A Brief study of Health Insurance Claims

Dissertation Submitted to

For the partial fulfillment for the award of the degree of
Master of Business Administration (MBA) In Hospital and Health Management
Year 2021-23

By Uttara Dey

Under the Supervision and Guidance of

Dr. Goutam Sadhu

DECLARATION BY STUDENT

I hereby declare that this dissertation title* "A Brief study of Health Insurance Claims" ***is the Bonafede record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.***

(Signature)

Uttara Dey

CERTIFICATE

This is to certify that **Uttara Dey** in partial fulfillment of the requirements for the award ofthe degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur has successfully completed her/his dissertation at (TATA AIG, Hyderabad) during
22th Feb – 19th May, 2023.

Place - Hyderabad

Date:

Name of the Organization : **TATA AIG (Hyderabad)**

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I want to sincerely thank and appreciate each of the following people for their contributions during my time at TATA AIG. First of all, let me thank Sekharababu Padabukkala(Chief Manager) for his essential advice, help, and encouragement during the course of my stay. His guidance and leadership have played a crucial role in my professional development .

I would also like to thank my mentors, Sekharababu Padabukkala and Anil Aakhara, for providing me with advice and encouragement throughout my time at TATA AIG. I am grateful for their support; their expertise, talent, and commitment and these have served as a constant source of support and inspiration to me.

I also want to thank, Dr. Goutam Sadhu (Prof. and Dean Incharge) for helping and supporting me to reach my goals and endeavours

I also want to express my sincere gratitude to my respected university's Placement Cell for helping me with the internship application process and occasionally providing internship guidelines.

I view this chance as a significant turning point in my professional progress. To achieve my intended career goals, I will make every effort to use the knowledge and abilities I have acquired as effectively as I can. I will also keep working to make improvements.

Finally, I acknowledge my indebtedness to the CPMT members (Claims Team) and my respected Guide ofthe IIHMR University **Dr Goutam Sadhu**, Professor, for providing his constant support by guiding me throughout my dissertation period.

I would also like to thank all those who have directly or indirectly supported me toward the completion of this dissertation project.

Sincerely,

Uttara Dey

Roll no- 1436

MBA-HM (2021-2023)

LIST OF ABBREVIATION:

CA – Commercial Adjudicator

CPMT – Central Provider Management Team

DEO – Data Entry Operator

FY – Financial Year

GIPSA – General Insurance Public Sector Association

HR – Human Resource

IIHMR – Indian Institute of Health Management and Research

IRDA – Insurance Regulatory and Development Authority

NIA – New India Assurance

NIC – National Insurance Company

PMT – Provider Management Team

ROHINI – Registry of Hospital in Network of Insurance

TAGIC – Tata AIG General Insurance Company Limited

UIIC – United India Insurance Company

ABSTRACT

TITLE: A Brief Study of Health Insurance Claims

OBJECTIVES :

Study of operations : To understand data management in health insurance

To analyse various claims considering various factors for better services to customers.

INTRODUCTION : Insurance is a hedging against the unforeseen eventualities. Health Insurance is one such product which gives one a kind of financial protection, in case the insured falls sick and gets hospitalized. If the person is suffering some chronic disease like diabetic, hypertension, asthma etc, then the chances of hospitalization increases. One of the best modes of financing for healthcare expenses is Health Insurance. As on date, most of the health insurance products cover only the hospitalization expenses. That is, the insurance company or the insurer will bear the financial burden only if the insured is hospitalized. The standard condition is the patient has to be hospitalized for at least 24hours to get the health insurance benefits.

Need Of the study :

To get a brief knowledge about Health Insurance.

To study the secondary data of claims

METHODOLOGY:

STUDY DESIGN : Descriptive study

STUDY SETTING: TATA AIG , Hyderabad

STUDY POPULATION : Customer , Provider(Hospital)

DURATION OF STUDY : 20th March to 24th May 2023

DATA COLLECTION PROCEDURE : Secondary.

TABLE OF CONTENT

ACKNOWLEDGEMENT 4
LIST OF ABBREVIATION: 5
ABSTRACT 6
TABLE OF CONTENT 7
Chapter :1 INTRODUCTION 8
Chapter:2 METHODOLOGY 21
Chapter:3 RESULTS OF THE STUDY 22
Table:1 Room charges 22
Table:2 ROOM UTILIZATION 23
Table:3 Diagnosis @ same city 24
Table :5 Lap Cholecystectomy 25
Table:6 Lap Appendectomy 25
Table:10 Age Group claims @ Top 10 States 29
Table:11 Age @ claims 31
Table:13 Claimed Amt range Vs Claim type 32
Table:14 CLAIM AMOUNT THRESHOLD WARNING LIMIT [50 L-1Cr] 33
DISCUSSION 34
CONCLUSION AND RECOMMENDATION 35
REFERENCES **36**

Chapter :1 INTRODUCTION

1.1: INSURANCE:

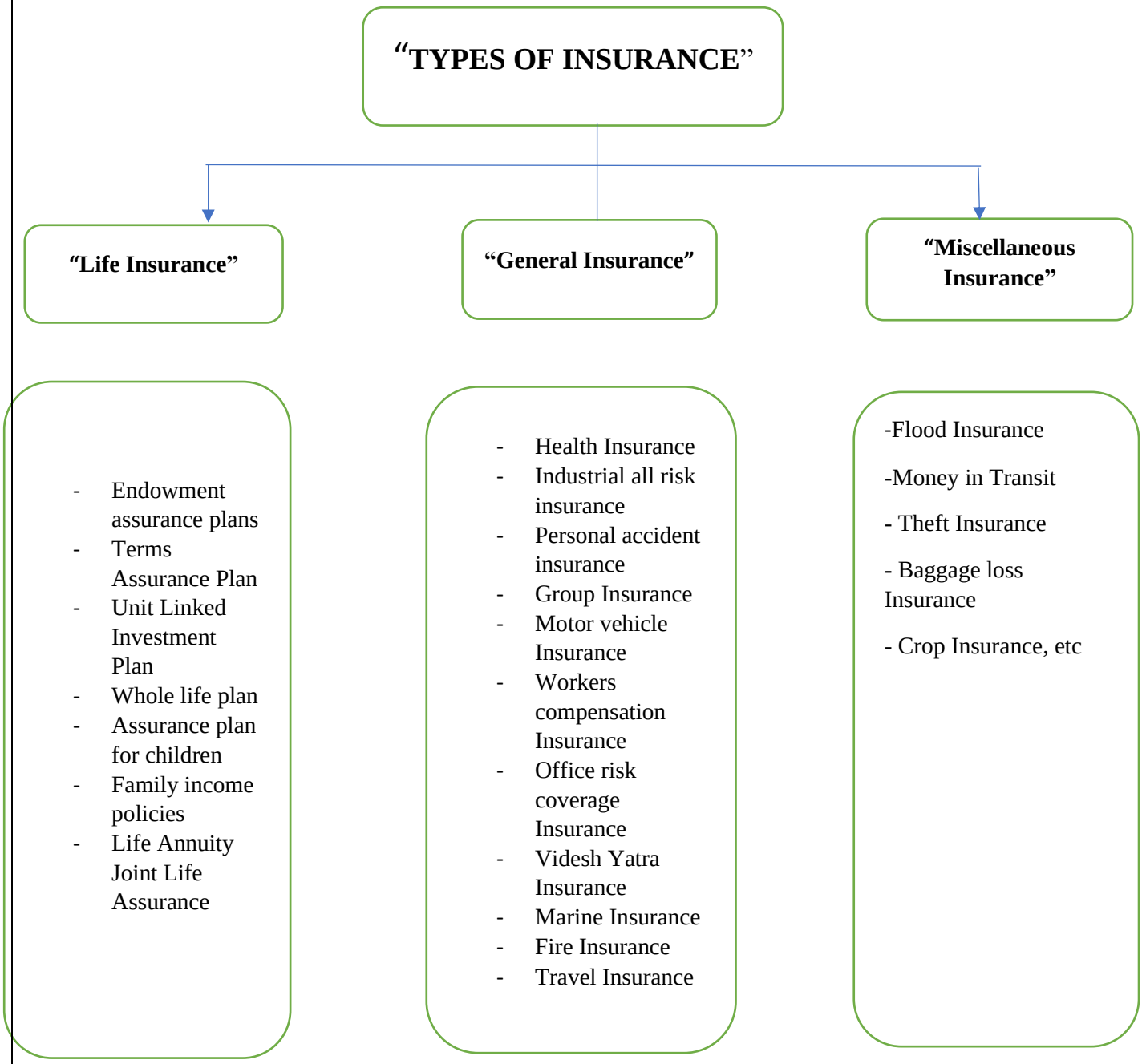
A contract providing insurance safeguards a single individual from damage or loss caused by an unforeseen occurrence. To indemnify anyone is to make them whole by putting them back in the same financial situation as before the loss. All insurance functions a person shares risk with a group of others under the basic concept of risk transfer. A person shares risk with a group of others by getting insurance.

A person buys an insurance policy to protect himself from risk. The insurance provider (the insurer) agrees to provide the insured beneficiary with a set amount (the benefit) upon the occurrence of an established event in exchange for the insured (Owner of the policy) paying the insurance company (the insurer) an agreed upon amount (premium)

The insurance company and the individual enter into a legal agreement known as insurance in which the insurance company guarantees to make up for any financial losses caused by insured eventualities in exchange for the premium that is paid by the insured person.

In today's culture, insurance is crucial. The majority of people can purchase insurance coverage for a fair price due to the sharing or pooling of numerous identical risks.

In compensation for the premium that is paid by the insured person, the insurance provider promises to reimburse the individual for any financial damage close down by insured events. This legal structure is referred to as insurance. In the social environment of today, insurance is fundamental. Due to the combining of or pooling of multiple similar risks, a large number of people are capable to get insurance coverage for an affordable price.


"TYPES OF INSURANCE"
"Life Insurance"
"General Insurance"
"Miscellaneous Insurance"
- Endowment assurance plans
- Terms Assurance Plan
- Unit Linked Investment Plan
- Whole life plan
- Assurance plan for children
- Family income policies
- Life Annuity Joint Life Assurance
- Health Insurance
- Industrial all risk insurance
- Personal accident insurance
- Group Insurance
- Motor vehicle Insurance
- Workers compensation Insurance
- Office risk coverage Insurance
- Videsh Yatra Insurance
- Marine Insurance
- Fire Insurance
- Travel Insurance
-Flood Insurance
-Money in Transit
- Theft Insurance
- Baggage loss Insurance
- Crop Insurance, etc

1.2: INTRODUCTION TO HEALTH INSURANCE

Loss or expenses arising from illness or accident are protected by health insurance. Health insurance is a legal contract that promises an insurer to cover all or an amount of the medical costs of an individual in exchange for a premium. In particular, medical, surgical, and prescription drug costs are often covered by health insurance. It safeguards a person from experiencing a financial loss as a result of an accident, disease, or disability for themselves or their family.

A serious injury caused on by an unanticipated and accidental event is referred to as an accident. The loss brought on by an illness or disease is referred to as sickness. As a result, there has been a substantial rise in the number of people obtaining health insurance coverage in the whole country in recent years.

1.3: HISTORY OF HEALTH INSURANCE

The government sector has been the backbone of the entire healthcare system, including insurance and healthcare delivery, since India's independence in 1947. The most prevalent kind of insurance in India is life insurance, with which the word "insurance" his most frequently connected. This is because life insurance has long been presented as a tax planning instrument due to the short lifetime and close-knit family structure, which made individuals primarily demand financial security.

Prior to liberalisation, the provision of healthcare had only achieved minor progress. Equipment, methodology, and progress exchange in the delivery of healthcare from industrialised nations, however, became more common after the liberalisation of the economy in 1991. By 2011, the average life expectancy was 65 years, owing to developments in healthcare and a rise in financial freedom. The law creating the Insurance Regulatory and Development Authority (IRDA) in 2000 signified an important turning point in healthcare insurance. Private businesses are now able to enter the health insurance market.

1.4: NEED OF HEALTH INSURANCE

For pre-payment and risk pooling : in return for making payments while they are healthy, individuals or families make utilize the same insurance fund to pay for their medical expenses when they fall ill.

"To fight lifestyle diseases: lifestyle diseases are particularly prevalent in people under the age of 45. The tectonic shift in our way of life has increased our susceptibility to a range of illnesses. Stressed-out work schedules, bad eating habits, poor food quality and rising pollution levels have all increased the chance of developing health problems. Diseases including diabetes, obesity, respiratory issues, and heart disease that are common in the older population are now equally common in younger people. While taking preventive steps can help with the management and prevention of some illnesses, it can be difficult to deal with the financial fallout from an unplanned catastrophe.

To deal with medical inflation: Because they have significantly increased recently, it's important to understand that medical expenses are not only tied to hospital bills. The cost of OPD charges, such as those for doctor consultations, diagnostic tests, ambulance fees, medicine room rent, etc., is increasing in addition to the expense of conventional medical care. If we are not financially prepared, all of these could place a great deal of pressure on us. In the event often unforeseen medical bill, customers does wind up using their assets, which has an impact on their future plans.

To protect one's savings: A sudden sickness can we mentally draining but managing health issues has another aspect-the costs-that can tire anyone. By acquiring quality health insurance coverage, one is able to control their healthcare expenses without spending all of their money.

Added benefits: Some insurance companies offer a few extra advantages as a part of their health plans, including coverage of things like maternity charges, second opinions, alternative therapy fees, and others.

No claims bonus: If the insured hasn't made any claims in a year they might get a bonus when the insurance is renewed. The annual sum insured gates raised by a percentage of the sum insured for every single renewal.

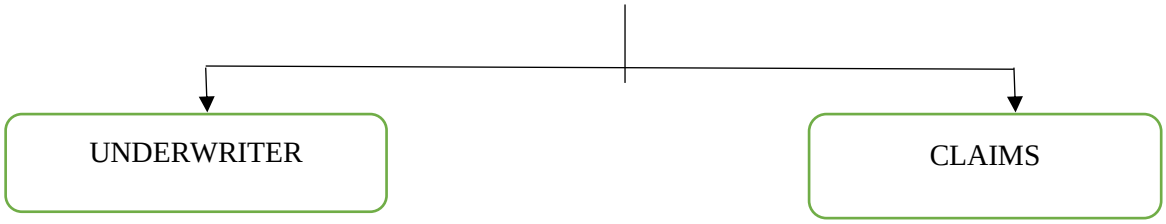
Family health protection: Not just the insured but also immediate family members' dependents like your children, spouse, parents, and siblings can have a health policy. In this way, one can take proper care of the health of their loved ones with the right health insurance plans.

There are 7 principles of Insurance

- Principle of utmost good faith
- Principle of Insurance Interest
- Principle of Indemnity
- Principle of subrogation
- Principle of contribution
- Principle of Proximate cause

Therefore, a thorough understanding of these principles is essential for a clear interpretation of insurance contracts. It also facilitates hey contract termination, claim settlement, rule enforcement, and the swift delivery of judgments in cases of disagreement. These ideas form the cornerstone upon which insurance contracts are based.

PROCESS UNDER INSURANCE



UNDERWRITER :

The process of acquiring and evaluating data from a proposer for risk evaluation is known as underwriting. Based on the facts gathered during this procedure, they decide whether or not they want to insure a proposal (client). Based on the idea of morbidity, health insurance applies the risk selection and pricing mechanism.

CLAIMS :

The claim process is a formal request to the insurer (the insurance company) by the insured(policyholder) to compensate for the covered loss or the event. The insurance company valuate the loss and approve the amount to be paid.

1.5: NEED OF UNDERWRITING

Insurance companies will become insolvent if they accept risk without due consideration or for insufficient premiums.

↓

The underwriter's responsibility is to categorise the risk and determine the terms of acceptance at a reasonable price.

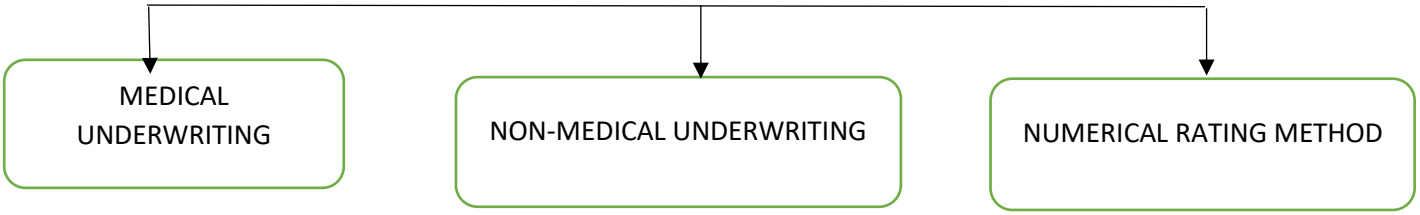
↓

Optimal balance between risk and business, sustaining the organisation's competitiveness and profitability.

1.6: FACTORS WHICH AFFECT MORBIDITY

- AGE
- PHYSICAL BUILD
- "CURRENT HEALTH STATUS AND OTHER FACTORS"
- GENDER
- FAMILY HISTORY
- "ENVIRONMENT AND RESIDENCE"
- HABITS
- OCCUPATION

UNDERWRITING PROCESS



MEDICAL UNDERWRITING

Medical examinations are done to evaluate the health status of an individual.

Depends upon age, health status and sum assured.

People in the age group of 45-50 years normally have to undergo medical tests.

Diagnostic test influence by sum assured and age.

“The cost of obtaining and reviewing the medical reports is substantial.

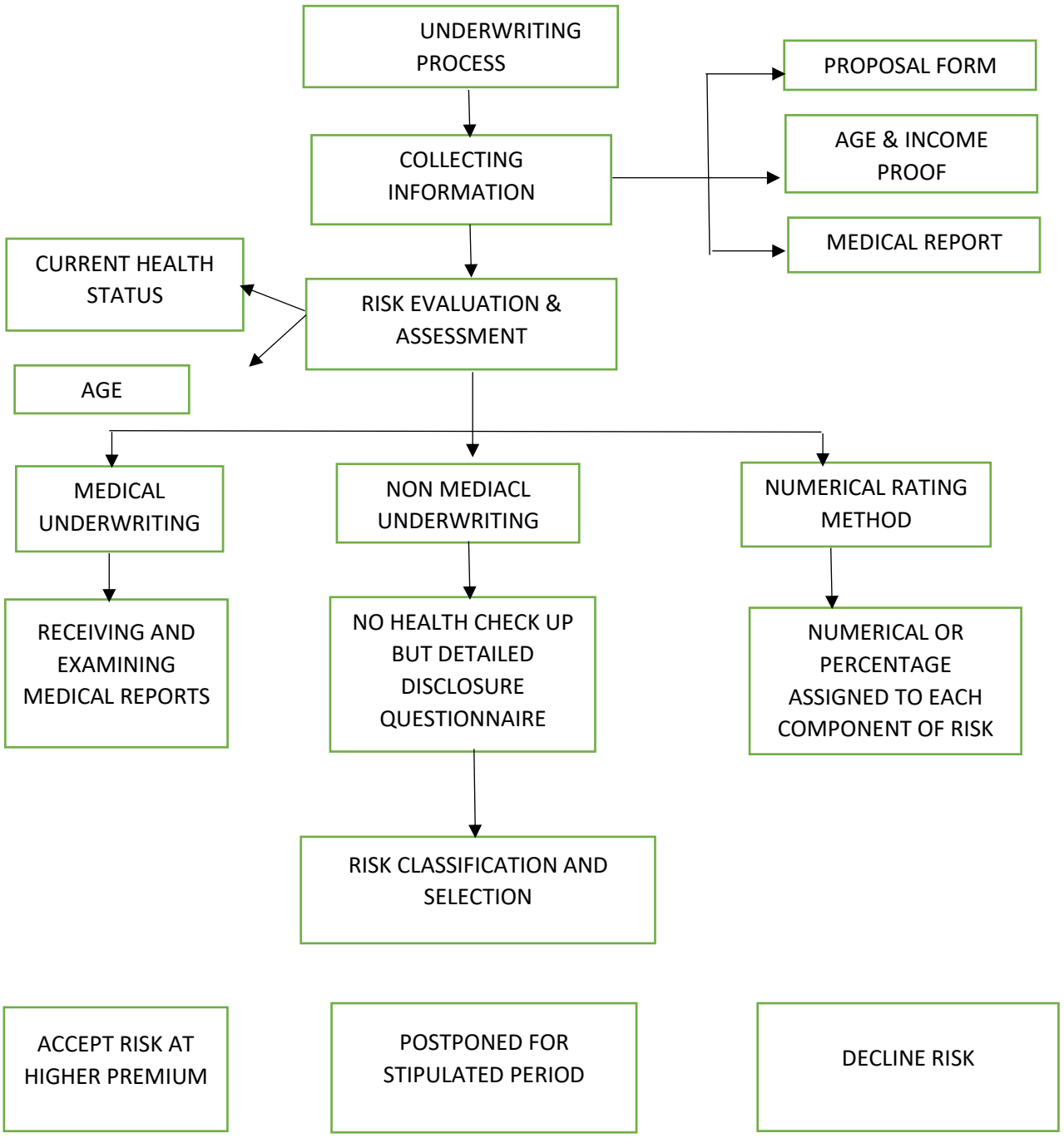
NON-MEDICAL UNDERWRITING

Does not require any medical examination

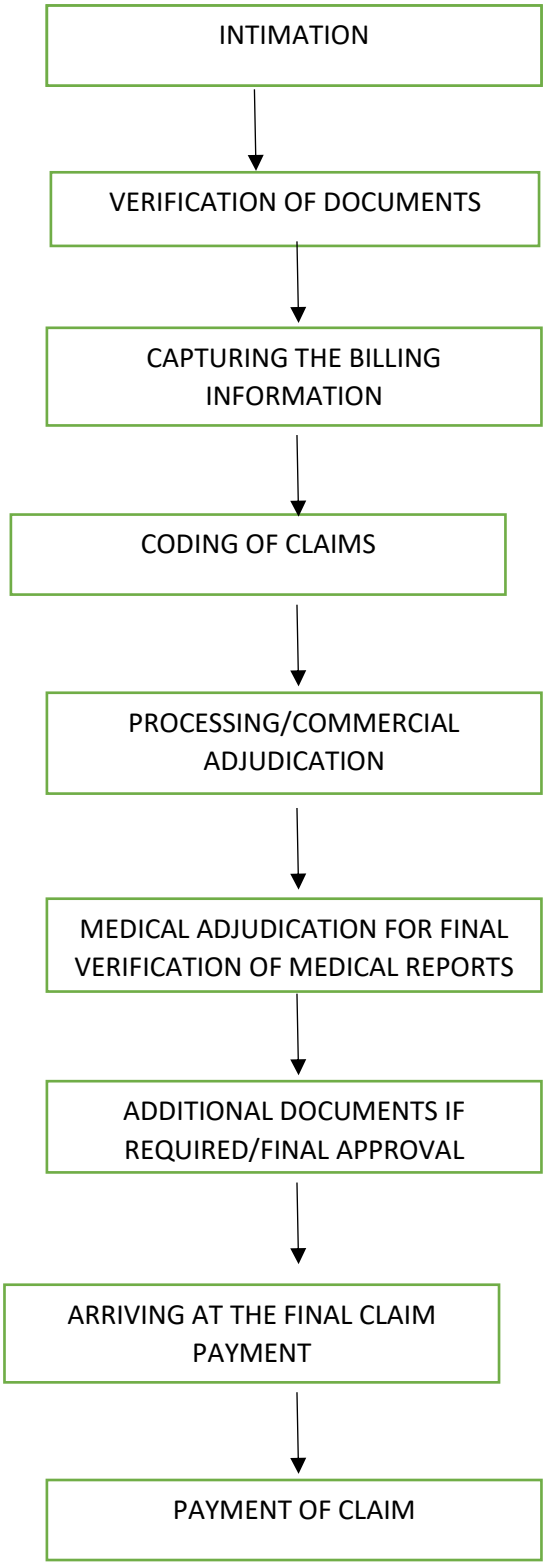
Truthful discloser of information in a proposal form could reduce need for the medical tests.

Limits for "non medical" underwriting "are carefully designed to strike a balance between business and risk," according to the statement.

1.7: UNDERWRITING PROCESS



1.8: HEALTH CLAIM PROCESS



1.9: DIFFERENT TEAMS WORKING UNDER HEALTH CLAIMS

INWARD :

- Receives courier from the insured which includes every document (patient name, policy number, reports, investigation & hospital bill, Aadhar, PAN, birth certificate, discharge summary, POD number

- Scanning and segregation of every document including the courier cover page, once scanning is done an inward number is generated.

- After scanning, segregation and uploading of the documents are done in the system, which then gets reflected to the next person of the same team.

- The next person cross check the documents and store the card copy securely.

- This is the continuous process done by the inward team for every individual claim both for cashless and reimbursement.

DEO (DATA ENTRY OPERATER) :

- Verification of the documents once received from the inward team.
- Cross check with the Genesis (It shows the status of the policy holder)
- Tag the exact person who is hospitalized.
- Check with discharge summary and other documents.
- Providers tagging (Hospital details need to be entered) , Doctor details , Type of diagnosis (illness, injury, maternity), type of room category
- Bank details of the main member (in case of reimbursement).
- From the final bill the amounts are being categorized (pharmacy, room rent, consultation, investigation)
- Once all the details are filled , submission is done and a claim ID is being generated .

- This claim ID is carried forward till the payment process.

CA(Commercial Adjudication):

- Verifies the above documents .
- Checks it’s a fresh policy/ renewal policy/ portability.
- Checks the tariff rates.
- Mention remarks on the same which is compulsory to write.
- Forward to the Medical Adjudication Team.

(Medical Adjudication):

- Medical Adjudication Team verifies the medical portion(Diagnosis, investigation reports , Doctor notes, Medicines)
- Finally gives the approval/ reject/ Query and forward it to the payment team.
- Finally the payment process is done.

CPMT(Central Provider Management Team)

- Once a new provider comes to the list verification of the provider is done, either the hospital exist or not, address verification.

- Once confirmed PNR is generated against that provider.
- This team does the entire empanelment process(Document verification)

- This department looks after the entire documentation process of each provider, maintaining all the documents/records of the provider starting from hospital address, every documents of the hospital(MOU, discount letter, tariff rates, cancelled cheque)

- Looks after the tariff /type of tariff .

- Does the analysis (newly implementing).

Chapter:2 METHODOLOGY

2.1: Aim :

To identify number of claims received city wise in the last two financial year(2021-2023). Identifying those and further break into age groups and diagnosis wise. So underwriters can launch new products accordingly, identify maximum number of cashless and reimbursement claims received from different hospitals and wither those hospitals are in network or non-network.

If we are receiving high number of claims from network hospitals then need to identify why and if the hospital is not in network PMT team needs to connect.

2.2: RESEARCH QUESTIONS :

1. How to analyse various claims considering various factors?
2. How to study the claim data and findings out of it?

2.3: OBJECTIVES :

Study of operations : To understand data management in health insurance

To analyse various claims considering various factors for better services to customers.

2.4: STUDY SETTING: CPMT , Tata AIG Health Insurance Company , Hyderabad

2.5: STUDY TOOLS:

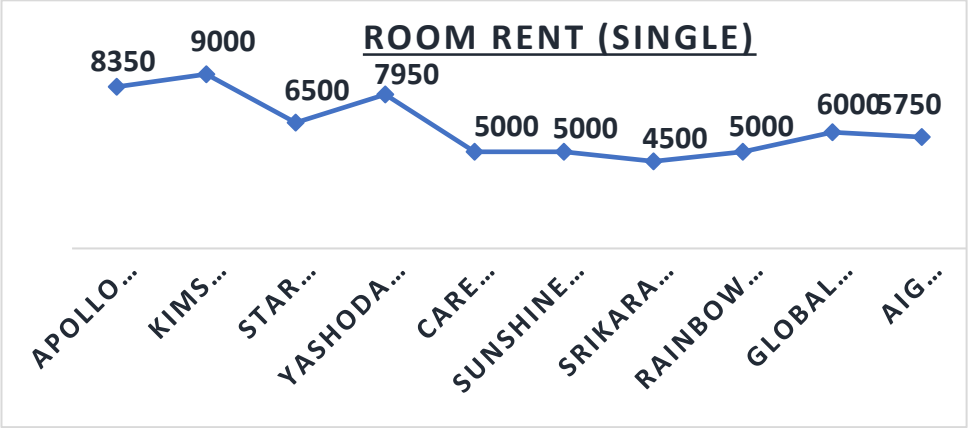
1.Microsoft office
2.Google Scholar
3.MS Excel

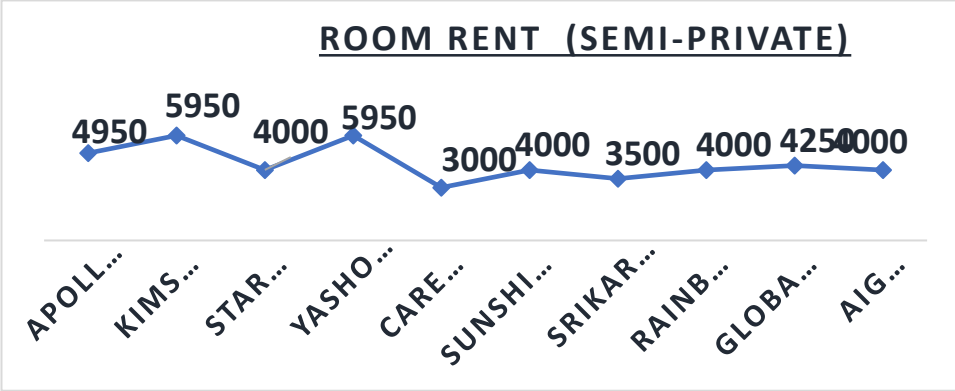
2.6: STUDY POPULATION : Customer , Provider(Hospital)

2.7: DURATION OF STUDY : 20th March to 24th May 2023

Chapter:3 RESULTS OF THE STUDY

Table:1 Room charges



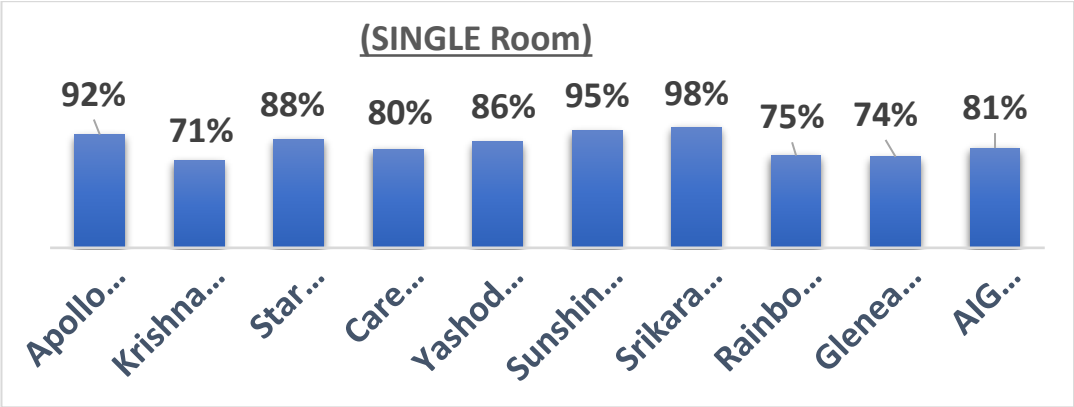


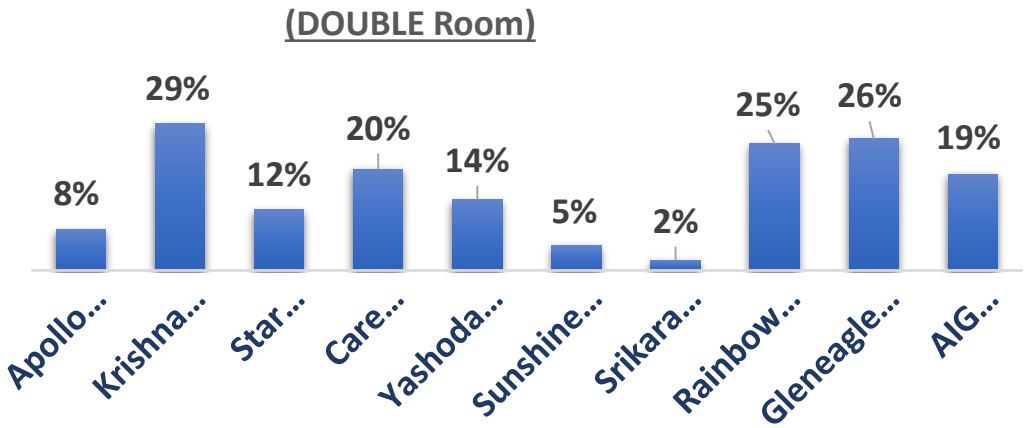
The two graph defines the comparison of the room rates of the top 10 hospitals in a particular city(Hyderabad) . This comparison shows the differences in the room rates , which will help in further tariff negotiation. In the single room rent KIMS Hospital, Apollo Hospital , Yashoda hospital are charging high as compared to other top hospitals being in the same city, whereas in semi private the room rates are similar in all the top hospitals.

This is done based on only top 10 hospitals of a particular city, further we have a plan to do it in a broader way (Example: select a state ,break it into districts ,city, zone).

This will give a clear idea of each city room rates and help during the tariff negotiation.

Table:2 ROOM UTILIZATION





The average claims/year: 100 (200 for 2 year)

The two graph defines the comparison of the room utilization, of top 10 hospitals in a particular city(Hyderabad) . This comparison shows the differences in the room utilization , on the above graph it shows the maximum utilization of single category room.

In this case we can ask the underwriter team to form schemes with extra benefits for the sharing accommodation.

Table:3 Diagnosis @ same city

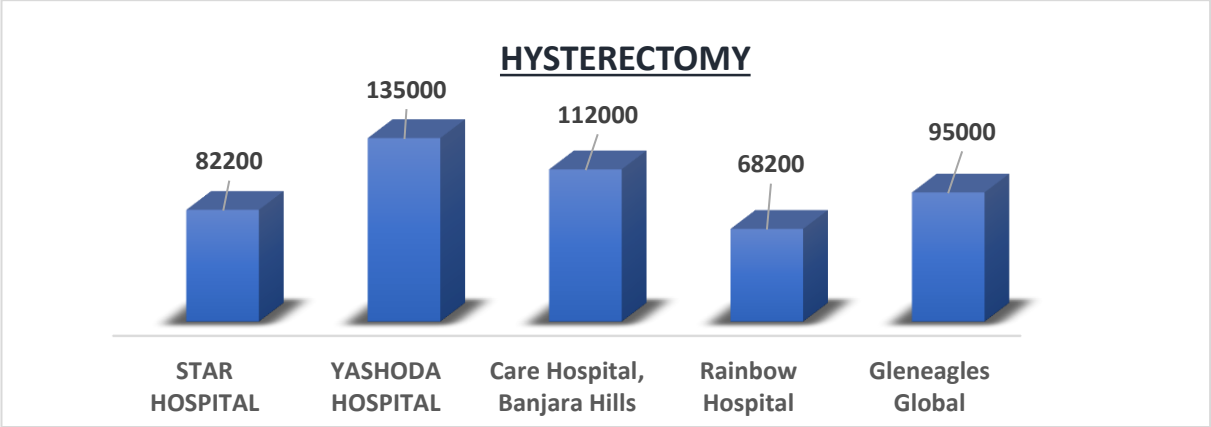
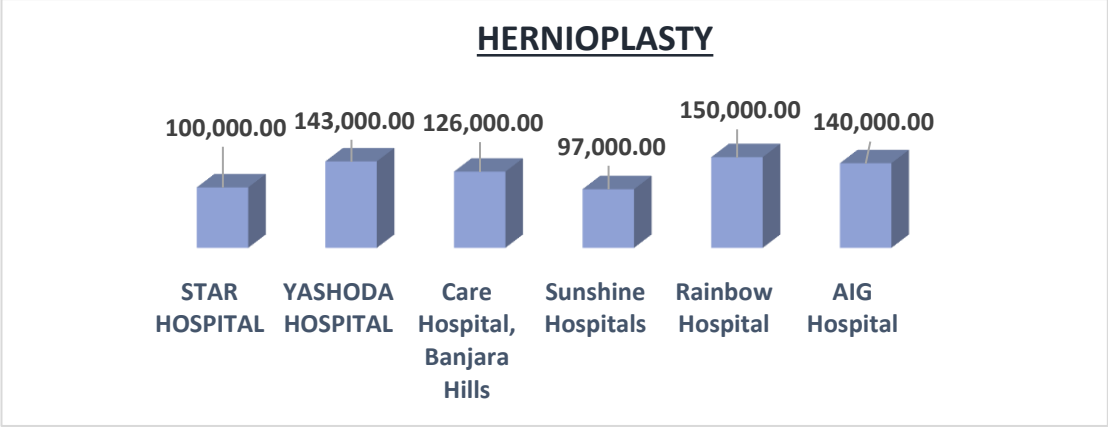


Table:4



This is the comparison of top providers being in the same city (Hyderabad) and same room category (double sharing),the difference in tariff amount for the same procedure(excluding consumables).This study will help the PMT(Provider Management Team) for negotiation.

For Hernia the Average procedure cost is 126,000, compared to this Rainbow hospital is charging 19% excess (highest).

For Hysterectomy the average procedure charge is 98500, compared to this Yashoda hospital is charging 37% excess (highest).

Table :5 Lap Cholecystectomy

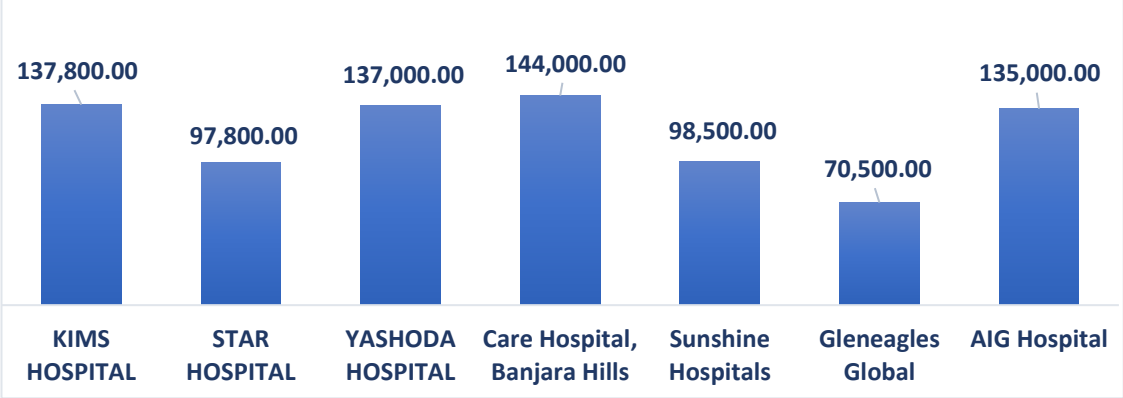
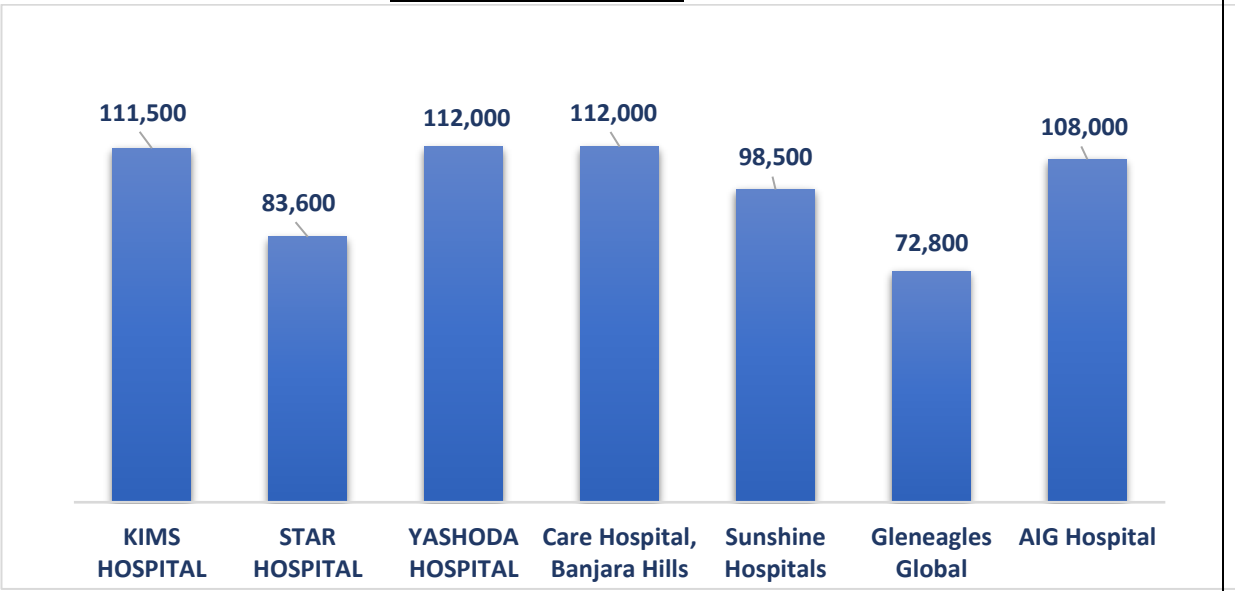


Table:6 Lap Appendectomy



This is the comparison of top providers being in the same city(Hyderabad) and same room category (double sharing),the difference in tariff amount for the same procedure(excluding consumables).

For Lap Cholecystectomy KIMS ,Yashoda and care Hospital is charging 36% extra compared to other top hospitals.

For Lap Appendicitis KIMS ,Yashoda and care Hospital is charging 16% extra(highest).

Table:7

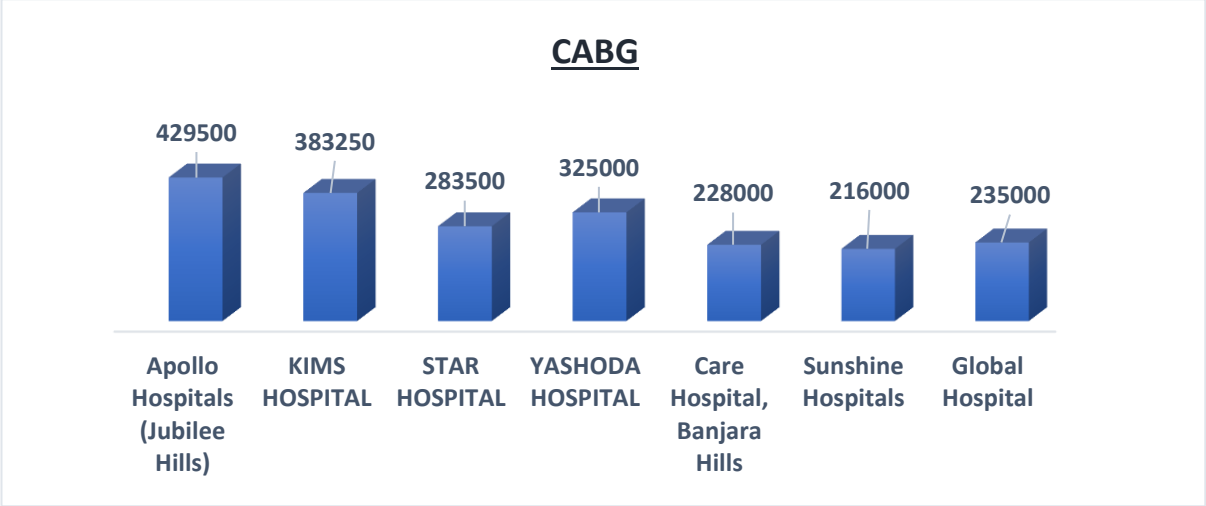
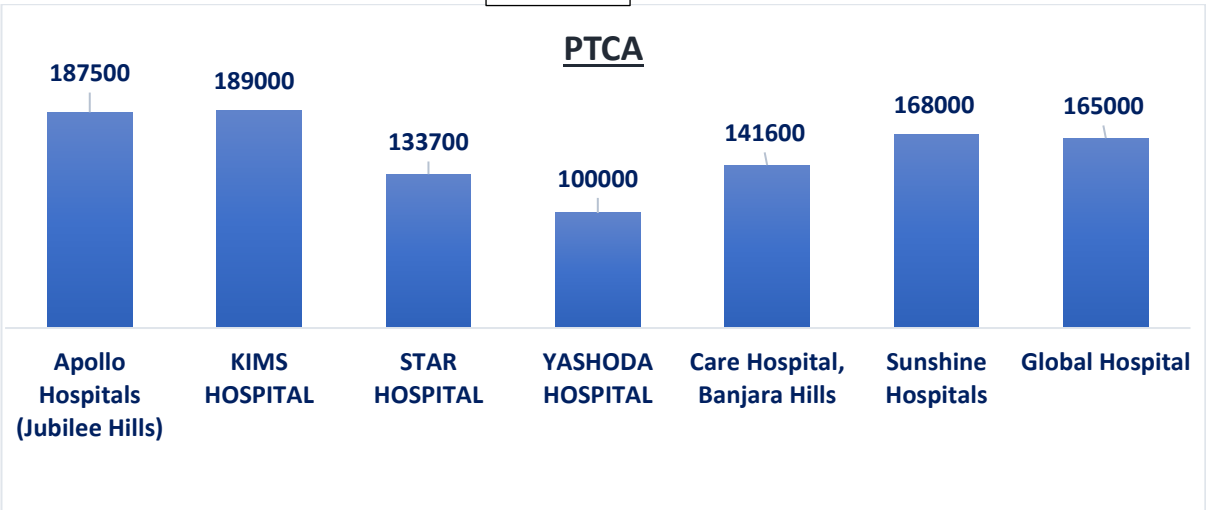


Table: 8



This is the comparison of top providers being in the same city(Hyderabad) and same room category (double sharing),the difference in tariff amount for the same procedure(excluding consumables). Which will ,help the PMT for negotiation.

For CABG the average procedure rate is 300000/-, where as Apollo Hospital(Jubilee hills) is charging 43% extra (highest).

For PTCA the average procedure rate is 155000/-, where as Apollo hospital and KIMS hospital is charging 22% extra (highest).

Table: 9

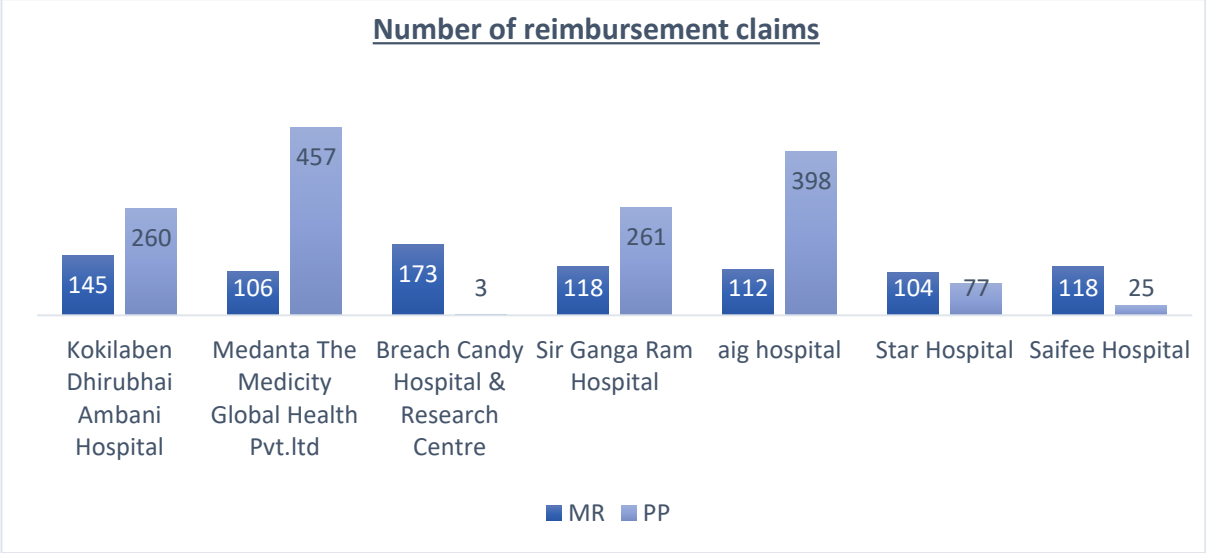
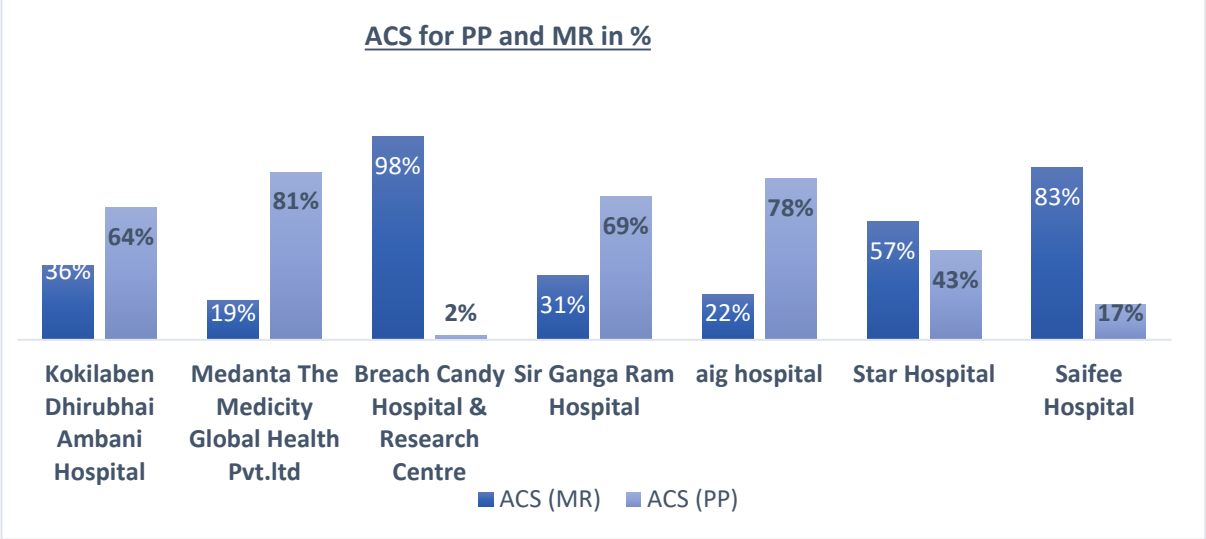


Table: 10



Among Top 100 providers ,this hospitals have provided more than 100 MR claims .

Are these hospitals in network / non-network, If in the network then why this many MR claims, and if non-network then the PMT team needs to get them in the network.

- Kokilaben dhirubhai ambani Hospital : Non-Network
- Medanta The Medicity Global Health Pvt.Ltd : Network
- Breach Candy Hospital & Reasearch centre : Non-network
- Sir Ganga Ram Hospital : Network
- AIG : Network

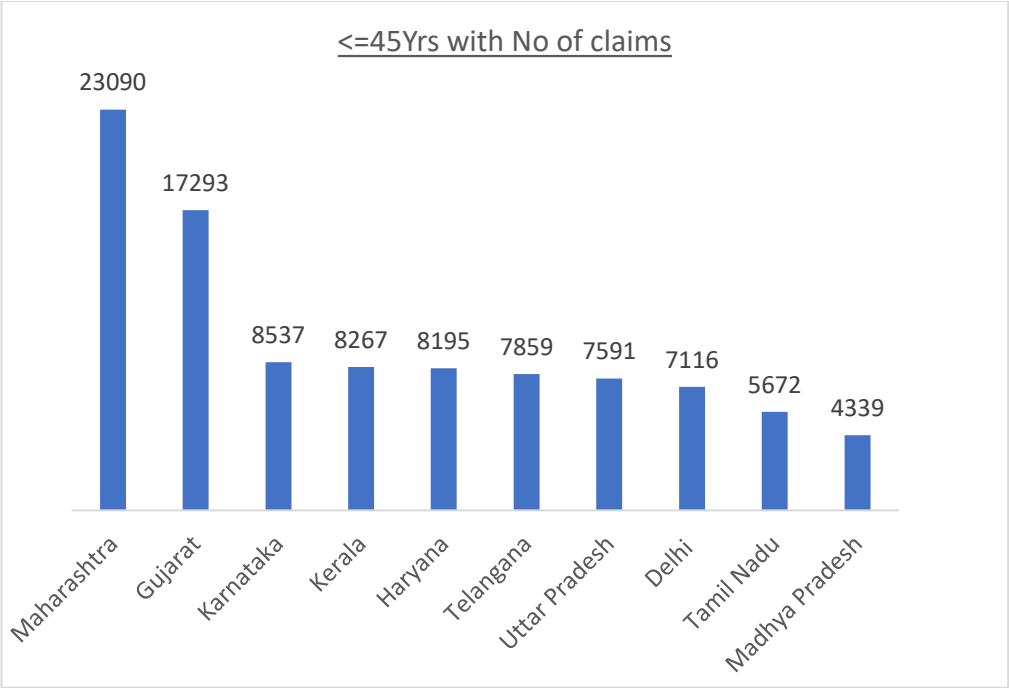
- Star Hospital : Network
- Saifee Hospital : Network

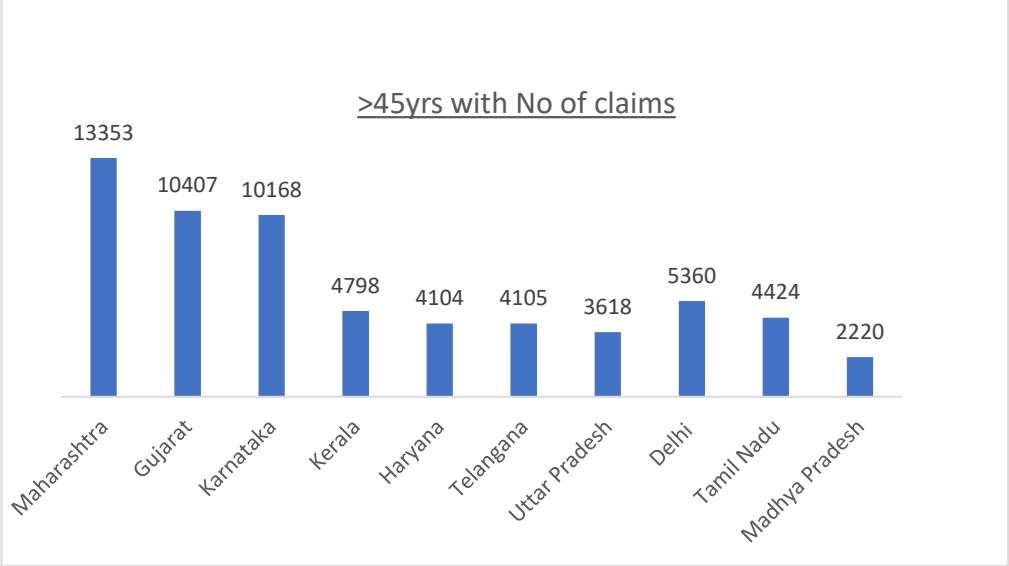
So as per the current data Kokilaben dhirubhai ambani Hospital , Breach Candy Hospital & Reasearch centre are not in TATA AIG Network So, we need work to get them in our network as,the reimbursement cases are in good number.

Total Amount of MR claims received:

- Kokilaben dhirubhai ambani Hospital :Rs.4,41,31,350 out of which the paid amount is : RS.2,50,95,887
- Breach Candy Hospital & Reasearch centre: Rs.10,02,58,222 out of which the paid amount is : Rs.6,39,56,418

Table:10 Age Group claims @ Top 10 States





The above graph represents the state from where we are receiving the maximum number of claims further we can go for the diagnosis which will help the underwriters to make changes in the products/form new products. As we can see maximum claims within the age band of <=45 and >45 years years are coming from Maharashtra, Gujarat ,and Karnataka accordingly we can make new products out of them. For that further we can go for diagnosis wise categorization.

- 60% of claims belongs to <=45Yrs in that 52% of claims belongs to Top 10 states
- 8% of claims belongs to rest of the states
- 40% of claims belongs to >45Yrs, In that 33% of claims belongs to Top 10 states
- 7% of claims belongs to rest of the states
- Further diagnosis against age along with hospital status analysis will be done further.

Table:11 Age @ claims

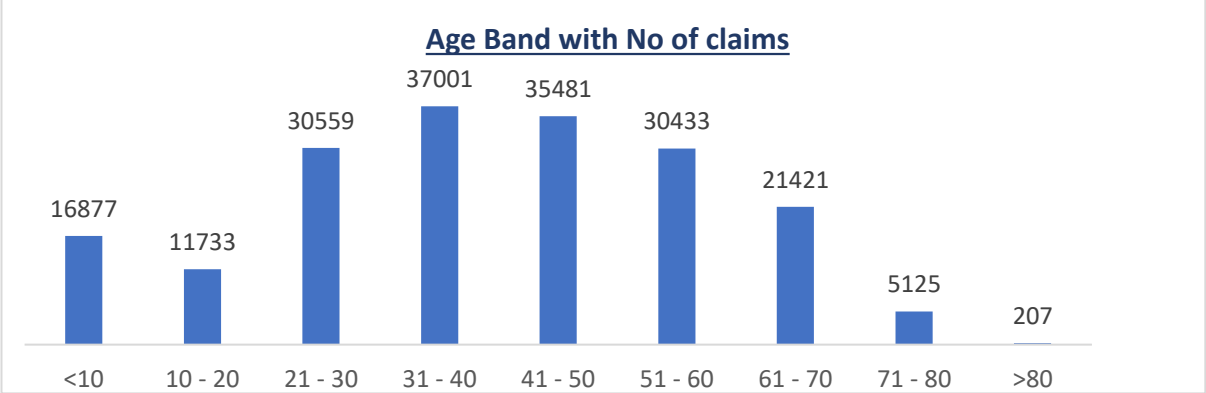
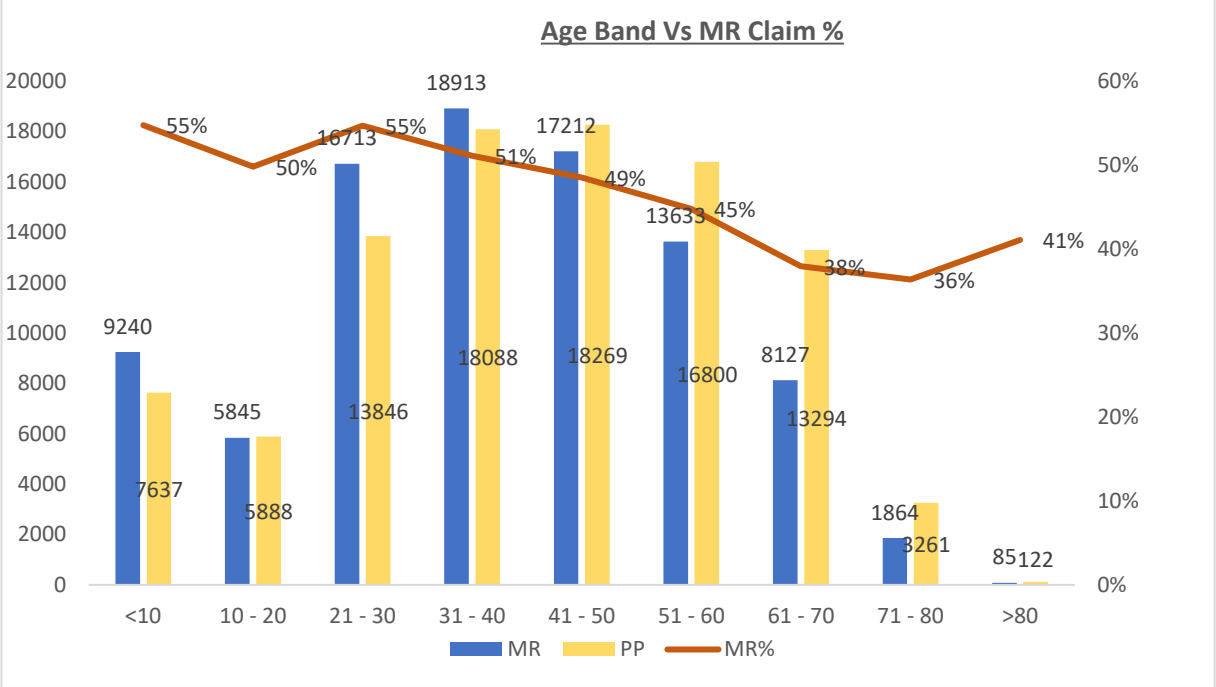


Table :12



The above graph contains Total Claim Incidences: 1,88,837

we are receiving maximum number of claims b/w the age of 21yr -60 years. Which is covered 71% of total age group claims. 41% of MR claims receiving from all age group bands Except age band of (>61 – 70 & 71- 80).

Table:13 Claimed Amt range Vs Claim type

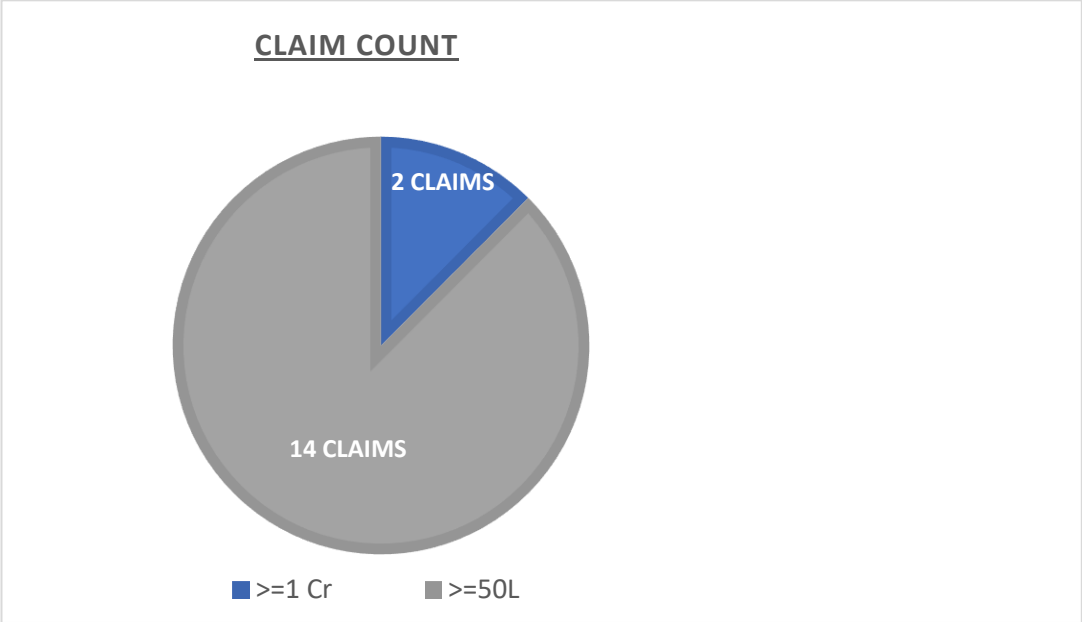
Claimed amt Range	MR	PP	Total	Claimed amt range wtg%
<100000	72668	68339	141007	74.7%
100000 - 500000	17638	26837	44475	23.6%
500000 - 1000000	1018	1638	2656	1.4%
1000000 - 2000000	240	320	560	0.3%
2000000 - 3000000	42	44	86	0.0%
3000000 - 4000000	13	17	30	0.0%
5000000 - 10000000	5	9	14	0.0%
4000000 - 5000000	6	1	7	0.0%
>10000000	2	-	2	0.0%
Total	91632	97205	188837	100%

This table denotes the particular claimed amount range and the number of claims with respective treatment type.

Findings: The number of cashless & reimbursement cases.

- The claim received range >10 lakh claimed amount claims need to be filtered before the final payment.
- Filter in CA level , Medical level then to the Top Management .
- Remarks from supervisor should be mandatory.
- Finally payment process.

Table:14 CLAIM AMOUNT THRESHOLD WARNING LIMIT [50 L-1Cr]



FINDINGS:

- The two claims which are above 1 Cr. are the global cover claim, with the diagnosis : **epilepsy and Carcinoma.**
- The 14 claims are within the range of above 50 lakh – 1Cr.
- The claimed amount of >50L claims need to get filtered before payment.

Chapter: 4 DISCUSSION

Author: Madan Mohan Dutta *(Department of Management, JD Birla Institute, Kolkata, India):*This paper discusses some of the challenges and opportunities of using health insurance claims data for advanced data analyses. It provides examples of how claims data can be used for disease burden estimation, policy evaluation, drug event detection, and predictive analytics. It also highlights some of the limitations and pitfalls of claims data, such as data quality, completeness, validity, and generalizability.

In the insurance sector the different analysis helps to get the clear idea of what is the current status of the market ,where the company is facing problem and how to get over those and move forward. So the above research paper was explain the same as my study, as I looked into that most of the graphs are approached in that way over pervious data study was done on it.

This paper examines the relationship between health insurance premium earned and underwriting loss in India. It finds that the sector has been growing at a compounded annual growth rate of 27% but still unable to earn underwriting profit. It suggests that the sector needs to control its claims and management expenses to improve its performance.

As compared to this I got a idea regarding the loss according to the underwriters prediction/study, The underwriters are the one who are comparing various factors once they get data from various source like pre-formalities while taking policies, the health check -up ,etc.

This made a clear idea that the data sharing with underwriters must be very accurate, so that they can accordingly plan the products .

Author: Erlangga D, Suhrcke M, Ali S, Bloor K (2019) Health insurance schemes in low- and middle-income countries (LMICs) have been found to improve access to health care as measured by increased utilisation of health care facilities (32 out of 40 studies). There also appeared to be a favourable effect on financial protection (26 out of 46 studies), although several studies indicated otherwise. There is moderate evidence that health insurance schemes improve the health of the insured (9 out of 12 studies)

Now a days it has been noticed people are quite eager to know about various health insurance policies, more aware about the insurance, even for every income category people there is some or the other products are available as before few products were their and it was not easy to afford those, this is helping the insurance companies to boom in the upcoming years ,and they are planning all their plans , products accordingly ,which will help the general public as well as the insurance companies.

Chapter: 5 CONCLUSION AND RECOMMENDATION

Health insurance is growing rapidly in India due to increasing risk of health and increasing awareness regarding the same. The Governments recent liberalisation of the insurance industry . This sector is prone to claims and its bottom line is always under tremendous pressure. In recent times, IRDA has taken bold step by increasing the premium rate of health insurance products. This will help in the growth of this sector. The study will richly contribute to the existing literature and help insurance companies to know about their performance and take necessary measures to rectify the situation. The COVID-19 pandemic is a challenge for the health insurance industry on various fronts at the same time it provides an opportunity to the insurers to fetch in new customers.

1.How to study the claim data and findings out of it?

The above study presents the study on claim data and their findings. It helped to understand the entire process of the health insurance industry, and helped to analyse data. The comparison represents top hospitals of a particular city and comparing their room rents, room utilization , number of claims received, maximum number of claims from which hospitals, number of cashless and reimbursement are those hospitals in network or non-network, procedures cost comparison being on the same city.

A recommendation would be the data entry of each individual claims must be very accurately done and complete data needs to be available , which helps the other team to analyse various conditions correctly and follow the medical codes as there are various diagnosis mentioned which helps at the time of analysis .

2.How to analyse various claims considering various factors?

The various factors on which my study is based on city, age band, diagnosis , maximum number of claims.

Room charges of single accommodation and semi-private accommodation of Hyderabad city Top hospitals.

Room Utilization of single and semi – private accommodation.

Comparing diagnosis rates based on specialized hospitals.(example: apollo hospital is specialized for cardiac so for CABG,PTCA we considered apollo hospital)

Maximum Number of cashless and reimbursement cases from which hospitals and average claim status of those hospitals.

According to the age band maximum number of claims received from which state.

Geographical wise from which states we are receiving more number of claims.

According to the claim range, the range is being break into different range and within that maximum number of claims within which range.

As a recommendation during the time of tariff renewal , PMT persons must look for better negotiation , and before that the categorization of the hospitals need to be done.

As single room utilization is high in most of the hospitals we can plan for some extra benefit or add on facilities to the semi-private accommodation so that we can bring down single utilization of room.

As in the diagnosis study it has been noticed being in the same city some specialized hospitals are charging quite high , so PMT person must look into it and go for negotiation.

As we are receiving quite a good number of reimbursement claims, being in the network list, we can look into those hospitals and the reasons of high reimbursement claims.

According to the age band and geographical area we can make new products accordingly ,underwriters will be helpful with this data and will design new products .

According to the claim amount range we can find within which range maximum claims received, further go for diagnosis categorization and design new policies out of it.

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Chapter: 6 LITERATURE REVIEW

1.Title: Key considerations when using health insurance claims data in advanced data analyses: an experience report[2]

This paper discusses some of the challenges and opportunities of using health insurance claims data for advanced data analyses. It provides examples of how claims data can be used for disease burden estimation, policy evaluation, drug event detection, and predictive analytics. It also highlights some of the limitations and pitfalls of claims data, such as data quality, completeness, validity, and generalizability.

It relates to the study of mine, as my study shows the various comparison between claims, geography ,age band.

Renata Konrad, 2020

2.Title**:** Health insurance sector in India: an analysis of its performance[1]

This paper examines the relationship between health insurance premium earned and underwriting loss in India. It finds that the sector has been growing at a compounded annual growth rate of 27% but still unable to earn underwriting profit. It suggests that the sector needs to control its claims and management expenses to improve its performance.

In compared to this my study shows the claimed amount of the last two financial year and the paid amount. As Tata AIG is new to the health insurance sector their payable amount is very close to the claimed amount , which needs to be looked into and try to reduce. Need to negotiate with the hospital tariff and need to look into the hospital bills more minutely before final payment.

Madan Mohan Dutta *(Department of Management, JD Birla Institute, Kolkata, India),30 november,2020*

https://doi.org/10.1108/XJM-07-2020-0021

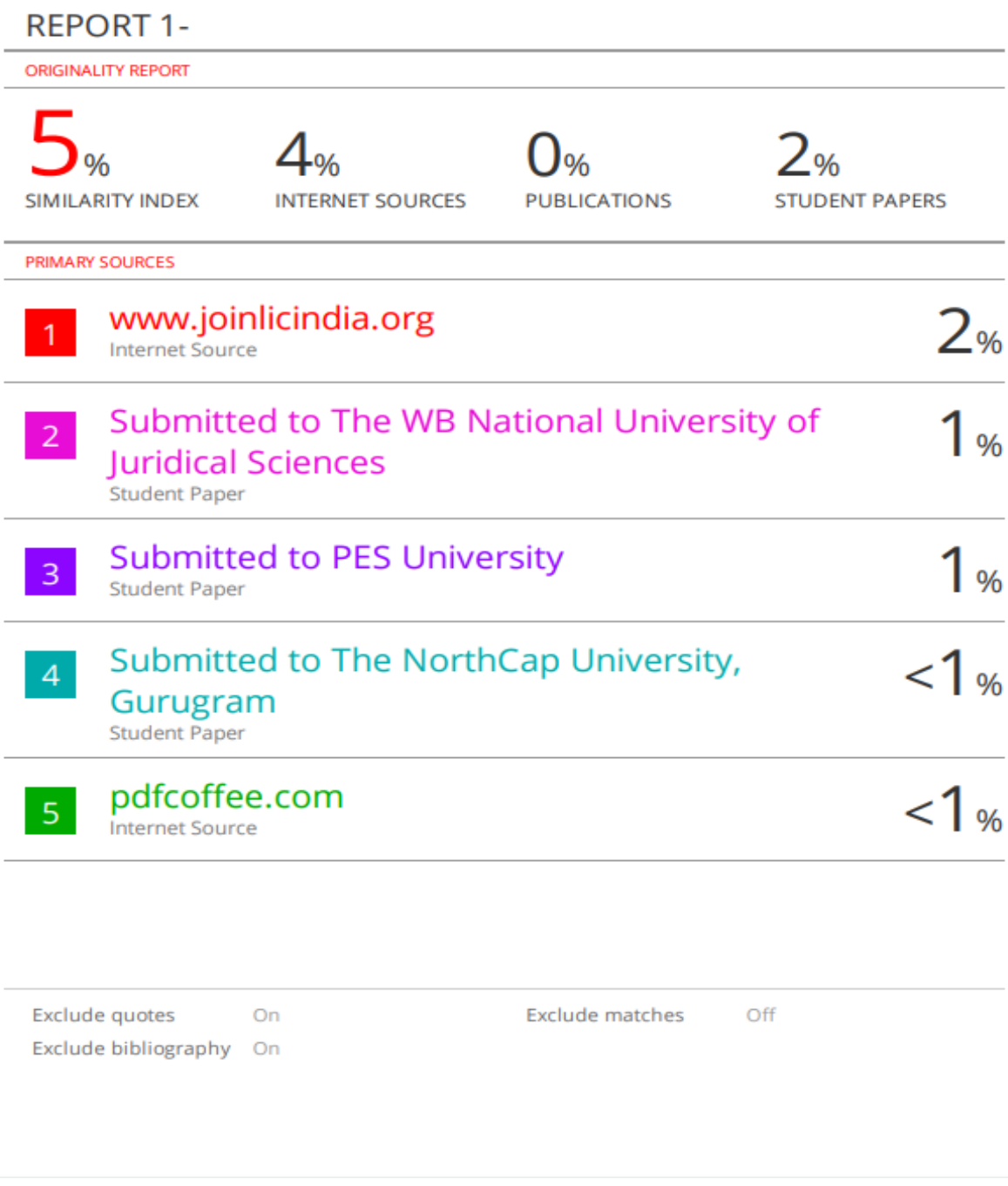
3.Title: Considerations of Analysis of Healthcare Claims Data, Bradley M. Casselman, M.S. The University of Alabama,2018

Healthcare claims data is the transactional level of data that is the core from which most analysis of data results. Each claim can contain hundreds of variables about the course of care. Claims include diagnosis and procedure data as well as variables outlining information about the recipient of services (Enrollment), providers of services (Provider), and ancillary variables that outline a number of administrative fields. Key to understanding this data are the inherent structures as to how this data is stored and accessed. There are a number of considerations that need to be addressed in order to effectively process and manage the data to get it into an analytical form.

4.Title: The impact of public health insurance on health care utilisation, financial protection and health status in low- and middle-income countries, Erlangga D, Suhrcke M, Ali S, Bloor K (2019)

Health insurance schemes in low- and middle-income countries (LMICs) have been found to improve access to health care as measured by increased utilisation of health care facilities (32 out of

40 studies). There also appeared to be a favourable effect on financial protection (26 out of 46 studies), although several studies indicated otherwise. There is moderate evidence that health insurance schemes improve the health of the insured (9 out of 12 studies).



REPORT 1-

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