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MEDICAL HEALTH INSURANCE AND DEMOGRAPHICS IN TAMILNADU

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Abstract: Background*: Health of society members is the foundation for performance, innovation and progress. Health care and medical insurance services are aplenty but whats lacking is the whether the two are correlated.* ***Purpose/Objectives:*** *The purpose of the study was to document the impact of socio-demograhics on health insurance.* ***Design/ Methodology/Approach:*** *Structured interview schedule was administered to patients suffering from communicable and non-communicable diseases for which hospitalisation was required. This analytical research was undertaken in three cities in Tamil nadu State.* ***Findings:*** *Socio-demographics have a significant impact on perception about medical health insurance parameters.* ***Research limitations:*** *Study is periodic in nature and findings cannot be extrapolated for future. Geographical area limitations exist with study in three cities only (Chennai, Coimbatore and Madurai). Hospitalisation expenses and health insurance schemes are subject to change and/or revisions.* ***Practical implications:*** *Major Hospitals are under the ambit of Government accreditation and this necessiates bureaucrats to be alert while engaging in policy making initiatives to foster greater match between hospitalisation expenses in reality and those covered by health insurance schemes.* ***Originality/value:*** *Study is value-addition to literature and health insurance service providers as it not only documents hospitalisation expenses in detail for communicable and non-communicable diseases from both patients' and hospitals' versions but also establishes asymmetry information.*

Keywords: *Hospitalisation, Diseases, Medical Insurance, Tamilnadu.*

1. INTRODUCTION

I.1. Background

Health insurance in India is a growing segment of India's economy. In 2011, 3.9% of India's gross domestic product was spent in the health sector. According to the World Health Organisation (WHO), this is among the lowest of the BRICS (Brazil, Russia, India, China, South Africa) economies. Policies are available that offer both individual and family cover (WHO, 2013).

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Launched in 1986, the health insurance industry has grown significantly mainly due to liberalization of economy and general awareness (Financial Express, 2013). By 2010, more than 25% of India's population had access to some form of health insurance.

There are standalone health insurers along with government sponsored health insurance providers. Until recently, to improve the awareness and reduce the procrastination for buying health insurance, the General Insurance Corporation of India and the Insurance Regulatory and Development Authority had launched an awareness campaign for all segments of the population.

Five private sector insurers are registered to underwrite policies exclusively in Health, Personal Accident and Travel insurance segments. They are Star Health and Allied Insurance Company Limited, Apollo Munich Health Insurance Company Limited, Max Bupa Health Insurance Company Limited, Religare Health Insurance Company Limited and Cigna TTK Health Insurance Company Limited.

Despite the access to health insurance still a lot has to be done to make health insurance effective. Government hospitals mostly cover only the primary health care only and only district hospitals cover some life taking casualties. Predominant of the population still relies on the private hospitals paying out of pocket during their casualties.

There is a vast mismatch between the hospitalisation charges charged by these private hospitals for both communicable diseases and non-communicable diseases and the insurance cover taken by the patients. Lack of adequate income is making the people to be under insured with regard to health. Many families have lost their bread earning memebers due to inability to pay for the hospitals during critical casualties.

India rightly brands itself as incredible. The country's remarkable political, economic and cultural transformation over the past few decades has made it a geopolitical force. Healthcare is one of the industries that marks this strengthened global presence. As per industry reports, healthcare is poised to grow at an estimated annual rate of 19 per cent to reach USD 280 billion by 2020 (Charaka, 2008) with India being recognized as a destination for world class healthcare.

However, these exciting opportunities often mask certain urgent predicaments. The healthcare sector in India is currently at a cusp. Issues of access, affordability, quality of care and efficiency remain significant. A number of reports have been published about the poor health status of India, compared to its Low and Middle Income Country (LMIC) peers. In terms of vital statistics like infant mortality (IMR) and maternal mortality, India has lagged behind significantly. Even life expectancy, at 62 years, is three years below the LMIC average. According to the Global Burden of Diseases 2010 study, total Disability Adjusted Life Years (DALYs) lost are 518,879,000 years for the Indian population (Lancet, 2010). The economic cost of these illnesses to the country is a staggering 600 billion dollars (approximately) (Deloitte, 2013).

India is also facing an unprecedented pressure due to the poor reach of quality healthcare to millions of its citizens due to issues of access and affordability. The Indian healthcare sector has faced shortages of workforce and infrastructure. There were 1.65 trained allopathic doctors and nurses per 1000 population, compared to the World Health Organization recommended guideline of 2.5 per 1000 population (WHO, 2012).

Total hospital bed density in the country (0.9 per 1000 population) was well below the global average (3.0) and the WHO guideline of 3.56. Total healthcare expenditure in India was only 3.9 per cent of GDP, compared to 8.9 per cent for Brazil, 6.2 per cent for Russia and 5.2 per cent for China (World Bank, 2011). Out of this amount, out-of-pocket expenditure was 61 per cent and only 26 per cent of Indians are covered by health insurance with share of private being only 3-5 per cent.

1.2. Literature Review

Manu **(**2011) reported that according to an announcement from the Insurance Regulatory and Development Authority (IRDA) in India, health insurance policies will be portable from the first of July 2011. A recent report from the regulator says that when a policyholder moves from one region to another or from one employer to another, he may be penalized or lose his health insurance covers, therefore portability is important for them.

John (2009) reports on the introduction of the Rashtriya Swasthya Bima Yojana (RSBY) or National Health Insurance Scheme (NHIS) in India in 2009. It states that RSBY will offer quality health facilities to people in rural areas lacking access to basic healthcare. The scheme provides more selections to the poor and saves them to fall as prey to corrupt practices of government officials and moneylenders

Bhattacharjya and Sapra (2008) suggested that over the past five to ten years, the amount of health insurance premiums collected has grown at an average rate of 34 percent in India and 43 percent in China. A variety of public and private insurance schemes play important roles in enabling health care provision for unique populations in these two countries.

Banerji and Ramdeo (2007) state that the health insurance market in India is very limited covering about 10% of the total population. The existing schemes can be categorized as:

(1) Voluntary health insurance schemes or private-for-profit schemes;

(2) Employer-based schemes;

(3) Insurance offered by NPOs / community based health insurance, and

(4) Mandatory health insurance schemes or government run schemes (namely Employees' state insurance scheme, central government health scheme)

John (2007) looks at the entry of several new foreign players, which has changed the witnessed revamp on the health insurance market industry in the Mediclaim system

in India. An overview of the issues faced by Mediclaim and the Third-party administrators (TPAs) is offered. Moreover, the entry of the private health insurers, which promises high-quality service and efficiency, is said to not only assist the increasing coverage but provide the quality of the system to focus on disease management.

Ramachandran *et al.* (2007) stated that Urban and rural diabetic subjects spend a large percentage of income on diabetes management. The economic burden on urban families in developing countries is rising, and the total direct cost has doubled from 1998 to 2005.

According to Ramesh and Nishant (2006), the knowledge and awareness on the working of health-insurance (in the time of risk and uncertainty) in India plays an imperative role in the decision on the purchase of insurance products.

Mull (2004) discusses the health care system in India. Ability of the health care system to meet medical demands of an insurable population; Initiative for the improvement of private health care services; Problems associated with the country's health care system.

WHO (2002) states that in many countries treatment in hospital is the main focus of healthcare for the elderly, with a heavy reliance on more expensive acute care services rather than primary or secondary prevention.

Brody (1988) felt that the rapidly increasing older adult population in low and middle income countries provides a challenge for the provision of sufficient healthcare to this group. Elderly populations have a higher prevalence of chronic diseases, spend a larger amount on medicines and demand a greater range of hospital services.

2. STATEMENT OF PROBLEM

Whenever casualty occurs the patients belonging to middle class prefer private hospitals over Government hospitals for recovery. The middle class individuals do have some sort of insurance cover which is short of their hospitalisaton needs. Individuals below poverty line (BPL) and others are covered by the government schemes such as *Arokya Swastha Bema Yogana* and others which are still inadequate to meet the hospitalisaton expenses during casualty. High income individuals take adequate health insurance cover to manage the expenses during casualty. The problem of meeting the hospitalisation expenses is a heavy burden for the individuals who belong to middle class and poor class.

There is a mismatch between the hospitalisation charges charged by the private hospitals and the insurance cover taken by the study respondents.

3. SCOPE OF RESEARCH

The study belongs to the social sector that covers all the sections of people who are under insured with regard to health. The study belongs to the Financial Management

area of Management science with stress on health insurance sector. The study results are helpful to the health ministry to know the influence of demographics on medical insurance.

4. MATERIALS AND METHODS

4.1. Design and Objectives

The study is an analytical research, and uses the data collected from the patients and the private hospitals to analyse: (i) critical communicable and non-communicable diseases, (ii) type of health insurance policies possessed; and (iii) the influence of socio-demographics.

4.2. Sampling

The research employed judgment sampling to select the patients and hospitals. Any patient who had or was having treatment for catastrophic diseases (non-communicable and communicable) in cites of Chennai, Coimbatore and Madurai were surveyed. Any hospital providing treatment to all or few of the catastrophic diseases (non-communicable and communicable) in cites of Chennai, Coimbatore and Madurai were surveyed.

The sampling frame comprised hospital network accredited to Tamilnadu Government employees' new health insurance scheme.

The sample size for Patients was 640, and was sourced from three cites of Tamilnadu that have main clusters of hospitals as shown in Table 1.

Table 1
City-wise Patient Sample

Cities in Tamilnadu	*Sample size*	*Percentage (%)*
Chennai	224	35.0
Coimbatore	208	32.5
Madurai	208	32.5
Total	640	100

4.3. Data Collection

Survey was undertaken in the premises of private hospitals wherein structured interview schedule was administered to insured patients as well as hospital senior doctors.

The pilot study comprising 52 patients and doctors entailed Cronbach value of 0.873, greater than acceptable value of 0.7 (Nunally, 1978).

4.4. Research Limitations

The study had the following limitations: (i) study is periodic in nature, so the views presented may not hold good in the future; (ii) study has place limitations (limited to

3 cities: Chennai, Coimbatore and Madurai), (iii) hospitalisation expenses and health insurance schemes are subject to change and / or revisions.

5. ANALYSIS AND DISCUSSION

5.1. Socio-Demographics

The socio-demographic profile of respondents is presented in Table 2.

Table 2
Socio-Demographic Profile

Attributes	*Categories*	*Frequency*	*Percentage (%)*
Age (years)	Below 25	32	5.0
	25 - 34	32	5.0
	35 - 44	144	22.5
	45 - 54	256	40.0
	55 - 64	160	25.0
	Above 65	16	2.5
Gender	Male	512	80.0
	Female	128	20.0
Religion	Hinduism	448	70.0
	Islam	96	15.0
	Christianity	96	15.0
Occupation	Self employed	176	27.5
	Working in private sector	224	35.0
	Government Employee	128	20.0
	Professional service	64	10.0
	Home maker	48	7.5
Education	up to Higher Secondary	272	42.5
	Graduate level	128	20.0
	Post graduate level	144	22.5
	Professional	96	15.0
Income (INR)	Up to Rs.10000	32	5.0
	Rs.10001 - Rs.15000	32	5.0
	Rs.15001 - Rs.20000	176	27.5
	Rs.20001- Rs.25000	288	45.0
	Rs.25001 - Rs.50000	112	17.5
Family Size (members)	3 - 4	448	70.0
	5 - 6	144	22.5
	Above 6	48	7.5
Residing place	Rural	217	33.9
	Urban	423	66.1

5.2. Medical Health Indurance Profile

The medical health insurance profile is presented in Table 3.

Table 3
Medical Health Insurance Profile

Attributes	*Categories*	*Frequency*	*Percentage (%)*
Type of Health Insurance taken	Individual	144	22.5
	Family floater	400	62.5
	Unit linked	96	15.0
Type of Health Insurance Company preferred	Public Ltd. companies	480	75.0
	Private Ltd. companies	96	15.0
	Both	64	10.0
Sum assured (INR)	Less than 1 lakh	0	0.0
	1 lakh to 3 lakhs	480	75.0
	3lakhs to 5 lakhs	160	25.0
Adequacy of sum assured	Not enough	432	67.5
	Just enough	176	27.5
	More than enough	32	5.0

5.3. Impact on Medical Health Insurance

The impact of socio-demographics on medical health insurance was tested using one-way ANOVA and the results are presented in Table 4.

Table 4
Impact on Medical Health Insurance

Demographics	*Source of variation*	*F value*	*p value*
Residing place	Type of health insurance taken	0.177	0.838
	Type of Health Insurance Company preferred	14.076	0.000***
	Sum assured	4.966	0.026**
	Adequacy of sum assured	4.498	0.011**
Age	Type of health insurance taken	6.404	0.002**
	Type of Health Insurance Company preferred	23.440	0.000***
	Sum assured	64.854	0.000***
	Adequacy of sum assured	6.942	0.001***
Gender	Type of health insurance taken	0.554	0.575
	Type of Health Insurance Company preferred	.832	0.436
	Sum assured	0.000	1.000
	Adequacy of sum assured	16.997	0.000***
Religion	Type of health insurance taken	12.879	0.000***
	Type of Health Insurance Company preferred	36.169	0.000***
	Sum assured	51.418	0.000***
	Adequacy of sum assured	8.331	0.000***

contd. table 4

Demographics	*Source of variation*	*F value*	*p value*
Occupation	Type of health insurance taken	18.284	0.000***
	Type of Health Insurance Company preferred	1.776	0.170
	Sum assured	3.370	0.067
	Adequacy of sum assured	6.765	0.001***
Education	Type of health insurance taken	12.717	0.000***
	Type of Health Insurance Company preferred	3.571	0.029**
	Sum assured	6.935	0.009*
	Adequacy of sum assured	27.254	0.000***
Income	Type of health insurance taken	30.116	0.000***
	Type of Health Insurance Company preferred	7.504	.001***
	Sum assured	47.324	0.000***
	Adequacy of sum assured	20.452	0.000***
Family size	Type of health insurance taken	18.085	0.000***
	Type of Health Insurance Company preferred	23.943	0.000***
	Sum assured	29.296	0.000***
	Adequacy of sum assured	11.107	0.000***
Nature of residing place	Type of health insurance taken	4.654	0.010*
	Type of Health Insurance Company preferred	33.842	0.000***
	Sum assured	3.188	0.075
	Adequacy of sum assured	8.900	0.000***

*** Significant at $p<0.001$; ** Significant at $p<0.05$; * Significant at $p<0.01$
Shaded cells indicate Null Hypothesis is accepted ($p>0.05$)

6. CONCLUSION

The middle class people of the country depend on hospitals to meet their hospitalisation requirements during catastrophic hospitalisation situations. Though insurance coverage percentage among the population is growing, medical health insurance companies need to undertake deeper researcher on consumer behaviour, especially the impact of socio-demographics. This study points in that direction and it was found that there is significant difference among various demographics groups and perception about insurance parameters like Type of health insurance taken; Type of Health Insurance Company preferred; Sum assured; and Adequacy of sum assured.

Insurance companies need to keep such parameters in mind while formulation and selling policies. The hospitals must also consider the income (paying) capacities of the patients and explore alternate methodologies and medicines to cure the patients and save their lives within their economic capacity.

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