

AN ANALYSIS OF EDUCATION AND HEALTH SECTOR'S INDICATORS: (A COMPARISON OF HARYANA AND INDIA)

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“No society can surely be flourishing and happy where greater part of the numbers are poor and miserable”

---Adam Smith

The asset of the society is its human resources; the development of which depends upon education and health. The phrase 'healthy mind in a health body' indicates that health and education are the most powerful instruments to make society capable of providing them meaningful life. Education provides proper attitude, values, capabilities of knowledge and skill to individuals. Health care is important not only for reaping the demographic dividend having healthy productive workforce and general welfare, but also obtain the goal of population stabilization, which can be achieved by addressing issues like-child survival, safe motherhood and contraception.

Education and Health: Twin Most Important Social Indicators:

Education and health provide biggest guarantee for social security. Investment in education and health care not only help the person who are benefited from them but also the society and employers, as these indicators have 'spillover effects'.

The present paper explains the current situation on the education and health indicators in Haryana and India – This study has the following objectives :

1. To analyse the education sector in providing social protection to individuals.
2. To compare the health indicators of Haryana state with national data.

The present paper would try to ascertain the health of the economy to find out how deeply the 'macro economic' gains have percolated to the masses, and for this it becomes necessary to look at the social sector scenario of the economy.

Education:- Education plays a catalytic role in socio-economic development of the country. The contribution of education in economic growth was first made by Adam Smith, followed by Marshall. Over the time, economists have given the theories and modals relating education and economic growth (Lucas, 1988; Romar 1990, Rebelo 1991, Grossman- Helprnan 1991, Francis and Luare, 2006). Most of them viewed the human capital as an alternative engine of economic growth to technological change.

Even after 69 years of independence, the socio- economic environment of our country is far from satisfactory. India is a home of 17% population of world of whom only 73% are literates.

The various dimensions of disparities in education sector has been analysed by using the following indicators.

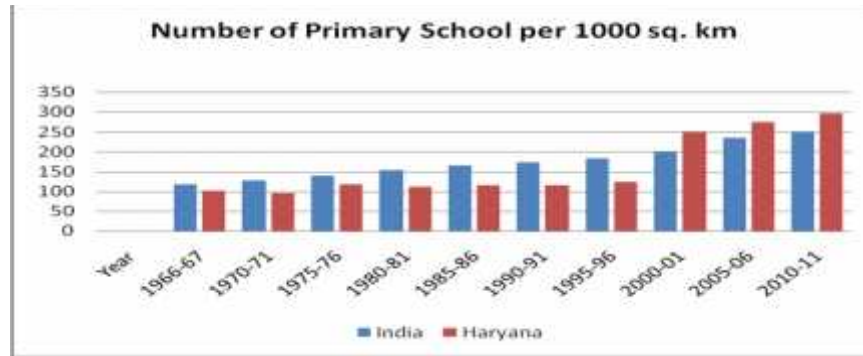
Number of Primary School (Per 1000 sq. km)

Educational progress can be assessed in terms of outcomes, such as literacy rates, enrolment, number of institutions, teachers and school infrastructure. Number of primary schools (Per 1000 sq. Km.) Table I shows the number of primary schools in India and Haryana state for the period 1966-67 to 2012-13.

Table 1.1: Number of Primary Schools per 1000 sq. km

Year	India		Haryana	
	Number of Primary School	No of Primary School Per 1000 sq. Km	Number of Primary School	No of Primary School Per 1000 sq. Km
1966-67	384501	116.96	4449	100.62
1970-71	417473	126.99	4207	95.15
1975-76	459618	139.81	5156	116.61
1980-81	503763	153.24	4961	112.20
1985-86	545153	165.83	5078	114.85
1990-91	566744	172.40	5109	115.55
1995-96	598354	182.02	5474	123.81
2000-01	654622	199.13	11013	249.09
2005-06	772568	235.01	12152	274.85
2010-11	819945	249.43	13073	295.68

Source: 1. Statistical abstract of Haryana; 2. www.indiastst.com



The above table shows that the number of Primary schools in India has increased from 116.96 in 1966-67 to 249.43 in 2010-11 and the number of Primary School in Haryana decreased to 95.15 in 1970-71 from 100.62 in 1966-67 and after 1970-71 it again started increasing and reached to 296.68 in 2010-11. During 1966-67 Haryana has less number of primary schools than that of national average but after 1995-96 Haryana left behind national number. In 1995-96 the number of primary school per 1000 sq.km was less than in 1990-91, due to the up gradation of primary schools into middle and high schools.

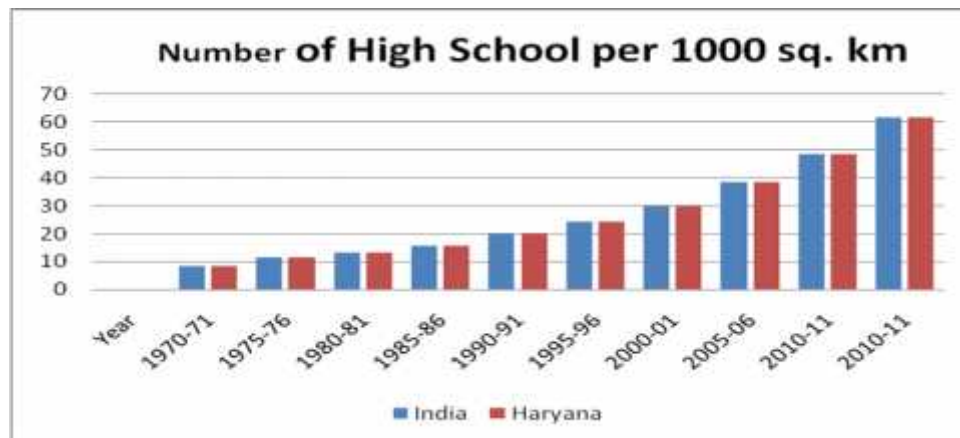
Number of High Schools (Per 1000 sq.km)

Development of a country depends on the education system. Primary education is necessary to all, but high school education is very important for outcome and it is a part of higher education. Without high school education we cannot get higher education. High school education is the building block of one's career. Table 1.2 presents the number of high schools per thousand sq.km in India and Haryana state for the study period.

Table 1.2: Number of High School per 1000 sq.km

Year	India		Haryana	
	Number of High School	No of High School Per 1000 sq. Km	Number of High School	No of High School Per 1000 sq. Km
1966-67	27614	8.40	597	13.50
1970-71	37051	11.27	975	22.05
1975-76	43054	13.09	1129	25.53
1980-81	51573	15.68	1473	33.31
1985-86	65837	20.02	1946	44.01
1990-91	79796	24.27	2356	53.28
1995-96	98134	29.85	2998	67.80
2000-01	126047	38.34	4138	93.59
2005-06	159667	48.57	5317	120.26
2010-11	203261	61.83	6983	157.94

Source: 1. Statistical abstract of Haryana; 2. www.indiastst.com



The table 1.2 shows that the number of high schools in India has increased from 8.40 in 1966-67 to 61.83 during 2010-11. In Haryana the schools per thousand sq.km has increased from 13.50 in 1966-67 to 157.94 in 2010-11. The number of high schools in India and Haryana are continually increasing. The number of high schools per thousand sq. Km in Haryana is approximately double than that of India. At national level there are less number of high schools and it may be due to following reasons:-

- Less awareness about the education.
- Proportionately more rural population in India.
- Children help their parents in the agriculture work which is the domestic profession.
- Haryana is near to the educational hub Delhi in comparison to other regions of country.

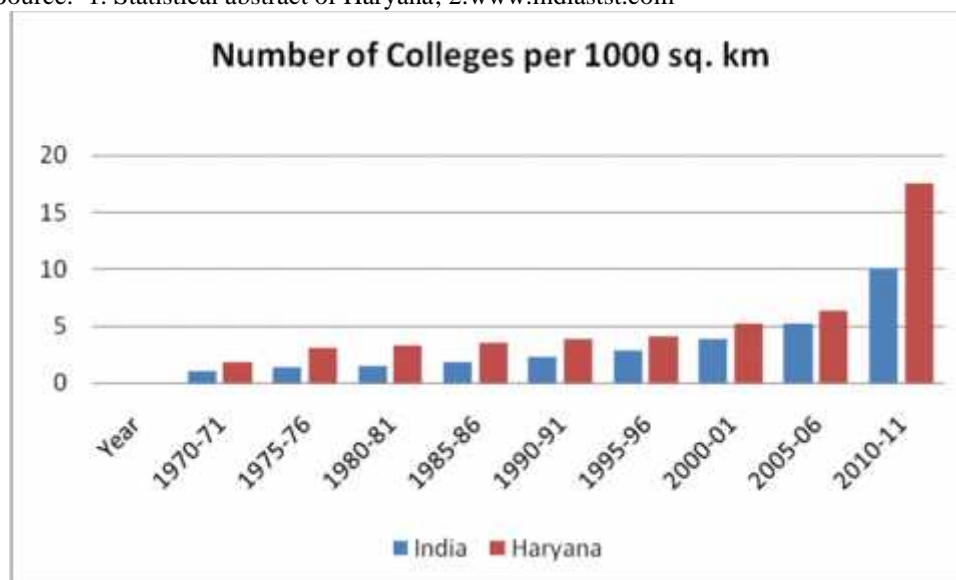
Number of Colleges(Per 1000 sq. Km)

Higher education refers to a level of education that is provided by universities, vocational institutions, community colleges, institute of technology and college level institutions that award academic degrees, diplomas or professional certification. There are very important to national economics, both as a significant industry in its own right and as a source of trained and educated personnel for the rest of the economy. Table 1.3 presents the number of colleges per thousand square km in India and Haryana state for the period from 1970-71 to 2010-11.

Table 1.3: Number of Colleges per 1000 sq. Km

Year	India		Haryana	
	Number of Colleges	No of Colleges Per 1000 sq. Km	Number of Colleges	No of Colleges Per 1000 sq. Km
1970-71	3277	0.99	78	1.76
1975-76	4317	1.31	133	3.00
1980-81	4722	1.43	146	3.30
1985-86	5816	1.76	156	3.52
1990-91	7346	2.23	168	3.79
1995-96	9252	2.81	181	4.09
2000-01	12806	3.89	228	5.15
2005-06	16982	5.16	282	6.37
2010-11	32974	10.03	776	17.55

Source: 1. Statistical abstract of Haryana; 2.www.indiastst.com



The number of colleges per thousand square kilometre is less in India than Haryana. It is approximately half of Haryana. The number of colleges increased in both Haryana and India during the study period. The no. of colleges in India increased from 0.99 in 1970-71 to 10.03 in 2010-11. The number of colleges in Haryana increased sharply in 2010-11 from 6.37 in 2005-06 to 17.55 in 2010-11 and the no. of colleges in Haryana increased from 1.76 in 1970-71 to 17.55. So, India has less number of colleges per thousand square kilometre than Haryana due to following reasons:-

- Less number of high schools that reduces the demand of college's education.
- Haryana is near to education centre Delhi.
- Less awareness of people about education.
- After college pass outs easily find job in Delhi which is near to Haryana.

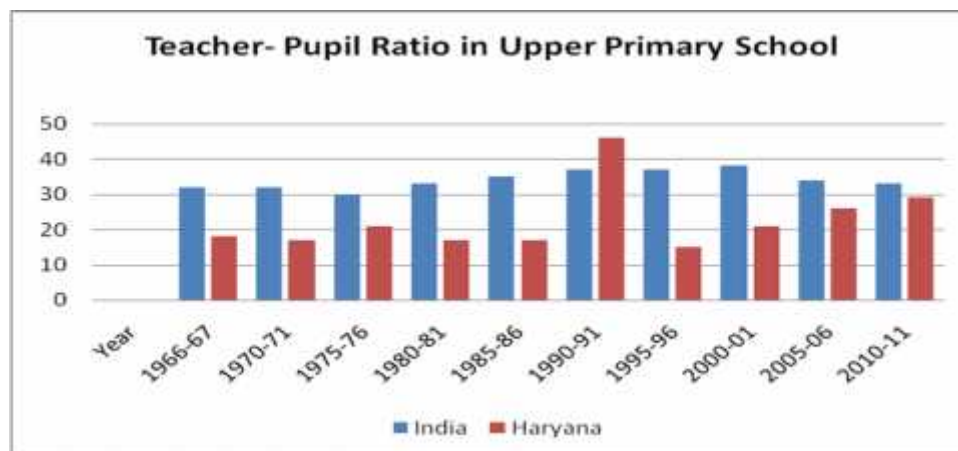
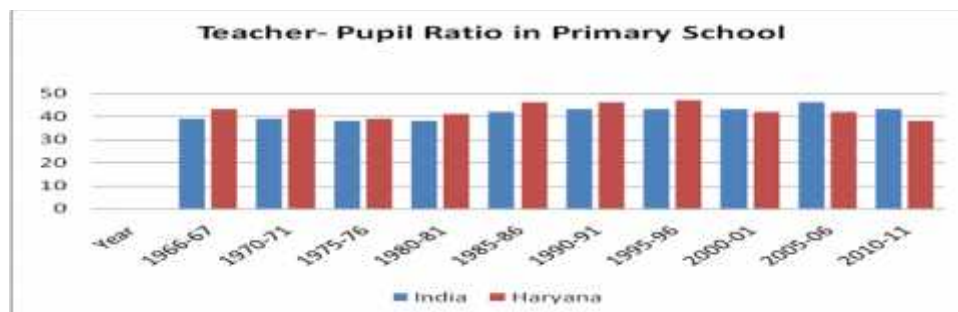
Teacher – Pupil Ratio in Primary School and Upper Primary Schools

The trend of teacher pupil ratio is not stable due to Government policies, so the teacher pupil ratio in primary and upper primary is not equal in India and Haryana. Table 1.4 gives a comparative picture of number of pupils per teacher in primary schools and upper primary schools in India and Haryana state.

Table 1.4: Teacher Pupil Ratio in Primary school and upper primary school

Year	India		Haryana	
	Primary School	Upper Primary School	Primary School	Upper Primary School
1966-67	39	32	43	18
1970-71	39	32	43	17
1975-76	38	30	39	21
1980-81	38	33	41	17
1985-86	42	35	46	17
1990-91	43	37	46	46
1995-96	43	37	47	15
2000-01	43	38	42	21
2005-06	46	34	42	26
2010-11	43	33	38	29

Source: 1. Statistical abstract of Haryana; 2. www.indiastst.com



The teacher pupil ratio in primary school is greater in Haryana than India up to 1995-96 Haryana has less teacher pupil ratio in Primary schools.

The teacher pupil ratio in upper primary schools is more in India than Haryana where it is approximately double. There is a fluctuating trend in the teacher's pupil ratio in India but there is not much difference in 1966-67, it was 32 and in 2010-11 it comes to 33 in case of India. When we consider Haryana it comes out to be huge difference in the teacher pupil ratio. In 1966-67 it was 18 and in 2010-11 it comes to 29. The fluctuation may be due to increasing number of teachers and fewer enrolments of students. So, it may be due to increasing number of teachers or new requirement in Haryana. Large teacher pupil ratio in India shows it's backwardness in education

Health

Health and health care need to be distinguished from each other for no better reason than that the former is often incorrectly seen as a direct function of the latter. Health is clearly not the mere absence of disease. Good health confers on a person or group freedom from illness and the ability to realize one's potential. Health is therefore best understood as the indispensable basis for defining a person's sense of well being. The health of population is a distinct key issue in public policy discourse in every mature society often determining the deployment of huge society.

Number of Primary Health Centre (PHCs) during five year Plans (per 1000 sq. Km)

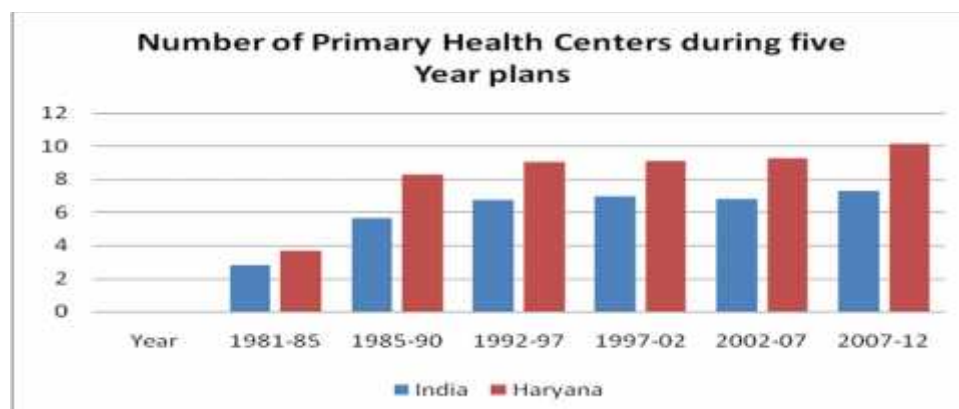
The Primary Health Centre (PHC) is the basic structural and functional unit of the public health services in developing countries like India. PHC were established to provide accessible and affordable Primary Health care to people.

In India, PHCs form a part of the health care system. The medical officer in a PHC acts as the Primary administrator for the PHC. The primary field staffs, which provide outreach services, are called 'ASHA' (Accredited Social Health Activist) or a village health nurse. The village health nurse provides service at the point of care, often in the patient's home. If additional diagnostic testing or clinical intervention is required, the patient is transported to the PHC to be evaluated by the Medical Officer, PHCs are rapidly being upgraded. The no. of PHCs in India and in Haryana in terms of per 1000 sq. Km are shown in the table 1.5

Table 1.5: Number of Primary Health Centres (PHCs) during five years plans (per 1000 sq. Km)

Year	India		Haryana	
	Number of Primary Health Centers	No of Primary Health centers per 1000 sq. Km	Number of Primary Health centers	No of Primary Health centers per 1000 sq. Km
1981-85	9115	2.77	163	3.68
1985-90	18671	5.67	366	8.27
1992-97	22149	6.73	399	9.02
1997-02	22875	6.95	403	9.11
2002-07	22370	6.80	411	9.27
2007-12	24049	7.31	447	10.11

Source: 1. Statistical abstract of Haryana; 2. www.indiastst.com



The no. of Primary Health per 1000 sq. Kms centres in Haryana has increased from 3.68 in 1981-85 to 7.31 in 2007-12. However in Haryana it has increased from 3.68 in 1981-85 to 10.11 in 2007-12. The number of PHCs per 1000 sq km in Haryana is greater than India. During the five year plan 1981-85, there are not much PHCs but in five year 2007-12, it reached to a higher level. Haryana is more health conscious in comparison to India. Haryana has a wide institutional network providing health services both in urban and rural areas. Haryana has almost increasing trend and India has also increasing

trend but not much, as Haryana is surrounded by Delhi and other developed region, it is more advanced in health facilities than India. Haryana and Delhi has a density of population with high density of health facilities. The urban population proportion in Haryana is high than India so it also affects the density of health facilities. In Haryana people are more aware about health facilities.

Number of Community Health Centers During Five Year Plans (per 1000 sq.km)

A Community health centre is one of the network of clinics staffed by a group of general practitioners and nurses providing health care services to people in a certain area.

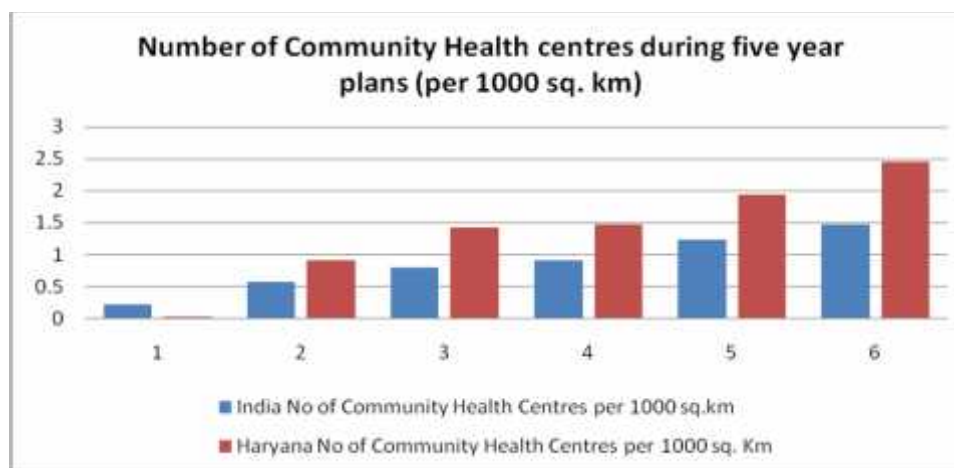
Community health centers provide communities with a comprehensive range of health care, health education, community development and social services. Community health centers differ from most traditional health care facilities in that they take a holistic approach to health care, recognizing that many factors- financial, emotional, social, physical and environmental affect people's health. CHCs emphasize health promotion and illness prevention as complements to primary health care and take special care to assist people who are at high risk of illness or unable to access other facilities because of low income or lack of information and awareness.

CHS services are delivered by a multidisciplinary team of social and health care professionals. CHCs are maintained to improve the health status of the entire community in addition to the health of individual patients. CHCs provide services that are accessible to their target population and are comprehensive and coordinated with other community services and are accountable to the communities they serve and community members are involved in program planning and organizational governance. The primary care office (PCO) assists the development and sustainability of Community Health Centers by providing ongoing assessment of community health needs, and technical assistance regarding program development and evaluation. Community Health Centres are increasing day by day. Number of Community Health Centres during five years plans in India and Haryana state are shown in the table below:-

Table 1.6: Number of Community Health centres during five year plans

Year	India		Haryana	
	Number of Community Health Centres	No of Community Health Centres per 1000 sq.km	Number of Community Health Centres	No of Community Health Centres per 1000 sq. Km
1981-85	761	0.23	2	0.04
1985-90	1910	0.58	41	0.92
1992-97	2633	0.80	63	1.42
1997-02	3054	0.92	65	1.47
2002-07	4045	1.23	86	1.94
2007-12	4833	1.47	109	2.46

Source: 1. Statistical abstract of Haryana; 2.www.indiastst.com



The table 1.6 shows that during the five years plan 1981-85. The Community Health Centres per 1000 sq. Km are more in India in comparison to Haryana but after that Haryana moved fast in establishing community Health centres in its various regions and became more health conscious. Haryana left behind India after 1985. Both India and Haryana have increasing

trend in CHCs per 1000 sq.km. in India CHCs increased from 0.23 during 1981-85 to 1.47 during 2007-12, while in Haryana CHCs per 1000 sq. Km has increased from 0.04 during 1981-85 to 2.46 during 2007-12. Community Health Centres are less in India in comparison to Haryana. It may be due to following reason:- less education, health awareness, less medical and health institutions, large rural population. People of India are less aware of the health consequences which reduce the demand of health facilities.

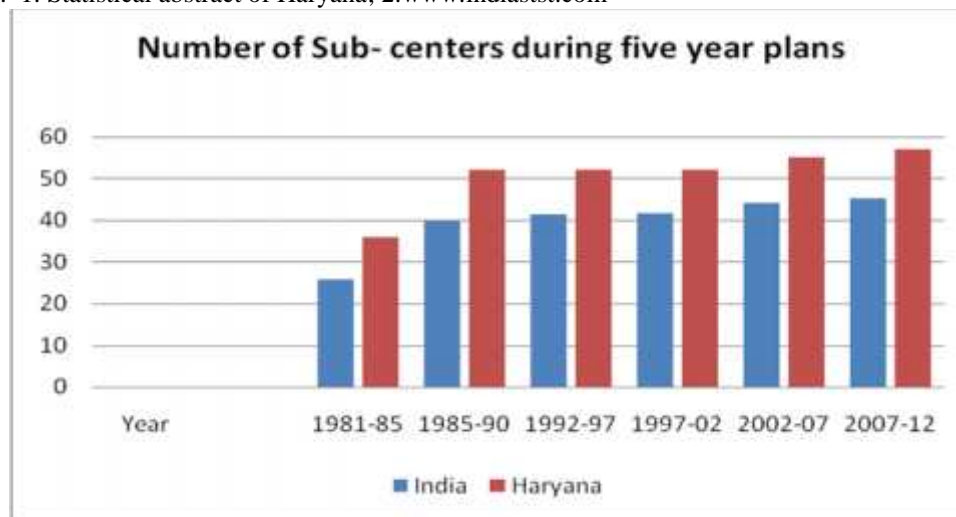
Number of Sub-Centres During Five Year Plans(per1000 sq.km)

The sub-centre is the peripheral outpost of the Indian healthcare system. Normally one sub centre caters to the healthcare needs of 5000 population in general and 3000 population in hilly, tribal and backward areas. There are different services provided by these sub-centres which include antenatal, natal and postnatal. These centres also provide services regarding family planning and counselling. They also provide treatment of common illness and prevention of malnutrition. It also provides implementation of various national health programme. There is a special need of these sub centres in India. Figures related to sub centres in India and Haryana state are shown in table 1.7.

Table 1.7: Number of Sub-centres during five years plans

Year	India		Haryana	
	Number of Sub Centre	No of sub Centre per 1000 sq.km	Number of Sub Centres	No of sub Centre per 1000 sq.km
1981-85	84376	25.66	1591	35.98
1985-90	130165	39.59	2299	51.99
1992-97	136258	41.45	2299	51.99
1997-02	137311	41.77	2299	51.99
2002-07	145272	44.19	2433	55.03
2007-12	148366	45.13	2520	56.99

Source: 1. Statistical abstract of Haryana; 2.www.indiastst.com



The number of sub centres during five year plans has an increasing trend both in India and Haryana. The sub centres in India have increasing trend from 25.66 per 1000 sq km during 1981-85 to 45.13 per 1000 sq. Km during 2007-2012. The no. of sub-centres during these five years plans are more in Haryana in comparison to India. In 2002-2007 India has 44.19 Sub-centres per 1000 sq.km centre while Haryana has 55.03 sub-centres per 1000 sq. Km and in five years plan 2007-12 India has 45.13 per 1000 sq.km during 2007-2012 while Haryana has 56.99 per 1000 sq. km which shows clearly that Haryana has more sub-centres in comparison to India. This may be due to people of Haryana are more aware of their health and health facilities. There are more health institutions in Haryana than India which show clear cut variations between India and Haryana regarding health sector or health facilities.

Number of Medical Colleges per 1000 sq. Km (Allo/Avr.Homeo/Unani/Nur./Pham etc.)

Medical institutions are an important input in health sector in India. Health sector is affected by less health education and health awareness. For better health services we need better Doctors, so it becomes necessary to set up medical colleges in different parts of country. To provide good health service it is necessary to increase medical colleges. But the distribution of

medical colleges in India is not equal. The number of medical colleges per 1000 sq. Km in India and Haryana state over the years has been shown in the table 1.8.

Table 1.8: Nmbuer of Medical colleges per 1000 sq. Km (Allo/Avr.Homeo/Unani/Nur./Pham etc.)

Year	India		Haryana	
	Number of Medical Colleges	Number of Medical Colleges per 1000 sq. Km	Number of Medical Colleges	Number of Medical Colleges per 1000 sq. Km
1980-81	111	0.033	1	0.02
1985-86	117	0.035	1	0.02
1990-91	130	0.039	1	0.02
1995-96	354	0.107	5	0.11
2000-01	709	0.215	12	0.27
2005-06	2053	0.624	35	0.79
2010-11	2679	0.814	43	0.97

Source: 1. Statistical abstract of Haryana; 2.www.indiastst.com

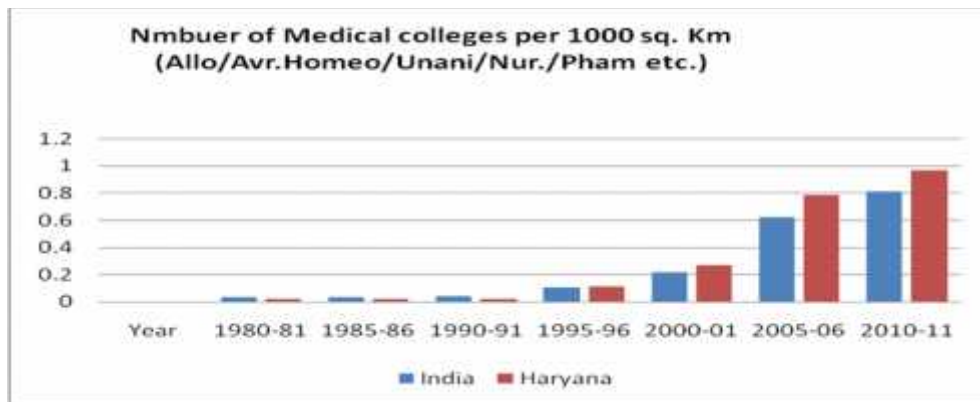


Table 1.8 shows that the number of medical colleges has increased from 0.03 per 1000 sq. Km during 1980-81 in India to 0.81 per 1000 sq km during 2010-11. The number of medical colleges in Haryana increased from 1980-81 to 2010-11 from 0.02 to 0.97. In Haryana it remains constant during 1980-81 to 1990-91. Table shows a rapid growth in medical colleges during 2005-2006 both in India and Haryana. Initially India has more medical colleges than Haryana but after 1995-96 Haryana has more medical colleges per 1000 sq. Km than India. In Haryana, people are more aware of their health consequences which increase the demand for health institutions.

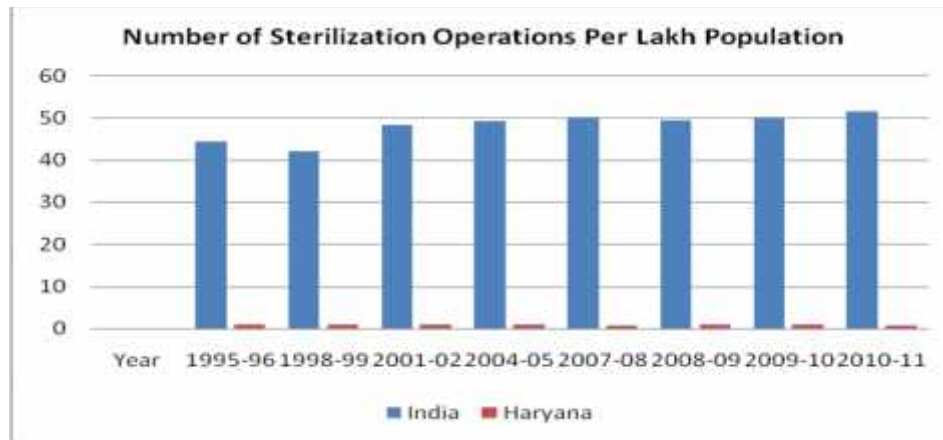
Number of Sterilization Operations (Per lakh population)

Sterilization operations are playing an importance role in family planning and population control. This is affected by less awareness and less education. In the development of a country population plays an important role. In India population is growing very rapidly and it is matter of concern. So, it becomes necessary to study about sterilization operation in India Table 1.9 represents the number of sterilization operation per lakh population in India and Haryana state.

Table 1.9: Number of Sterilization Operations per lakh population

Year	India		Haryana	
	Number of Sterilization Operations	Number of Sterilization Operations per Lakh Population	Number of Sterilization Operations	Number of Sterilization Operations Per Lakh Population
1995-96	4422319	44.22	101257	1.012
1998-99	4206726	42.06	91219	0.91
2001-02	4827265	48.27	87959	0.87
2004-05	4925882	49.25	89893	0.89
2007-08	5018695	50.18	80823	0.80
2008-09	4950151	49.50	88372	0.88
2009-10	4986628	49.86	85875	0.85
2010-11	5148108	51.48	79506	0.79

Source: 1. Statistical abstract of Haryana; 2.www.indiastst.com



The number of sterilization operations per lakh population has no comparison between India and Haryana state. There is a great difference. In India it has increased from 44.22 during 1995-96 to 51.48 during 2010-11 and again decreased during the study period. The distribution of number sterilization operations per lakh population in India and Haryana is not equal. India has more number of sterilization operations per lakh population than Haryana. During 1995-96 India has 44.22 sterilization operations and Haryana has 1.02 sterilization operations per lakh population. During 2010-11 of study period in India it has increased to 51.48 and in Haryana it increased to 0.79. There is no comparison between India and Haryana. Haryana is far behind the national average regarding the sterilization operations; it may be due to lack of awareness about family planning and population growth.

Conclusion

On the basis of selected indicators it is concluded that regional variations exist between India and Haryana state. Education depends upon the educational institutions. There is regional variation due to the less awareness about education. Education hub Delhi is near to Haryana or it may be due to primary or domestic occupation.

The number of Primary Health Centers, Community Health Centers, sub-centers and medical colleges shows the regional variation that shows Haryana is much advanced than India. The no. of sterilization operation also shows the huge regional variation between India and Haryana state. Haryana has very low no. of sterilization operations in comparison to India.

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