



An Analysis of Health Care Sector of Haryana State: An Economic Perspective

Sanjeev Kumar

Assistant Professor, Department of Economics, Baba Fateh Singh Ji Govt. College, Assandh (Karnal)

ABSTRACT:

Improved health is essential to building human capital. In this article, we take a look at the state of health care delivery in Haryana. The number of hospitals and, by extension, the number of accessible hospital beds are two key metrics to consider when assessing a country's healthcare system. In 1970, the number of hospitals that practised allopathy was tiny compared to its almost fourfold growth to the present day. Human health-related demographic data are also included in this analysis. The rates of birth, death, and infant mortality are examples of such factors. Financial investment in the health sector or health-related activities is crucial to the industry's growth. In this study, we examine the share of a state's budget that goes toward healthcare and how it compares to the overall health care budget in that state. In 2012-13, health spending made up just 3.3% of state budgets, but in 2016-17, that number rose to 4.1%. There is also an examination of where Haryana stands in terms of health expenditure in relation to other states in Haryana. This analysis confirms previous research showing a decline in both the birth rate and the IMR between 1971 and 2019; the former was 72.0 and the latter was 27. The research includes recommendations for improving Haryana's healthcare system.

INTRODUCTION:

The healthcare industry consists of all the businesses involved in the delivery of healthcare to people. This includes hospitals, clinics, doctors' offices, pharmaceutical and medical device manufacturers, health insurance providers, and others. The longevity and health of a country's population may be indicative of the quality of its human resources. Healthy people are more productive; hence, a healthy population is crucial to any nation's economic development and progress. The World Health Organization (WHO) includes mental and physical well-being in its definition of health. The three aspects of well-being—physical, mental, and social—are inextricably linked, as stated in the constitution. It has been the standard definition since our founding in 1948. The first usage of the term in a constitution was in the post-war document, which sought to promote peace and stability. True, a safe and happy population is a sign of a flourishing civilization. There is a higher survival rate among peacemakers. Human capital is essential to a country's economic and social development since healthy workers are more productive and stimulate economic growth. Every country that wishes to prosper economically and socially must put money into health care, worker education, and human capital. To put it simply, a healthier workforce would have fewer absences, more output when on the clock, and a greater net positive impact on the economy.

REVIEW OF LITERATURE:

Bhat and Jain (2004) explored state-level income-healthcare spending relationships. The research analyzed public health expenditures in 14 large states. Andhra Pradesh, Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal were studied. In order to evaluate the link between income and public health care expenditure, the research employed real per capita gross state domestic product (GSDP) to represent income and real per capita state public health expenditure (PHCE) on health. Health expenditure covers solely state spending and excludes centrally funded family assistance programs. The report suggests state governments allocate 0.43 percent of SGDP to health and medical services. This excludes centrally funded family assistance programs. The research also shows that health spending elasticity when SGDP rises is just 0.68 percent, meaning that for every one percent increase in state per capita income, public healthcare expenditure increases by 0.68 percent.

Mitra (2006) examined women in Indian scheduled tribes. Scheduled tribes, Hindus, and scheduled castes were compared. To evaluate tribal women in India, the author employed census data and a literature study. In certain north-eastern areas where tribes make up a majority of the population, tribal women have higher literacy, sex-ratio, job habits, and fertility rates. Many tribal groups have no gender discrimination since scheduled tribes were isolated from mainstream society for many years.

Farhani et al. (2009) assessed the impact of state-level public health expenditures on death rates in India. This study examined 1998–1999 NFHS data (NFHS-2). 519,502 people, 91,573 households, and 26 states were analyzed. Household characteristics were surveyed. Household members'

ages and genders are recorded. Age, income, social status, and water availability were indicators. Multilevel probit models estimate state health costs. State health budgets imply fiscal imbalances. Young, old, and females are most affected by a 10% rise in public health expenditure in India. This research highlighted the importance of sanitation and rural mortality risk.

Ghuman and Mehta (2009) used secondary data from the Union Ministry of Health and Family Welfare, the Planning Commission, the National Rural Health Mission (NRHM), and National Health Policies (1983 and 2002) to evaluate health care issues in India. They utilized primary data from a Punjabi Muktsar district survey in 300 rural and 52 urban regions and analyzed it statistically. The research assessed the government-funded NRHM system. Study showed regional disparities owing to low public health care expenditure, and NRHM demonstrated delayed development due to administrative restrictions, governance challenges, limited human resources, and low investment. Weak people were ignorant of free hospital treatment, and PHCs and subcenters had weak health infrastructure and amenities. Caste, gender, and rural-urban health care availability vary.

Acharya D. et al. (2011) examined the distribution of public healthcare expenditure benefits across socioeconomic classes in Tamil Nadu and Orissa from 1995 to 2004. The analysis uses NSS 52nd and 60th round data from 1995–96 and 2004. Overall, Tamil Nadu's public healthcare system has improved more than Orissa's. This includes a better drug distribution system, the deployment of primary healthcare professionals, upgrading PHCs, a higher budget allocation and better use of funds, and special attention to maternity services, including incentives for effective antenatal and postnatal services and institutional deliveries.

Prinja et al. (2012) evaluated health disparities in Haryana, Punjab, and Chandigarh. Secondary NHNES 60th cycle data were used. Price similarity was used. Redistribution and support were investigated. Inequity was measured by the concentration index, equity ratio, and concentration curve. In all three states, morbidity and hospitalisation rates favour the affluent, showing low-income families misuse health care resources. Low-income families in Haryana and Punjab have 10% out-of-pocket hospital charges. Higher-income folks spend less. Three states had high healthcare costs. Medication costs 19%–47% of public hospital expenditures and 59%–86% of outpatient costs. Haryana, Punjab, and Chandigarh gave impoverished people hospital beds. In all three states, wealthy individuals use hospitals disproportionately. The poor had lower hospitalisation rates and increased unmet demand. Low-income families can't afford new hobbies.

OBJECTIVES OF THE STUDY:

1. To examine the health-related demographic variables of Haryana.
2. To analyse the availability of health infrastructure in Haryana.
3. To analyse the health expenditure by the government of Haryana.

HEALTH SECTOR OF INDIA:

The healthcare market consists of a wide variety of subsectors, including hospitals, medical instruments, clinical studies, offshoring, telehealth, health tourism, medical coverage, and diagnostic supplies. Public and private sectors make up the bulk of India's healthcare delivery system. The healthcare industry in India is a multifaceted and intricate system that involves a diverse array of entities, such as the government, private enterprises, non-governmental organizations, and global institutions. The healthcare system of the nation is confronted with several obstacles, such as insufficient funding, inadequate infrastructure, scarcity of healthcare personnel, and unequal availability of services, particularly in remote regions. The healthcare expenditure in India constitutes approximately 3.5% of the nation's Gross Domestic Product (GDP), which is comparatively lower than the worldwide average of 6%. India exhibits a significantly low doctor-patient ratio, with a mere 0.7 doctors per 1,000 individuals, which is among the lowest in the world. According to the guidelines set forth by the World Health Organization (WHO), it is recommended that there be a minimum of one physician available to provide medical care for every one thousand individuals. The nation is confronted with a dearth of healthcare practitioners, including nurses, as the ratio of nurses to individuals stands at 1.7 per 1,000. Inequitable access to healthcare is observed in India, with a notable disparity between urban and rural areas. The concentration of healthcare facilities in urban areas results in restricted access to vital services for rural areas. India has achieved noteworthy advancements in mitigating the impact of communicable ailments, including tuberculosis, malaria, and HIV/AIDS. Presently, the nation is confronted with an escalating load of non-communicable ailments, including but not limited to diabetes, cardiovascular disorders, and cancer. The Indian government has implemented various measures to enhance the healthcare system of the country, such as the National Health Policy 2017, Ayushman Bharat Yojana, and National Health Stack. In India, the private sector assumes a noteworthy function in the provision of healthcare services, as over 70% of healthcare expenditures are financed through out-of-pocket payments. Primary Healthcare Centers (PHCs) are the government's primary priority in rural regions, while secondary and tertiary care facilities are concentrated in major cities. The bulk of secondary, tertiary, and quaternary care facilities are run by the private sector, with a heavy emphasis on metros, Tier-I, and Tier-II cities. From its 2016 level of USD 110 billion, the Indian healthcare market is projected to more than triple to USD 372 billion in 2022, rising at a CAGR (compound annual growth rate) of 22% between 2016 and 2022. According to the Economic Survey of 2022, in 2021–2022, public spending on healthcare in India amounted to 2.1% of GDP, up from 1.8% in 2020–21 and 1.3% in 2019–20. Health insurers had a 13.3% YoY increase in gross direct premium revenue, or Rs. 58,572.46 crore, in FY21 (USD 7.9 billion). In 2020, the medical tourism industry in India was worth \$2.89 billion, but that number is anticipated to more than triple by 2026, reaching a whopping \$13.42 billion. By 2025, telemedicine is projected to generate \$5.5 billion in revenue.

HEALTH SECTOR IN HARYANA:

The healthcare industry in the state of Haryana is a significant constituent of its infrastructure and progress. The government at the state level has pledged to enhance healthcare services and infrastructure with the aim of guaranteeing access to high-quality healthcare for all inhabitants. The Haryana government has established an extensive healthcare infrastructure, comprising primary health centers, community health centers, district hospitals, and medical colleges. The state of Haryana had a combined count of 20 allopathic medical establishments, comprising both publicly-funded and privately-owned institutions. These establishments offer medical instruction and preparation to learners, in addition to providing healthcare amenities to the community. The Haryana state government has implemented a number of healthcare initiatives, such as the Mukhyamantri Muft Ilaaj Yojana, aimed at enhancing healthcare services. This scheme offers free medical treatment to families who fall below the poverty line. The state of Haryana has made noteworthy advancements in mitigating the prevalence of communicable ailments, including tuberculosis, malaria, and HIV/AIDS. Similar to other regions in India, the state is encountering an increasing prevalence of non-communicable ailments, including but not limited to diabetes, cardiovascular diseases, and cancer. The government at the state level has prioritized the enhancement of maternal and child health through various measures, including the Janani Suraksha Yojana. This program offers monetary incentives to expectant mothers who deliver their babies in government-run healthcare facilities. The state of Haryana has implemented measures to encourage the adoption of conventional medicinal practices, including Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homoeopathy (AYUSH), through the establishment of AYUSH centers and dispensaries.

As of 2021, Haryana, a state in India, has twenty prominent allopathic medical institutes. Both public and private organizations are included. Haryana is home to a number of prestigious institutions. Pt. B.D. Sharma Postgraduate Institute of Medical Sciences, Rohtak, Maharishi Markandeshwar University, Mullana, BPS Government Medical College for Women, Khanpur Kalan, Sonapat, Kalpana Chawla Government Medical College, Karnal, Shaheed Hasan Khan Mewati Government Medical College, Nalhar, Mewat, World College of Medical Sciences and Research, Jhajjar, Shree Guru Gobind Singh Tricentenary University, Budhera, Gurugram, Goldfield Institute of Medical Sciences and Research, Ballabgarh, Adesh Medical College and Hospital, Shahabad Markanda, Kurukshetra, SGT Medical College, Hospital and Research Institute, Gurugram., J.C. Bose University of Science and Technology, YMCA, Faridabad, MM Institute of Medical Sciences and Research, Mullana, Ambala, Jan Nayak Chaudhary Devi Lal Dental College, Sirsa, Dr. Shroff's Charity Eye Hospital, Faridabad, KIIT College of Nursing, Gurgaon, Maharaja Agrasen Medical College, Agroha, PDM Dental College and Research Institute, Bahadurgarh, DPG Institute of Technology and Management, Gurgaon, Government Dental College and Hospital, Rohtak, B.R. Ambedkar National Institute of Technology, Jalandhar (Haryana quota).

1. HEALTH RELATED DEMOGRAPHIC VARIABLES:

In addition to being crucial indicators of the state of people's health, the rates of birth, death, and infant mortality are the most essential measures of population shift. A region's birth rate is a measure of the number of live births that occurred there within a certain time frame. Many aspects of health are connected to the birth rate, including the health of the new-born at birth, the nutrition of the mother, and the accessibility of health care during labour and delivery. Infant and overall mortality rates are also indicators of a region's health. A rise in both overall death and new-born mortality rates suggests inadequate access to healthcare.

TABLE: 1, BIRTH, DEATH AND INFANT MORTALITY RATE (IMR) IN HARYANA AS PER SAMPLER REGISTRATIONS SYSTEM

(Values per thousands)

Year	Birthrate			Deathrate			Infant mortality rate		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
1	2	3	4	5	6	7	8	9	10
1971	44.2	32.4	42.1	10.4	7.3	9.9	74.0	58.0	72.0
1980	38.3	31.4	37.2	12.0	7.2	11.2	112.2	52.8	103.5
1990	33.1	27.5	31.9	8.9	6.9	8.4	73.0	53.0	69.0
2000	27.9	23.0	26.9	7.9	6.2	7.5	69.0	57.0	67.0
2010	23.3	19.8	22.3	7.0	5.6	6.6	51.0	38.0	48.0
2015	22.3	18.4	20.9	6.3	5.7	6.1	39.0	30.0	36.0
2016	22.0	18.3	20.7	6.3	5.1	5.9	35.0	27.0	33.0
2017	21.9	18.2	20.5	6.3	5.0	5.8	32.0	25.0	30.0
2018	21.7	18	20.3	6.6	4.9	5.9	33.0	25.0	30.0
2019	21.4	17.9	20.1	6.6	4.8	5.9	30.0	23.0	27.0

Source: statistical abstract of Haryana 2020-21

Table 1 shows that birth rate, date rate and infant mortality rate are continuously decreasing as health sector improve. It is a good sign for Haryana's health sector. In between these years 1980 was the only year when combined death rate and combined infant mortality rate were higher than the previous year.

2. HEALTH INFRASTRUCTURE AND SERVICES:

The health care system includes high-tech equipment, medical experts, nurses, and other healthcare personnel, as well as a robust pharmaceutical industry. It is difficult to operate any kind of economic or social activity without the proper infrastructure, and the health care industry is no exception. A more advanced health infrastructure will result in a more advanced health care industry. Services provided by physicians, nurses, and other medical professionals are all part of the health care system's support network. The number of people working in health care is an indicator of the quality of the service. In the tables below, there is a breakdown of how many hospitals, community health centres, primary care clinics, dispensaries, sub-centres, and district tuberculosis clinics there are in each of these categories.

TABLE: 2, NUMBER OF ALLOPATHIC MEDICAL INSTITUTIONS IN HARYANA BY YEARS.

Year/ District	Hospitals	CHCs	PHCs	Dispensaries	Sub-Centres	District T.B Centres/ Clinics	Total
1	2	3	4	5	6	7	8
1970	70	#	89	147	534	#	840
1980	84	#	89	247	1060	#	1480
1990-91	79	41	394	230	2293	#	3037
2000-01	78	64	402	229	2299	#	3072
2010-11	69	86	429	193	2465	#	3242
2017-18	62	125	499	63	2636	#	3385
2018-19	63	127	511	64	2636	15	3416
2019-20(P)	68	133	536	63	2655	15	3470

Source: statistical abstract of Haryana 2020-21

Table 2 presents the number of allopathic medical institutions in Haryana. Numbers of CHCs and PHCs are rising but number of hospitals and dispensaries are decreasing between the years 1970 to 2019-20 in Haryana State.

TABLE:3, NUMBER OF ALLOPATHIC MEDICAL INSTITUTIONS IN HARYANA BY Districts (As Per 2019-20)

Year/ District	Hospitals	CHCs	PHCs	Dispensaries	Sub-Centres	District T.B Centres/ Clinics	Total
Ambala	3	5	22	3	104	1	138
Bhiwani	7	7	29	3	144	2	192
Charkhi Dadri	1	3	15	0	76	0	95
Faridabad	2	4	16	7	58	1	88
Fatehabad	3	6	24	1	137	1	172
Gurugram	5	4	15	3	76	1	104
Hisar	6	9	39	4	200	1	259
Jhajjar	4	6	27	3	126	0	166
Jind	4	8	34	1	171	1	219
Kaithal	3	6	27	0	144	0	180
Karnal	4	7	33	7	151	1	203
Kurukshetra	2	6	22	1	119	1	151
Mahendragarh	2	7	25	0	120	1	155

Nuh	1	4	22	0	138	1	166
Palwal	2	5	20	0	89	0	116
Panchkula	3	2	9	13	51	0	78
Panipat	2	7	20	2	89	0	120
Rewari	2	5	21	0	112	0	140
Rohtak	3	7	23	5	115	1	154
Sirsa	4	8	32	1	158	1	204
Sonipat	2	9	38	3	164	1	217
Yamunanagar	3	8	23	1	113	0	148
Chandigarh	0	0	0	4	0	0	4
Delhi	0	0	0	1	0	0	1

Source: statistical abstract of Haryana 2020-21

It is clear from the table 3 that highest number of total allopathic medical institutes are in Hisar District. Jind and Sonipat District stand on 2nd and 3rd number in Haryana State. Panchkula District is lowest number of total allopathic medical institutes. The most surprising data are of Delhi and Chandigarh because the number of allopathic medical institutes are very less. There are only 4 allopathic dispensaries in Chandigarh and only one in Delhi.

TABLE:4, PATIENTS TREATED AND BEDS AVAILABLE IN HARYANA.

Year/District	Patientstreated			Beds		
	Indoor	Outdoor	Total	Male	Female	Total
1	2	3	4	5	6	7
2018-19(P)	21,57,241	2,67,26,075	2,88,83,316	4,458	4,678	9,136
Ambala	1,06,795	18,28,730	19,35,525	262	301	563
Bhiwani	1,93,883	18,81,939	20,75,822	410	411	821
Faridabad	1,07,149	14,58,045	15,65,194	158	187	345
Fatehabad	54,927	5,02,123	5,57,050	150	156	306
Gurugram	1,14,411	14,65,220	15,79,631	275	248	523
Hisar	90,033	16,13,256	17,03,289	390	379	769
Jhajjar	92,787	13,22,572	14,15,359	196	210	406
Jind	1,12,625	14,46,445	15,59,070	236	254	490
Kaithal	1,05,031	12,66,516	13,71,547	244	203	447

Karnal	1,20,963	14,96,258	16,17,221	261	274	535
Kurukshetra	1,48,695	14,58,363	16,07,058	132	187	319
Mahendragarh	20,753	6,25,414	6,46,167	107	107	214
Nuh	55,272	7,57,737	8,13,009	124	140	264
Palwal	62,685	8,73,169	9,35,854	117	116	233
Panchkula	1,67,764	23,17,119	24,84,883	196	240	436
Panipat	63,452	8,13,747	8,77,199	120	132	252
Rewari	70,166	9,26,822	9,96,988	217	223	440
Rohtak	91,877	10,85,922	11,77,799	164	185	349
Sirsa	1,15,510	10,08,120	11,23,630	219	242	461
Sonipat	1,15,772	13,18,914	14,34,686	236	238	474
Yamunanagar	1,46,691	12,59,644	14,06,335	244	245	489

Source: statistical abstract of Haryana 2020-21

In the above table 1.4 there are maximum number of patients have been treated in Panchkula District and Bhiwani comes on the second number. Indoor patients have been treated highest in Bhiwani District and outdoor patients in Panchkula District. Bhiwani District has the highest numbers of beds among all the districts followed by Hisar District. And Mahendragarh has the least number of beds. The number of patients is more in Panchkula therefore, the number of beds should be more as compared to the present.

TABLE:5, AYURVEDA, UNANI, AND HOMEOPATHIC INSTITUTIONS THEIR STAFF AND PATIENTS TREATED IN HARYANA

Year/ District	Number of institutions					Medical personnel		
	Ayurvedic	Unani	Homeopathic	Others	Total	Vaidyas/Hakims /Homoeopathic Doctors	Dispenser/Compounder	Patients treated
1	2	3	4	5	6	7	8	9
1966-67	122	21	—	—	143	143	143	10,15,709
1970-71	183	17	—	—	200	202	200	11,91,527
1980-81	330	20	—	—	350	350	350	30,36,941
1990-91	389	19	9	—	417	417	417	26,02,570
2000-01	433	21	20	—	474	416	365	27,62,499
2010-11	462	17	20	—	499	402	459	42,49,473
2019-20	511	19	23	232	785	586	567	47,28,421
2020-21(P)	512	19	24	232	787	592	594	39,18,310

Source: statistical abstract of Haryana 2020-21

Table 5 shows that the number of ayurvedic and homeopathic institutions are increasing between the years 1966-67 to 2019-20 but the number of unani institutions has been fluctuating the most. Out of these three, the maximum number of institutions is of ayurvedic. Homoeopathic institution comes second and unani at last number. The number of both doctors and compounders has increased over the years but in 2000-01 is only year where the number of doctors and compounders has decreased in comparison to the previous years. The number of patients treated have also increasing over the years but in 1980-81 when highest growth in patient treated.

TABLE:6, AYURVEDA, UNANI AND HOMEOPATHIC INSTITUTIONS, THEIR STAFF AND PATIENTS TREATED IN HARYANA (DISTRICT WISE) AS PER 2020-21.

Districts	Ayurvedic	Unani	Homeopathic	Others	Total	Vaidyas/Hakims/Homoeopathic Doctors	Dispenser/Compounder	Patients treated
Ambala	18	1	—	12	31	21	21	1,87,180
Bhiwani	25	—	1	9	35	26	29	1,98,863
CharkhiDadri	27	—	—	0	27	28	28	1,09,706
Faridabad	8	—	—	11	19	8	08	67,795
Fatehabad	19	—	—	6	25	19	19	1,28,767
Gurugram	13	—	10	11	34	23	23	2,83,227
Hisar	52	—	—	15	67	53	53	2,59,219
Jhajjar	29	1	—	11	41	31	31	1,73,222
Jind	33	—	—	11	44	37	36	2,06,086
Kaithal	22	1	—	10	33	27	25	1,46,430
Karnal	28	2	—	13	43	30	30	2,26,913
Kurukshetra	15	—	2	11	28	18	27	97,183
Mahendragarh	27	—	—	12	39	32	38	1,51,299
Nuh	16	4	8	12	40	28	28	2,80,797
Palwal	15	3	2	10	30	19	21	1,67,872
Panchkula	17	—	—	10	27	19	18	1,54,685
Panipat	17	—	—	10	27	19	18	1,32,406
Rewari	18	1	—	9	28	19	19	1,06,712
Rohtak	31	1	1	12	45	33	32	1,63,264
Sirsa	38	—	—	11	49	40	39	2,05,099
Sonapat	26	2	—	15	43	29	29	2,89,014
Yamunanagar	18	3	—	11	31	21	22	1,82,581

Source: statistical abstract of Haryana 2020-21

It is clear from the table 6 that the highest number of ayurvedic institutions is in Hisar District and Sirsa District stand on second number. Therefore, the number of doctors and compounder are also top in these districts. The unani and homoeopathic institutes are very less in Haryana State and in various district it is not there at all such as Charkhi Dadri, Faridabad, Hisar, Jind etc. The maximum number of patients have been treated in Sonipat District followed by Nuh District.

3. HEALTH EXPENDITURE BY HARYANA GOVERNMENT:

Each year, the government of Haryana updates its budget and uses that document to distribute all of the state's available resources to various sectors so that they may flourish. Health care is one of the areas that receives a disproportionate share of the budget. Governments have been blamed for the underdevelopment of the health care system because of the inadequate funding they provide for the industry. This health industry is the sole source of hope for the world during the COV-19 epidemic. The state of Haryana's total annual expenditures on the health sector are shown in the tables below.

TABLE:7 PUBLIC HEALTHCARE SPENDING: MAJOR STATES OF INDIA

Rank	States	Public Expenditure on health (As Ratio to Total Public Expenditure)		Index Growth Rate (%)
		(2002-03)	(2016-17)	
1	Gujarat	3.2	5.5	171.88
2	Chhattisgarh	4.0	5.8	145.0
3	Assam	3.7	5.2	140.54
4	Odisha	3.8	5.2	136.84
5	Uttar Pradesh	3.8	5.0	131.58
6	Haryana	3.3	4.1	124.24

7	Maharashtra	3.7	4.5	121.62
8	Rajasthan	4.2	5.0	119.05
9	Bihar	4.2	5.0	119.05
10	Kerala	4.8	5.4	112.5
11	Andhra Pradesh	4.0	4.5	112.5
12	West Bengal	4.9	5.0	102.04
13	Tamil Nadu	4.1	4.1	100.0
14	Karnataka	4.2	4.1	97.62
15	Madhya Pradesh	4.1	3.9	95.12
16	Punjab	3.5	2.7	77.14

Source: RBI state finance, A study of state budget

The above table 7 reveals that in 2002-03 West Bengal and Kerala are the states where public expenditure on health was the most. In the year, 2016-17 Chhattisgarh and Gujarat State spent the highest between these states. There are three States whose public expenditure on health decreased in the year 2016-17 as compared to the year 2002-03 such as Karnataka, Madhya Pradesh and Punjab. Index Growth rate is highest in Gujarat State followed by Chhattisgarh State.

TABLE:8 HEALTH EXPENDITURE BY THE GOVERNMENT OF HARYANA STATE:

Year	PCGEH (in Rs.)*	Revenue Exp. on Health (1)**	Capital Exp. on Health (2)**	Total Exp. on Health (1+2)**	AGR of PCGEH (%)	AGR of Revenue Exp. on Health	AGR of Capital Exp. on Health	AGR of Total Health Exp.
2002-03	186.9	32,607	1,313	33,920	-	-	-	-
2003-04	184.57	30,733	793	31,526	-1.25	-5.75	-39.6	-7.06
2004-05	185.9	34,516	1,478	35,994	0.72	12.31	86.38	14.17
2005-06	199.4	40,667	1535	42,202	7.26	17.82	3.86	17.25
2006-07	243.27	25,717	1906	27,623	22	-36.76	24.17	-34.55
2007-08	228.72	47,940	4924	52,864	-5.98	86.41	158.34	91.38
2008-09	271	77,023	5094	82,117	18.49	60.67	3.45	55.34
2009-10	399.85	89,697	6735	96,432	47.55	16.45	32.21	17.43
2010-11	442.08	121,922	5819	127,741	10.56	35.93	-13.6	32.47
2011-12	490.28	130,246	6671	136,917	10.9	6.83	14.64	7.183
2012-13	642	172,684	412	173,096	30.95	32.58	-93.82	26.42
2013-14	734	184,217	10740	194,957	14.33	6.68	2506.8	12.63
2014-15	-	239,451	9430	248,881	-	29.98	-12.2	27.66
2015-16	1082	263,077	24419	287,496	-	9.87	158.95	15.52
2016-17	1209	314,001	46506	360,507	11.74	19.36	90.45	25.4

Source: Booklet on Haryana economy, various issues & RBI state finance, A study of state budget.

The data of Per capita government expenditure on health (PCGEH) is not available for the year 2014-15. *Stands for Rs. in hundred, ** stands for Rs. in lakh

The table below demonstrates the persistent growth of PEGCH, health revenue spending, health capital spending, and health total spending. Yet, there were declines in certain years. PCGEH fell by 1.25% in 2003-04 and by 5.98% in 2007-08. Revenue health spending fell by 5.75% in 2003-04 and by 36.76% in 2006-07. In 2003-04, 2010-11, 2012-13, and 2014-15, health capital expenditures fell. The total amount spent fell in both 2003-2004 and 2006-2007. Only in 2003-2004 were there decreases in all categories of spending between those years. AGR on expenditure on health capital rose by 2506.8 percent in 2013-14.

During 2002-03 to 2016-2017, PCGEH, revenue spending on health, capital expenditure on health, and total expenditure on health grew at CAGRs of 14.72 percent, 17.56 percent, 29.02 percent, and 18.39 percent, respectively.

TABLE:09, HEALTH EXPENDITURE IN HARYANA (AS RATIO TO GSDP AND TOTAL EXPENDITURE)

Year	Total Expenditure on Health (Rs in lakh)	GSDP of Haryana (Rs in lakh)	Expenditure on Health as Ratio to GSDP	Expenditure on MPHFW (Ratio to aggregate expenditure)
2002-03	33,920	6,381,500	0.53	3.3
2003-04	31,526	7,010,700	0.45	2.4
2004-05	35,994	9,531,900	0.38	2.7
2005-06	42,202	10,370,800	0.41	3.1
2006-07	27,623	11,568,300	0.24	2.5
2007-08	52,864	12,617,076	0.42	2.6
2008-09	82,117	13,647,794	0.60	2.9
2009-10	96,432	15,247,447	0.63	3.4
2010-11	127,741	16,377,020	0.78	3.2
2011-12	136,917	17,691,697	0.77	3.1
2012-13	173,096	32,091,191	0.53	3.4
2013-14	194,957	34,750,661 (P)	0.56	3.6
2014-15	248,881	37,039,976 (P)	0.67	4.0
2015-16	287,496	40,856,187 (Q)	0.70	3.1
2016-17	360,507	44,220,056 (A)	0.82	4.1

P: Provisional Estimates, Q: Quick Estimates, A: Advance Estimates

Source: Economic Survey of Haryana, Expenditure on public health as percentage of GDP data self-calculated.

*GDP of 2002-03 and 2003-04- base year 1999-2000, GDP from 2004-05 to 2011-12- base year 2004-05, GDP from 2012-13 to 2016-17- base year 2011-12.

The above table 9 present that total expenditure on health and GSDP of Haryana are increasing years to years. But in the year 2006-07 when total expenditure on health decreased as compared to previous year. Expenditure on health as ratio to GSDP and expenditure on MPHFW are also fluctuating between the years 2002-03 to 2016-17.

4. Suggestions for improving health sector in Haryana

Decentralizing public health services:

Decentralizing public health services means moving some or all of the responsibilities and decision-making power from a central authority to local or regional authorities. This can help to make public health services more efficient and effective by making them fit the needs of different communities and populations. Putting public health services in different places could have a number of benefits. For instance: Local health officials may be better able to respond quickly to new health threats and epidemics if they have better tools. Decentralization can make it easier for local governments to be held accountable for their actions and results. Better coordination, Decentralized public health services can make it easier for healthcare providers, public health officials, and community groups to work together and work well together. Better local knowledge, Local governments may know more about the health needs and problems of their communities than a centralized government. More innovation, Decentralization can make it easier to try new things and come up with new ways to provide public health services. But there are also some problems with putting public health services in different places. These things are:

Infrastructural development:

Improvements made to existing healthcare facilities and the introduction of new ones are examples of health infrastructure development. Access, quality, and efficiency in healthcare delivery may all be enhanced by investing in new healthcare infrastructure, such as hospitals, clinics, and other facilities. Among the many potential gains from funding improvements to healthcare facilities are those that: More individuals will have access to healthcare services they need if both new and old facilities are improved. Improving infrastructure may raise the bar on the quality of treatment offered by hospitals and clinics, which in turn benefits patients. Reducing wait times, medical expenditures, and unhappiness among patients are all possible results of updating healthcare facilities with modern technology. The creation of new employment in the construction and healthcare industries is a further benefit of health infrastructure development. Attracts financial backing, a region's economy may profit from both inward investment and outbound tourists if its healthcare facilities are well-developed. Investment, planning, and coordination among governments, healthcare providers, and communities are crucial to the success of any health infrastructure development project. While planning healthcare facilities, it's important to think about things like: There must be enough money to build and maintain a functional healthcare system. Healthcare infrastructure projects may be financed by governments, private investors, or a combination of these and other sources. The development of health infrastructure should be directed by a strategic plan that considers the health requirements and priorities of the population, as well as the capabilities of the already-in-place facilities and

resources. To guarantee safe, accessible, and long-lasting facilities, healthcare infrastructure construction must comply to local laws, regulations, and building rules. Involvement of Stakeholders Healthcare providers, community members, and local authorities should all have a voice in the design and construction of healthcare facilities. Healthcare access, quality of treatment, and economic growth may all be boosted by investing in health infrastructure. To achieve effective implementation and long-term sustainability, a coordinated and collaborative strategy among diverse stakeholders is necessary.

Improving the doctor-population ratio:

Access to healthcare is greatly aided by increasing the number of doctors per population, especially in locations where medical professionals are in limited supply. Methods to increase the proportion of doctors in the population include the following: Raising the number of people enrolling in medical school is one way to boost the number of physicians available. More individuals may be encouraged to pursue careers in medicine if governments and other organizations provided financial aid in the form of scholarships and grants. The time and cost constraints that prohibit certain people from pursuing a career in medicine may be reduced by streamlining the medical education process.

Increase the number of residency programs available to medical school graduates. Residents get the practical experience and training that is crucial for becoming competent physicians. The number of practicing physicians may be boosted by increasing the number of residency slots available. Improved access to healthcare services in disadvantaged regions may be achieved via Strategy, encouraging physicians to practice in such areas by offering them financial incentives including debt forgiveness programs and tax credits. Telemedicine, Telemedicine may assist people in rural or underserved regions get the medical attention they need by connecting them with specialists in other parts of the country. In places where medical professionals are in low supply, this may be a big assistance. Bringing in medical professionals from other nations is one way to deal with localized doctor shortages. To recruit medical professionals from other countries, governments and healthcare facilities might provide financial incentives. Ultimately, fixing the undersupply of doctors calls for a multifaceted strategy that takes into account the many causes of the problem. To guarantee that people of all backgrounds and financial means have access to high-quality healthcare services, governments and healthcare institutions may use a number of techniques.

Evidence-based health-care provision:

Providers of healthcare who base their judgments on solid scientific evidence are said to practice "evidence-based medicine." Clinical decision making that is informed by high-quality research is at the heart of this method. Key concepts of providing healthcare based on evidence include the following: Using the most reliable evidence, The best data, such as research papers, systematic reviews, and meta-analyses, should be used to inform therapeutic decision-making. clinicians should conduct a critical evaluation of the data to establish its application to their own practice. clinicians should take into account patients' beliefs and preferences with the best available information when making treatment judgments. To guarantee the delivery of high-quality treatment, clinicians should regularly assess and revise their procedures in light of new research and patient input. Care must be coordinated, effective, and responsive to patients' needs, thus clinicians should work with other healthcare professionals, patients, and families to achieve this goal. Care that is based on scientific evidence has been shown to improve health outcomes, boost patient happiness, and save costs. Yet, a strong commitment to continuing education and training for healthcare personnel is necessary for successful implementation of evidence-based procedures. Clinicians also need to be able to critically assess the available information and apply it effectively to the management of specific patients since the quality and relevance of evidence might vary. Care that is based on the best available evidence is the best way to meet patients' needs and improve outcomes.

Encouragement of patient participation:

One of the keys to delivering excellent treatment is getting patients involved. Patient engagement increases the likelihood that patients will learn about their health concerns, follow their treatment programs, and have positive results. These are some methods that have been shown to increase patient involvement: One way to encourage patients to participate in their care is to provide them with information about their diagnosis, potential treatments, and self-care. To further assist patients in comprehending their health requirements, healthcare professionals might give them with educational programs, support groups, and individual counselling. By discussions of treatment alternatives, risks and advantages, and the patient's unique preferences and beliefs, healthcare practitioners may promote shared decision-making between themselves and their patients. By working together, doctor and patient increase the likelihood that the therapy will be a good fit. Third, hearing from patients may assist healthcare practitioners learn how they're doing in meeting patients' requirements and where they can make improvements. Providers may learn from their patients by asking for their opinions via patient satisfaction surveys, focus groups, and other forms of feedback. Fourth, technological advancements may be leveraged to facilitate more patient engagement in their own healthcare. Patient portals, for instance, let people do things like see their medical records online, set up appointments, and have direct conversations with their doctors. Patients' health may be tracked and they might be motivated to practice preventative care with the use of wearable technology. Fifth is Patient advocacy, Advocates for patients may help healthcare practitioners increase patient involvement in treatment decisions. Patients may get guidance and assistance from these organisations as they advocate for themselves inside the healthcare system.

In conclusion, patient engagement is crucial to delivering person-centered care. Healthcare professionals may improve patient outcomes, save healthcare costs, and boost patient satisfaction via patient engagement.

Communication between doctor-patient and treatment that is linguistically appropriate.

Quality healthcare delivery relies on open lines of communication between physicians and their patients. This is especially crucial when dealing with patients and doctors who originate from diverse cultural backgrounds and/or speak different languages. The following methods may be used to promote linguistically acceptable communication: When a patient and a provider have a language barrier, it is essential to engage experienced interpreters to ensure clear communication. Using a patient's own friend or relative as an interpreter is not recommended, since this might lead to mistakes and miscommunication. Offer resources in the patient's chosen language, Healthcare professionals should give documents, such as permission

forms and patient education materials, translated into the language of the patient. This can aid in making sure patients know what's going on with their bodies, what their options are for care, and what those options entail. Medical professionals should communicate with patients using simple language, even when explaining difficult topics or procedures. This may be useful for making sure people are aware of their diagnoses and treatments. Understanding and respecting patients' cultural values and beliefs is a cornerstone of cultural competence, which healthcare providers should strive to achieve. This can improve patient outcomes by allowing doctors to tailor care to each individual's preferences and needs. Providers should engage in active listening by focusing on the patient's concerns and asking follow-up questions as needed. As a result, the provider is more likely to meet the patient's expectations and gain the patient's trust. Providing top-notch medical care relies heavily on clear and consistent communication between all parties involved. Healthcare practitioners may assist enhance patient outcomes and satisfaction by being culturally and linguistically aware in their interactions with patients.

5. Conclusion:

Haryana's healthcare sector has shown significant growth in recent years, with increased investments in infrastructure and technology, leading to an increase in the number of hospitals and medical facilities in the state, as evidenced by an economic analysis of the sector that takes into account demographic variables, the availability of health infrastructure, and the expenditure on health sector by the Haryana government. Most hospitals and clinics in Haryana are privately owned, demonstrating the extent to which the private sector controls the healthcare system there. As a result, many individuals cannot afford to get the high-quality medical treatment they need, creating a healthcare access problem. The government's attempts to enhance healthcare in Haryana have fallen short due to a lack of funding, subpar facilities, and a shortage of qualified medical personnel. The ratio of doctors to patients in Haryana is very low, and the state's healthcare education infrastructure is woefully insufficient. Because of this, medical workers are overworked and providing subpar treatment to patients. Haryana's healthcare system is concentrated on the state's major cities, leaving the countryside without adequate medical treatment. By investing in infrastructure and offering incentives to healthcare experts, the government can ensure that residents in rural regions have access to high-quality healthcare. The healthcare system in Haryana has significant challenges due to the rising prevalence of non-communicable illnesses including diabetes, hypertension, and cancer. To lessen the impact of these illnesses, the government should invest in preventative measures including health education and awareness campaigns. Haryana's healthcare system is in dire need of more investment in facilities, money, and people. To enhance health outcomes and decrease the burden of illness, the government of Haryana must play a more active role in providing inexpensive and accessible healthcare services to the people of Haryana, especially in rural regions.

Bibliography

- Berman, P. (1995). Health Sector Reform: Making Health Development Sustainable. Health Sector Reform in Developing Countries: Making Health Development Sustainable. Boston: Harvard University Press, PP.13-33.
- Bhat, R. & Jain, N. (2004). Analysis of public expenditure on health using State level data. Indian Institute of Management working paper no. 2004-06-08. June. pp 1-44 Ahmedabad.
- Mitra, A. (2006). The status of women among the scheduled tribes in India. The journal of Socioeconomics December pp-1-16.
- Farahani, M. (2009). Effects of state-level public spending on health on the mortality probability in India. Harvard School of Public Health. Working Paper No. 50 June pp 1- 32. USA.
- Ghuman, B. S. & Mehta, A. (2009). Health care services in India: problems and prospects. International conference on Asian social protection in comparative perspective at National university of Singapore. 7-9 January pp 1-15.
- Ministry of Health and Family welfare. (2010). Annual report to people on Health. Government of India. New Delhi.
- Acharya, D., Vaidyanathan, G. Muraleedharan, V. R. Dheenadayalan, & Dash, U. (2011). Do the Poor Benefit from Public Spending on Healthcare in India? Results from Benefit (Utilisation) Incidence Analysis in Tamil Nadu and Orissa. Consortium for Research on Equitable Health Systems (CREHS) April pp. 8-29 Chennai India.
- Prinja, S., Kanavos, P. & Kumar, R. (2012). Health care inequities in north India: Role of public sector in universalizing health care. Indian Journal of Medical research September. pp 421-431.
Ministry of Health and Family Welfare Health sector financing by Centre and States/Union Territories in India 2009-10 to 2015-16.
- Ministry of Health and Family Welfare. (2015). Health care infrastructure and average rural population covered. (as on 31st March 2015).
- Ministry of Health and Family Welfare. (2015). Statewise shortfall in Health Infrastructure as per 2011 Population in India (As On 31st March 2015). Rural Health Statistics 2013-14.
statistical abstract of Haryana 2020-21
- Ministry of Health and Family Welfare. (2015). Health care infrastructure and average rural population covered. (as on 31st March 2015).
- Ministry of Health and Family Welfare. (2015). Statewise shortfall in Health Infrastructure as per 2011 Population in India (As On 31st March 2015). Rural Health Statistics 2013-14