Universal Health Care System: Is India Prepared?

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Abstract- Health is Wealth is almost a dogma in every human mind but the definition of the proverb has changed its requirements over the time. Many studies found that health has direct impact on the working days and hence income and wealth. Health care has largely three phases – Personal or Preventive Care (PC), Medical Care (MC) and Critical Care (CC). While the first one is gaining importance globally, India is far behind. The second and third care are largely dependent on the Health Care Providers (HCP) and Health Insurance (HI) which are mutually reinforcing. India being highly populated and geographically diversified, there are many system and practices prevailing starting from black magic to alternative therapies to hearsay treatment to reach MC. This practice often lands the care seeker in the second or third stage of health care where treatment is not only costly but leaves with poor prognosis. Hence a balance between the three stages of health care is need of the time. Recently Government of India has embarked upon a journey to implement Universal Health Care (UHC) in the country being influenced by the Obama Care of the United States of America. This study attempts to review the present status of MC and CC in the country and analyse the preparedness in terms of requirement verses resource in order to suggest a possible roadmap towards sustenance.

1. INTRODUCTION:

Healthcare standard is one of the fundamental indicators of the growth of a nation and a basic requisite for leading healthy life with dignity. One of the basic vitalities of good living is quick access to essential services like MC & CC. But many times it could mean a condition of life and death for an individual who is unable to get the access to these services. This indicates towards discussing on the infrastructure availability and if it at all commensurate with the demand for health care. With infrastructure being taken care by HCPs, the next comes the quality of infrastructure and sufficiency of Care Givers (CG) like doctors and nurses. Another important factor is the Health Care Network (HCN) that connects all the stake holders and help the care seeker reach the right place in right time. The system is no doubt complicated but demands to be performed fast with best accuracy. One segment in health care that works sub silentio is the Health Care Supply Chain (HCSC). The supplier of medicine to surgical equipment to preventive and curative support systems are the group that continuously engaged in R&D to make the best possible service available at affordable cost.

The parallel line of the health care system is HI without which managing health care is impossible in these days be it individual, group or universal. Insurance is a method of spreading the risk over a large number of people who come together to share the risk and then indemnify the person that has sustained economic losses. The business of insurance aims to protect the economic value of assets or life of a person through a contract of insurance that agrees to make good any loss on the insured property or loss of life against consideration for a small premium to be paid by the insured. In such circumstance the two functions; health care providers and health insurers play a pivotal role. At large, cost of basic health care and insurance to afford health care remains either overlooked or unaffordable for majority of the population, that is evident from the minimum penetration that the health insurance has achieved in India. This study attempts to review the present status of MC and CC in the country and analyse the preparedness in terms of requirement verses resource in order to suggest a possible roadmap towards sustenance. The study begins with a review of related literatures followed by the prevalent health care infrastructure and the insurance arrangements. An attempt is also made later to draw an equilibrium of the demand and supply of health care system and HI in parallel.

2. REVIEW OF LITERATURE

Advent of a universal health cover system in India has opened up many dimensions leading to wide discussions on realignment of both public and private health providers. It being a new concept in India, a literature review of related studies in the country and abroad is essential before detailing further.

Kwon (2009) studied the 30-year journey of national health insurance in South Korea and provided key learnings that there cannot be a one thumb rule for a universal health coverage, mix of social insurance and tax can work well for health care financing systems in low- and middle-income countries. The aspect of political commitment and family-based membership contributes to rapid population coverage are important contributing factors toward universal health care coverage. They also emphasis the importance of an effective health care purchasing, and the regulation mechanism of health care providers are crucial factors in the sustainability of universal health care in developing countries. Devadasan (2013) studied the extent to which RSBY contributes to universal health coverage by protecting families from making out of pocket payments through a two-stage stratified sampling technique. He concluded that State Nodal Agencies and the Insurer are strengthened to provide the necessary supervision and regulation which were missing. They should play a more prominent role in ensuring that the enrolment process is inclusive, the benefits reach the poor and eliminating abuse and enforcement of contract.

Gupta & Chowdhury (2015) studied the composition and incidence of out-of-pocket health expenditure in India using Unit-level data from the National Sample Survey on Household Consumer Expenditure. They highlighted Universal health coverage scheme must take consideration of all around regulation and quality of health services and should not limit it to the specifics of a packages. As Regulation for drugs as well as the medical technology market is the need of the hour and has to be put in place otherwise households will continue to spend on drugs and diagnostics which is not needed or overpriced. Manchikanti, Helm II, Benyamin, and Hirsch (2017) in their study evaluated that cost of insurance have though increased but however the coverage remains the area of concern. They also highlights non viability for the working middle class (40% of the population), as there is no

support from the government. The model is also questionable with respect to sustainability in long run because of adverse risk selection resulting is huge losses to insurers.

Reich, Harris, Ikegami, Maeda, Cashin, Araujo, Takemi & Evans (2016) identified common challenges and opportunities and useful insights for how to move towards universal health coverage. It is a long-term policy engagement that needs both technical knowledge and political know-how accompanied with innovative strategies. Prinja , Chauhan, Karan, Kaur & Kumar (2017) concluded that a systematic review of publicly financed health insurance schemes are not the panacea to achieve UHC in India. Instead, these schemes need to be aligned with proper strengthening of the public sector for provision of comprehensive primary health care. Secondly, presence of health insurance schemes could be used as an opportunity to reform the tenets of the health sector which are beyond the routine regulatory frameworks. The above studies though focused on various corners of the universal health coverage but failed to analyse the scheme in terms of a developing country like India where large population, wide geography and a deficit budget coexist. Hence knowing the prevailing framework in the country is the first step that we have taken up.

3. HEALTH CARE INFRASTRUCTURE IN INDIA

Infrastructure is the foundation of every sector and health care is no exception. The infrastructure in health care is wide spread and includes Hospitals, nursing homes, diagnostic centres etc. Hospitals are licensed establishments that are primarily engaged in providing inpatient and outpatient health services that include physician, nursing, diagnostic and other allied health services. There are 12,760 hospitals having 576,793 beds in the country. Out of these 6795 hospitals are in rural area with 149,690 beds and 3,748 hospitals are in urban area with 399,195 beds. Average Population served per Government Hospital is 90,972 and average population served per government hospital bed is 2,012.8 .There are 156231 Sub Centers, 25650 Primary Health Centers and 5624 Community Health Centers in India (2017) though considered much less in proportion to the population. Even though there has been a tremendous growth in the medical resources, they have not been able to cope up with increasing demand due to growth of population and corresponding demand for medical care.

3.1 Private Hospitals

With lifestyle changes, demand for exotic health care has grown in the country for which a sharp growth is seen through infusion of private investments in health care sector. In this segment both for-profit and not-for-profit hospitals are included. Not-for-profit hospitals may be run by religious charities, such as churches and temples, or by foundations associated with wealthy families. For-profit hospitals range from sole proprietorships and partnerships all the way to national and international corporations listed on stock exchanges. The leaders in the segment are the large corporate chains like Apollo Hospitals, Narayan Hrudayalaya etc. who not only have chains of hospitals across the country but also provide international standard health care catering to the upper class of the society over and above participating in medical tourism The middle segment hospitals run by individual business families, physician groups, or charitable trusts are single location based but multispecialty hospitals which usually serve the middle class. The last segment of private hospitals which caters 70 percent of the hospital beds in India are sub-division, sub-urban hospitals popularly known as nursing homes typically run by a physician-turned-entrepreneur which cater to immediate need of the vicinity. We called these feeder hospitals who keep minor patients for treatment and refer complicated patients to middle or upper class hospitals

as per their internal arrangement. A new genere of hospitals in raising is speciality hospitals like for diabetics, eye care, heart care, neuro science etc to provide expertise service for specific ailments.

3.2 Public Sector Hospitals

Unlikely other countries India has a wide network of public health care system run by the ministry of health and family welfare spread across all states and union territories. Primary health care centers (PHC) are the nerve ending points of the system that largely equipped to provide full time doctor treatment and have just five or six beds and could be located in an urban or rural area. These hospitals are approached by patients referred from the sub centers in interior locations that works for largely preventive care and capable of providing first aid treatment only. The next level is community health centers (CHC) which are sub-dividion level hospitals run by the state and have about 30 beds that performs only minor surgeries and uncomplicated in-patient procedures. The top ladder in the segment are district hospitals with large in patient capacities providing full range of services. There are also many state-run special facilities, medical colleges and research centres. The central government also runs hospitals via the Ministry of Railways and the Ministry of Defense, each serving over 1 million employees, plus retirees and their families, typically with lifetime healthcare. Hospital network of employee state insurance corporation (ESIC) is also having a large network across the country catering to private sector employees and their families under a state run insurance scheme. Below table shows State/UT wise number of sub centers, PHCs & CHCs functioning in India as on 31st March, 2017 and funded by the government.

Table 1 - No of Public Hospitals

S. No.	States/UTs	Sub Centres	PHCs	CHCs	Total	Composition
1	Andhra Pradesh	7458	1147	193	8798	4.69
2	Arunachal Pradesh	312	143	63	518	0.28
3	Assam	4621	1014	158	5793	3.09
4	Bihar	9949	1899	150	11998	6.40
5	Chhattisgarh	5186	785	169	6140	3.27
6	Goa	214	24	4	242	0.13
7	Gujarat	9082	1392	363	10837	5.78
8	Haryana	2589	366	112	3067	1.64
9	Himachal Pradesh	2083	538	89	2710	1.45
10	Jammu & Kashmir	2967	637	84	3688	1.97
11	Jharkhand	3848	297	188	4333	2.31
12	Karnataka	9381	2359	206	11946	6.37
13	Kerala	5380	849	232	6461	3.45
14	Madhya Pradesh	9192	1171	309	10672	5.69
15	Maharashtra	10580	1814	360	12754	6.80
16	Manipur#	421	85	17	523	0.28
17	Meghalaya	436	109	27	572	0.31
18	Mizoram	370	57	9	436	0.23
19	Nagaland	396	126	21	543	0.29
20	Odisha	6688	1280	370	8338	4.45

21	Punjab	2950	432	151	3533	1.88
22	Rajasthan	14406	2079	579	17064	9.10
23	Sikkim	147	24	2	173	0.09
24	Tamil Nadu	8712	1362	385	10459	5.58
25	Telangana	4797	689	114	5600	2.99
26	Tripura	987	93	21	1101	0.59
27	Uttarakhand	1847	257	60	2164	1.15
28	Uttar Pradesh	20521	3621	822	24964	13.31
29	West Bengal	10369	914	349	11632	6.20
30	A& N Islands	123	22	4	149	0.08
31	Chandigarh	17	3	2	22	0.01
32	D & N Haveli	71	9	2	82	0.04
33	Daman & Diu	26	4	2	32	0.02
34	Delhi	10	5	0	15	0.01
35	Lakshadweep	14	4	3	21	0.01
36	Puducherry	81	40	4	125	0.07
Total		156231	25650	5624	187505	100.00
Composition		83	14	3	100	

Source: Bulletin on Rural Health Statistics in India 31 March, 2017 Statistics Division, Ministry of Health & Family Welfare

While the sub centers under the public sector network consist of 83% of the available facility the PHCs covers 14% network and the CHCs are limited to 3%. District hospitals though negligible in numbers but retains its importance of providing highest level of treatments. Uttar Pradesh, Rajsthan, Maharastra, Karnata, West Bengal and Bihar dominates in terms of distribution of hospitals where as northern states of Punjab, Haryana, Himachal Pradesh and Jammu Kashmir are seems to be having lowers take of less than 2%.

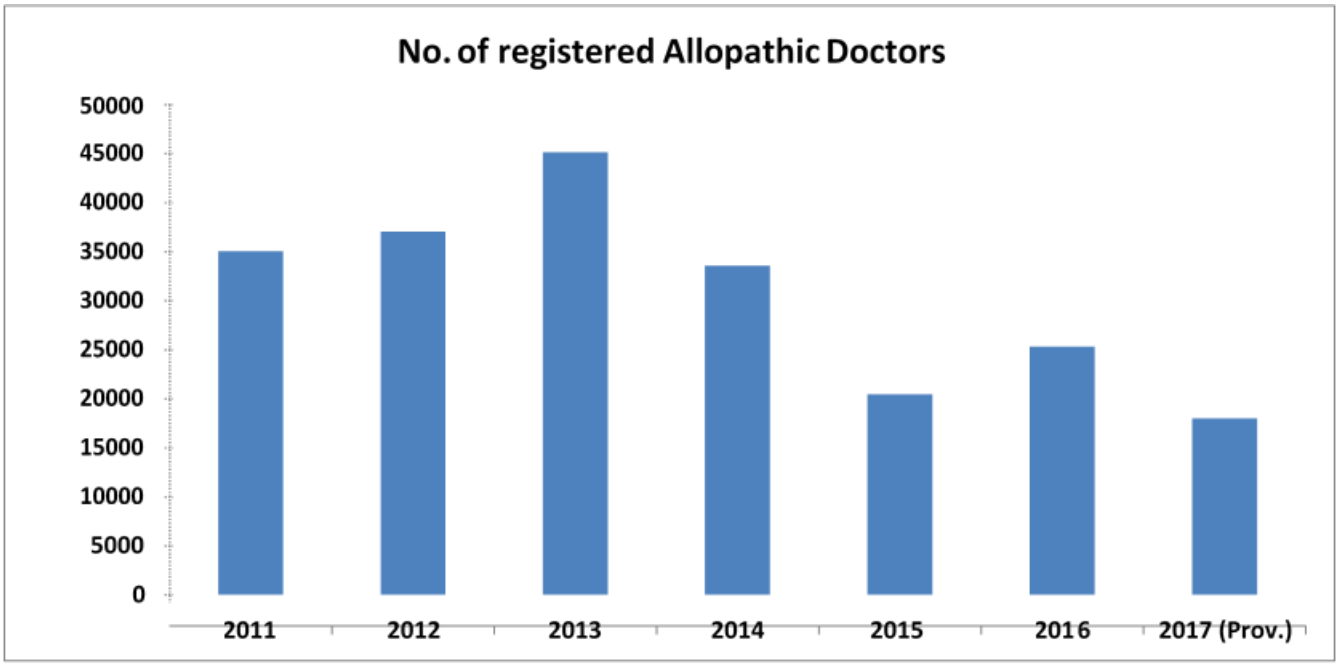
At larges in terms of number of facilities, public network dominates across the country but private network is still considered dependable in terms of quality health care. We consider a vacuum in the private space between primary and secondary level which need to be created at large scale to cater the need of the mass. We also feel an upgradation of the nursing homes in private network and the sub centers in the public network through a structural regulation may also help catering quality health care to the larger public.

3.3 CARE GIVERS FOR HEALTH CARE:

Care givers in the health care sector are the life line consisting of Doctors, Nurses, and Technicians etc. human resources for human care is 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. Number of registered allopathic doctors possessing recognized medical qualifications (under MCI Act) and registered with state medical council for the years 2016 and 2017 were 25,282 and 17,982 respectively. At present, average population served per government allopathic doctor is 11,039. There are 19,80,536 Registered Nurses and

Registered Midwives (RN & RM) and 56,367 Lady Heath Visitors serving in the country as on 31.12.2016.*(Indian Nursing Council & Pharmacy Council of India)*

In terms of Medical education infrastructures the country has 314 medical colleges, 289 Colleges for BDS (Bachelor of Dental Surgery) courses and 140 colleges conduct MDS (Master of Dental Surgery) courses with total admission of 29,263 (in 256 Medical Colleges), 21,547 and 2,783 respectively. *(Medical Council of India)*



Source: Medical Council of India

The above graph depicts that the registration of new doctors in the country is showing a downward trend with instability as the number of registrations in 2015 and 2017 have come down to below 20000 level from a 35000 level during 2011-2012

Table-2: States/UTs 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 upto 2010 to 2017

S. No.	State/UT	Upto 2010	2011	2012	2013	2014	2015	2016	2017 (Prov.)	Total up to 2017
1	Andhra Pradesh	66109	4370	4498	5737	5415	NR	NR	NR	86129
2	Arunachal Pradesh	334	80	12	55	29	108	145	77	840
3	Assam	19147	561	487	529	611	564	555	78	22532
4	Bihar	37368	969	464	429	813	NR	NR	NR	40043
5	Chhattisgarh	3224	882	595	556	812	370	145	331	6915
6	Delhi	6748	1006	946	1073	1713	419	2549	1722	16176
7	Goa	2828	119	136	132	NR	103	18	31	3367
8	Gujarat	47231	1795	2197	2153	NR	578	NR	NR	53954
9	Haryana	5356	361	0	NR	NR	NR	NR	NR	5717
10	Himachal Pradesh	913	310	459	296	276	363	232	NR	2849
11	Jammu &	11360	635	471	473	67	495	437	388	14326

	Kashmir									
12	Jharkhand	3245	490	355	283	45	285	238	152	5093
13	Karnataka	87734	3727	4207	4772	833	NR	NR	3521	104794
14	Madhya Pradesh	26669	947	1338	1298	1409	1417	1269	NR	34347
15	Maharashtra	138303	3157	3433	3682	4938	NR	NR	NR	153513
17	MCI	37300	3730	4864	5603	1169	NR	NR	NR	52666
16	Nagaland	0	0	0	0	0	751	50	NR	801
18	Odisha	16786	460	380	719	2402	934	NR	NR	21681
19	Punjab	39291	1128	1083	1234	1270	676	NR	NR	44682
20	Rajasthan	28797	1146	1442	1468	1963	2040	1821	1882	40559
21	Sikkim	608	69	74	73	NR	69	NR	NR	893
22	Tamil Nadu	86822	3476	4182	9218	5064	5088	7997	4552	126399
23	Kerala	40007	2008	1703	1482	2500	3363	3355	833	55251
24	Uttar Pradesh	58168	2081	2247	2253	594	840	3025	2272	71480
25	Uttarakhand	3394	307	527	169	660	748	600	655	7060
26	West Bengal	59264	1230	917	1419	953	1211	492	1488	66974
27	Telengana	0	0	0	0	0	0	2354	0	2354
	Total	827006	35044	37017	45106	33536	20422	25282	17982	1041395

Source: Medical Council of India

As observed from the above table Karnataka, Maharastra and Tamil Nadu dominates in terms of number of doctors whereas populated states like Madhya Pradesh, Uttar Pradesh are running behind. This gives an indication towards unequal distribution of doctor to population ratio and a larger discrimination in the country towards regulating human resources in the health care sector.

Table-3: State/UT Wise Number of Registered Nurses & Pharmacists In India

S. No	State/UT	Total No. of Registered Nurses in India as on 31.12.2016			Pharmacists as on 13.11.2017
		ANM	RN & RM	LHV	
1	Andhra Pradesh	138,435	232,621	2,480	115,754
2	Arunachal Pradesh	971	938	15	279
3	Assam	27,624	21,079	320	3,668
4	Bihar*	8,624	9,413	511	4,163
5	Chattisgarh	13,329	13,048	1,352	9,713
6	Goa	NA	N/A	N/A	566
7	Gujarat	44,402	108,476	N/A	119,445
8	Haryana*	24,675	28,356	694	31,663
9	Himachal Pradesh	11,673	20,934	500	3,852
10	Jharkhand*	4,755	3,310	142	2,337
11	Karnataka*	54,039	231,643	6,840	52,162
12	Kerala	30,173	246,161	8,507	35,382
13	Madhya Pradesh*	39,563	118,793	1,731	N/A
14	Maharashtra	60,837	120,623	572	203,089
15	Manipur	3,621	7,835	N/A	N/A
16	Meghalaya	1,584	4,571	193	1,370
17	Mizoram	2,102	3,405	N/A	1,313
18	Nagaland	NA	N/A	N/A	1,553

19	Odisha*	62,159	75,575	238	17,665
20	Punjab*	23,029	76,680	2,584	44,616
21	Rajasthan*	108,688	200,171	2,732	38,156
22	Tamil Nadu	56,630	262,718	11,180	58,466
23	Tripura*	2,066	2,827	148	4,747
24	Uttar Pradesh	53,515	62,617	2,763	30,276
25	Uttarakhand*	1,864	1,513	11	2,643
26	West Bengal	60,739	60,753	12,854	89,630
27	Dadra & Nagar Haveli	NA	N/A	N/A	N/A
28	Daman & Diu	NA	N/A	N/A	52
29	Delhi	4,325	61,575	N/A	32,079
30	Lakshadweep	NA	N/A	N/A	N/A
31	Puducherry	NA	N/A	N/A	2,493
32	Telangana	1,857	4,901	N/A	N/A
	Total	841,279	1,980,536	56,367	907,132

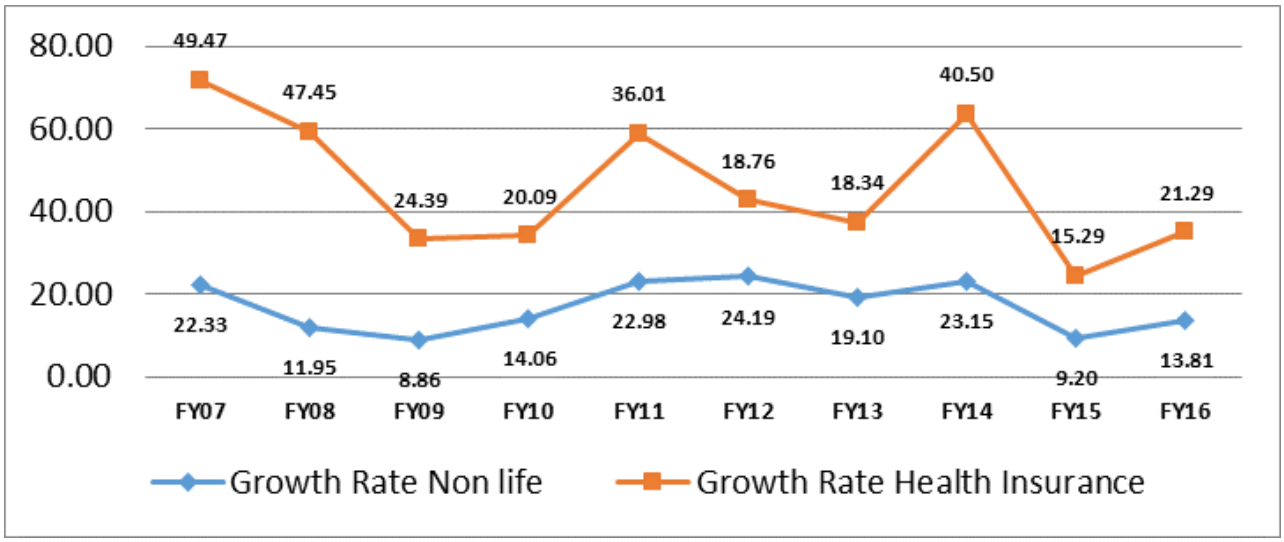
*Source: Medical Council of India, *Provisional*

While reading the above table showing data of allied human resources in health care industry of India, it is even diversely distributed. Maharashtra is holding extremely high number of Pharmacists followed by Gujarat and Andhra Pradesh whereas larger states like Tamil Nadu and Karnataka are lagging behind. For Nurses, Andhra Pradesh and Rajasthan dominates the country in comparison to other states. This gives a clear picture of how the human resource segment of our health care sector is disproportionately distributed. Now let's discuss on the other vital arm of the segment i.e. Insurance.

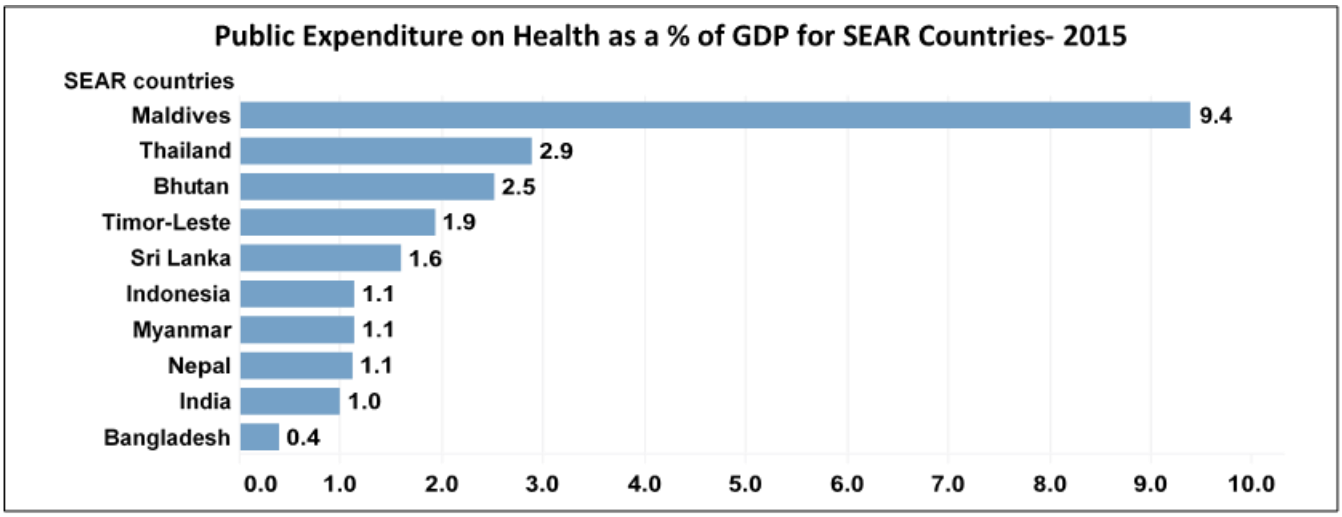
4. HEALTH INSURANCE FRAME WORK IN INDIA

Insurance is balancing risk by pooling premium and is considered to be the most effective method worldwide to manage risks including human health. Health insurance largely of three types 1.Individual health insurance (including floater), 2.Group health insurance and 3. Mass health insurance. The health insurance comes under non-life insurance category and regulated by the Insurance Regulatory Authority of India (IRDAI). Non-life insurance penetration in India is 0.7% whereas in US its 4.2% & World average is 2.8%. Trends shows Health Insurance is growing at faster rate than the growth rate of Non-life sector in India. Health care will have higher growth as Government pushes for Universal Health Care. Around 43 crore individuals were covered under some or other health insurance in the year 2016-17. This amounts to 34% of the total population of India. 79% of them were covered by public insurance companies. Overall, 80% of all persons covered with insurance fall under Government sponsored schemes. However the Government's expenditure in health is not adequate compared to the GDP with other developing countries. Public expenditure on health as a percentage of GDP was 1.02% in 2015-16. There is no significant change in expenditure since 2009-10. (WHO) Quality healthcare has gone beyond the reach of general public but essential as well. The only solution to this is getting adequately insured which has been realised by everybody and the health insurance sector is growing in the country.

Fig -2 : Growth Of Non-life Insurance Sector Vs Health Insurance (%)

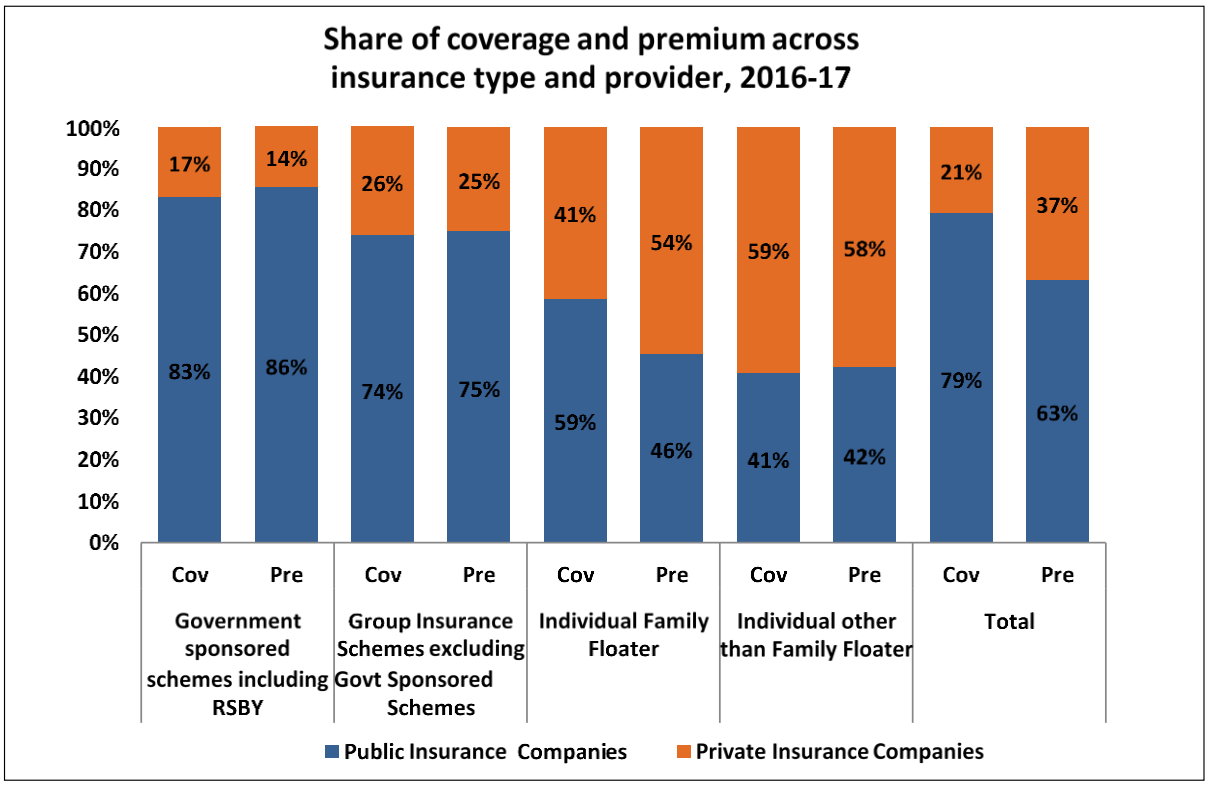


Non-Life insurance has grown by 14% during 2016 while the health insurance segment has grown by 21% which itself speaks about the growing consciousness followed by demand for health insurance in the country



Source: Global Health Expenditure Database, World Health Organization accessed from http://apps.who.int/nha/database/Select/Indicators/en as on 11.04.2018

The government has equally realised the value of health care and tried with its recent initiative of universal health cover policy. However as per the above graph India is still one among the country that spends least in the health care in comparison to other country and hence a long way to go for which a lot of strategies customized to our large population and vast geography is needed.



Source: Annual Report of Insurance Regulatory and Development Authority India, 2016-17

Notes: "Cov" stands for Coverage (number of persons covered) and "Pre" stands for premium.

Insurance in India is done by both public and private insurers but as observed in the above figure, public insurance companies cater to the larger volume of customers with a comparatively less stake of premiums largely in individual segment which calls for a mass movement in the insurance segment to come up with aggressive plans and competitive premium. Post implementation of the universal coverage in its full form, the average premium will further come down which will raise concern on the quality service. Hence a balance between the two is essential. Another point concerning is the fiscal burden as larger portion of the premium is planned to contributed by the government. Is there a self-sufficient model in place? Else an appropriate design has to be forged to reduce the burden over a period of time.

5. CONCLUSION

Health care is a basic need of every human being and with the progress in medical science the expectations from the health care industry is increasing day by day. While new innovations is emerging into the human treatment mechanism, quality health care is becoming costly and hence out of reach of the common people in a developing country like India. Considering good health care as fundamental rights of the citizens, few developed countries have tried with various models to cover all citizens under the umbrella of insurance with a concept of maximum benefit with minimum premium. Implementation of the universal health care system is no doubt a welcome initiatve of government of India but as discussed in the above chapters, there is an urgent need to revamp the present HCPs while inviting PPPs in rural and large hospitals in urban areas to develop required infrastructure in war foot to accommodate the care seekers. It is also suggested that PPPs and NGOs be invited to initiate vocational trainings across the country to accommodate the supply of allied non-doctor segment of care givers

like pathologists, technicians, nurses etc. Appropriate regulatory framework is also suggested to implement uniform system and practices across public and private hospitals. Capital infusion may be required to revamp the public hospitals which will help in micro management of patient handling.

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