

# HUMAN RESOURCE AND ECONOMIC DEVELOPMENT IN HEALTH SECTOR

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## ABSTRACT

*Human resources are an important factor in economic development. The study of human resource is vital from the point of view of economic welfare. It is particularly important because human beings are not only instruments of production but also ends in themselves. It is necessary to know in quantitative terms the number of people living in a country at a particular time, the rate at which they are growing and the composition and distribution of population. Paper is based on secondary data and explains about human resources which helps in economic development specially in health sector for this we have taken help and support of UNDP human development report, Dental Council of India, Medical Council of India, Directorate of state health services and Indian Nursing Council and Council of India.*

## INTRODUCTION

Economic development is a complex process. It is influenced by natural resources and economic and non-economic factors. Role of natural resources has always been recognized in economic development. As a matter of fact, a natural resource often decides the limits of development. Among the economic factors which determine the development process in any country, the most prominent ones are the available capital stock and the rate of accumulation, Capital-output ratio in various sectors, agriculture surplus, condition in foreign trade and economic system. In addition, some economic factors such as size and quality of human resources, natural resources, political freedom, social organization, technical know-how and general education, absence of corruption, will all develop on part of people and plays an very important role in determining the pace and direction of development. The study of human

resource is vital from the point of view of economic welfare. It is particularly important because human beings are not only instruments of production but also ends in themselves. It is necessary to know in quantitative terms the number of people living in a country at a particular time, the rate at which they are growing and the composition and distribution of population. W.A. Lewis writes: **“The extent of a country’s resources in quite obviously a limit on the type of development which it can undergo”** [1]. Human resources are an important factor in economic development. Economists often see population as an obstacle to growth rather than as a factor which will assist the development activity. Nevertheless, man makes positive contribution to growth. Man provides labor power for production and if in a country labor is efficient and skilled, its capacity to contribute to growth will decidedly be high. The productivity of illiterate, unskilled, disease ridden and superstitious people is generally low and

they do not provide any hope to developmental work in a country. If a country can manage to use its, man power properly, it will prove to be an important factor in development. But in case human resources remain either unutilized or the man power management remains defective, the same people who could have made a positive contribution to growth activity prove to be burden in the economy. It is the reason why a situation characterized as that of over- population in an underdeveloped country is seen as a growth arresting factor.

## REVIEW OF LITERATURE

### ECONOMIC GROWTH AND ECONOMIC DEVELOPMENT

Investopedia website describes economic growth as an “increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth can be measured in nominal terms, which include inflation, or in real terms which are adjusted for inflation. For comparing one country’s economic growth to another, GDP or GNP per capita is used as these take into account population differences between countries”.

Andy Lewis in a U.W Extension presentation defines economic development as “the process of retaining, expanding, and attracting jobs, income and wealth in a manner that improves individual economic opportunities and the quality of human life.” According to Sen. (1999), “development involves reducing deprivation or broadening choice”. He went further to say overcoming deprivations or “unfreedoms” are not just ends or constituent components of development but are also important means to development and freedom is central to development.

Unfreedoms include hunger, famine, ignorance, an unsustainable economic life, unemployment, premature death, violation of political freedom and basic liberty, threats to the

environment, little access to health, sanitation, clean water and labor contract, etc.

By economic growth, it simply means increase in per capita income or increase in real GNP over a period of time. It refers to sustained increase in a country’s output of goods and services or products per capita. On the other hand, the process of development is far more extensive. It implies progressive changes in the socio-economic structure of a country. It goes further to reduce poverty, inequality, and unemployment. Economic development can be described in terms of its objectives which are the creation of jobs and wealth, and the improvement of quality of life. It is also a process that influences growth and the restructuring of an economy to enhance the economic well being of a community. A country can witness growth without experiencing development but cannot attain development without first growing the economy. The bottom line of economic development is about building prosperity – a high and rising standard of living.

### DEMOGRAPHIC TRANSITION

Demographic characteristics of a country provides an overview of its population size, composition, territorial distribution, changes therein and the components of changes such as nativity, mortality and social mobility. Population statistics include an indicator that measures the population size, sex ratio, density and dependency ratio while vital statistics include indicator such as birth rate, death rate, and natural growth rate, life expectancy at birth, mortality and fertility rates. Demographic transition is a shift from high birth and death rates to low birth rates and death rates.

### STAGES OF DEMOGRAPHIC TRANSITION

The theory is based on the interpretation of demographic history by Warren Thompson in 1929. He started the moment from high birth rate to low birth rate and death rate in following five stages:-

- Under this, economy experiences both high birth rate and high death rate to natural events like drought and disease. The concepts like family planning and using contraception didn't exist at that time.
- The stage is marked by population explosion. A new technique in health and improved food supply decreases the death rate considerably but high birth rate continues to prevail. As a result, the population becomes greater than food supply and hence the food insecurity.
- The stage is marked by demographic dividend (majority of the population is young). Between the decline in youth dependency and rise in old age dependency, there is a demographic window of opportunity which is known as demographic dividend. In this stage, the birth rate falls due to increased use of birth control techniques like contraception, family planning etc. Moreover, there is increased investment in education and a reduction in the subsistence agriculture.
- Under this stage, the birth rate will fall and they might fall lower than the death rate and thereby leading to a shrinking population. The birth rate may fall below the replacement level like in case of Japan, Italy; which leads to fall in population levels. Moreover, it also creates an economic burden on working population, due to large composition of aged population in the total population levels.
- The original theory of "STAGES OF DEMOGRAPHIC TRANSITION" consists of four stages. The fifth stage was added by some theorist and included the concept of sub-replacement fertility in it. The stage features that there is higher death rate as compared to birth rate. This implies that the total population is shrinking. Most European Countries have started facing the stage like Germany.

## DEMOGRAPHY TO DEVELOPMENT

Health improvements affect the demography, in many ways that can perhaps heighten the developing economies. Families in unhealthy societies always recompense for expected and actual child deaths by having large number of children. Many times, high fertility rates displays purposeful attempts by parents to achieve desired family size: having number of children increases the possibility that at least one or two will survive into the adulthood. Having a large number of children effects mother's health. Large family size also affects household resources, which genuinely affects each and every member of family. This effects the economic development as there is direct relationship between human resource and economic development. When working participation rate increases with output economic development also increases in positive way.

## LIFE SPAN AND LIFE CYCLE BEHAVIOUR

Disease always reduces the incomes of the society, the lifetime incomes of individuals, and possibility for economic growth. Longer-lived people will invest a higher portion of their incomes in education and financial saving and various other productive aspects, because their longer lifetime span will allow them more years of benefits of their investments. Finlay in his work "The Role of Health In Economic Development" has pointed out (2007) pointed out that human capital accumulation (that is education) is assumed to be the driver of economic growth, and an increase in life expectancy will expand the time horizon over which returns to education can be earned and thus encourage investment as the present value of lifetime earnings increases. Due to the combination of early deaths and chronic disability, the economic losses to a society of truncated lives are phenomenally high. For instance, as a result of the AIDS pandemic alone, aggregate

economic growth will slow several percentage points per year in Africa, as individuals in the prime of their working lives are struck down.

## HUMAN RESOURCES

Human resource plays a very important and vital role in economic development. It cannot be measured because human resource is not a commodity which can be exchanged in the market like a physical capital. In fact there is a relation between physical capital and human resource. Physical capital itself depends upon human resource. Explaining the concept of human development, (1997) describes it as "The process of widening people's choices and level of well-being they achieve are at the core of the notion of human development. Such theories are neither finite nor static. But regardless of the level of development, the three essential choices of people are to lead a long and healthy life, to acquire knowledge and to have access to the resources needed for a decent standard of living. Human development does not end there, however. Other choices highly valued by many people, ranged from political, economic and social freedom to opportunities for being creative and productive and enjoying self-respect and guaranteed human rights."<sup>2</sup>

## INDICATORS OF HUMAN RESOURCES DEVELOPMENT

Generally it is very difficult to measure Human resources yet there are some indicators to measure them are as follows:-

- Health facilities and services, broadly conceived to include all expenditures that affect the life expectancy, strength and stamina, and vigour and vitality of the people
- On-the-job training, including old-style apprenticeships organized by firms
- Formally organized education at elementary, secondary and higher levels

- Study programmes for adult that are not organized by firms including extension programmes notably in agriculture and
- Migration of individuals and families to adjust to changing job opportunities.<sup>4</sup>

## LEVEL OF EDUCATIONAL ATTAINMENT

The number of individuals in the population who have completed primary or elementary, secondary and higher education is known as educational attainment. The last two are most important in pointing the stock of high level man-power.

## THE NUMBER OF PERSONS, IN RELATION TO THE POPULATION OR LABOUR FORCE, WHO ARE IN HIGH-LEVEL OCCUPATIONS

The number in selected strategic occupational groups: Scientists, Doctors, Engineers, Lawyers, Professors, managers and persons in the skilled worker category.

## HUMAN RESOURCE IN HEALTH SECTOR

Human Resources for Health are the most important building block of public health. Availability of adequate number of human resources with suitable skill mix and their appropriate deployment at different levels of health care set-up are essential for providing effective health care services for the population. In many developing countries, such as India, information on human resources in the health sector is incomplete and unreliable. This prevents effective workforce planning and management. Human Resource indicators provide an overview of availability of trained and specialized medical, nursing and paramedical personnel in the country. These also give an idea regarding regional distribution and disparities. Human Resource

indicators cover the details of allopathic doctors, dental surgeons, Ayush doctors, nursing personnel and various paramedical health man- powers in the country.

## YEAR-WISE NUMBER OF DENTAL SURGEONS REGISTERED WITH CENTRAL/STATE DENTAL COUNCILS OF INDIA 1994-2014

There has been a marked improvement in the Dentist to population Ratio. Number of Dental Surgeon registered with Central/State Dental Councils of India were 254283 which show a continuous increase in the registration of dental

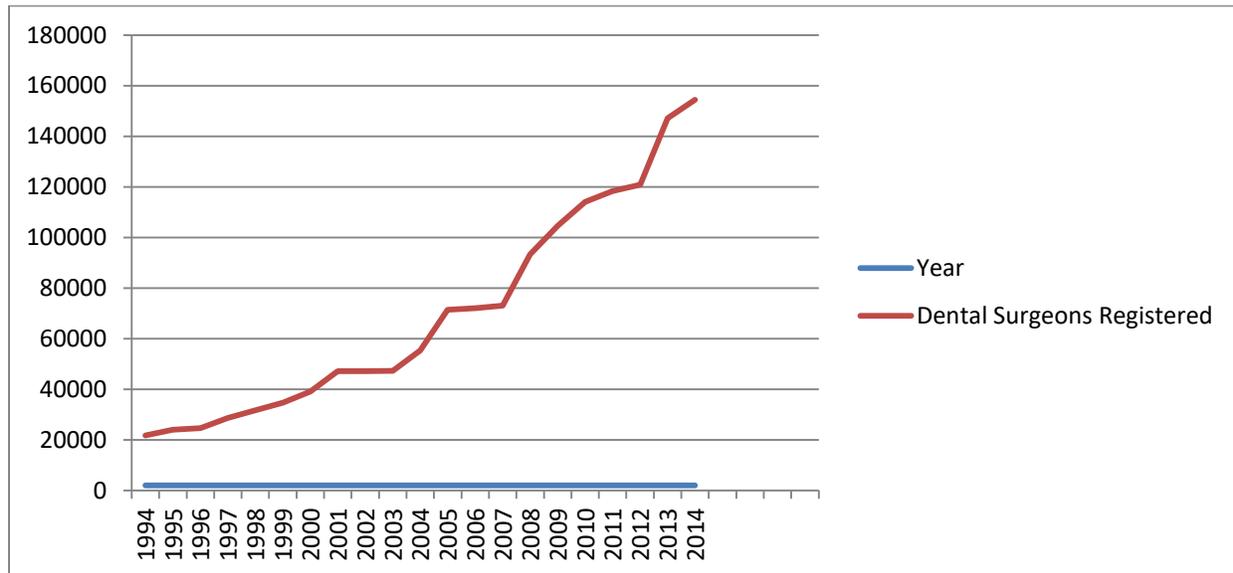
surgeons. Dr AK Chandna, member, Dental Council of India (DCI) said "India has 310 dental colleges and most of these colleges are in the private sector. Despite the fact that there are so many dentists, the doctor-patient ratio is not satisfactory because most of the dentists are concentrated in urban areas for private practice as there are meagre opportunities in the government sector". The government is trying hard to increase the number of medical colleges and government hospitals across the country and there is huge gap in the numbers of available undergraduate and postgraduate seats in existing medical colleges<sup>[9, 10]</sup>. Lack of specialists should be specifically addressed<sup>[11]</sup>. If all the issues are adequately addressed, the ratio of government doctor to patient ratio will surely increase

Table1. Year-wise number of Dental Surgeons Registered with Central/State Dental Councils of India 1994-2014

S. No.	Year	Dental Surgeons Registered
1	1994	21720
2	1995	23953
3	1996	24656
4	1997	28705
5	1998	31728
6	1999	34761
7	2000	39105
8	2001	47204
9	2002	47165
10	2003	47318
11	2004	55344
12	2005	71421
13	2006	72033
14	2007	73057
15	2008	93332
16	2009	104603
17	2010	114047
18	2011	118370
19	2012	120897
20	2013	147159
21	2014	154436

Source: Dental Council of India

Fig. 1 Year-wise number of Dental Surgeons Registered with Central/State Dental Councils of India 1994-2014



Source: Dental Council of India

**STATE/UT WISE NUMBER OF DOCTORS POSSESSING RECOGNIZED MEDICAL QUALIFICATIONS (UNDER I.M.C ACT) REGISTERED WITH STATE MEDICAL COUNCILS/MEDICAL COUNCIL OF INDIA FROM THE YEAR UP TO 2007 TO 2014**

Number of Registered allopathic doctors possessing recognized medical qualifications (under MCI Act)

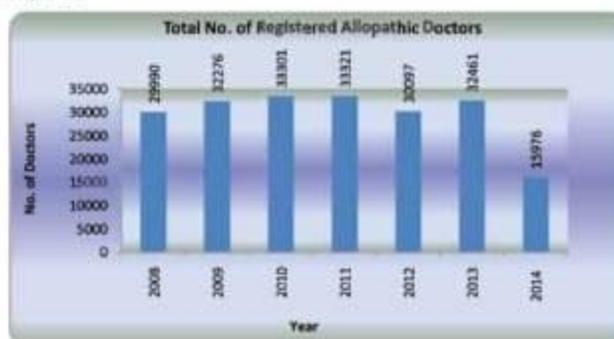
and registered with state medical council for the years 2013 and 2014 were 32461 and 15976 respectively. We can see that in Tamil Nadu the number of registered doctors is 32461 which is high among all the states whereas, Uttarakhand is the state where the number of registered doctor is very low it is only 28 and after that Arunachal Pradesh is the state where doctor registration is very low which is 29. The number of doctors still needs to be increased to overcome such a huge population.

### 5.1 State/UT wise Number of Doctors Possessing Recognised Medical, Qualifications (Under I.M.C Act) Registered With State Medical Councils/ Medical Council of India From The Year 2007 to 2014

S. No.	State/UT	Upto 2007	2008	2009	2010	2011	2012	2013	2014	Total up (P) to 2014
1	Andhra Pradesh	55566	2748	4035	3760	4370	320	NA	NA	70799
2	Arunachal Pradesh	143	62	67	62	80	12	55	29	510
3	Assam	17436	468	590	653	571	487	529	152	20886
4	Bihar	35081	862	616	809	NA	463	429	NR	38260
5	Chhattisgarh	1252	831	663	478	882	595	556	488	5745
6	Delhi	4394	656	793	905	1006	946	1073	1159	10932
7	Goa	2501	104	111	112	119	136	132	NR	3215
8	Gujarat	41877	1542	1639	2173	1795	2197	2153	NR	53376
9	Haryana	3272	539	721	824	361	NA	NA	NR	5717
10	Himachal Pradesh	269	163	273	208	310	377	296	139	2035
11	Jammu & Kashmir	9908	406	592	454	635	471	473	67	13006
12	Jharkhand	1000	691	1242	312	490	355	283	45	4418
13	Karnataka	75841	3615	3721	4557	3727	4207	4772	833	101273
14	Madhya Pradesh	24004	954	704	1007	947	1077	1298	899	30890
15	Maharashtra	126989	3988	3882	3444	3157	3433	3682	NR	148575
16	MCI	30840	1741	2074	2645	3730	4864	5603	1169	52666
17	Odisha	16008	331	395	52	NA	NA	0	2402	19188
18	Punjab	36550	841	1043	857	825	768	1129	NR	42013
19	Rajasthan	25301	1156	1197	1143	1145	1442	1490	1265	34139
20	Sikkim	277	184	97	50	69	74	73	NR	824
21	Tamil Nadu	78574	2959	2992	2297	3476	4182	4594	3254	102328
22	Kerala	35109	1235	1491	2172	2008	NA	NA	2500	44515
23	Uttar Pradesh	51978	1411	1966	2813	2081	2247	2253	594	65343
24	Uttarakhand	1240	1510	335	309	307	527	169	28	4425
25	West Bengal	56029	993	1037	1205	1230	917	1419	953	63783
	<b>Total</b>	<b>731439</b>	<b>29990</b>	<b>32276</b>	<b>33301</b>	<b>33321</b>	<b>30097</b>	<b>32461</b>	<b>15976</b>	<b>938861</b>

Note : P-Provisional

Source: Medical Council of India



Source: Medical Council of India

## GOVERNMENT ALLOPATHIC DOCTORS AND DENTAL SURGEONS

Number of registered allopathic doctors possessing recognized medical qualifications (under MCI Act) and registered with state medical council for the years 2013 and 2014 were 32461 and 15976 respectively. At present average population served by Government Allopathic Doctor is 11528 number

of persons served per allopathic doctor. We can see from the table that in Uttar Pradesh 10798 registered allopathic doctors which is high among all states but we can also see in Lakshadweep 29 registered allopathic doctors which is very low among all states. There has been a marked improvement in the Dentist to population ratio. Number of Dental Surgeon registered with central/ State Dental Councils of India up to 31.12.2014 were 154436.

### 5.3 State/UT wise Number of Government Allopathic Doctors and Dental Surgeons & Average Population Served in India (Provisional)

S. No	State/ UT	No. of Govt. Allopathic Doctors	No. of Govt. Dental Surgeons	Provisional/ Projected Population as on reference period in (000)	Average Population Served/Govt. Allopathic Doctors	Average Population Served /Govt. Dental Surgeon	Reference Period
1	Andhra Pradesh#	4414	264	86952	19699	329365	01.01.2015
2	Arunachal Pradesh	418	53	1284	3072	24227	01.01.2015
3	Assam	4401	262	31693	7201	120967	01.01.2014
4	Bihar	3576	405	101526	28391	250681	01.01.2015
5	Chhattisgarh	1008	62	25232	25032	406967	01.01.2014
6	Goa	516	18	1915	4570	106383	01.01.2015
7	Gujarat	3600	59	61329	17036	1039482	01.01.2015
8	Haryana	2618	566	26675	10189	47129	01.01.2015
9	Himachal Pradesh	4919	105	6978	1419	66461	01.01.2012
10	Jammu & Kashmir	3589	588	12152	3386	20666	01.01.2015
11	Jharkhand	1656	40	32766	19786	819142	01.01.2015
12	Karnataka*	4606	417	61214	13290	146795	01.01.2015
13	Kerala	5214	121	35258	6762	291388	01.01.2015
14	Madhya Pradesh	4929	152	75614	15341	497462	01.01.2015
15	Maharashtra	4217	31	117189	27790	3780291	01.01.2015
16	Manipur	814	81	2534	3114	31290	01.01.2014
17	Meghalaya	601	64	2712	4513	42379	01.01.2015
18	Mizoram	315	75	1039	3299	13857	01.01.2015
19	Nagaland	437	33	2327	5326	70526	01.01.2015
20	Odisha	4296	34	41797	9729	1229322	01.01.2015
21	Punjab	3121	255	28568	9153	112031	01.01.2015
22	Rajasthan	7877	370	70969	9010	191808	01.01.2015
23	Sikkim	268	42	633	2363	15080	01.01.2014
24	Tamil Nadu	7178	166	68654	9564	413576	01.01.2014
25	Tripura	1050	87	3742	3564	43010	01.01.2015
26	Uttar Pradesh	10798	198	211217	19561	1066754	01.01.2015
27	Uttarakhand	1242	57	10362	8343	181794	01.01.2015
28	West Bengal	8829	647	91920	10411	142071	01.01.2015
29	A & N Islands	87	5	533	6121	106506	01.01.2014
30	Chandigarh	110	17	1651	15013	97142	01.01.2015
31	D & N Haveli	78	13	402	5150	30900	01.01.2015
32	Daman & Diu	56	5	305	5439	60915	01.01.2015
33	Delhi	9121	312	20092	2203	64398	01.01.2015
34	Lakshadweep	29	1	78	2699	78279	01.01.2015
35	Puducherry	427	9	1573	3684	174764	01.01.2015
	<b>Total</b>	<b>106415</b>	<b>5614</b>	<b>1238887</b>	<b>11528</b>	<b>217448</b>	

**Note:**

# Data for Telangna is not included.

\* The information of autonomous institution has not been included.

Source: Directorate of State Health Services

## AYUSH REGISTERED PRACTITIONERS (DOCTORS) IN INDIA

India, with its kaleidoscopic variety and rich cultural heritage, is proud of some unique medicinal forms that look at health, disease and causes of disease in completely different ways. Best known as the

AYUSH, its main focus is on holistic health and well-being of humans. Over the years with gaining popularity, there is a steady rise in total number of registered AYUSH Doctors in India from 686319 in 2013 to 736538 in 2014. AYUSH has Maximum numbers of Registered Ayurvedic doctors (54.23%), followed by Registered Homeopathy Doctors (37.95%) in India.

### 5.4 State/UT wise AYUSH Registered Practitioners(Doctors) in India as on 1.1.2014

S. No.	State/UT	Ayurveda	Unani	Siddha	Naturopathy	Homeopathy	Total
1	Andhra Pradesh	11781	4933	0	368	5810	22892
2	Arunachal Pradesh	0	0	0	0	291	291
3	Assam	796	0	0	0	485	1281
4	Bihar	96648	6954	0	0	30536	134138
5	Chhattisgarh	2674	143	0	96	1569	4482
6	Delhi	3617	2074	0	0	4354	10045
7	Goa	570	0	0	0	576	1146
8	Gujarat	24859	308	0	0	17376	42543
9	Haryana	7423	257	0	0	5486	13166
10	Himachal Pradesh	4648	4	0	0	1301	5953
11	Jammu & Kashmir	2534	2343	0	0	310	5187
12	Jharkhand	3164	330	0	0	2845	6339
13	Karnataka	30850	1697	4	486	8349	41386
14	Kerala	20431	92	1587	117	11411	33638
15	Madhya Pradesh	45461	1486	0	15	15523	62485
16	Maharashtra	69478	6048	0	0	59831	135357
17	Manipur	79	21	0	13	630	743
18	Meghalaya	0	0	0	0	296	296
19	Mizoram	6	0	0	0	30	36
20	Nagaland	0	0	0	0	2084	2084
21	Odisha	4586	24	0	0	9244	13854
22	Punjab	5715	91	0	0	4325	10131
23	Rajasthan	9403	905	0	0	6946	17254
24	Sikkim	0	0	0	0	0	0
25	Tamil Nadu	4260	1143	6582	669	19890	32544
26	Tripura	0	0	0	0	235	235
27	Uttar Pradesh	43332	13590	0	0	32703	89625
28	Uttarakhand	2111	88	0	0	509	2708
29	West Bengal	4974	5152	0	0	36415	46541
30	A&N Islands	0	0	0	0	0	0
31	Chandigarh	0	0	0	0	158	158
32	D&N Haveli	0	0	0	0	0	0
33	Daman & Diu	0	0	0	0	0	0
34	Lakshdweep	0	0	0	0	0	0
35	Puducherry	0	0	0	0	0	0
	<b>Total</b>	<b>399400</b>	<b>47683</b>	<b>8173</b>	<b>1764</b>	<b>279518</b>	<b>736538</b>

Source: Ministry of AYUSH

Ayurveda: Figures in r/o states of Jammu & Kashmir (2013) has been repeated as the current year information not available.

Unani:- Figures in r/o states of Himachal Pradesh (2013) and Jharkhand (2013) has been repeated as the current year information not available.

Siddha:- Figure in r/o states in Kerala, Karnataka and Tamil Nadu has been received from the States.

Naturopathy:- Figures in r/o states of Andhra Pradesh (2013), Himachal Pradesh (2013), Jammu & Kashmir (2013) and West Bengal (2013) has been repeated as the current year information not available.

Homeopathy:- Figures in r/o states of Assam (2011), Jharkhand (2013), Kerala (2013), Nagaland (2010) and Uttarakhand (2013) has been repeated as the current year information not available.

Note:- Figures in r/o states of Sikkim, A&N Islands, D&N Haveli, Daman & Diu, Lakshdweep and Puducherry have been indicated Nil in all streams as there is no separate Board / Council for registration of practitioners in these States.

Note:- Figures in r/o states of Arunachal Pradesh, Meghalaya, Nagaland, Tripura and Chandigarh have been indicated Nil in Ayurveda, Unani, Siddha and Naturopathy as there is no separate Board / Council for registration of practitioners in these States.

Note:- The information of Ayurveda, Unani and Siddha for the State of Andhra Pradesh (as on 31.03.2014), Assam (as on 31.03.2012), Delhi (as on 28.02.2011), and Unani for the state of West Bengal (as on 30.03.2014) is updated based on the information received from CCIM as on 31.03.2014.

## REGISTERED NURSES & PHARMACISTS IN INDIA

Auxiliary Nurse Midwife (ANM) plays very important role in Health Care Delivery System in India and its changing with the times. It is through their activities

that people perceive health policies and strategies. It is through them that planners at the upper level gain insights into health problems and needs of the rural people. Considering their status as grass-root level workers in the health organizational hierarchy, a heavy responsibility rests on them. There are total of 7, 86, 061 ANM serving in India.

### 5.5 State/UT Wise Number of Registered Nurses & Pharmacists In India

S. No	State/UT	Total No. of Registered Nurses in India as on 31.12.2014			Pharmacists as on 27.06.2014
		A.N.M.	RN & RM	LHV	
1	Andhra Pradesh	134,694	210,000	2,480	43,958
2	Arunachal Pradesh	641	510	2	279
3	Assam	24,043	18,506	204	2,429
4	Bihar	8,624	9,413	511	4,163
5	Chhattisgarh	8,018	7,851	1,352	9,713
6	Goa	NA	NA	NA	466
7	Gujarat	40,694	99,125	NA	32,030
8	Haryana	22,850	28,356	694	7,554
9	Himachal Pradesh	11,448	15,424	500	2,818
10	Jharkhand*	4,071	2,355	142	NA
11	Karnataka	54,039	231,643	6,840	79,508
12	Kerala	29,710	215,708	8,507	21,411
13	Madhya Pradesh	37,199	108,855	1,686	1,381
14	Maharashtra	51,456	106,155	572	156,315
15	Manipur	3,220	5,503	NA	NA
16	Meghalaya	1,066	3,235	116	596
17	Mizoram	1,932	2,973	NA	330
18	Nagaland	NA	NA	NA	1,553
19	Odisha*	59,225	73,306	238	14,312
20	Punjab	23,029	76,680	2,584	40,162
21	Rajasthan*	103,994	175,542	2,550	38,156
22	Tamil Nadu	55,975	236,161	11,160	58,466
23	Tripura	2,040	2,259	148	257
24	Uttar Pradesh	43,488	42,612	2,763	30,276
25	Uttarakhand	1,864	1,513	11	NA
26	West Bengal	59,021	56,124	12,854	89,630
27	Dadra & Nagar Haveli	NA	NA	NA	66
28	Daman & Diu	NA	NA	NA	44
29	Delhi	3,720	50,197	NA	22,728
30	Lakshadweep	NA	NA	NA	3,082
31	Puducherry	NA	NA	NA	2,493
	<b>Total</b>	<b>786,061</b>	<b>17,80,006</b>	<b>55,914</b>	<b>664,176</b>

#### Note:

- \* Last Year Data upto 31.12.2013
- ANM: Auxiliary Nurse Midwives
- RN & RM: Registered Nurses & Registered Midwives
- LHV: Lady Health Visitors
- NA: Not Available

Source: Indian Nursing Council & Pharmacy Council of India

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## HEALTH RESOURCE IN RURAL AREAS (GOVT.) IN INDIA

Table explains about number of doctors working in PHCs is high in Andhra Pradesh 3118 and very low in Chandigarh i.e. 0 and total specialists at CHCs is high 651 in Rajasthan and is very less is Mizoram, Sikkim, Chandigarh, A&N Island and D&N Haveli. Whereas, health assistant in male is high in Kerala 2197 and less in Arunachal Pradesh, Goa, Nagaland, Odisha,

Telangana, Chandigarh, D& N Haveli, Delhi and Lakshadweep is 0 and female health assistant is high in Maharashtra 2331 and low in Himachal Pradesh, Nagaland, Tripura, Chandigarh and A&N Island. Health workers in male are high in Maharashtra 6690 and low in Nagaland and Delhi is 0 if we see in females context it is high in Uttar Pradesh in 23731 and low in Chandigarh 25 and Daman & Diu is 39 .

**5.6 State/UT wise Health Human Resource in Rural Areas (Govt.) in India as on 31.03.2014**

S. No.	India/State /UT	No. of Doctors <sup>^</sup> at PHCs	No. of Specialists at CHCs	Health Assistants		Health Workers	
				Male	Female(LHV)	Male	Female/ ANM
	<b>India</b>	<b>27355</b>	<b>4091</b>	<b>10358</b>	<b>13643</b>	<b>55445</b>	<b>217780</b>
1	Andhra Pradesh	3118	275	0	2247	3657	20920
2	Arunachal Pradesh	92	1	72	4	86	348
3	Assam	1355	121	0	379	3391	9220
4	Bihar#	2521	69	45	358	1074	18630
5	Chhattisgarh	383	80	261	397	3347	5666
6	Goa	56	5	0	9	86	150
7	Gujarat\$	889	74	755	546	5778	6938
8	Haryana	395	29	156	253	1274	4540
9	Himachal Pradesh	571	8	22	61	1097	2002
10	Jammu & Kashmir	1224	176	85	87	520	4654
11	Jharkhand	372	114	24	7	969	6678
12	Karnataka	2155	495	1253	1036	3148	12144
13	Kerala	1168	39	2197	13	3401	7950
14	Madhya Pradesh	999	263	288	519	5302	12580
15	Maharashtra	2506	462	1604	2331	6690	18594
16	Manipur	199	3	65	64	377	966
17	Meghalaya	114	3	74	65	133	892
18	Mizoram	49	0	22	19	385	666
19	Nagaland	126	5	53	27	0	928
20	Odisha*	973	346	0	708	3620	8153
21	Punjab	441	202	282	408	1695	4342
22	Rajasthan\$	2111	651	75	1000	1708	16258
23	Sikkim ^	38	0	12	20	134	272
24	Tamil Nadu*	2139	0	1707	857	1149	9096
25	Tripura	160	0	100	102	636	661
26	Uttar Pradesh&	2209	484	954	1916	3152	23731
27	Uttarakhand	160	49	78	90	79	1828
28	West Bengal	711	115	151	89	2455	18301
29	A& N Islands	42	0	0	11	45	199
30	Chandigarh	0	18	0	0	8	25
31	D & N Haveli	7	0	0	0	9	88
32	Daman & Diu	5	1	2	0	24	39
33	Delhi	20	0	0	7	0	40
34	Lakshadweep	9	0	0	1	14	48
35	Puducherry	38	3	21	12	2	233

**Notes:**

@ Specialists are attending CHCs on hiring basis.

\$ Data for 2013 repeated.

# Data for 2011 female health assistants repeated.

\* The data for PHC included area hospitals and other hospitals.

^ Allopathic Doctors.

Source: Bulletin on Rural Health Statistics in India 2014, MOHFW

## NATIONAL HEALTH POLICY

The primary aim of the National Health Policy, 2017, is to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in all its dimensions- investments in health, organization of healthcare services, prevention of diseases and promotion of good health through cross sectoral actions, access to technologies, developing human resources, encouraging medical pluralism, building knowledge base, developing better financial protection strategies, strengthening regulation and health assurance.

## MILLENNIUM DEVELOPMENT GOALS (MDGs)

The Millennium Development Declaration adopted by the General Assembly of the United Nations in its Fifty-fifth session during September 2000 reaffirmed its commitment to the right to development, peace, security and gender equality, to the eradication of many dimensions of poverty and to overall sustainable development. These are intended for the Member countries to take efforts in the fight against poverty, illiteracy, hunger, lack of education, gender inequality, infant and maternal mortality, diseases and environmental degradation. The Millennium Declaration adopted 8 development goals, 18 time-bound targets and 48 indicators to be achieved by 2015:

### **Goal-1. Eradicate extreme poverty and hunger**

Target 1: Reduce by half the proportion of people living on less than a dollar a day

Target 2: Reduce by half the proportion of people who suffer from hunger.

### **Goal-2. Achieve universal primary education**

Target 3: Ensure that all boys and girls complete a full course of primary schooling.

### **Goal-3. Promote gender equality and empower women**

Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.

### **Goal-4. Reduce child mortality**

Target 5: Reduce by two thirds the mortality rate among children under five.

### **Goal-5: Improve maternal health**

Target 5: Reduce by three quarters the maternal mortality ratio.

### **Goal-6: Combat HIV/AIDS, malaria and other major diseases**

Target 7: Halt and begin to reverse the spread of HIV/AIDS.

Target 8: Halt and begin to reverse the incidence of malaria and other major diseases.

### **Goal-7. Ensure environmental sustainability**

Target 9: Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.

Target 10: Reduce by half the proportion of people without sustainable access to safe drinking water.

Target 11: Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020.

### **Goal -8. Develop a global partnership for development.**

Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system includes a commitment to good governance and poverty reduction both nationally and internationally.

Target 13: Address the special needs of the least developed countries Includes: tariff and Quota free access for least developed countries exports; enhanced programme of debt relief for HIPC's and cancellation of official bilateral debt and more generous ODA for countries committed to poverty reduction.

Target 14: Address the special needs of landlocked countries and small islands developing States.

Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.

Target 16: In cooperation with the developing countries, develop and implement strategies for decent and productive work for youth.

Target 17: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.

Target 18: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.

## CONCLUSION

India is passing through a demographic and environmental transition which is enhancing the burden on public health resources and infrastructure. Situation becomes more complex by the fact that around 70% of Indian population lives in rural areas known for limited access to healthcare. The primary providers of healthcare in these areas are private clinics and hospitals, though there is a presence of Government funded public health services. While government has undertaken multiple initiatives to address the concern for service delivery and access to healthcare, there are still substantial gaps to be addressed for better healthcare infrastructure, access and its equity based distribution. At this outset, government realizes that effective health resource management, allocation and monitoring based on evidence for timely achievements of goals. There is need of comprehensive picture of Indian healthcare sector to address aforesaid challenges and provide accessible, acceptable, affordable, equity based and patient centered quality healthcare services for the community. There are constraints on public health resources therefore, it is essential to allocate resources based on real world data and do regular monitoring and impact assessment of the allocated resources. Recognizing the role of private health sector in Indian settings and its potential to

supplement government initiatives and planning for public health resources, it has been felt to obtain reliable information on private sector healthcare resource deployment. This will also underpin government strategies to hitherto unreached segments of the population, where public health resources are constrained, potential to tie up with private sector can be explored for better service delivery. For resource constraint country such as India, having comprehensive information on both public and private health sector is prerequisite for planning resource allocation. Generation and adoption of such evidence will help in driving judicious health resource planning and allocation to reduce the disparities and inequities in all three dimensions to achieve the Universal Health Coverage.

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