 and 3.58 percent by the triennium ending 2007-08.

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

#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.

A similar trend emerged when one viewed the health sector's share out of total development expenditure, social services and state income (NSDP) of Punjab. Surprisingly, public health expenditure as a proportion of NSDP in Punjab never reached to one percent for the most of years against the normative ratio of 3 percent of national income. The share, instead, has declined to the lowest ebb (0.62 percent) 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 after the imposition of NEP of 1991 (post-reforms period). Lack of public health funds means that the health services provided by the state-run hospitals, CHCs/PHCs and dispensaries become very weak. Many studies showed a poor utilization of public health infrastructure in the state. Inefficiency, low preference and rent seeking behaviour of employees have become hallmark of public health infrastructure in the state. This situation, in fact, encourages the growth of private health care sector, which is mushrooming in numbers in every hook and corner of the state.

## **IV**

### **Health Delivery System in Punjab**

Both public and private providers dominate the health delivery system of the state. In large urban towns, hospitals attached with the Medical Colleges are providing 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. Theoretically, public health delivery system in the state is 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). By the end of 2012, 2935 health care facilities (761 in public sector; 19.4 percent) with 44483 beds (22337 beds in public sector; 50.2 percent) were found to be working in Punjab (PPCB, 2012). Thus, a greater majority of private health providers consisting of small clinics or small-scale nursing homes/hospital are in operation in the state. They as the general practitioners or specialists provide clinic/office-based medical services to the patients and most of them located in the urban Punjab (Singh, 2013). An overwhelming majority of them concentrate on low risk patients/cases. They provide in-patient as well as out-patient cares at a price without any accountability and transparency of quality of service provided and medicine prescribed. Now, a question arises, whether the public health infrastructure in the state is adequately developed or reformed over the time period? An elaborated answer explains two trends. as follows:

#### **4.1 Stagnated Public Health Infrastructure**

Undoubtedly, public health facilities in Punjab have increased tremendously till the mid-1980s mainly due to the increased allocation of central funds to state health sector and pro-rural policy of the state (Singh, 2005). After that, whatever may be the reasons and factors; public funds to state health services have declined drastically in the state. An analysis of data authenticated (Table 6) that there was no appreciable increase in public health infrastructure since the mid-1980s. Instead, total number of hospitals decreased from 244 to 219 between the triennium ending periods of 1980-81 and 2007-08. However, during the same period, number of PHCs increased from 129 to 441, and of dispensaries from 1255 to

1453. Further, the proportion of rural hospitals just rose to 43.77 percent by the triennium ending 1986-87 from 40.98 percent by the triennium ending 1980-81. After that, however, the share of rural hospitals consistently decreased to 35.10 percent by the triennium ending 1995-96, and 33.33 percent by the triennium ending 2007-08. The proportion of rurally located dispensaries also showed a marginal decrease (from 85.31 percent by the triennium ending 1980-81 to 83.20 percent by the triennium ending 2007-08), despite the more allocation of central funds to rural health under the Minimum Needs Programme initiated in India since the Fifth Five Year Plan (1974-79). This decrease in proportion of rurally located dispensaries is largely due to the up-gradation of many rural dispensaries into CHCs/PHCs in the same area during 1984-2000 (Singh, 2005).

Further, population served per institution confirmed that there has been either a very slow or no rise in the number of state owned health institutions compared to the increase in population of state. 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 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).

In the theory of public health, rising number of hospitals and beds are showing the strength of indoor treatment. But in the context of rising number of ailments across the state, availability of beds and their utilization pattern can be used to judge the efficiency and strengths of public health facilities. As stated earlier in Table 6 that population served per bed in Punjab did not show any improvement, as there was one bed for every 802 persons during the triennium ending 1983-84 and this ratio rose consistently 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, per bed population also increased from 1276 persons (410 persons in urban areas) by the triennium ending 1983-84 to 1600 persons (677 persons in urban areas) by the triennium ending 2007-08. It means that no effort was made by the state government to establish more beds in public owned medical institutions of the state. In fact, the indoor treatment facility has deteriorated in these state institutions during the post-reforms period (Kumar, 2011).

Table 6: Growth of Health Care Infrastructure in Punjab

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

\*Rural Population, Non-A means non-allopathic which includes Ayurvedic, Unani and Homeopathic.

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.

Further, one can observe many glaring deficiencies by judging the availability of health machinery, equipments, buildings and residential accommodation in the state run health institutions, particularly located in the rural areas. In rural Punjab, as the entire burden of health care (promotive, preventive and curative cares) falls on the rural CHCs/PHCs, which are not adequately equipped as well as not accepted by the people as a panacea for their health care needs (Singh, 1991; Kumar, 2011). An overwhelming majority of rural CHCs/PHCs primarily are consultation clinics (OPDs). Hospitalization, trauma care and emergency services (indoor treatment) are almost non-existence in these institutions. The data on rurally located health institutions by type and bed strength confirmed (Table 7) that a large majority of rural health institutions (around 90 percent) fell in 0-4 bedded category during 1986-2005. Further, there were 111 rural hospitals in 1986, and their number had decreased to 73 in 2005. Of them, more than four-fifths were of small size having bed strength of 11-30 beds. In fact, there is only one large sized rural hospital at Beas having 300 beds, but run by the Radha Swami Satsang – a philanthropist organization. At the micro level, the data provided by the district level health authorities revealed that in all rural PHCs and dispensaries in Patiala district, no bed occupancy was reported during 2005-06 (Office of Civil Surgeon, Patiala District, 2009). These findings are largely true in the case of rural areas of other districts of Punjab.

Table 7: Distribution of Health Institutions in Punjab by Type and Bed Range

Bed Range	Year	Type of Health Institution							
		Hospital		CHC/PHC		Dispensary		Total	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
0 - 4	1986	-	6 (3.97)	50 (45.05)	7 (36.84)	1560 (99.36)	211 (95.48)	1610 (89.64)	229 (58.57)
	2005	2 (2.74)	8 (5.48)	379 (78.96)	18 (28.13)	1220 (99.92)	253 (98.06)	1601 (90.25)	279 (59.62)
5 - 10	1986	6 (5.22)	13 (8.61)	59 (53.15)	9 (47.37)	4 (0.25)	2 (0.90)	69 (3.84)	24 (6.14)
	2005	4 (5.48)	10 (6.85)	37 (7.71)	5 (7.81)	1 (0.08)	5 (1.94)	42 (2.37)	20 (47.27)
11-30	1986	102 (88.70)	53 (35.10)	2 (1.80)	3 (15.79)	6 (0.38)	8 (3.62)	110 (6.12)	64 (16.37)
	2005	58 (79.45)	39 (26.71)	63 (13.13)	38 (59.38)	-	-	121 (6.82)	77 (16.45)
31-50	1986	5 (4.35)	36 (23.84)	-	-	-	-	5 (0.28)	36 (9.21)
	2005	6 (8.22)	38 (26.03)	1 (0.21)	3 (4.69)	-	-	7 (0.39)	41 (8.76)
51-100	1986	1 (0.87)	24 (15.90)	-	-	-	-	1 (0.05)	24 (6.14)
	2005	2 (2.74)	25 (17.12)	-	-	-	-	2 (0.11)	25 (5.34)
101 +	1986	1* (0.87)	19 (12.58)	-	-	-	-	1 (0.05)	19 (4.86)
	2005	1* (1.37)	26 (17.81)	-	-	-	-	1 (0.06)	26 (5.56)
Grand Total	1986	115 (100)	151 (100)	111 (100)	19 (100)	1570 (100)	221 (100)	1796 (100)	391 (100)
	2005	73 (100)	146 (100)	480 (100)	64 (100)	1221 (100)	258 (100)	1774 (100)	468 (100)

\* One 300 bedded Hospital in Rural Punjab. Figures in parentheses are percentages

Source: culled from **Directory of Medical Institutions, Punjab**, Directorate of Health and family welfare Punjab, Chandigarh, various years.

Another dismal aspect is related to severe shortage of doctors (specialists as well as generalists) and para-medical 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 8 showed that about one-fifth of sanctioned posts (18.68 percent) in state health department were lying vacant in 2005. Interestingly, one-sixth posts of medical officers (16.80 percent) were also lying vacant, whereas a large numbers of qualified doctors as unemployed were available in the state. Similarly, more than one-sixth of sectioned positions of paramedical staff (18.38 percent) and more than one-fifth posts of drivers (22.93 percent) were kept vacant. Further, more than one-half of sanctioned posts of district level health extension officers (56.47 percent) 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.

Table 8: 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*	4380	3644	736	16.80
Paramedical Staff**	15131	12350	2781	18.38
District Health Extension Officers/Supporting Staff***	278	121	157	56.47
Drivers	532	410	122	22.93
All Posts	20321	16525	3796	18.68

Note: \* It includes Dental Doctors.

\*\* It includes Pharmacists, Ophthalmic Technicians, Radiographers, Laboratory Technicians, Staff Nurses, Lady Health Visitors, Supervisors, ANMs, MPWs (M/F), etc.

\*\*\* 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.

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. In the absence of robust public health system in rural Punjab, 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 sub-standard treatment and charging exorbitantly high prices. Current dynamics of health in the state revealed that wide gaps are still prevalent in the rural and urban health indicators. The data in Table 9 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 9: 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.

#### 4.2 Weak Initiatives to Improve Health Infrastructure

The state government, despite fully aware of these ground realities, has not made any planned effort/initiative to expand and bring reforms in the public health infrastructure in the state since 1991. The only two initiatives, limited in scope, have been taken to re-organize state health department 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 by taking over only 154 public hospitals - ranging from district hospitals (17), sub-divisional 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 health reforms, particularly contracting-out many services and levy of users' fee in the state health 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 and 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 of 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 defense 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 **Third**, 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 released to upgrade rural health care infrastructure; and (ii) decentralization in the decision and administrative control of rural health delivery system was introduced by handing over 1310 rural dispensaries to district level PRIs (Zila Prishad) in the state. For this purpose, nearly Rs. 1300 crore have been released by the Central Government to Punjab government during the last six years, i.e., 2005-06 to 2010-11. With this money, state government has upgraded the facilities in almost all CHCs (115 out of 116) and 211 PHCs (43.6 percent; out of 484) up to 2010-11. In the case of SHCs, service-providers (Qualified Doctor) are 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 government health dispensary is for 10 villages. And, each health dispensary is headed by a service-provider who works under the Zila Parishad. As per initial reports, this contract system is working very well; service-providers are available to rural patients during specified hours as the attendance is monitored by the village Panchayat. A ten-fold increase in the number of out-patients has been recorded in these dispensaries. 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).

## IV

### Low Efficiency of Public Health Sector

As already reported, there was no major increase in the number of public health institutions and beds in the state since the 1990s. Along with this side, rising rent seeking behaviour of health sector employees due to administration apathy during the militancy period (1980-1995) added to the low efficiency and low utilization of public health infrastructure in rural areas. An assessment of bed occupancy ratio in the state - a better measure to judge efficiency of any public health services - has shown a very dismal picture. For instance, district hospitals, which were overcrowded with the patients (bed occupancy ratio was more than 100 percent) during the 1970s (Singh, 2005), had shown a downward trend in the utilization of beds for indoor treatment (Table 10). A sharper downward trend in bed occupancy ratio was found in the tehsil hospitals, hospitals exclusively for women and tuberculosis patients. The 30-bedded, 25-bedded and PHCs that are mostly located in rural areas have shown abysmally low level of bed occupancy. Interestingly, 17 district hospitals taken over by the PHSC have not shown any impressive improvements in the bed occupancy ratio, as it was 58.1 percent in 2001, 57.0 percent in 2005 and 63.3 percent in 2007. Even the hospitals attached with state medical colleges providing tertiary care in Punjab have witnessed low bed occupancy, mainly due to the reduced funding, deterioration in quality care and high user' charges since May, 1999. Consequently, 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).

Table 10: 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.

Two micro level studies based on the primary surveys (Singh, 1991; Kumar, 2011) concluded that a large majority of people suffering from different diseases in Punjab preferred, instead of public health institutions, 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 percent in 1991 and 33.24 percent in 2011) used public health centres, and the remaining two-third patients (67.22 percent in 1991 and 66.76 percent in 2011) preferred to get treatment either private hospitals/nursing homes or private clinics (Table 11). 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 percent) preferred private hospital/nursing homes, whereas 18.16 percent 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 persons. For instance, out of 65.81 percent patients treated in private clinics during 1991, more than one-half patients (51.56 percent) got treatment from unqualified health persons, whereas out of 48.60 percent patients treated in private clinics during 2011, a little more than three-fifth patients (61.60 percent) got treatment from unqualified health persons.

Table 11: 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
<b>Public Sector</b>						
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)
<b>Private Sector</b>						
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 *	57 * (47.50)	207 * (52.81)	264 * (51.56)	38 * (48.72)	69 * (71.88)	107 * (61.60)
Total	186 (100.00)	592 (100.00)	778 (100.00)	151 (100.00)	207 (100.00)	358 (100.00)

\*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.

Another study by Paul, et al. (2004) also confirms these findings. The study found that, though rural respondents in more than three-fifths surveyed villages (62 percent) in Punjab had reported easy access of public health facilities (near to home), yet nearly one-fourth of households (24 percent) used 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.), more than two-fifths households (42 percent) preferred public health facility for treatment (Paul, et al., 2004). Free/cheap treatment and easy accessibility were the main causes behind preferences of surveyed villagers for utilizing public health services. However, only a small proportion of rural households (less than 3 percent) that preferred public health institutions were fully satisfied with the service (Paul, et al., 2004).

## V

### Emerging Consequences and Public Policy Issues

The study clearly unraveled that the positive linkages and impacts of rising economic prosperity in Punjab on the peoples' health during the last few decades of development. It also demonstrates how an over-emphasis 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 to Punjab's health sector reduced. In fact, it is allowed to remain abysmally low (less than 1 percent of NSDP against normative ratio of 3

percent). And, no visible expansion and quality improvements were seen in state's public health infrastructure, except the up-gradation of secondary health care (establishing PHSC) and rural health centres (NHRM since 2005-06). Thus, under the garb of health sector reforms, cutbacks in public expenditure, donor driven priorities, techno-centric public health interventions and increasing reliance on private sector for solving health problems of people 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 inter-sectoral state supports to the poor people. In such scenario, people living at subsistence levels (BPL) are becoming more vulnerable to ill-health/diseases.

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 any serious illness/injury/disease strikes in such households, many of them do not seek treatment or delay the treatment; and those who seek treatment do face financial hardships or fall to the 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; 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 when they got treatment of such diseases. Already, there are reports about gross under-utilization and inefficiency in the working of public health services in the state. Truly, in the absence of essential medicines, diagnostic facilities, first aid kits and proper buildings, these health care institutions, particularly in rural areas, are primarily acting as the consultation clinics or first-aid centres. On the other side, the rich and middle income groups, who have become health conscious or capacity to pay, began to patronize private hospitals/nursing homes. Some of the private sector 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.

This demand-supply gap has been filled by growing number of private hospitals/nursing homes and clinics in the urban areas who 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 sub-standard 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. Even the National Health Policy 2001 does not take necessary steps to regulate fee, bed charges and standard of treatment provided by the private 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.

## References

- Baru, R. (1998), *Private Health Care in India: Some Characteristics and Trends*, Sage Publications, New Delhi.
- Baum, F. (2001), Health, Equity, Justice and Globalization: Some Lessons from the People's Health Assembly, *Journal of Epidemiology and Community Health*, Vol. 55 (9), September, pp 613-616.
- Bobadilla, J.L., Frenk, J., Lozano, R., Frejka, T. and Stern, C. (1993), The Epidemiologic Transition and Health Priorities, in Jamison, D.T., Mosley, W. H., Measham, A. R. and Bobadilla, J. L. (Eds.), *Disease Control Priorities in Developing Countries*, Oxford University Press, New York, pp. 51-63.
- Cornia, G.A. (2001), Globalization and Health: Results and Options, *Bulletin of the World Health Organization*, Vol. 79 (9), pp.834-841.
- Gill, Anita (2010), 'Punjab Peasantry: A Question of Life and Death', in R.S. Deshpande and Saroj Arora (eds.) *Agrarian Crisis and Farmer Suicides*, Sage Publications, New Delhi, pp. 293-311.
- Gill, Anita and Singh, Lakhwinder (2006), 'Farmers' Suicides and Response of Public Policy: Evidence, Diagnosis and Alternative from Punjab, *Economic and Political Weekly*, Vol. 41 (26), pp. 2762-2768.
- Gill, S.S., Singh, Sukhwinder and Brar, J.S. (2010), *Globalization and Indian State: Education, Health and Agricultural Extension Services in Punjab*, Aakar Books, New Delhi.
- GOI (2005), *Report of the National Commission on Macroeconomics and Health*, Ministry of Health & Family Welfare, Government of India, New Delhi.
- GOI (2013), *Economic Survey 2012-13*, Oxford University Press, New Delhi.
- GOI (2013), *Twelfth Five Year Plan 2012-17, Vol. I*, Sage Publications India Pvt. Ltd., New Delhi.
- GOP (2013), *Punjab State Report on Cancer Awareness and Symptom Based Early Detection Campaign-2013*, Department of Health and Family Welfare, Government of Punjab, Chandigarh.
- IIPS (2007), *National Family Health Survey (NFHS-3) 2005-06 India*, International Institute for Population Sciences (IIPS) and Macro International, Mumbai (India) and Maryland (USA).
- IIPS (2008), *National Family Health Survey (NFHS-3) 2005-06, Punjab*, International Institute for Population Sciences (IIPS) and Macro International, Mumbai (India) and Maryland (USA).
- Jain, Varinder (2014), Affluence, Vulnerability and Social Security Evidence from Punjab, in Inderjeet Singh, Sukhwinder Singh and Lakhwinder Singh (eds.), *Economic Development in Punjab: Essays in Honour of R.S. Ghuman*, L.G. Publishers & Distributors, New Delhi, pp. 248-272.
- Khurana, M.R. (2011), 'Agrarian Crisis in Punjab and the Way-out', in H.S. Shergill, Sucha Singh Gill and Gurmail Singh (eds.), *Understanding North-West Indian Economy*, Serials Publications, New Delhi, pp. 36-108.
- Kumar, Kush (2011), State, Market and Utilization Pattern of Health Services: A Study of Punjab, *Unpublished Ph. D. Thesis*, Department of Economics, Punjabi University, Patiala
- Kumar, Kush and Singh, Sukhwinder (2010), Health Infrastructure and Utilization Pattern in Rural Punjab: Emerging Public Policy Issues, *Journal of Economic and Social Development*, Vol. 6 (2), December, pp.79-96.
- Meadows, D.H., Meadows, D.L., Randers, J. and Behrens III, W.W. (1972), *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, Universe Books, New York.
- Misra, R., Chatterjee, R. and Rao, S. (2003), *India Health Report*, Oxford University Press, New Delhi.
- Mohan, S., Reddy, K. S. and Prabhakaran, D. (2011), *Chronic Non-Communicable Diseases in India: Reversing the Tide*, Public Health Foundation of India, available at [www.phfi.org](http://www.phfi.org) (assessed on March 2014).
- Mosley, W.H., Bobadilla, J.L. and Jamison, D.T. (1993), The Health Transition: Implications for Health Policy in Developing Countries, in Jamison, D.T., Mosley, W. H., Measham, A. R. and

- Bobadilla, J. L. (Eds.), *Disease Control Priorities in Developing Countries*, Oxford University Press, New York, pp. 673-699.
- Paul, S., Balakrishnan, S., Gopakumar, K., Sekhar, S. and Vivekananda, M. (2004), State of India's Public Services, Benchmarks for the States, *Economic and Political Weekly*, Vol. 39 (9), pp. 920-933.
- PPCB (2012), *Annual Report of Bio-Medical Waste Management Status 2012*, Available at [www.ppcb.gov.in/environment\\_standred.php](http://www.ppcb.gov.in/environment_standred.php) (assessed in March 2014).
- Qadeer, I. (2000), Health Care Systems in Transition III, India, Part I: The Indian Experience, *Journal of Public Health Medicine*, Vol. 22 (1), March, pp. 25-32.
- Raman, A.V. and Bjorkman, J.W. (2009), *Public Private Partnership in Health Care in India: Lessons for Developing Countries*, Routledge, London.
- Shergill, H.S. (2010), *Growth of Farm Debt in Punjab*, Institute for Development and Communication (IDC), Chandigarh.
- Shiva, Vandana (1992), *The Violence of Green Revolution: Third World Agriculture, Ecology and Politics*, Zed Books, London.
- Singh, N.D. (2010), Rural Health Care and Indebtedness in Punjab, *Economic and Political Weekly*, Vol. 45 (11), pp. 22-25.
- Singh, Nirvikar (2013), State's Economy: A Case of Arrested Growth, *Hindustan Times*, October 10.
- Singh, Sawarn (2009), Dimensions, Determinants and Economic Burden of Ill Health in Rural Punjab, *Unpublished Ph. D. Thesis*, Department of Economics, Panjab University, Chandigarh.
- Singh, Sukhwinder (1991), Development and Use of Health Care Services in Rural Areas: A Case Study of Punjab, *Unpublished Ph. D. Thesis*, Department of Economics, Punjabi University, Patiala.
- Singh, Sukhwinder (2005), Rural Health Infrastructure in Indian Punjab: Some Issues, Challenges and Policy Prescriptions, in Gopal Singh and R.K. Chauhan (eds.), *South Asia Today*, Anamika publishers & Distributors (P) Ltd., New Delhi, pp. 380-403.
- Singh, Sukhwinder (2013), Rural Health in Punjab: In Shadow of State Neglect, in R.S. Ghuman and Sukhwinder Singh (eds.), *Rural Local Self-Government in India: Some Developmental Experiences*, Centre for Research in Rural and Industrial Development (CRRID), Chandigarh, pp. 161-180.
- Singh, V.J. (2011), Financing of Health Expenditure in Rural Punjab: A Study of Indoor Patients, *Unpublished M. Phil. Thesis*, Department of Economics, Punjabi University, Patiala
- Walle, V.D. and Nead, K. (1995), *Public Spending and the Poor: Theory and Evidence*, The Johns Hopkins University Press, Baltimore.

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