"A Study on TAT (Turn Around Time) in Health Insurance sector using Health Informatics services"

A Dissertation Proposal for

Post Graduate Diploma in Health and Hospital Management

by

Megha Joshi

PG/10/020

International Institute of Health Management Research
New Delhi

1st May 2012

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Under the guidance of

Dr. Brahmesh D Jain

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Organization: HealthSprint Networks Pvt Ltd

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ACKNOWLEDGEMENT

I owe my deep sense of gratitude to Dr.Brahmesh D Jain, my mentor, for giving me an opportunity to learn various aspects of Healthcare Insurance sector with special emphasis on use of Health Informatics services.

My special thanks to Dr.Veena Sridhar, Regional Manager – Operations, Karnataka, for her guidance, support, interest, involvement and encouragement. she left no stone unturned in updating me about the subject.

I also thank Prof. Indrajit Bhattacharya for his guidance throughout the dissertation period and extended support and cooperation.

My sincere gratitude to Dr. L P Singh, Director, International Institute of Health Management Research, New Delhi, who always has been a source of motivation and inspiration.

HealthSprint

CERTIFICATE OF INTERNSHIP COMPLETION

Date: 30/04/2012

TO WHOM IT MAY CONCERN

This is to certify that **Dr.Megha Joshi** has successfully completed her 2 months internship in our organization from March 1, 2012 to May 1, 2012. During this internship she has worked on the project '*A study on TAT in Health insurance sector using Health Informatics services*' under the guidance of me and my team at HealthSprint Networks Pvt Ltd.

We wish her good luck for her future assignments

Brahmesh Jain

Director & Cofounder

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CERTIFICATE OF APPROVAL

The following dissertation titled **"A study on TAT in Health insurance sector using Health Informatics services"** is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of Post- Graduate Diploma in Health and Hospital Management for which it has been submitted. It is Understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE

This is to certify that **Dr.Megha Joshi**, a participant of the Post- Graduate Diploma in Health and Hospital Management has worked under our guidance and supervision. She is submitting this dissertation titled "*A study on TAT in Health insurance sector using Health Informatics services* " in partial fulfillment of the requirements for the award of the Post- Graduate Diploma in Health and Hospital Management.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

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Abstract

A Study on TAT (Turn Around Time) in Health Insurance sector using Health Informatics services

BY

MEGHA JOSHI

Health insurance sector is a expanding area of service in India. With modernization of majority hospitals across and modified standard of living, the impact is evident in this sector as well. The quality of service in patient dealing and patient satisfaction if of prime concern to the care providers, i.e. the hospitals today.

Health insurance claim processing is a complex procedure where the parties involved are –

1. Patient/claimant

2. Hospital (Provider)

3. TPA/Insurance company (Payer)

The insurance claim transaction revolves around exchange of patient information between the provider and payer. The information once forwarded from the provider end has to reach the payer. With due scrutinization of the patient/claimant relevant information, the payer replies to the provider. It is only after this reply, the cashless process can actually begin, once the payer indentifies the patient/claimant as his policy holder and ensures that he/she is eligible for cashless claim procedure.

The time taken for this exchange of information and payer's reply is mapped as the TAT for claim processing. The study focuses on ascertaining the impact of using Health Informatics services as an information exchange platform between payers and providers over the conventional mode of exchange.

With the Conventional method, the patient information is sent to the payer through either –

1. Fax or
2. E-mail

With the use of Healthcare IT service, the patient information is furnished real time through –

1. Web enabled insurance platform (HIT platform)

The HIT platform is present at both payer and provider end, through which real time instant patient information exchange takes place.

The major findings are:

- The TAT with use of HIT services is much less as compared to conventional methods.
- The Information exchange is more reliable.
- Paperless, effective and sustainable mode of claim processing.
- Patient information is stored digitally for future reference.
- Adds value to patient satisfaction.
- Adds to provider brand image and technological quotient.

The Methodology

The primary data was collected over a time period of 1 month, from the provider end, by daily recording of time taken from initial processing to TPA response for both online and offline cases.

The patient cases of cashless insurance which are processed through HIT as well as conventional means were observed over the time. The TAT from the reply to each case was analyzed and documented. Then TAT for both categories of cases was compared and analyzed using SPSS statistical tool.

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Acronyms / Abbreviations / Key words

- TAT – TURN AROUND TIME
- GIPSA – GENERAL INSURANCE PUBLIC SECTOR ASSOCIATION
- TPA – THIRD PARTY ADMINISTRATOR
- IRDA – INSURANCE REGULATORY DEVELOPMENT AUTHORITY
- HIT – HEALTH INFORMATION TECHNOLOGY
- DS – DOMAIN SPECIALIST
- BDS – BACHELOR OF DENTAL SURGERY
- BHMS – BACHELOR OF HOMOEOPATHIC MEDICINE & SURGERY
- BAMS - BACHELOR OF AYURVEDIC MEDICINE & SURGERY
- BPT – BACHELOR OF PHYSIOTHERAPY
- HR – HUMAN RESOURCES
- DHS – DEDICALTED HEALTH SERVICES
- FHPL – FAMILY HEALTH PLAN LTD
- UHC - UNITED HEALTH CARE
- PROVIDER – HOSPITALS
- PAYER – TPA/INSURANCE COMPANY
- ONLINE – CASES PROCESSED THROUGH HIT PLATFORM
- OFFLINE – CASES PROCESSED THROUGH FAX/MAIL
- Pt – PATIENT
- IVST. – INVESTIGATION
- EMP ID – EMPLOYEE ID
- RSBY - RASHTRIYA SWASTHYA BIMA YOJNA
- HIPPA – HEALTH INSURANCE PORTABILITY & PROFITABILITY ACT
- RBAC – ROLE BASED ACCESS CONTROL
- PA – PRE AUTHORIZATION
- HR – HUMAN RESOURCES

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PART - I

INTERNSHIP REPORT

1.1 ORGANIZATION PROFILE

HealthSprint is a Healthcare IT services company founded in May 2006.It has formulated clear business programs in healthcare, and implemented one revenue generating use scenario " Web enabled In - patient insurance Claims Management Network" .This model is the main attribute of the "Payer – Provider Network" that HealthSprint aims to create all over the nation. The web service is based on the application names 'i-sprint' which is used for Health insurance claim processing for authorizing patient's cashless hospitalization.

1.1.1 Vision

It aims to connect healthcare ecosystem and its key players using web based technologies to enable valuable scenarios, which bring value to the customer, investors, and to the community we live in enabling, GREEN payer provider network by transferring paper based workflows into internet enabled workflows.

1.1.2 Mission

Enabling a web based information exchange platform, which enables reliable , easy and transparent payer provider workflow.

There are 3 main services offered by HealthSprint currently -

1. I-sprint – it is a web based paper provider platform for health insurance claim processing. It is a web tool designed specifically for claim processing. It is hosted from the HealthSprint server and can be accessed from anywhere. The data is being captured from the Hospital and the TPA site.
2. H comm.
3. H connect

The services are aimed at adding value to end users – hospitals, TPA's as well as patients. The most important feature is the through validation of documents and patient information before sending it across to TPA. Health sprint is adding value to Hospitals by significantly -

- Reducing Denials
- Reducing Disallowances
- Reducing TAT

Geographical Presence

HealthSprint started 6 years back and has expanded exponentially. With its headquarters in Bangalore, it has a huge coverage throughout Karnataka. It has significantly achieved a major market in states of Tamil Nadu, Kerala and Andhra Pradesh. In recent days, its invading the other parts of country by acquiring major players of Delhi and Mumbai in its Network. Some of the prime customers (Hospitals) in the network are –

- Fortis Group
- Manipal Group
- Vasan Eye Group
- Medanta – the Medicity
- Dhirubhai Kolilaben Hospital
- Sagar Group of Hospitals
- Mallaya Hospitals
- BGS global Groups
- Vikram Group
- Columbia Asia
- Sparsh Hospital
- The Cradle
- Shankara Netralaya
- Sparsh Hospitals etc

The TPA's in Network are –

- Mediassist
- TTK
- DHS
- UHC
- E- Meditek
- Max Bupa

- ICICI Lombard
- FHPL

1.1.3 AREA OF ENGAGEMENT

During the dissertation period, the area of services of involvement was of 'i-sprint' platform. The web based insurance claim processing service is offered by the organization as a web platform which is deployed at the hospital (provider) as well as TPA (payer) side. For those TPA's which are not in the network chain of the organization, the services are processed in offline manner, meaning through fax/ email.

The type of service provided to hospitals based on their need are categorized into -

1. **Managed services** – in these hospitals, HealthSprint works as a outsource provider for handling the entire health insurance claim process. The organizations, provides man power (Domain Specialists) which are deployed within the hospital premises and they process both online (through I – sprint) as well as offline cases for cashless hospitalization. In such hospitals, HealthSprint bears the entire responsibility of handling the cashless cases of insurance as along with processing through validation is also done of the patient information.

2. **Platform services** – some hospitals are using only the i-sprint platform which is managed and processed by their own workforce. HealthSprint only provides the web platform access, and does not bear the responsibility of the entire cashless claim process.

During the internship tenure, the responsibility of managing 11 hospitals – 5 utilizing managed services, 6 utilizing platform services, was given.

MANAGERIAL TASKS

With the responsibilities of managing 11 hospitals following were the main taska to be performed

- Constant monitoring of TAT of online cases
- Leading a team of 9 Domain Specialists deployed in 5 managed services hospitals.
- Preparing monthly transactional reports for hospital management.
- Understanding the business model in each hospital and taking it to next level.
- Hiring and interviewing candidates for Domain Specialits position for self assigned accounts.

- Resolving issues on daily basis in case processing.
- Interacting with hospital management

1.1.4 REFLECTIVE LEARNING

During the period of dissertation and involvement with the operations department, following were the learning's incubated –

- Corporate hospitals have a major proportion of patients seeking cashless hospitalization
- Health insurance department is a major area of revenue generation for hospitals
- A lot of disallowances and denials of cashless hospitalization occurs due to improper or incomplete information furnished by the hospitals to TPA.
- Introduction to a unique web enabled platform which facilitates the patient information in most reliable and fastest way.
- Interaction with hospital top managements and showing them the value addition from our services with relevant figures.
- Managing a team of 9 doctors, solving people issues, leading and motivating the team.
- Promoted cooperation of domain specialists with hospital admin staff for smooth functioning.
- Learnt monitoring TAT for insurance claim processing.
- Observed the pitfalls and problems encountered with offline case processing, i.e those not using HIT service.
- Interviewing and screening candidates for Domain Specialists position.
- Conducted on site training for new joinees, explaining in detail about the SOP's followed in the organization.

PART II

DISSERTATION REPORT

“A Study on TAT (Turn Around Time) in Health Insurance sector using Health Informatics services”

1.0 INTRODUCTION

Health insurance, as we know it today, was introduced only in 1912 when the first Insurance Act was passed. The current version of the Insurance Act was introduced in 1938. Since then there was little change till 1972 when the insurance industry was nationalized and 107 private insurance companies were brought under the umbrella of the General Insurance Corporation (GIC) [1].Private and foreign entrepreneurs were allowed to enter the market with the enactment of the Insurance Regulatory and Development Act (IRDA) in 1999.

India's economic growth and rapid urbanization is bringing with it an expected health transition in terms of shifting demographics, increasing ability to afford quality healthcare, changes in morbidity pattern with growing degenerative and lifestyle diseases, and increasing penetration of health insurance.

The current coverage of Indian population under the insurance cover is really poor. It is estimated that only about 3% - 5% of Indian population are having any kind of health insurance [2]. But there is a large untapped market in insurance sector which seems to expand with the changing trends in population in coming years. By 2021, over 143 million population in the country will be above 60 years of age; close to 16 million households will fall in the category of high-income (annual income more than Rs 5, 00,000); towns with million plus population will increase from 35 to 65; heart diseases, diabetes, and cancer will show a combined average decadal growth of 47 per cent; health insurance market will grow at an average 42 per cent CAGR [2] . Such factors have caught the interest and attention of investors, big and small; and have necessitated our healthcare landscape to constantly evolve and mature. Bed to population ratio (1:1) is still short in developing economies, with an additional requirement of 1.1 million hospital beds. The country has an additional requirement of 0.8 million doctors and 1.7 million nurses, apart from facing a significant shortage of paramedics. 45 per cent of the population travels more than 100 km to access tertiary level of medical care. Poor accessibility, accountability, affordability, and availability of healthcare services are key constraints that make the idea of 'Health for all' a seemingly impossible accomplishment [3].

According to Murali Rao, Associate Vice President, Healthcare, Technopak "the Indian healthcare industry is poised to double from $ 60 billion to $ 120 billion by 2015, growing at a 15 per cent CAGR. While public spend in the sector is likely to be limited to ~ 20 per cent of the annual healthcare spend, most of the expansion would be propelled by organized private players, especially hospitals. What makes this growth story patients' and investors' eye is the unprecedented growth that allied sectors like pharma, wellness, medical technology, medical tourism, medical education, and health insurance, will witness in the coming decade. This would be largely fuelled by frugal innovation in technology and delivery mechanisms." [4]

India's total health spending at 4.2 per cent of the GDP is way below most developed, and some developing countries [5] . The insurance industry so far has been run by the Market forces instead of a planned inclusive approach. In terms of the market share, the size of the commercial insurance is barely 1% of the total health spending in the country. Over 80 per cent of healthcare spend is in the private sector. The Indian health insurance scenario is a mix of mandatory social health insurance (SHI), voluntary private health insurance and community- based health insurance (CBHI). Health insurance is thus really a minor player in the health ecosystem.

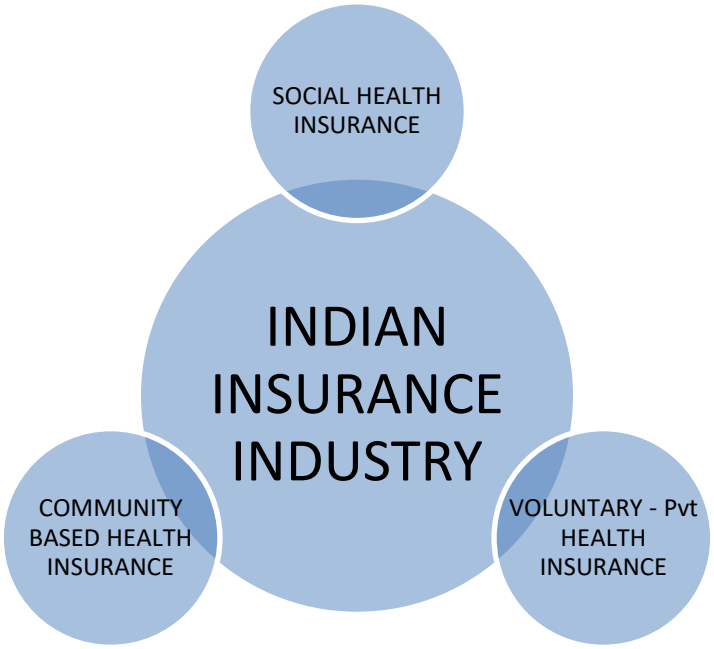

Fig 1. Indian Insurance Industry

1.1 SOCIAL HEALTH INSURANCE (SHI)

Universal coverage has two dimensions: health care coverage (adequate health care) and population coverage (health care for all) .The SHI is based on income-determined contributions from mandatory membership of, in principal, the entire population with the government subsidizing the financially vulnerable sections. While the SHI is an effective risk-pooling mechanism that allocates services according to need and distributes the financial burden according to the ability to pay (thereby ensuring equity in access), such schemes are difficult and expensive to implement where a majority of the workforce is unemployed or employed in the informal sector. The existing mandatory health insurance schemes in India— the Employees' State Insurance Scheme (ESIS) and the Central Government Health Scheme (CGHS)—were first started as pilot projects in 1948 and 1954, respectively in the context of achieving universal coverage via the SHI.

Evidence from 8 countries with SHI schemes for which sufficient information is readily available—Austria, Belgium, Costa Rica, Germany, Israel, Japan, Republic of Korea (ROK) and Luxembourg— shows that the transition period (defined as the number of years between the first law related to health insurance and the

latest law enacted to implement universal coverage) is 79 years (Austria), 118 years (Belgium), 20 years (Costa Rica), 127 years (Germany), 84 years (Israel), 36 years (Japan), 26 years (ROK) and 72 years (Luxembourg) [6] . These countries embarked on SHI when their economies were still underdeveloped; moreover, coverage is not necessarily a simple linear increase, as some groups are harder to reach than others.

In India, its large rural and informal sector accounting for 90% of the population, lack of cohesion and solidarity, and poor institutional capacity to organize them etc. will be constricting factors for the up scaling of the SHI in the near or medium term [7] . The SHI is therefore likely to be restricted to the employed population and largely in urban areas, where collection of premium is easier and administrative costs minimal

The table below gives an overview of mandatory insurance schemes in place. These are the –

1. ESIS
2. CGHS

	MANDATORY SOCIAL INSURANCE SCHEMES	
INDICATIONS	ESIS	CGHS
Types of beneficiaries	Factory sector employees (and dependants) with income less than Rs 7500 per month	Employees (and dependants) of Central Government-current and retired, some autonomous and semi-government organizations, Members of Parliament judges, freedom fighters, journalists
Coverage	About 353 lakh beneficiaries in 1998	About lakh beneficiaries in 1996
Types of benefits	Medical and other health-related provided through ESIS facilities and partnership	Medical care through public facilities and restricted private

		care
Premiums (financing of scheme	4.75% of employees' wages by employers; 1.75% of their wages by employees; 12.5% of the total expenses by the State Governments	Varies from Rs 15 to Rs 150 per month based on salaries of the employees Mainly financed by the Central Government funds
Provider payments	Mainly salaries for physicians in dispensaries and referral hospitals. Hospitals have global budget financed by ESIC through State Governments.	Salaries for doctors. Treatment in private hospitals is reimbursed on case basis, subject to actual expenditure and prescribed ceilings
Administrative costs	About 21% of the revenue expenditure. For paying wages for corporation employees, and administering cash benefits, revenue recovery and implementation in new area.	Direct administrative costs including travel expenditure, office expenses, RRT 5% of the total expenditure. Part of salaries can also be charged to administrative costs.
Status of finances	Contributions: more than 80% of the ESIS income- doubles the expenditure on benefits.	Contributions about 15% of the CGHS income-half of the salary expenditures.

TABLE 1. MANDATORY SOCIAL INSURANCE SCHEMES

Central Government Health Scheme (CGHS)

Established in 1954, the CGHS covers employees and retirees of the Central Government, and certain autonomous, semiautonomous and semi-government organizations. It also covers Members of Parliament, governors, accredited journalists and members of the general public in some specified areas. The families of the employees are also covered under the scheme. Total beneficiaries stand at 43 lakh (10.4 lakh card holders, 2003) across 24 cities with membership in Delhi being the highest. Benefits under the scheme include medical care at all levels and home visits/care as well as free medicines and diagnostic services. These services are provided through public facilities (including CGHS-exclusive allopathic, ayurvedic, homeopathic and unani dispensaries) with some specialized treatment (with reimbursement ceilings) being permissible at private facilities. Of the total expenditure, about a third is spent on wages and salaries of the CGHS staff.

The health-seeking behavior and the trends towards utilization of health facilities after the CGHS opened up to over 200 private hospitals for providing care at pre-negotiated rates to their members was assessed and it was found that there is an increasing number of cases using private sector facilities, which has budgetary implications for the Government, particularly in view of the absence of any regulations regarding prices and the large number of pensioners joining the scheme.

1.2 COMMUNITY BASED HEALTH INSURANCE

Community financing (CF) as a method of raising finance at the community level was initiated by UNICEF under its Bamako Initiative for Africa in 1987. The initiative had the following objectives: (i) to revitalize public health systems; (ii) to decentralize decision-making; (iii) to mobilize resources to cover local operating costs; (iv) to encourage community participation through management of services and locally generated funds; and (v) to define the minimum package of essential health services. (UNICEF 1987). The scheme is based on the hypothesis that with greater social capital there will be more willingness to pay and participate. The community has been defined as a group of households living in close proximity or belonging to social, religious or economic organization. The efficacy of the scheme is based on two implicit principles: one, that the community has adequate homogeneity or social coherence that gets easily translated into a capacity to mobilize resources; and two, that the willingness to prepay will be influenced by self-interest when each individual perceives his marginal benefit exceeding his costs, i.e. accessing something of value which can be obtained easily and more in quality through prepayment.

Currently, there are about 22 voluntary CBHI programmes in India, initiated and administered by NGOs. The membership of these CHIs scheme varies from 1000 to more than 20 lakh. Most of the schemes operate in rural areas and cover people from the informal sector. All the schemes offer hospitalization; this ranges from the classical Mediclaim product to a very comprehensive cover including all conditions and no exclusions. The main strengths of the CBHIs schemes are that they have been able to reach out to the weaker sections and provide some form of health security; increase access to health care; protect the households from catastrophic health expenditures and consequent impoverishment or indebtedness.

Of all the schemes in operation, the one that has drawn widespread attention in India is the **Yeshaswani**, an insurance scheme for farmers, designed and implemented by the Government of Karnataka since 2002. Under this scheme, the Cooperative Department enrolled, through a government fiat, over 17 lakh farmers within one year and created a corpus of over Rs 15 crore. In the second year,

an additional 5 lakh members have been enrolled against the target of 1 crore. The scheme provides financial risk protection against 1600 surgeries offered in 90 accredited hospitals at prefixed rates. Outpatient treatment is free and any diagnostic service resulting in surgery carries a discount of 50%. To keep the premium low at Rs 90, now revised to Rs 120, a Trust chaired by Secretary of the Department of Cooperatives, has been constituted with the premium forming the corpus fund from which the claims are settled. A commercial TPA has been contracted by the Trust at 5.5% of premium collected to provide ID cards to the members process the claims and make payments to the service providers. A doctor appointed by the TPA gives prior authorization for expensive surgeries and also scrutinizes correctness of the claims. Within one year of establishment of this scheme, over 27,000 persons were provided outpatient treatment and 4000 surgeries performed

Examples of some other CBHI schemes running in India are – Voluntary Health services, Chennai; SEWA Ahmadabad; DHAN foundation, Tamil Nadu

Rashtriya Swasthya Bima Yojna (RSBY)

Rashtriya Swasthaya Bima Yojna is a Central Government Scheme, launched by Ministry of Labour and Employment, Government of India. It was announced by the Prime Minister Manmohan Singh on August 15, 2007. It is a new health insurance scheme for the Below Poverty Line (BPL) families in the unorganized sector. It was formally launched on October 1, 2007.

Objective - The objective of RSBY is to provide protection to BPL households from financial liabilities arising out of health shocks that involve hospitalization. Beneficiaries under RSBY are entitled to hospitalization coverage up to Rs. 30,000/- for most of the diseases that require hospitalization. Government has even fixed the package rates for the hospitals for a large number of interventions. Pre-existing conditions are covered from day one and there is no age limit. Coverage extends to five members of the family which includes the head of household, spouse and up to three dependents. Beneficiaries need to pay only Rs. 30/- as registration fee while Central and State Government pays the premium to the insurer selected by the State Government on the basis of a competitive bidding.

Unique Features –

- Empowering the beneficiary
- Business Model for all Stakeholders
- Insurers
- Hospitals

- Intermediaries
- Government
- Information Technology (IT) Intensive
- Safe and foolproof
- Portability
- Cashless and Paperless transactions
- Robust monitoring and evaluation

HOW IT WORKS

- Financing for RSBY
- Selection of Insurance companies
- Preparation of BPL data
- Enrollment of beneficiaries
- Empanelment of Health Care Providers
- Utilization of Services by Beneficiaries
- Claim Settlement
- Portability of Smart Card
- Monitoring and Evaluation

The majority of the financing, about 75 per cent, is provided by the Government of India (GOI), while the remainder is paid by the state government. The use of Smart Card has not only made the scheme truly cashless, it has also provided interoperability to facilitate use by migrant labor. Only for the first time, contribution of 30/- rupees would be sought by way of Registration fee, from the BPL beneficiary with a view to inculcating a sense of ownership in them. Transportation cost of Rs. 100/- per visit with an overall limit of Rs. 1,000/- per annum is also admissible under the scheme. The OPD facilities are not covered under this scheme. However, OPD consultation is free. Beyond consultation, if any expenditure is incurred in the OPD, which does not lead to hospitalization, will be met by the beneficiaries. Common exclusions have been listed out in the detailed Guidelines. These common exclusions include:

• Conditions that do not require hospitalization
• Congenital external diseases
• Drug and Alcohol Induced illness
• Sterilization and Fertility related procedures
• Vaccination

• War, Nuclear invasion
• Suicide
• Naturopathy, Unani, Siddha, Ayurveda

TOP UP FACILITY – with latest measures being putting across, some of the states have given a top up of up to 1.5lakhs rupees over the conventional Rs.30,000.

1.3 PRIVATE HEALTH INSURANCE

Since the liberalization of the insurance industry in 2000 India has been promoting private players to enter the health insurance sector. With the enactment of the IRDA, the industry now has a regulatory framework to protect the interests of policy holders. This was followed by another landmark decision in 2001 establishing Third Party Administrators (TPAs) to facilitate speedier expansion by providing an administrative– intermediary structure to the insurance industry. There are, at present, 12 general insurance companies and 25 TPAs. The total number of insurance holders is reported to be 112 lakh with almost 90% enrolled with the four public sector insurance companies.
International experience and economic theory on private insurance markets shows evidence of widening inequity, excessive utilization, adverse selection, increase in inappropriate care, risk selection increasing overall cost of care and in a highly competitive, voluntary market, high administrative costs, unviable risk pools, undercutting and unrealistic pricing leading to market instability and bankruptcies [6] .

India has lessons to learn from these international experiences. India has a dual system of care—a private fee for-service based sector where the money is paid out-of-pocket by individual households and a tax-based public sector where the providers are salaried. Utilization of insurance under both these systems is partly restricted and rationed by the affordability of the individual household and availability of the budget.

There are few matters of concern in private insurance like, the asymmetry in information puts the patient and the insurer at a disadvantage due to their inability to resist or challenge medical opinion regarding an existing condition or future treatment. Besides, in the absence of knowledge of prices, the provider can shortchange the two by overcharging. Second, cashless insurance creates disincentives to control costs as it appears to be a ‘free’ good for the patient and the provider, often resulting in excessive treatment by the provider (induced demand) and frivolous use by the patient taking treatment even for a condition which he would normally have ignored or cured with a home remedy (moral hazard). Third, it is only the patients who know their health status. Since it is normally those in need of health care who tend to subscribe to health insurance, this puts the risk on insurance agencies to resort to extensive processes of risk selection, such

as medical examination, before being given admittance as an enrollee and focusing on low risk groups, such as the young or healthy.

For these reasons, private commercial health insurance is known to select its customers—the young, healthy, rich, males—leaving the bad risks to the government—old, poor, young women in the reproductive age group, and the ill.

1.4 HEALTH INSURANCE ECOSYSTEM

The health insurance sector is a play of few entities. This is a complex ecosystem where one party is dependant or other.

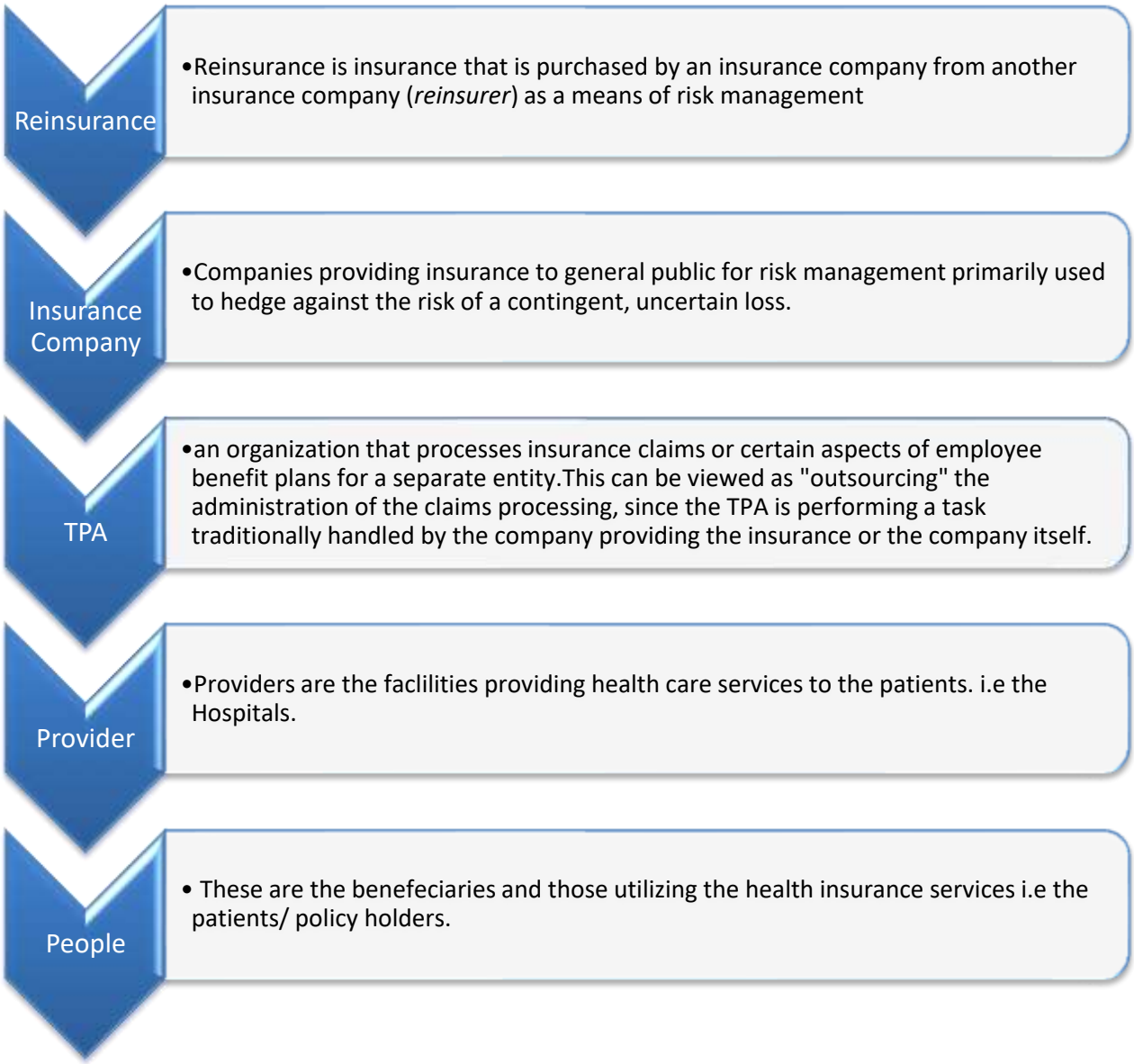

FIGURE 2 : HEALTH INSURANCE ECOSYSTEM

1.5 TYPES OF HEALTH INSURANCE COMPANIES

The Insurance companies can be broadly classified into Life Insurance companies and General (Non – Life) insurance companies which cover all conditions except death like – fire, vehicle, health etc.

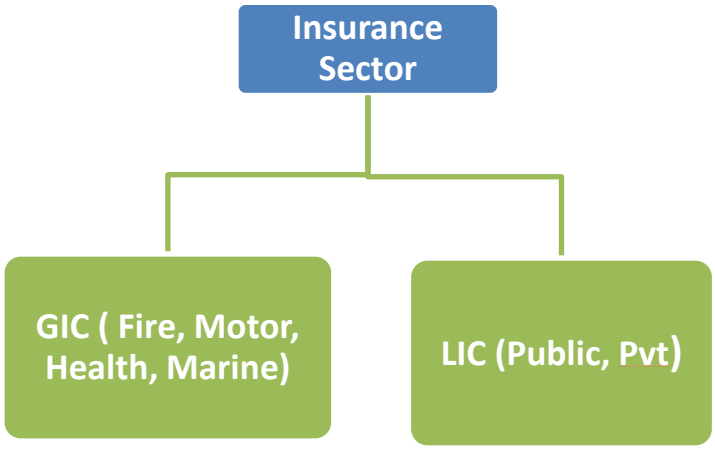

FIGURE 3 : CLASSIFICATION OF HEALTH INSURANCE SECTOR

Insurance sector also has a broad division in terms of –

1. GIPSA (General Insurance Public Sector Association) – these are the insurance companies under public cover. These are tied up with various TPA's across nation for insurance claim processing. There are basically four GIPSA companies namely –

- National Insurance Company
- United India Insurance Company
- Oriental Insurance Company
- New India Insurance Company

2. Private Insurance companies – there are many private players in the market now handling the insurance processing like Reliance, Religare, Bajaj Alliance etc. They are tied up with different TPA's for claim processing; some of them have their own in house TPA's like Max Bhupa, ICICI Lombard etc.

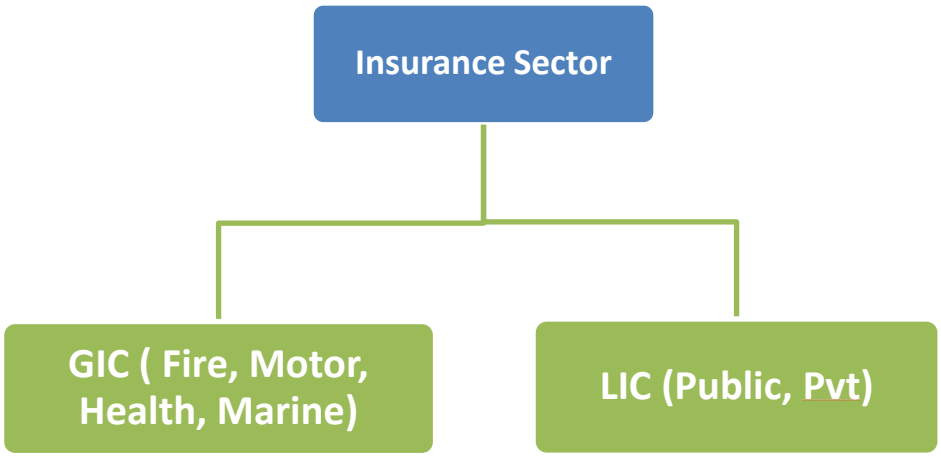

FIGURE 4 : CLASSIFICATION OF HEALTH INSURANCE SECTOR

LIST OF HEALTH INSURANCE COMPANIES

- Apollo DKV Insurance Company Ltd.
- Aviva Life Insurance
- Bajaj Allianz General Insurance Co. Ltd.
- Birla Sun Life Insurance
- E-Meditek Solutions Limited
- Family Health Plan Limited
- Health India-Bhaichand Amoluk Insurance Services Pvt. Ltd.
- HSBC Health Insurance
- ICICI Lombard General Insurance Co. Ltd.
- Life Insurance Corporation Of India
- Max New York Life Insurance

- Med Assist India Ltd.
- MetLife India Assurance Company
- National Insurance Company
- Paramount Health Group
- Reliance Health
- Royal Sundaram Alliance Insurance Company Limited
- Star Health and Allied Insurance Company Limited
- Tata AIG
- The New India Assurance Co. Ltd.
- United Healthcare
- United India Insurance

TABLE : LIST OF HEALTH INSURANCE COMPANIES OF INDIA

1.6 TYPES OF INSURANCE POLICIES

Insurance policies are a agreement of contract between the insurance company and the policy holder. It is a legal document stating processed with some terms and consisitons specific to the scenarios.

In respect to health insurance, the insurance policies can be broadly categorized into

a) Individual Policy – It means the policy holder has purchased the policy first handedly; it may cover his family members and dependants depending on the terms and conditions of the policy. It is fabricated on the clauses and exclusions as mentioned in the mediclaim policy.
b) Group Policy – they are commonly known as corporate policies. These are usually purchased by corporate for their employees. As the offer a large number of customer base to the insurance companies. They also get some benefits over individual policy, like some of the exclusions are also covered eg – maternity and pre existing diseases.

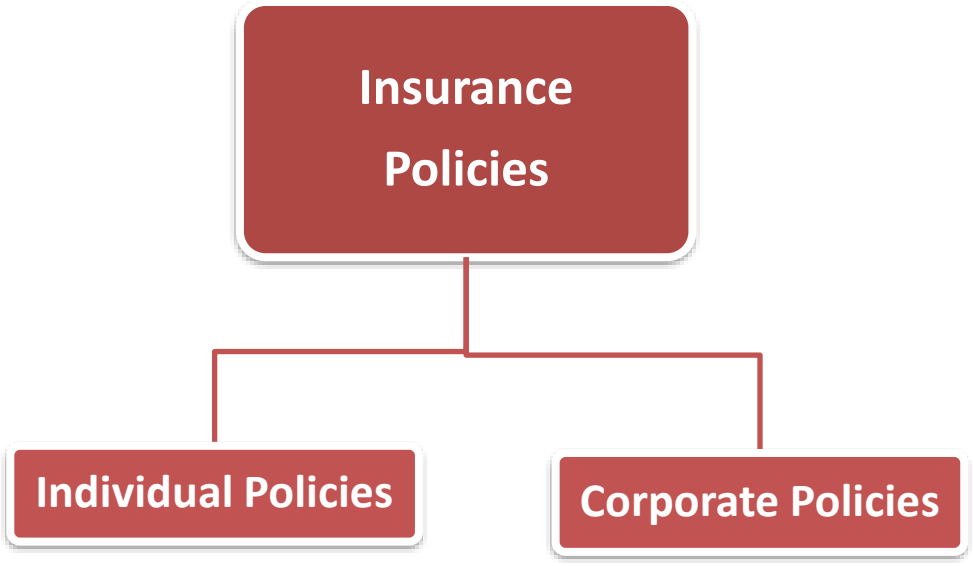

FIGURE 4 : CLASSIFICATION OF HEALTH INSURANCE POLICIES

Health insurance in India is usually associated with the 'Mediclaim' policy of the GIC, which was introduced in 1986 as a voluntary health insurance scheme offered by the public sector. In 2001, there were 78 lakh persons covered under Mediclaim (Gupta 2003). The subscribers are usually from the middle and upper class, especially since there is a tax benefit in subscribing to Mediclaim. The standard Mediclaim policy covers only hospital care and domiciliary hospitalization benefits. Most medical conditions are reimbursed though there are important exclusions, such as pre-existing diseases, pregnancy and child birth, HIV/AIDS, etc. Hospitals with more than 15 beds and registered with a local authority can be identified as providers.

The insurance company (or the TPA, where applicable) administers the scheme. Being an indemnity scheme, the patient pays the hospital bills and submits the necessary documents to the company. The company in turn reimburses the patient. A study of 621 GIC claims for the year 1998–99 by Bhat and Reuben (2001) showed that the average time between submission of documents and reimbursement is 121 days

There is also uncertainty about the amount reimbursed; there are times when the patient is reimbursed only partially, the usual reason being the insufficiency of documentation. The policy is not renewed automatically and is dependent on the timely payment of premium With claims exceeding 30% a year, more than the household spending, it reflects the problem of moral hazard which requires close monitoring.

1.7 REASONS FOR POOR PENETRATION OF HEALTH INSURANCE IN INDIA

Penetration of health insurance has been slow and halting, despite the 'huge market'. The possible reasons for this could be –

1. **Lack of regulations and control on provider behavior**

   Total absence of any form of control over providers regarding quality, cost or data-sharing, makes it difficult for proper underwriting and actuarial premium setting. This puts the entire risk on the insurer as there could be the problems of moral hazard and induced demand.

2. **Unaffordable premiums and high claim ratios**

   Increased use of services and high claim ratios only result in higher premiums. The insurance agencies in the face of poor information also tend to overestimate the risk and fix high premiums.

3. **Reluctance of the health insurance companies to promote their products and lack of innovation**

   With a view to get the non-life accounts, insurance companies tend to provide health insurance cover at unviable premiums. Thus, there is total lack of any effort to promote health insurance through campaigns regarding the benefits of health insurance and lack of innovation to make the policies suitable to the needs of the people.

4. **Too many exclusions and administrative procedures**

5. **Inadequate supply of services**

   There is an acute shortage of supply of services in rural areas. Not only is there non-availability of hospitals for simple surgeries, but several parts of the country have barely one or two hospitals with specialist services.

6. **Co-variate risks**

   High prevalence levels of risks that could affect a majority of the people at the same time could make the enterprise unviable as there would be no gains in forming large pools. The result could be higher premiums. In India this is an important factor due to the large load of communicable diseases [7].

1.8 INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY (IRDA)

IRDA is formed by an act of Indian Parliament known as IRDA Act 1999, which was amended in 2002 to incorporate some emerging requirements. Mission of IRDA as stated in the act is "to protect the interests of the Policyholders, to regulate, promote and ensure orderly growth of the Insurance industry and for matters connected therewith or incidental thereto." In 2010, the Government of India ruled that the Unit Linked Insurance Plans (ULIPs) will be governed by IRDA, and not the market regulator Securities and Exchange Board of India.

The **Insurance Regulatory and Development Authority** (IRDA) is a national agency of the Government of India, based in Hyderabad. It was formed by an act of Indian Parliament known as IRDA Act 1999, which was amended in 2002 to incorporate some emerging requirements. Mission of IRDA as stated in the act is "to protect the interests of the Policyholders, to regulate, promote and ensure orderly growth of the Insurance industry and for matters connected therewith or incidental thereto." [6]

Key objective of the IRDA include promotion of competition so as to enhance customer satisfaction through increased consumer choice & lower premiums, while ensuring the financial security of the insurance market.

Today 24 General Insurance Companies & 23 Life Insurance Companies operating in the country

Section 14 of IRDA Act, 1999 lays down the duties, powers and functions of IRDA:

- Subject to the provisions of this Act and any other law for the time being in force, the Authority shall have the duty to regulate, promote and ensure orderly growth of the insurance business and re-insurance business
- Without prejudice to the generality of the provisions contained in sub-section (1), the powers and functions of the Authority shall include,
    - issue to the applicant a certificate of registration, renew, modify, withdraw, suspend or cancel such registration;
    - protection of the interests of the policy holders in matters concerning assigning of policy, nomination by policy holders, insurable interest, settlement of insurance claim surrender value of policy and other terms and conditions of contracts of insurance;
    - specifying requisite qualifications, code of conduct and practical training for intermediary or insurance intermediaries and agents;
    - specifying the code of conduct for surveyors and loss assessors;
    - promoting efficiency in the conduct of insurance business;

- promoting and regulating professional organizations connected with the insurance and re-insurance business;
- levying fees and other charges for carrying out the purposes of this Act;
- calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, intermediaries, insurance intermediaries and other organizations connected with the insurance business;
- control and regulation of the rates, advantages, terms and conditions that may be offered by insurers in respect of general insurance business not so controlled and regulated by the Tariff Advisory Committee under section 64U of the Insurance Act, 1938 (4 of 1938);
- specifying the form and manner in which books of account shall be maintained and statement of accounts shall be rendered by insurers and other insurance intermediaries;
- regulating investment of funds by insurance companies;
- adjudication of disputes between insurers and intermediaries or insurance intermediaries;
- supervising the functioning of the Tariff Advisory Committee;
- specifying the percentage of life insurance business and general insurance business to be undertaken by the insurer in the rural or social sector; and
- exercising such other powers as may be prescribed from time to time

1.9 THIRD PARTY ADMINISTRATORS

With the entry of TPAs under the IRDA Regulations Act, 2001, the insurance industry is taking a new turn towards 'Managed Care'. The TPAs are required to be registered under the Companies Act, 1956, and licensed by the IRDA, and be contracted by one or several insurance companies 'for the provision of health services'. The original role of a TPA was to provide the back-office administrative set-up to insurance companies—issuing ID cards to subscribers, processing claims, making payments, etc [7] .The TPA has evolved over time with a new system of 'CASHLESS PAYMENT' wherein, the TPA's are rapidly developing capacity to establish provider networks to service the needs of the insured, collecting and analyzing data, fixing and negotiating rates for procedures with providers, contracting providers, processing claims and making direct payment to them and arbitrating any dispute between the subscriber and the provider. This

system has resulted in relieving the patients of the psychological stress of having to mobilize resources at short notice.

By scrutinizing provider claims, TPAs also help in safeguarding the interests of the insuring company of any fraudulent claims by the providers. For all these services, the insurance companies pay 5.5% of the total amount of premium collected under the policy. In addition, TPAs were also to be given a bonus from insurance companies for reduced claim ratios or for promoting the companies with the insurers.

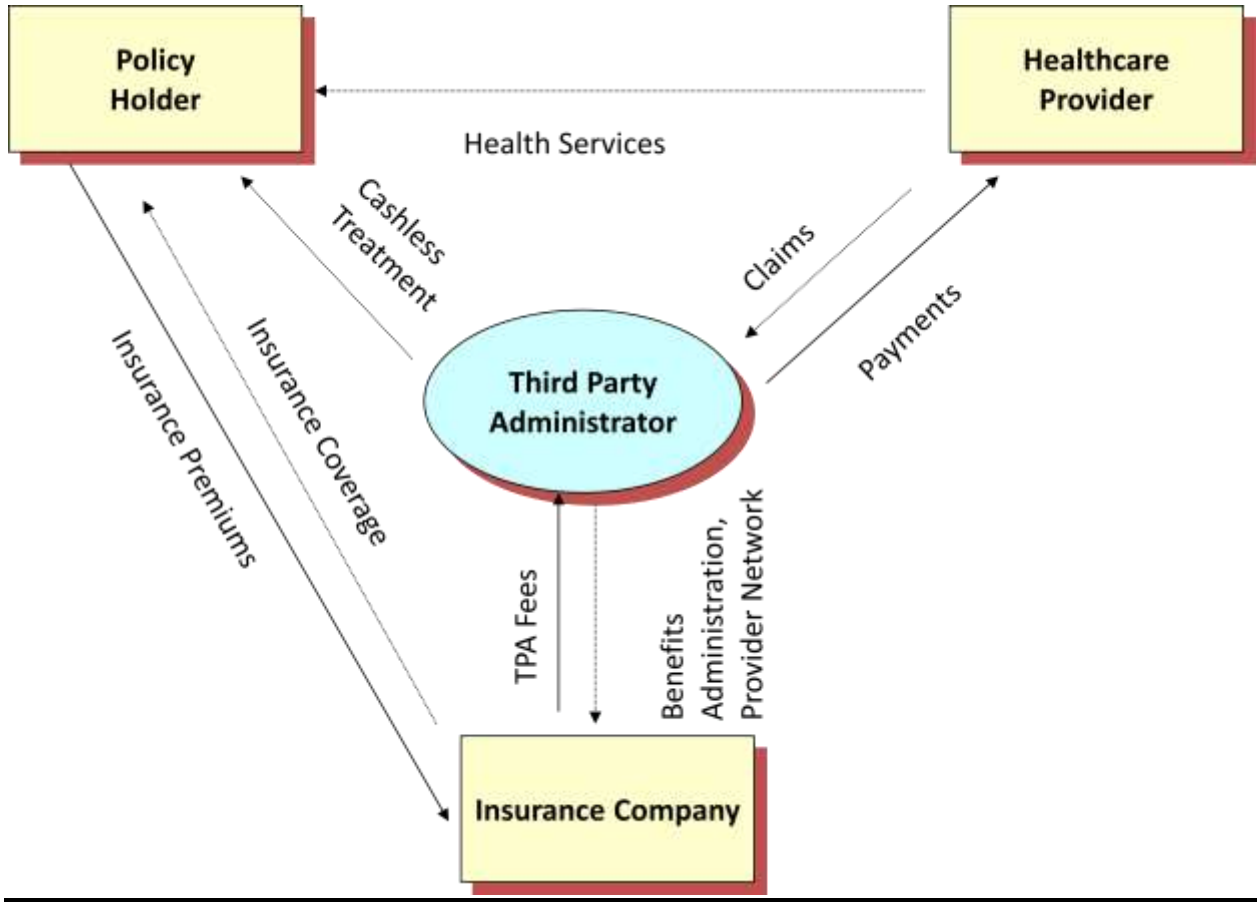

FIGURE 5 : TPA PROCESS FLOW DIAGRAM

List of TPA's registered in India

1	*United Healthcare Parekh TPA Pvt Ltd*
2	*Medi Assist India TPA Pvt Ltd*

3	M D India Healthcare (TPA) Services (Pvt) Ltd
4	Paramount Health Services TPA Pvt Ltd
5	E Meditek TPA Services Ltd
6	Heritage Health TPA Pvt Ltd
7	Universal Medi Aid Services Ltd
8	Focus Health Services TPA Pvt Ltd
9	Medicare TPA Services (I) Pvt Ltd
10	Family Health Plan TPA Ltd
11	Raksha TPA Pvt Ltd
12	TTK Healthcare TPA Pvt Ltd
13	Anyuta Medinet Healthcare TPA in Healthcare Pvt. Ltd.
14	East West Assist TPA Pvt. Ltd.
15	Med Save Health Care TPA Ltd.
16	Genins India TPA Ltd.
17	Alankit Health Care TPA Limited
18	Health India TPA Services Private Limited
19	Good Healthplan Ltd.
20	Vipul Med Corp TPA. Pvt. Ltd.
21	Park Mediclaim TPA Private Ltd.
22	Safeway TPA Services Pvt. Ltd
23	Anmol Medicare TPA Ltd.
24	Dedicated Healthcare Services TPA (India) Private Limited,
25	Grand Healthcare Services TPA Private Limited
26	Rothshield Healthcare (TPA) Services Limited
27	Sri Gokulam Health Services TPA (P) Ltd.
28	I Care Health Maangement & TPA Services Pvt. Ltd
29	Spurthi Meditech TPA Solutions Pvt. Ltd.

TABLE 2 : TPA"s REGISTERED IN INDIA

1.10 HIPAA - Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996 was enacted by the United States Congress and signed by President Bill Clinton in 1996. It was sponsored by Sen. Nancy Kassebaum. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers.

HIPAA's Title I

HIPAA's Title I primarily involves group health insurance plans and their access. First, HIPAA ensures that a group health plan can't deny coverage or establish the amount of monthly premium based on individual's health status, which includes their medical history, genetic information or any disability they may have. This means, for example, that one will be offered the same coverage that their older, diabetic co-worker is offered, both at the same premium amount. Secondly, Title I establishes rules on how a group plan handles a pre-existing condition. Before HIPAA, there were many people who were completely denied health insurance based on chronic medical conditions, regardless of how well the condition was controlled. Today, thanks to HIPAA, group health insurance plans must follow rules regarding what's considered a pre-existing condition and how long they can exclude coverage for these conditions.

Specifically, under the HIPAA guidelines, the maximum amount of time that one has to wait in order to get coverage for pre-existing condition can't exceed 12 months, or 18 months for late enrollees (someone who doesn't enroll during general open enrollment). However, most of us those who go from one job's group insurance plan to another without a break won't have to endure an exclusion period at all. In these cases, HIPAA uses what's known as "credible coverage" in order to reduce, or eliminate, this pre-existing condition exclusion period. "Credible coverage refers to any health care insurance one had before their new insurance plan as long as it wasn't interrupted by a period of 63 or more days. This time period can be longer depending on individual's state laws and the type of insurance plan you they were on.

In addition to governing group insurance plans, HIPAA has some power over individual insurance plans. In cases where someone moves from a group plan to an individual plan, an "eligible individual" can't be denied health coverage or given pre-existing condition exclusion. To qualify as an eligible individual one must have been covered by a group health plan for a minimum of 18 months without a 63-day break in coverage.

2. RATIONALE OF STUDY

Health insurance in a narrow sense would be ‘an individual or group purchasing health care coverage in advance by paying a fee called premium.’ In its broader sense, it would be any arrangement that helps to defer, delay, reduce or altogether avoid payment for health care incurred by individuals and households.

The Privatization in healthcare sector in India is reflected on the insurance sector as well in the form of Cashless Hospitalization. The hospitals are in network of many TPA’s or insurance companies. For a patient to avail cashless services, the provider hospital must be in his/her TPA network. They process the cashless claims for their network TPA’s. The model is aimed at settling transaction claims between the hospital’s and TPA’s.. The business model is largely based on networking and patient satisfaction fort both TPA’s as well as hospitals.

In processing cashless cases, the time taken for information exchange is the major factor in ascertaining the success of such a model. Not only for the patient’s benefit, but for increasing hospital’s patient turn over as well, the time for such transactions should be minimized in the best possible way.

This study aims at reviewing two models – the conventional and the HIT service model for cashless claim processing and ascertain how much value one adds p=over another to judge which model is best suited with due justification.

3. PROBLEM STATEMENT

Cashless insurance processing is a facility for the patient and a transaction for the hospital and TPA. This transaction is based on a valuable exchange of information of the patient, his condition and treatment undergone at the hospital.

To start the cashless process, initially a set of patient/claimant related information is to be sent to the TPA’s which is scrutinized and matched to the TPA records, following which the reply comes to the hospital that the process has been initiated and an initial approval amount is authorized for the patient.

FIGURE 6 : HEALTH INSURANCE CLAIM PROCESSING WORKFLOW BROAD VIEW

STEPS FOR CASHLESS HOSPITALIZATION

When a patient comes to the hospital, after consultation he.she might be advised for admission, or the patient may be coming directly for admission. In order to avail a cashless facility the patient is directed to the health insurance department.

Here the patient is explained about the entire cashless hospitalization formalities. The patient is also educated about the possible conditions from TPA side which may be there and would be known only after TPA response, these are –

a) Co payment
b) Room Rent eligibility
c) Possibility of denial
d) Non medical expense not covered
e) Option of reimbursement
f) Documents required for processing

It is important to counsel the patient on these parameters in order to avoide any havoc and violent situation in future. The patient would be informed about the possibilities and would understand the situation if already educated.

Once counseling is done, the required documents are furnished to the insurance department for processing. Along with the documents the patient/attendant fills the Pre Authorization form which incorporates the Demographic details, Medical details and the billing details. After that, the information is sent to the TPA.

Following diagram summarizes the workflow at the time of initiation of cashless procedure.

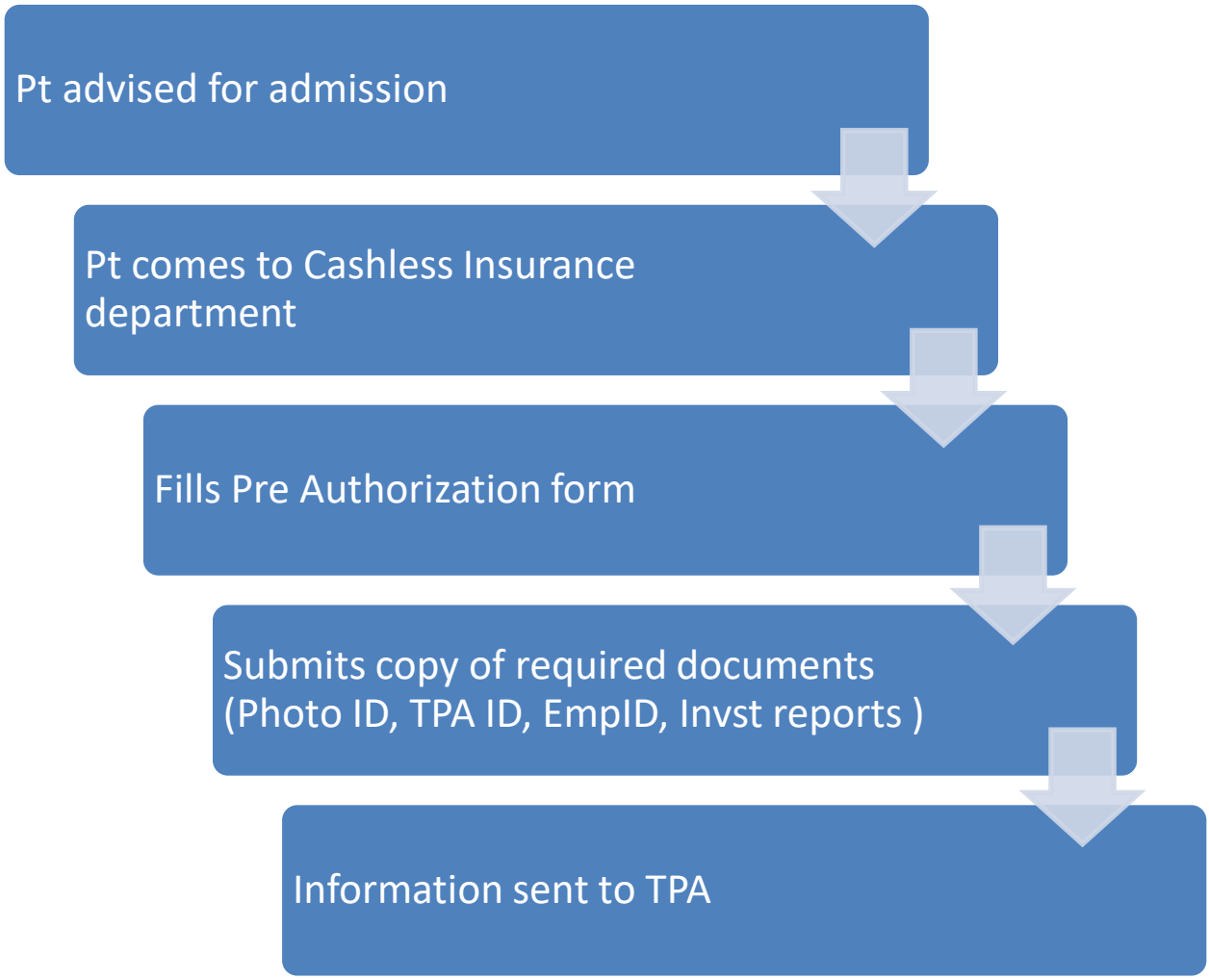

FIGURE 7 : STEPS FOR CASHLESS HOSPITALIZATION

Pre-Authorization form

To initiate the cashless admission process, the patient/attendant first fills the Pre authorization form of the respective TPA. It consist of following –

1. Demographic details –
    - Patient's Name
    - Age
    - Gender
    - TPA Name

- TPA number
- Policy Number
- Corporate Name
- Employee Id Number
- Address
- Mobile Number

2. Medical Details
    - Chief Complaints
    - Duration
    - History of Presenting complaints
    - Relevant clinical findindgs
    - Proposed Line of Treatment
    - Provisional diagnosis
    - Pre Existing diseases

3. Hospital/Billing Details
    - Date of Admission
    - Duration of stay
    - Expected date of discharge
    - Room type
    - Room rent
    - Treating Doctor
    - Estimated treatment cost

This exchange is not as simple as it seems. The documents pertaining the required information which are sent to the TPA at first interface with patient are –

- Patient Photo ID
- Patient TPA card ID/Policy papers
- Employee ID (corporate policies)
- Filled Pre Authorization form with Patient's demographic, medical and billing details.

- Positive Investigation reports(for Planned & Surgical admissions)

Once the information is furnished, the TPA takes some time to scrutinize the patient's information. After thorough studying the patient file, the doctors of thr TPA's authorizes that the patient can go ahead with cashless hospitalization. This is communicated to the hospital with an response letter sent by the TPA. The TPA can respond in either of the three ways –

1. **INITIAL APPROVAL**

   TPA's accepts the patient as their policy holder and gives a green signal to go ahead with the cashless process. They release a initial amount (always less than the estimation) as a sign of approval. Certain condition specific to the patient/claimant like 'Co – payment' and 'Room – rent eligibility' are also mentioned in the approval letter.

2. **DENIAL**

   The response may come as a Denial. It could me for any reason like either the patient dies not belong to that TPA; sum assured has been exhausted, Treatment not covered under policy etc.

3. **NEED MORE INFO**

   The TPA may ask for some more information before coming to a judgment for further clarification.

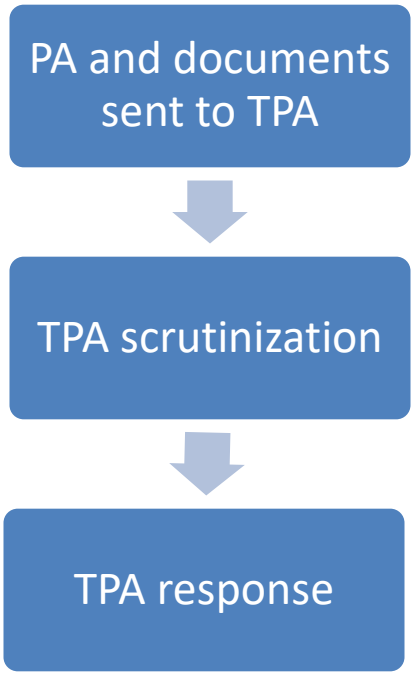

FIGURE 8 : STEPS FOR INFORMATION PROCESSING

4. MODE OF INFORMATION EXCHANGE

The factor determining the success and efficiency of the cashless procedure is the time taken in the initiation of the process. If the process isn't working within a satisfactory timeline, it fails to add value to the patient as well as the providers. Thus, the mode of exchange of the information between the two parties viz payers and providers, is the main factor for determining the time taken.

The hospitals provide cashless services to patients having policies of TPA's/insurance companies which are empanelled with them. When the patient initiates the cashless procedure, a set of documents with relevant information (as discussd ablove) is fursnished to the TPA. There are two models currently in use for facilitating such exchange of information. These are discussed below –

1. **Conventional Method**
   Hospitals use conventional techniques for passing information to the respectable TPA, such as –
   - Fax

- Email

The patient document are sent through fax or scanned and sent through e-mail to the respective TPA for processing. The TPA replies through the same mode.

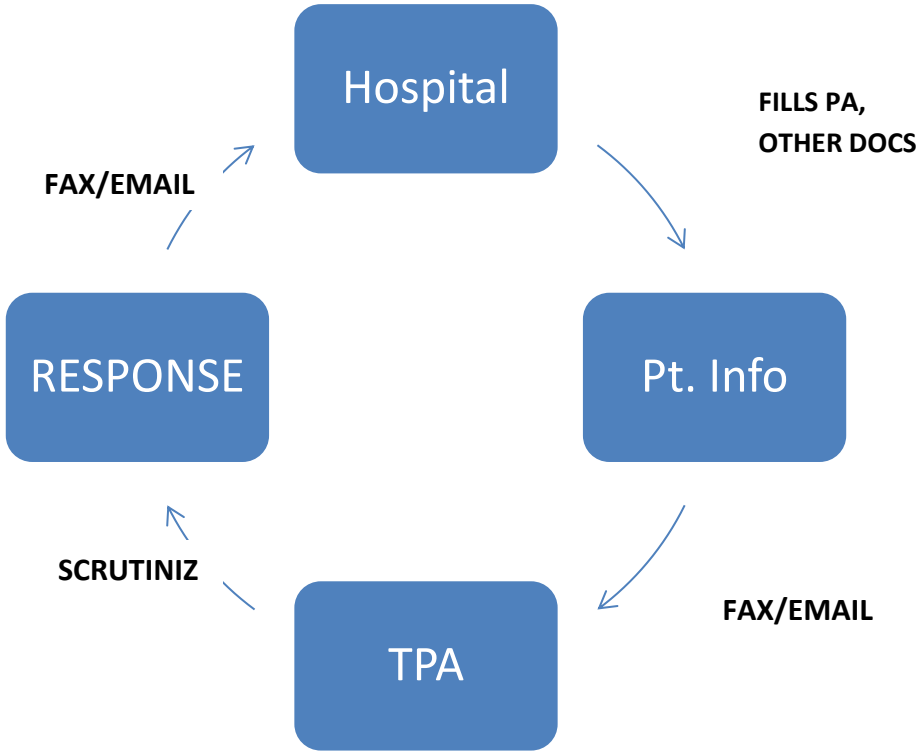

FIGURE 9 : CONVENTIONAL WAY OF PATIENT IFORMATION EXCHANGE

2. **Health IT service platform** – some hospitals have started using a speacialized health IT platform for exchange of patient information. For this to happen, both the hospital and the TPA should be using the same HIT platform. This platform is dedicated for health insurance claim processing and consists of features with which the claim cases can be monitored and updated. With such service real time information is sent to the TPA and TPA response also is received on the same.

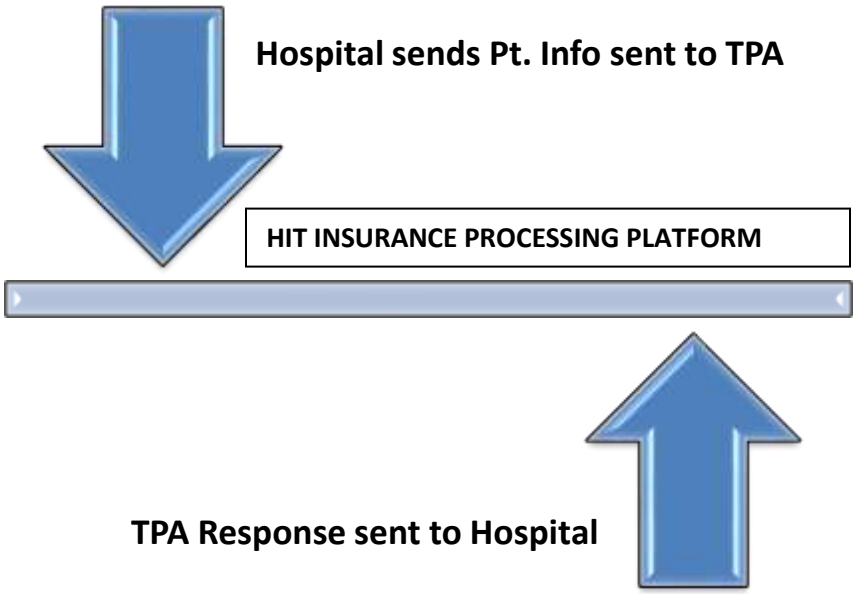

FIGURE 10 : PATIENT IFORMATION EXCHANGE THROUGH HIT PLATFORM

The platform is designed to process claim cases and monitor their status. It reflects how much time the response has taken. It shows the status of each case whether approved, denied or in query. The salient features of this platform are –

- It provides real time information
- It ensures the information is reached to the receiver instantly
- Patient data is preserved and can be pre fetched
- Transparency and clarity of process
- Data is transferred safely without chances of being missed or lost.

Below is shown a screenshot of the platform reflecting status of different cases -

Unprocessed | Processed | All Transactions

Mail	Ref ID	Patient	Hospital	TPA	Submit Time	Preauth Status	App Amt.
	SAS0111078217	RAMAKRISHNA	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	22/04/2012 02:03:PM	APPROVED	20000
	SAS0111080674	ANNAPURNA.N.SWAMY	Sagar Hospital,Tilaknagar,Bangalore	UNITED HEALTHCARE	22/04/2012 12:31:PM	SUBMITTED	0
	SAS0111080540	NEELIMA	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	22/04/2012 12:20:PM	SUBMITTED	0
	SAS0111079726	MUDITA	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	22/04/2012 12:08:PM	INFO SUBMITTED	0
	SAS0111078646	SAYED AHMED MECCI	Sagar Hospital,Tilaknagar,Bangalore	UNITED HEALTHCARE	22/04/2012 11:35:AM	ENHANCE	15000
	SAS0111075089	SACHIN DHAGAT	Sagar Hospital,Tilaknagar,Bangalore	ICICI Lombard, Healthcare	22/04/2012 10:33:AM	NEED MORE INFO	60000
	SAS0111080666	AMALORPAVA MARY SABEENA	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 07:41:PM	SUBMITTED	0
	SAS0111080431	HUCHIVEERE GOWDA	Sagar Hospital,Tilaknagar,Bangalore	DEDICATED HEALTHCARE	21/04/2012 07:28:PM	APPROVED	50000
	SAS0111078790	WALA MANGALORE	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 06:28:PM	ENHANCED	42959
	SAS0111078671	ARAVAZHI R	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 05:27:PM	ENHANCED	133475
	SAS0111080096	RAKESH	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	21/04/2012 04:28:PM	NEED MORE INFO	0
	SAS0111079664	SIRAZ SHAIK	Sagar Hospital,Tilaknagar,Bangalore	UNITED HEALTHCARE	21/04/2012 04:18:PM	APPROVED	35000
	SAS0111079741	MASTER AHON BISWAS	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	21/04/2012 03:58:PM	APPROVED	8000
	SAS0111075340	MOHAMMED SHAFAQATH KHAN	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	21/04/2012 03:35:PM	DENIED	20000
	SAS0111074956	VARADA B PARVATIKAR	Sagar Hospital,Tilaknagar,Bangalore	MEDIASSIST	21/04/2012 02:25:PM	APPROVED	70157
	SAS0111076716	DASARI SARITA	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 01:14:PM	ENHANCED	88435
	SAS0111076455	CHIKKA CHAMUDAHA	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 12:46:PM	ENHANCED	17089
	SAS0111068021	STELLA PEREIRA	Sagar Hospital,Tilaknagar,Bangalore	E-Meditek(TPA)Services Ltd	21/04/2012 12:21:PM	APPROVED	125000
	SAS0111078661	VARUNKUMAR	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 12:12:PM	ENHANCED	129639
	SAS0111079490	K.T.AJJARAYANA	Sagar Hospital,Tilaknagar,Bangalore	TTK HEALTHCARE	21/04/2012 12:01:PM	APPROVED	52000

FIGURE 11: SCREENSHOT OF HIT PLATFORM

ONLINE CASES

The cases which are processed through the HIT platform are known as Online cases. This means, that the TPA belonging to a particular case is also using the same HIT facility and hence information exchange is possible between them and the Hospital through this service.

OFFLINE CASES

The cases which are not processed through HIT platform are known as offline cases. This means that the TPA belonging to a particular case is not using the same HIT facility and hence some alternate mode of information exchange (like mail/fax) is used.

5. GENERAL OBJECTIVE

The study deals broadly with mapping of time taken for the information exchange of the patient between the hospital and the insurance company as it is the main determinant of the efficiency of the cashless facility.

6. SPECEFIC OBJECTIVE

- To understand Health insurance claim processing process with use of Health IT application.
- To study TAT in claim processing using different modes of information exchange.
- To ascertain impact of HIT service on TAT of claim processing.

7. DATA AND METHODS

7.1 STUDY DESIGN

The study design is of quantitative approach. The data is collected observed and analyzed over time. With due consideration, data sets are compared to reach a significant conclusion.

7.2 DATA COLLECTION TECHNIQUES

- Daily cases processed for health insurance claims through online as well as offline TPA's were noted in the Online/Offline TAT form - Annexure
- Time mapping of each case from initiation of information exchange till response of TPA was noted over the HIT application for both online as well as offline cases.
- Data from 1 Hospital for a period of 2 months was collected and analyzed.
- The data was scrutinized to determine the TAT for each case and pre determined ranges were set as standard.
- Quantitative analysis of TAT of 168 cases was followed out using Ms Excel and SPSS tools.
- The TAT for online and offline cases was observed, determined and compared

7.3 ANALYSIS TECHNIQUES

- Data analysis was done on SPSS tool using relevant statistical methods to reach to significant findings.
- Standard Deviation –
- Standard Mean Error -

7.4 SAMPLE SIZE

- Over a period of 1 month a total of 166 case samples (83 offline samples and 83 online samples) were collected and analyzed.
- The cases have been selected on purposeful sampling technique. Cases which were processed for surgical management only, were selected.

7.5 ASSUMPTIONS

- The time of initiation and response time for offline cases were meticulously done by the domain specialist.
- The delay of more than 10 hours in online cases is due to either late evening submission for processing or delays in producing policy paper by the patient/attendant.

8. RESULTS AND FINDINGS

A total of 166 cases of health insurance claim process for cashless hospitalization were analyzed. Out of which –

- Online cases – 83
- Offline cases – 83

The TAT for TPA response was compared within a pre defined range of –

- 0 – 2 hours
- 2 – 4 hours
- 4 – 6 hours
- 6 – 10 hours
- >10 hours

The idea is to assess which mode of information exchange facilitates maximum cases in least possible TAT (i.e. 0-2 hours)

With application of SPSS and statistical tests (Paired T-Test) following findings were observed –

ONLINE CASES

TAT	Frequency	Percent
>10 Hrs	10	12.0
<2 Hrs	55	66.3
B/w 2 to 4 Hrs	12	14.5
B/w 4 to 6 Hrs	4	4.8
B/w 6 to 10 Hrs	2	2.4
Total	83	100.0

TABLE 3 : TAT OF ONLINE CASES

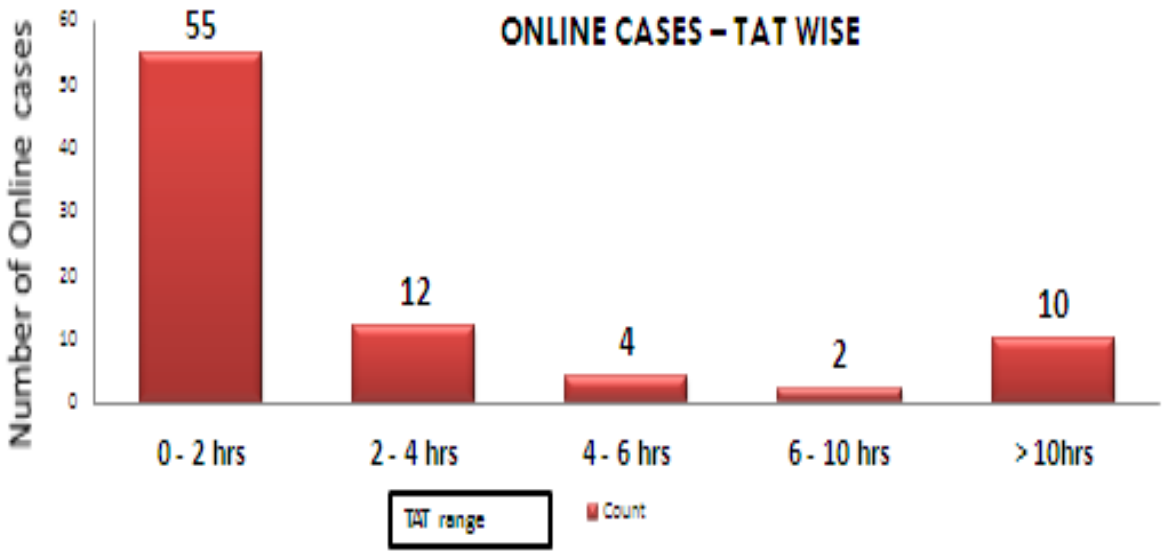

FIGURE 12 : COUNT OF ONLINE CASES TAT WISE

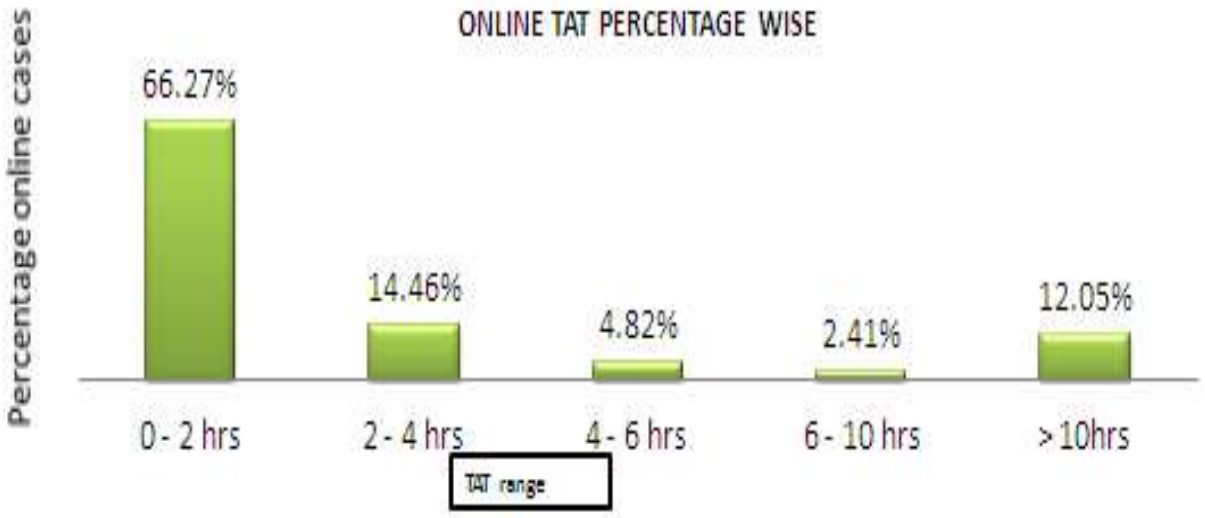

FIGURE 13 : PERCENTAGE OF ONLINE CASES TAT WISE

It shows that for Online cases out of 83, 10 cases were processed in a maximum time of more than 10 hours which is about 12% of total cases, whereas 55 cases i.e 66% were processed within 2 hours time. There were 12 cases for which TAT varied in a range of 2 to 4 hours, on the other hand only 4 cases were responded within 4 to 6 hours. Lastly. Only 2% cases took 6 to 10 hours to get the response.

OFFLINE CASES

TAT	Frequency	Percent
>10 Hrs	65	78.3
<2 Hrs	7	8.5
B/w 2 to 4 Hrs	6	7.2
B/w 4 to 6 Hrs	3	3.6
B/w 6 to 10 Hrs	2	2.4

TAT	Frequency	Percent
>10 Hrs	65	78.3
<2 Hrs	7	8.5
B/w 2 to 4 Hrs	6	7.2
B/w 4 to 6 Hrs	3	3.6
B/w 6 to 10 Hrs	2	2.4
Total	83	100.0

TABLE 4 : TAT OF OFFLINE CASES

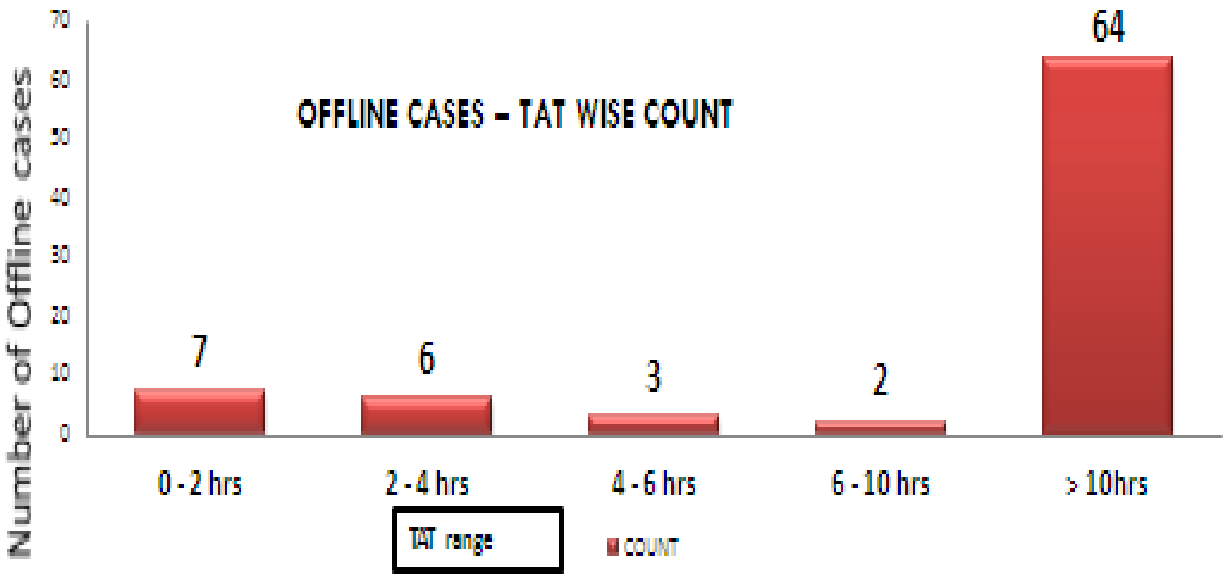

FIGURE 14 : COUNT OF OFFLINE CASES TAT WISE

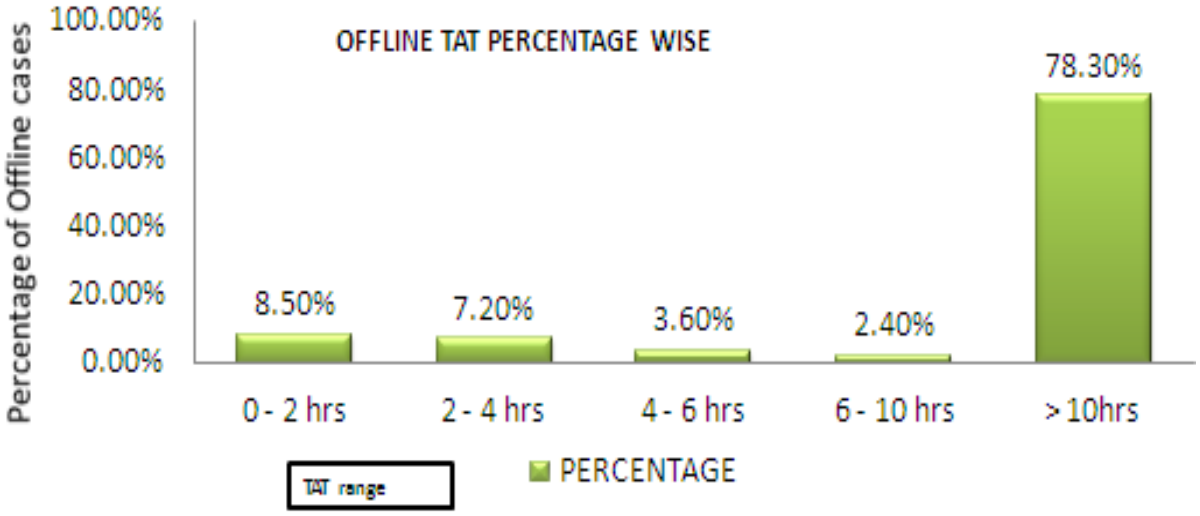

FIGURE 15 : PERCENTAGE OF OFFLINE CASES TAT WISE

It was observed that for offline cases, 2.4% of cases took a processing time of 6 to 20 hours and 3 cases were processed within 4 to 6 hours. Also, it was seen that 6 cases out of 83, were reverted in a TAT ranging between 2 to 4 hours. Whereas, on one hand it was seen that o78% of cases, i.e 65 cases out of 83 had a response time of more than 10 hours, a minimal percentage of 8% i.e only 7 cases had a TAT within 2 hours of processing.

With application of SPSS it was observed –

Statistics

		Offline TAT Category	Time in Minutes (Online)	Time in Minutes (Offline)	Online TAT Category
N	Valid	83	83	83	83
	Missing	0	0	0	0
Mean			149.30	1282.36	
Std. Error of Mean			23.753	95.876	
Std. Deviation			216.399	873.473	

TABLE 5 : SPSS ANALYSIS TABLE

With further analysis, it came into light that the mean of 83 online cases comes out to be 149 minutes (approx 2.5 hours). This means that on average online cases will take 2.5 hours of TAT.

Whereas, for Offline cases, the mean was found out to be 1282 minutes, (approx 21 hours), meaning that to process offline cases, on an average 21 hours TAT is seen.

The standard deviation for online cases TAT is 216.3 and that for offline cases TAT comes out to be 873.4 and the standard error of mean for online is 23.7 and that for offline is 95.8.

9. DISCUSSION

It is seen that in cases of cashless hospitalization time is the major factor for hospitals as well as patients. For hospitals, it is the way to initiate patient treatment with a known source of cashier, i.e. the TPA, Additionally, the faster the process, higher is the patient turnover in an indirect manner.

On the other hand, for patient, time is the factor of great apprehension and frustration. The patient is most eager to get the TPA response as early as possible, to be assured that the hospitalization bills will be covered by the insurance company and he/she need not arrange monitory support.

Therefore, a significant low TAT is one of the value features of a hospital to achieve patient delight.

With this clarity, as the study has analyzed, use of Health IT services in providing a real time information exchange platform, is the best possible means of achieving the desired TAT and hence add value to provider services and patient satisfaction.

10. CONCLUSIONS

With the above discussion, we can conclude that the use of HIT services in insurance sector adds a greater value over the existing conventional methods by reducing tat TAT for health insurance claim processing.

Following observations are discussed -

Conventional method -

- Time consuming with high TAT results
- Not reliable – information (esp fax) may not reach the other party, no assurity.
- Clumsy and massive file storage of patient information.
- Not defined workflow

HIT service platforms

- Real time exchange of information
- Achieves desirable TAT for maximum cases
- Information loss is avoided
- Reliable source of exchanging information
- Easier, safer and sustainable model
- Patient information saved electronically for future refrence
- Adds technological quotient to provider image, brand enhancement
- Paperless web enabled services – eco friendly

11. LIMITATIONS

- The adherence to the confidentiality clause of patient information according to HIPPA, needs to be tested.
- TPA network limited to some major TPA's only.
- Lack of trained manpower
- Case selection limited to surgical cases.
- No relevant study in past on similar subject found, hence limitation on literature review.

12. RECOMMENDATIONS

- Standardized HIT services for easy data exchange
- Increasing awareness among hospitals in utilization of HIT services for claim validation and its affect in TAT.
- Broaden TPA and provider network for wider coverage
- Trained manpower for increasing efficiency

- Confidentiality, Security and other regulatory framework to be formalized by the government for such platform exchange.
- Checks and balances for proper utilization of RBAC to ensure justifiable access to sensitive patient information.

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CASE STUDY

"A study on High Attrition Rate in Health Insurance sector – HealthSprint a case"

OBJECTIVE

- To find out possible reason of high attrition of Domain Specialists in health insurance sector and propose feasible solutions.

INTRODUCTION

As the insurance industry is emerging and evolving at an expansive rate in India, it has created a vast area of scope of employment nationwide. With changing trends in economy and increasing awareness on healthcare it has become one of the prime areas of concern. The GDP spending on Health care is planned to be raised to 2.5% by the end of 12th five year plan. The Health insurance market is going to invade across country in an explosive manner soon. There is a large section of untapped population, still unaware and away from the health insurance benefits, giving a lead and plenty of opportunities to the investors to barge in. The current Indian population coverage over insurance is less than 15%, therefore the industry is going to expand manifolds.

HealthSprint is a Healthcare IT services company founded in May 2006. It has formulated clear business programs in healthcare, and implemented one revenue generating use scenario " Web enabled In - patient insurance Claims Management Network" .This model is the main attribute of the "Payer – Provider Network" that HealthSprint aims to create all over the nation. The web service is based on the application names 'i-sprint' which is used for Health insurance claim processing for authorizing patient's cashless hospitalization.

ORGANIZATION STRUCTURE

The organization has different departments that ensure smooth working of this process

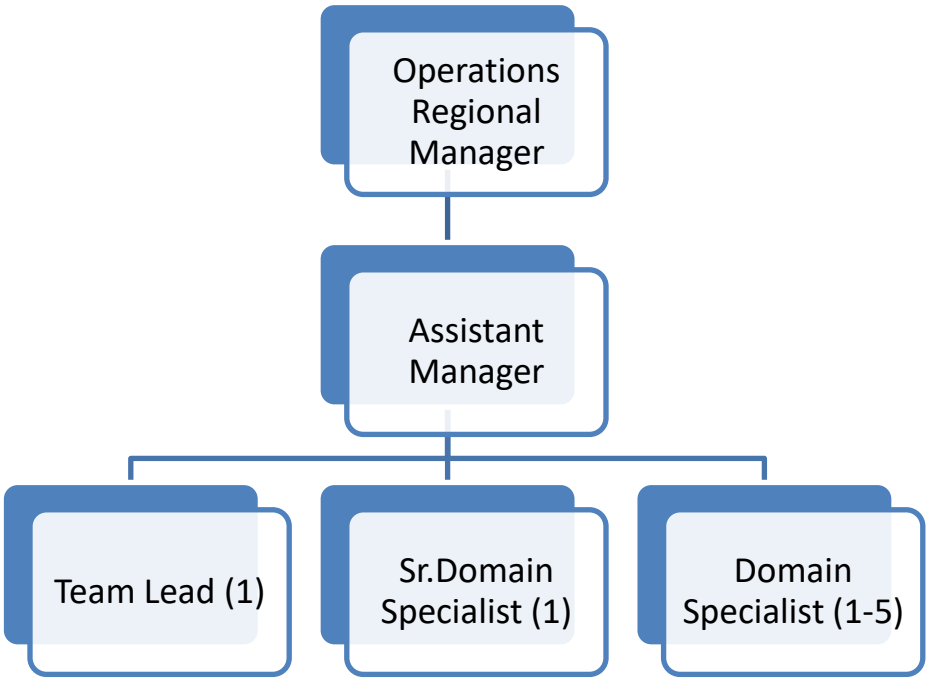
1. Operations Department

2. Implementation department

3. Customer Relationship Department

4. Technical Department

The main concern here lies with the OPERATION DEPARTMENT. It is headed by the Regional Manager for Operation, under whom several assistant managers are reporting. Each assistant manager is accountable of a zone and all the hospitals falling under that zone (usually 10 – 17)In each Hospital there is a team of Domain specialists deployed who reports to the concerned manager. Each manager has to monitor and lead a team of Domain specialist.



PROBLEM STATEMENT

Currently the organization is facing high attrition rate among the Domain Specialists across hospitals. The shortage of manpower is a serious matter of concern to the management.

DOMAIN SPECIALISTS

QUALIFICATION– Medical background (BDS/BHMS/BAMS/BPT)

Role & Responsibilities - The domain specialist are the front face of HealthSprint army. They are deployed at the hospital site and performing all key activities of health insurance claim processing for patients. Interacting with patients, collecting relevant information and sending across to TPA, following up with TOA, enhancing claim amount, validating information before processing etc

METHODOLOGY

For assessing the main reasons for high attrition rate among domain specialists deployed in health insurance sector, the data from HealthSprint Human Resource department was fetched. It provided following information

Sample Size – 20 cases of resignation over a period of 3 months for the post of Domain Specialist were recorded and analyzed.

Data Type - Secondary

Data over a period of 3 months was collected where the reasons of resignation had been mentioned during exit interviews and recorded. Data Analyzed with the help of MS Excel. The analysis was done solely on the reason of separation from the organization.

OBSERVATION

By analyzing the exit interview data, the common reasons for separation of DS from the organization were –

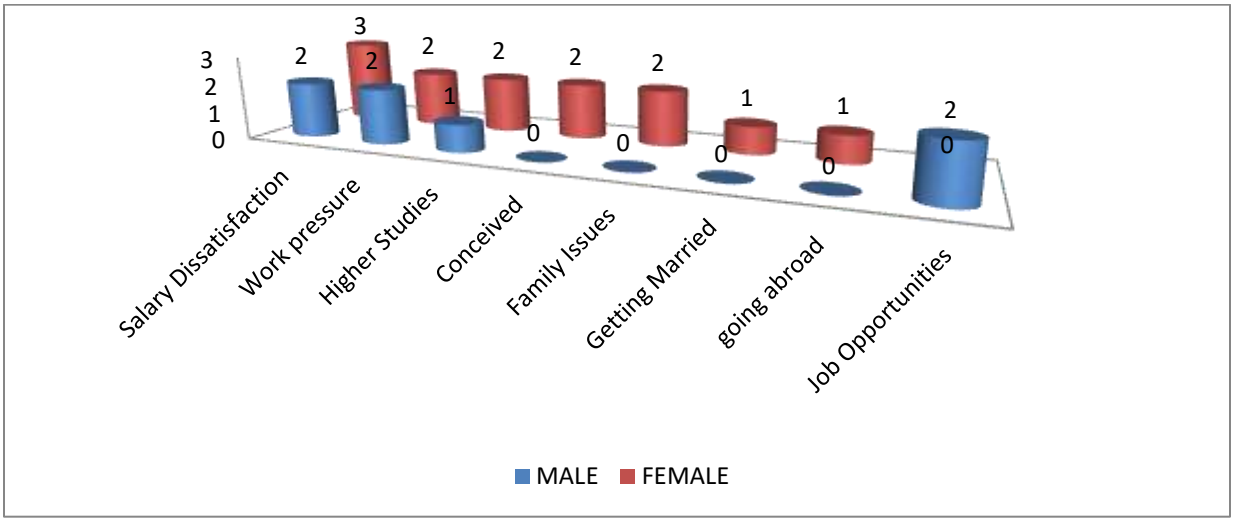
- Salary Dissatisfaction
- Work pressure
- Higher Studies
- Candidate Conceived
- Family Issues
- Getting Married
- going abroad
- Job Opportunities

The distribution of these reasons can be seen as –

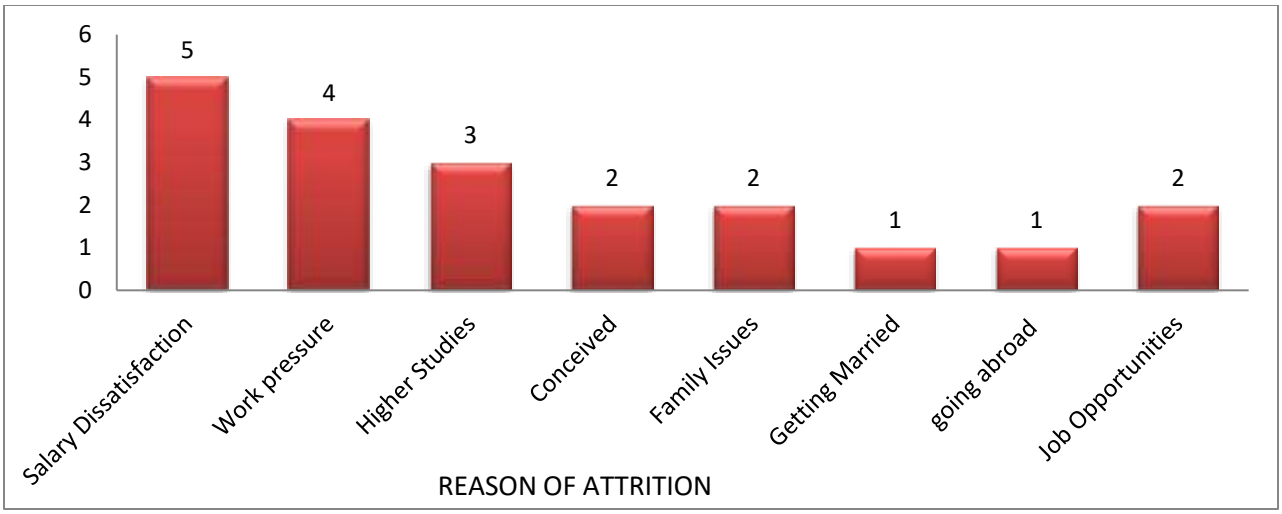
S.NO	REASON	MALE	FEMALE	TOTAL
1	Salary Dissatisfaction	2	3	5
2	Work pressure	2	2	4
3	Higher Studies	1	2	3
4	Conceived	0	2	2
5	Family Issues	0	2	2
6	Getting Married	0	1	1
7	going abroad	0	1	1
8	Job Opportunities	2	0	2
	TOTAL	7	13	20

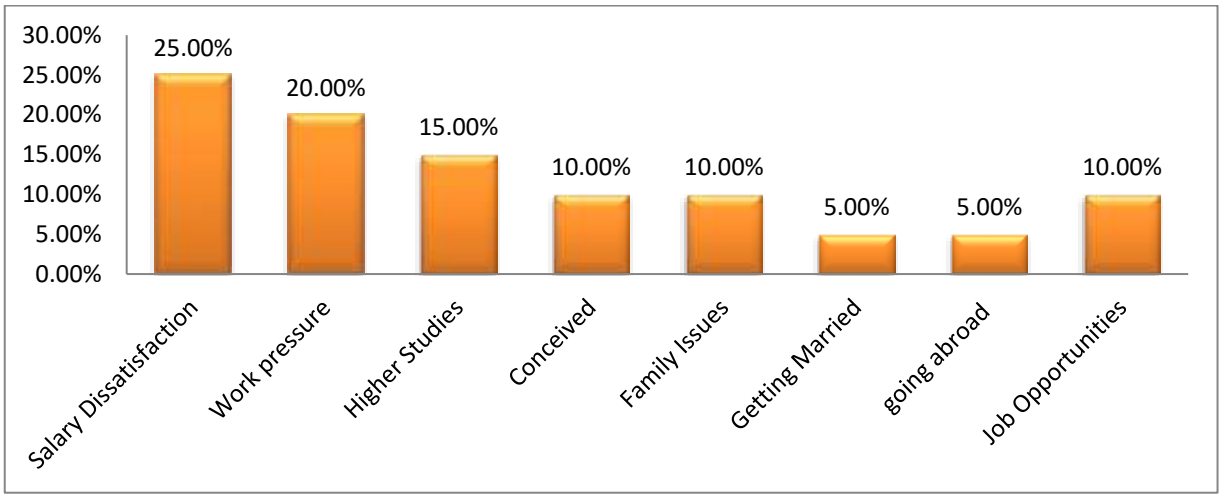
RESULTS AND FINDINGS

After analyzing the data on MS Excel following results and findings were observed.



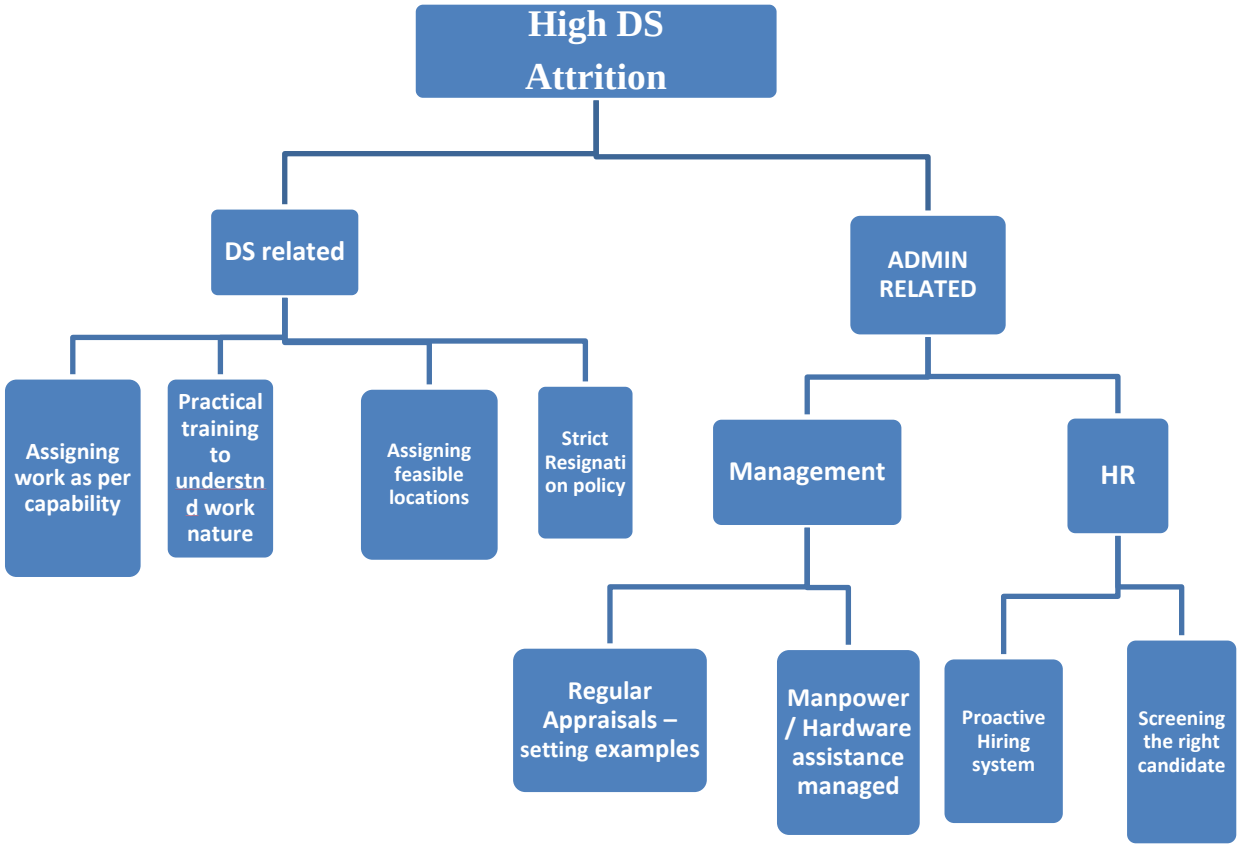
The graph shows the comparison of reasons between male and female candidates. As the number of Female candidates is higher than males, likewise the problems are also encountered with females here. Some reasons, like ‘conceived’ are applicable to females only. Below, is shown the analysis result of the data. The graphical interpretation will yield the findings of analysis.





After analyzing the data it can be clearly seen that the most common cause of DS attrition is salary dissatisfaction, followed by work pressure. Higher studies also occur to be one of the prevalent reasons for the problem.

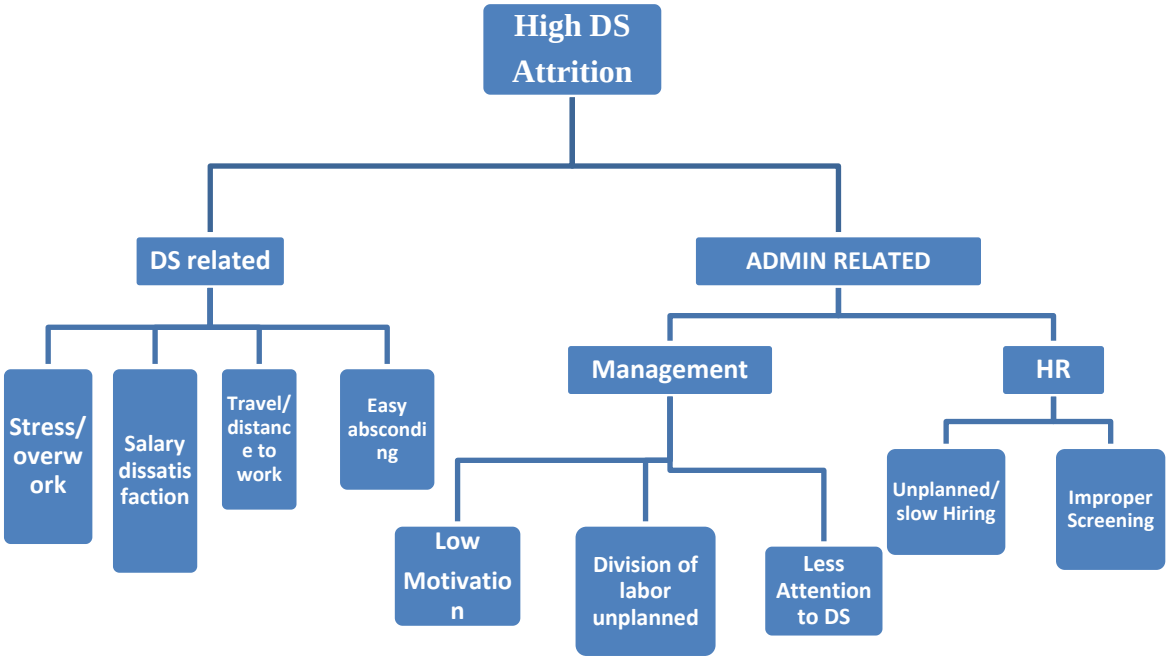
A **Problem tree (WHY WHY ANALYSIS)** shows the possible reasons at all levels -



RECOMMENDATIONS

Post graphical analysis, after recognizing all possible management errors leading to the problem, a solution analysis charting was done proposing possible corrective measures to solve the problem at each level. The solution requires management and employee understanding of the gravity of situation as well as mutual coordination and cooperation.

- A revised salary structure for domain specialists
- Planned division of labor
- Continuous motivation
- Regular hikes and appraisals



CONCLUSION

There are few prominent reasons which lead to DS attrition like Salary dissatisfaction, high work pressure and opportunities for higher studies. But this can be dealt to some extent if the current loopholes in the management are taken care of.DS attrition at the existing pace is a major problem and can severely impact the smooth function of organization. Hence, string corrective actions, as charted in the solution tree, have to be taken.

LIMITATIONS

- Only 3 months data was available therefore sample size is small.
- Data was not captured in a structured way by the HR department (Secondary data).
- Reliability of data is unsure as secondary.

ANNEXURE - 1

DATA ON ATTRITION

Sl. No	Name of the employee	Designation	Department	Reasons for Separation
1	Shilpa.V	Domain Specialist	Operations	Getting Married
2	Kamal Kumar	Domain Specialist	Operations	Salary Dissatisfaction
3	Lakshmi	Domain Specialist	Operations	Higher Studies

4	Ravishankar	Domain Specialist	Operations	Higher Studies
5	Sadia Tazeen	Domain Specialist	Operations	Going Abroad
6	Rachana	Domain Specialist	Operations	Salary Dissatisfaction
7	Archana	Domain Specialist	Operations	Salary Dissatisfaction
8	Akila N Prasad	Domain Specialist	Operations	Higher Studies
9	Vinay Kumar Patil	Domain Specialist	Operations	Other job opportunity
10	Shilpa.Chandrashekat Ghanti	Domain Specialist	Operations	Salary Dissatisfaction
11	Surya pannikar	Domain Specialist	Operations	Family issues
12	Manohar	Domain Specialist	Operations	Salary Dissatisfaction
13	Rajeshwari PA	Domain Specialist	Operations	Family issues
14	Prabhakar Bhavigatti	Domain Specialist	Operations	Work pressure
15	Naveen Chakravarthi	Domain Specialist	Operations	Work Pressure
16	Sheetal	Domain Specialist	Operations	Work pressure

17	Sahana	Domain Specialist	Operations	Conceived
18	Gayathri	Domain Specialist	Operations	Conceived
19	Neha Singh	Domain Specialist	Operations	Salary Dissatisfaction
20	Sanjay	Domain Specialist	Operations	Salary Dissatisfaction