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Health Insurance for Everyone

भारतीय बीमा विनियामक और विकास प्राधिकरण

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ISSUE FOCUS

Differential Premium Pricing in Health Insurance

- Prof . D.Chennappa

DIFFERENTIAL PREMIUM PRICING IN HEALTH INSURANCE

“A tremendous amount of needless pain and suffering can be eliminated by ensuring that Health insurance is universally available”.

- Daniel Akaka

Abstract

Health insurance in India was introduced in 1986 in the form of Mediclaim policy by the Public Sector General Insurance Companies. Post liberalization, 4 Public, 22 Private and 4 Standalone insurance companies have entered this sector to provide quality health care at affordable rates. As a result, the number of persons covered (penetration) has grown from 0.69 million in 2001-02 to 2.048 million in 2013-14, which amounts to only 0.16 percent of the total population. Out-of-pocket payments for healthcare remains over 65 percent and claim ratios are more than 100 percent. Despite these developments, full access to affordable and good quality health care remains a distant dream.

An attempt is made in this paper to develop a new model of premium

making it affordable to all sections of the society, keeping in view the existing premium structure, age, geographical location & income of the policy holders and claim settlements. Relevant data has been collected from IRDA reports and Insurance Information Bureau (IIB) bulletins and from other reports.

A client who is opting for higher level policies (for example Rs 5,00,000) is paying lesser premium. As a result, assuring equity in access to quality health care for low income people is missing. The premium increases as policy holders become older and Insurers mounting the premium amount by sinking the claim amount. Therefore, Private Health Insurance (PHI) schemes in their present form are not able to serve their purpose. Hence, it is time we introduced differential premium model for different income groups in PHI in India.

Key words

Average Claims paid, differential premium pricing model, E-repository information, private health insurance, Standard medical treatment guidelines, Tertiary sector, Uniform premium.

INTRODUCTION

India's health insurance market has experienced a significant regulatory and institutional change since the insurance industry was opened to private sector participation in 2000.

The Government of India's Insurance Regulatory and Development Authority (IRDA) has been working extensively to build strong enabling environment for health insurance by developing efficient regulations on products and policy holders protection, and assisting in the development of information infrastructure. Presently, 4 Public, 24 Private and 4 standalone Joint venture companies have been providing healthcare financing facilities to the policy holders. The Central and State governments are working closely with insurance companies to develop and implement affordable health insurance plans for the vulnerable sections of the society in India.

The number of persons covered (penetration) PHI has grown from 0.69 million in 2001-02 to 2.048 million in 2013-14. However, it is still a very small percentage of the population (only 0.16 %) during the reference period. The health

insurance density has gone up from USD 13 in 2004 to USD146 in 2014. Similarly non-life insurance density has surged from USD 3.5 in 2004 to USD 10.5 in 2013. It indicates that the quantum of health insurance premium is more than in any other general insurance. Out-of-pocket payments for healthcare remains over 65 percent and claim ratios are more than 100 percent.

Despite these developments, full access to affordable and good quality health care remains a distant dream. An attempt is made to find out new model at affordable rate considering the existing premium structure, age,

geographical location & income of the policy holders and claims settlement. The relevant data has been collected from IRDA reports and Insurance Information Bureau (IIB) bulletins and from other reports.

PREMIUM

The amount the policy holder or their sponsor (e.g. an employee) pays to the health plan to purchase health coverage. Most of the people want and take health insurance, but they can't afford the coverage. There is a need to introduce new models to make health coverage more affordable and widespread.

Premium is an important component to drive the PHI. Hence, details are presented in table 1.

Table 1 shows that 64 % increase in premium per policies resulted in increase of 62 % in premium per insured member during 2003- 04 to 2012-13 period. Premium per policy has been increased from Rs 4166 to Rs 13,753, premium per insured is from Rs 1129 to Rs 3724 and average claim paid is from Rs 8,674 to Rs 41,866 during the reference period from 2003-04 to 2012-13. However, reciprocal growth rates are observed in increasing in Premium and Claims. The differences between premium amount collected and claim paid per insured is ranging

Table 1: Average Premium, Average Claim Paid, Average Persons Insured-Per Policy And Per Member

(1) YEAR	(2) Premium per policy (in Rs)	(3) Premium per insured member (in Rs)	(4) Number of persons insured per policy	(5) Claim paid per policy (in Rs)	(6) Claim paid per insured member (in Rs)	(7) Difference between premium per insured member and claim paid per insured member (Column 3-6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2003-2004*	4166	1129	4	3465	939	190
2004-2005*	4792	1098	4	4606	1055	43
2005-2006*	4892	1146	4	4642	1040	06
2006-2007*	9067	1575	6	7066	1227	348
2007-2008*	7275	1143	6	7661	1204	-61
2008-2009*	8689	1216	7	8932	1249	- 33
2009-2010**	11333	1421	8	10910	1368	53
2010-2011**	14120	2082	6	13946	2056	26
2011-2012***	13303	3756	4	10333#	2917#	839
2012-2013@	13753	3724	4	9333##	2528##	1196

Source: Insurance Information bureau of India, 2012-13, page no. 16.

- NB: 1. * policies serviced by TPAs only.
 2. ** figures of policies serviced by TPAs and directly serviced by insurers .
 3. *** Data submitted online by PVT insurers and offline by PSU insurers.
 4. #- inclusive of claim records where claim paid amount > Rs 20 lakh.
 5. @ Data submitted online by all insurers.
 6. ## - Inclusive of claim records where claim paid amount is less than Rs 1000 and greater than Rs 20 lakh .

TABLE 2: HEALTH INSURANCE PREMIUM RATE OF SELECT NON-LIFE INSURERS!

Age/insurance company	L & T Pvt. Co.	Bajaj Allianz Pvt.Co.	Reliance Pvt.Co.	Royal Sundaram Pvt. Co.	Oriental Insurance PSU Co.	Star health Standalone Pvt.Co.
20 years	1,200	1,254	1,310	1255	1,179	1,310
30 years	1,200	1,453	1,310	1,692	1,310	1,310
40 years	1,350	1,453	1,425	1,692	1,566	1,425
50 years	2,447	2,793	2,039	2,275	2,447	2,039
60 years	3,000	-	2,322	3,277	3,483	2,322
70 years	4,547	-	2,598	4,719	5196	2,598
80 years	6,029	-	3,445	-	6,960	3,445

Source: online premium calculators of various companies and cross checked with respective company Premium charts, and www.policybazzar.com.

- ! figures are provisional.

from negative Rs 33 to Rs 1196. The difference is so high during last two years.

Further, comparing 2012-13 figures with that of 2011-12; 14% increase in number of policies and 18% increase in premium has resulted in increase in premium per policy by 3% where as only 3% increase in total claims has resulted in claims paid amount per policy being decreased by 10%. Similarly, increase in number of members by 19% has resulted in decrease in premium per insured member by 1% only and claim paid amount per insured member has decreased by 13%. It clearly shows that Insurers mounting the premium amount by sinking the claim amount. It discourages new entrant in the health Insurance segment. It is an adverse trend to provide affordable Health Insurance policies at subsidized rates to needy people.

AGE FACTOR

The premium for health insurance in India is determined only by mainly

three factors. One is the age of the insured and second one is the amount of insurance chosen (policy amount) and income of the policy holder.

Under liberalization era, entry age for Health Insurance (HI) ranges from 0 to 85 years. But up to 20 years, guardians pay the premium and of their own accord. So, they are not aware of it and irrelevant for their income. Therefore, 20 years to 80 years are considered to study the incremental growth in premium and age of the policy holder (PH). Online premium calculators are used to find out the premium for one year for Rs 1 lakh policy, results are presented in Table 2.

Table 2 shows that all insurance companies are luring young people with minimum premium. Interestingly, Oriental General Insurance Public sector Company has fixed the least premium Rs 1179. Standalone and PHI company have fixed the premium ranging from Rs 1179 to Rs 1,310 only. L & T Pvt. Ltd

company has fixed Rs 1200 as a premium at the age of 20 years and Rs 6,029 at the age of 80 years, at an incremental growth rate of 8 % per annum. Bajaj Allianz Pvt.Co.Ltd has fixed Rs 1,254 at the age of 20 years and Rs 2,793 at the age of 50 years only at an annual incremental growth rate of 5.5%. Reliance Pvt.Co. has fixed Rs 1,310 at the age of 20 years and Rs 3,445 at the age of 80 years only at an annual incremental growth rate of 6.2%. Royal Sundaram Pvt. Co. has fixed Rs 1,255 at the age of 20 years and Rs 4.719 at the age of 70 years only at an annual incremental growth rate of 7.3%. Oriental Insurance Co. has fixed Rs 1,179 at the age of 20 years and Rs 6960 at the age of 80 years only at an annual incremental growth rate of 8.3% and Star Heal Standalone Health Insurance company has fixed Rs 1,310 at the age of 20 years and Rs 3,445 at the age of 80 years only at an annual incremental growth rate of 6.2% as like Reliance company. It can be infer that insurance companies are on an average increasing 7 % of the premium amount.

It indicates that the age of the policy holder is a deterrent factor for fixing the premium, Finally, premium increases as policy holders become older and HI policies are available at on an average of Rs 1,200 at an incremental growth rate of 0.08 per cent per annum.

INCOME FACTOR

Unlike life insurance, there is no differential rating between male and female, rural and urban and rich and poor for fixing the HI premium in India. It can infer that a low income client may buy a low amount of Health Insurance (HI) coverage, as compared to a high income client who may buy a higher amount of HI coverage. To understand the relationship between premium and income of the policy holders, basic Mediclaim policy is considered for calculation of premium rates based on age and policy amount/income

of the policy holder, and presented in Table 3.

By looking into the Table-3, a client (in the age group of 0-20) buying HI coverage for Rs. 1,00,000 has to pay 1.31% of the insurance amount in the form premium whereas a client buying the coverage for Rs. 5,00,000 has to pay only 1.03% of the insurance amount as premium. Similarly, a client in the age of group of 40-50 has to pay 2.32% of the insurance amount to buy Rs.1,00,000 whereas a client in the same age group has to pay only 1.99% of the insurance amount as premium for Rs 5,00,000 policy. In short, the clients who are going for higher levels of insurance amount have to pay the premium at a regressive rate. Even though PHIs are not explicitly making any discrimination on premium on the basis of income, but implicitly they are. Therefore, it concludes that

only the income of the household as a factor for determining the demand for Health insurance (HI) coverage. Ironically, low income group of the policy holders has not been considered by any one of the companies. And as the policy holder becoming older, he has to pay higher premium.

It can be noticed from the above table that in assuring equity in access to health care for the low income population is missing. PHI schemes are not a solution in the current form. Therefore, it is the high time to introduce differential premium pricing model for different income group people in voluntary/private Health Insurance in India.

CLAIMS

A health insurance claim is a bill for health care services and health care provider turns in to the insurance

Table 3: Mediclaim Policy premium (in Rs) Table

Income/Insurance policy Amount (in Rs)	AGE						
	0-20 Years	20-30 years	30-40 Years	40-50 Years	50-60 Years	60-70 years	70-80 & above years
1,00,000	1310 (1.31)	1425 (1.43)	2039 (2.04)	2322 (2.32)	2598 (2.60)	2784 (2.78)	3445 (3.45)
1,50,000	1920 (1.28)	2087 (1.39)	3004 (2.00)	3425 (2.28)	3838 (2.56)	4162 (2.77)	5305 (3.54)
2,00,000	2469 (1.23)	2683 (1.34)	3900 (1.95)	4458 (2.23)	5010 (2.51)	5471 (2.74)	7097 (3.55)
3,00,000	3444 (1.15)	3743 (1.25)	5553 (1.85)	6388 (2.13)	7214 (2.40)	7951 (2.65)	10542 (3.51)
4,00,000	4297 (1.07)	4670 (1.17)	7069 (1.77)	8179 (2.04)	9281 (2.32)	10294 (2.57)	13849 (3.46)
5,00,000	5151 (1.03)	5598 (1.12)	8585 (1.72)	9970 (1.99)	11348 (2.27)	12636 (2.53)	17156 (3.43)

Source: Sukumar Vellakkal, ISEC, 2007.

Recalculated from original Premium table of the Mediclaim policy.

The figures in the parentheses are the proportion of the premium to the insurance amount.

Cross verified from www.policybazar.com to find out the variance.

Table 4: Age-Band-Wise Number of Claims and Amount of Claims Paid For Package Policy-2012-13

Age-band (in years)	Number of claims	Total claims paid (Rs in Crs.)	Average claim paid (in Rs)
Less than 1	41	0.04	8674
1-5	18377	30.14	16403
6-15	10190	17.94	17603
16-25	31925	68.25	21378
26-35	70006	180.78	25824
36-45	28405	88.71	31231
46-55	31662	105.09	33193
56-60	21290	76.35	35863
61-65	17920	65.98	36821
66-70	10711	41.41	38658
Above 70	8794	36.82	41866
Age-not provided	7	0.00	2071
Total	249328	711.51	28537

Source: Insurance Information bureau of India, 2012-13, page no.48.

Note: Excluding claim records where claim paid amount is less than Rs 1000 and greater than Rs 20 lakh.

company for payment. In the competitive environment, efficient claims management is vital to the success of both insurance companies and policy holders, and health care service providers. One side, customer expects a company to settle claims quickly by avoiding any litigation. On the other side, Insurance provider (Third party administrator) sees that claim settles at minimum rate. To settle the claims, policy holders age band is playing pre dominant role, hence, results are presented in Table 4.

Table 4 shows, claims frequency increased consistently from age-band 6-15 year to till 26-35 years, soon after that it started declining at the same proportion from 36-45 years age band. Whereas, average claim paid has been gradually increased from Rs 8,674 to Rs 41,866 as policy holders becoming older. In an analysis, it is found that older policy holders are claiming higher claim band and younger policy holder are making more claims at lower claim band

and they are using a large number of services to meet unmet needs. It is observed that subsidized policy holders are making more claims. It indicates that this group is more frequently users of insurance services.

Age band '26-35 years' is the highest claim prone one with 28% in number policy holder and 25% of claims paid under category, followed by age band '16-25 years' in number and 46-55% in claims paid.

Table 5: percentage of Claim bands paid

Top six claim paid Bands	%
Rs 1,000 - Rs 5,000	20.75
Rs 5,001 - Rs 10,000	15.84
Rs 10,001 - Rs 25,000	31.09
Rs 25,001 - Rs 50,000	19.29
Rs 50,001 - Rs 75,000	5.23
Rs 1,00,001- Rs 3,00,000	4.31

Source: iib.org.2012-13, p,no.34

Table 5 indicates that the claim paid bands containing highest proposition of claims paid is Rs 10001 to Rs

25000 (31.09%) , Rs 1000 to Rs 5000 (20.75%) , Rs 25001 - to Rs 50000(19.29%), Rs 5,001 to Rs 10000 (15.84%), Rs 50001 to Rs 75000 (5.23%), and Rs 100001 to Rs 300000(4.31%). In that order, 96% of total number of claims paid is below Rs 75000. Circulatory, digestive, injury, infectious, urology and pregnancy are top six highest proposition of amount of claims paid disease group. Pregnancy, infectious, urology, digestive, clinical finding and neoplasm are the highest claim frequency for females.

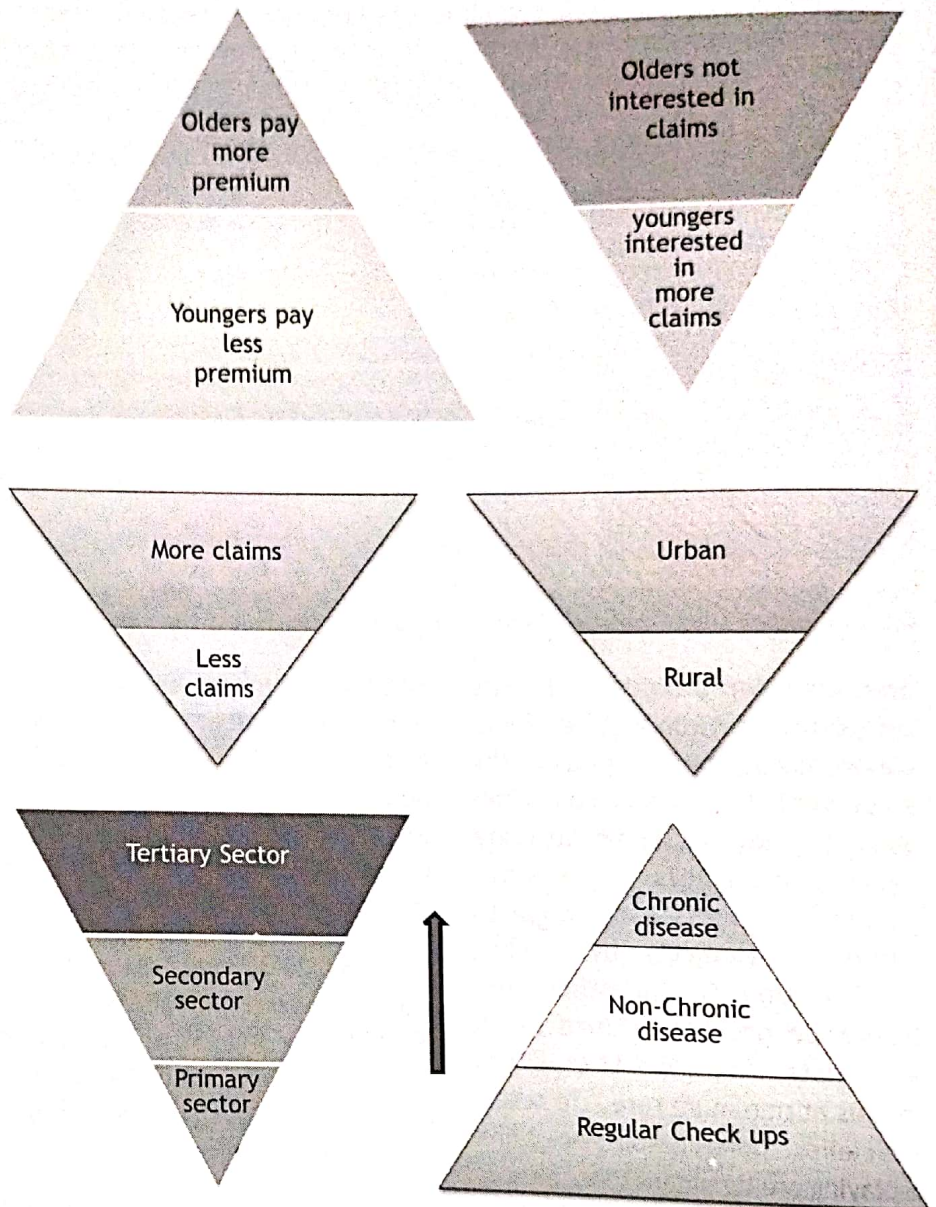
For in-patient treatment, 3 days is the maximum number of hospitalization days. HI market is dominated by hospitalization indemnity products which accounts for 87.4% of the total health insurance premium and 87.13% of total amount of health insurance claims paid. It can infer that 26-35 years age band policy holders are

claiming more claims and 96% of total number of claims paid is below Rs 75,000.

UNIFORM PREMIUM POLICY

Another important point to note that premium is uniform for low and high income group and is same for urban and rural people. Thus, necessitates to see whether the older and lower income policy holder's money pooled by the high income young policy holders.

It is to substantiate that elders are paying more premium (Table 2) and claiming less, whereas youngsters are paying less and claiming more. Urban young policy holders are more frequent visitors of empanelled hospitals. Another surprising surge is even for regular medical procedures, customers are approaching tertiary sector. The basic objective of the HI is to provide subsidized policies to low income group at affordable rate but in reality urban elite young people are benefited or availing the subsidized policies.



GEOGRAPHICAL AREA

In India pricing of health policies by insurance companies is decided by the third party administrator under the guideline of IRDA. While there is no law prohibiting geographic rating. However, health care costs are varying widely based on the level of facilities and location. Health care expenses in the metro towns are higher than non-metro towns. Among the metros, Mumbai

is most expensive followed by Delhi, Bangalore, Kolkata, Chennai and Hyderabad.

Table 6 shows that the average claim amount at about Rs 46,806, is the highest in Mumbai, followed Bangalore is at Rs 43,143, Delhi at Rs 40,179, Chennai at Rs 35,269, Kolkata at Rs 33,795 and Hyderabad is at Rs 3,192. Due to medical cost the prices are varying in Metro. The

price variation has resulted in non-metro subsidizing health insurance claims of metro towns and is likely to make the purchase of insurance less attractive in non-metro areas and may be one of the contributing factors to the concentration of insurance coverage in metro areas.

SUGGESTIONS

For more coverage of HI, the following suggestions are made.

Table 6: METRO CITY-WISE NUMBER OF CLAIMS AND AMOUNT OF CLAIMS PAID - 2012-13

Metro city	Number of claims	Total claims paid (Rs in crs.)	Average claim paid (in Rs)
Delhi	126 126	506.76	40179
Mumbai	133326	624.05	46806
Bangalore	75709	326.63	43143
Kolkata	87207	294.72	33795
Chennai	52065	183.63	35269
Hyderabad	62435	207.23	33192
Total	536868	2143.01	39917

Source:iib.org 2012-13

- 1) Balancing the metro and non metro cost, Insurer should reduce their managerial cost.
- 2) E- Repository information should be used to cut the premium cost.
- 3) Empanelled hospital should bring the transference in diagnosis and billing.
- 4) Governments (Central and States) should provide preventive care then introducing ad-hac schemes.
 - a) Safe drinking water
 - b) Clean roads
 - c) Avoiding Defecation
 - d) Improving the minimum facilities at primary health centers.
 - e) Government should introduce differential premium scheme based on Adhar cards and PHI are being used as vehicle to reach the unreached.
- 5) IRDA should introduce Standard Treatment Guidelines to avoid different pricing for same procedures.

CONCLUSION

PHI schemes are market products and open to everybody which may target mainly high income people even though insurance companies are claiming it as social security schemes. As the premium of PHI schemes are relatively high, it is perhaps one of the reasons why do only the high income people with their ability to pay are buying for PHI schemes. From this perspective, it can be seen that the low income people cannot afford the actuarially fair premium and one of the reasons for the low income people not buying.

PHI Schemes are not specially targeted and designed for the low income people and also do not provide any subsidy as such expected.

Obviously, one would expect that the HI schemes would cover all low income households in all the locations where they are. The present model is less attractive and affordable. Therefore, Private health Insurer should introduce differential premium pricing model in India is inevitable.

View points

- 1) The clients who are going for higher levels of insurance amount have to pay the premium at a regressive rate.
- 2) Private Health Insurance schemes are not explicitly making any discrimination on premium on the basis of income, but implicitly they are.
- 3) Insurers are increasing the premium amount by sinking the claim amount. It discourages new entrants in the health Insurance segment.

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