“Study to assess the maintenance and effectiveness of health related data and records of government hospitals and organisations in Delhi”

A dissertation submitted in partial fulfilment of the requirements
For the award of

Post Graduate Diploma in Health and Hospital Management

By

Abhishek Singh

International Institute of Health Management Research

New Delhi

DATE:- -

PART-1 INTERNSHIP REPORT

Organisation profile

HEALTHCARE INFORMATION EXCHANGE COMPANY INDIA

HealthCare InfoXchange India Pvt. Ltd. (HCX) is a healthcare company that aims at simplifying processes related to healthcare in India .To achieve this goal HCX is taking steps towards introducing web enabled platforms in health industry. These web platforms help simplify cumbersome healthcare transactions existing in this country. HCX started its unprecedented journey on the 3rd of October 2009 with strength of 10 employees. Growing since, it has been able to come up with a series of four healthcare products aimed at redefining the current healthcare structure. The products offered by HCX are:

1. Personal health records (PHR)
2. Online claims data exchange.

HCX is the joint venture of Bajaj Capital, India and IGI, USA. Bajaj Capital is one of India's premier Investment Advisory and Financial Planning companies. It is also SEBI approved category I Merchant Bankers. It offers personalized Investment Advisory and Financial Planning Service to individual investors, corporate houses, institutional investors, Non Resident Indians and High Net worth clients.

IGI's roots go back to 1992 when it was known as Med-Link Technologies, Inc. Med-Link was a pioneer is creating a completely web enabled platform for healthcare transaction processing.

Offshore processing and development was an innovative, forward looking initiative well ahead of the industry in 1992. By 1997, the company had grown to processing 2 million EDI transactions per month. There were over 10,000 providers and 120 payers in the healthcare domain. Nobody in the industry matched this achievement at that time.

Med-Link (USA), the U.S. operations of the company was acquired by SPS (a subsidiary of Dean Witter) and then by Emdeon, (the former WebMD) in 1999. During this transition the Indian operation supported the new company by providing solutions in the application lifecycle and business process areas. IGI was formed as a new corporation registered in New Jersey to allow the principals to continue operations and expand the business in the United States. The arrangement had a non-compete clause that refrained IGI from re-entering the Healthcare domain.

Thereafter, IGI developed various solutions and product offering for a wide range of industries such as Financial, Insurance, Management Consulting firms, and others. These solutions covered vertical as well as horizontal segments that allowed for the retention of clients over the years.

SERVICES BY HCX IN PRIVATE AND GOVERNMENT HOSPITALS

Personal Health Record (PHR)

Maintaining of personal health records is important but more often than not proves cumbersome. With files of reports, prescriptions, test results, and other data, it's easy for paper to fray, be misplaced or get lost and not easily accessible anywhere, with storage of the same also proving to be quite a task.

HCXs Personal Health Record simplifies maintenance, access and reference of our medical history. PHRs of individuals or families can be maintained online. The PHR is a vast repository of information comprising of patients personal details and medical history that includes information regarding previous surgeries or medical conditions, medication history, treatment, emergency contact details, hospitalisation history, allergies, blood group and so on. The PHR also acts as personal assistant by sending SMS and email alerts on doctor's appointments, or any lab tests are due or even a booster dose of vaccination that children need to be given.

HCXs web-based PHR is safe, trustworthy and can be accessed only by the user who creates the account. The ease of use and convenience of PHR while simplifying the maintenance of important and confidential medical information of the user can also be used, in extreme emergencies, by a trusted and known person affiliated to the user. There may be instances when the user would be unable to access account. However, if the user has consented to give access of PHR to a trusted confidante and known relative/friend or family, this PHR could be shared by the healthcare facility or physician treating the patient.

The PHR product is the optimum solution for achieving a uniform system which makes all appropriate health information and medical records available and accessible to patients and to their selected healthcare professionals.

PHR is a proprietary, comprehensive, web based solution which securely connects healthcare trading partners regardless of legacy systems or the data formats in use. Modular in design, PHR is composed of intelligent, interlocking rules and translation engines that facilitate the transfer of data across multiple layers and between associated trading partners.

The following are a few features available in PHR

- Consumer Information- consumer demographic information including name, address, multiple email address and multiple phone numbers are just some of the key consumer attributes that are maintained.
- Manage conditions, surgical history and hospitalisations
- Helps track health related activities like blood pressure, weight, blood glucose, calories etc.
- Share health information with doctors, family members, hospitals and insurance company with patient consent
- Helps track and update immunisation records
- Medical Information- in addition to physician information, other key medical related information includes doctors' visits, surgery, hospitalisations, immunisations, allergies, weight, blood pressure and cholesterol
- Insurance Information- insurance type, provider, co-pay information are some of the approximately 40 data attributes associated with consumer insurance that are maintained.
- Get SMS and email reminders about regular checkups or recurring treatments
- Visual display of charts for better tracking of health
- Security- HCX has implemented a variety of best practices including password expiration, strong password education, multiple security questions and their application during the password reset process, firewell

My Smart Health

Rise in the cost of medical treatment has affected our pocket not only in case of hospitalisation but also for our OPD needs. Invariably, we ignore expenses incurred in physician consultations, diagnostic tests, health check-ups, medicines etc. but on average a healthy family spends about 40K per annum for such needs.

Very often, we ignore the consultation with doctors by tagging health problem as small. If we give a thought to the chain of symptoms then it could lead to situation causing hospitalisation. Hospitalisation would mean ambulance charges, doctors' fees, room rent, medicines, diagnostic tests, surgery charges and so on. Therefore, we believe a consultation with doctor at the right time is the way out to avoid huge medical expenses.

HCX My Smart Health is a blend of OPD needs such as doctor's consultations, medicines, diagnostic tests. This product is designed to give consultations with esteemed doctors at well establishes hospitals and clinics around Delhi/NCR

The following are the features of My Smart Health:

- Consultations with Specialist Doctor for illness require special consultation such as ENT, paediatric, orthopaedic consultations etc.
- Consultations with physicians
- Ease in taking consultation as we have wide spread doctors network available at your nearest hospital
- Full body health check-ups- Health check-up help us knowing status of health. Health check-ups would help to take precautions at the right time

- Fixing Appointments- HCX provide full support to its customers for providing appointments with the doctors for consultation and diagnostic labs for tests to avoid waiting in long queues
- Maintaining health records on online platform for having access around the globe by using HCX solution PHR (Personal Health Record)
-

Clearing House

Health Care Clearinghouse is an entity that facilitates the processing of health care information between health care providers (hospital, doctors, labs etc.) and payer (Insurance companies) by

a) Standardizing the health information (like billing processing, claims processing) from nonstandard data formats to standard formats and vice versa.

b) Replacing a paper-based claims process with an automated, electronic solution that adjudicates claims, adjusts the coding to the insurance companies standards, and provides physicians with real-time access to their claims processing.

Clearing houses work as an intermediary between Providers and Payers.

Benefits of Clearing house

The main benefits of using an electronic claims clearinghouse - in a nut shell. Using an electronic clearinghouse to send claims:

- Allows you to catch and fix errors in minutes rather than days or weeks
- Results in significantly higher claim success --fewer rejected claims.
- Rapid claims processing: Submitting claims electronically can reduce your reimbursement times to less than ten days.
- Eliminates the need to prepare claims and manually re-key transaction data over and over for each payer.
- Submit all your electronic claims in batch all at once, rather than submitting separately to each individual payer.
- It provides a single location to manage all your electronic claims
- Avoid long hours of being on-hold with Medicare and Blue Cross inquiring about claim errors.
- Vastly improve vender relationships with insurance carriers.
- If you subscribe to a good clearinghouse, you'll be speaking with a knowledgeable support person within just a few rings.
- Shorter payment cycles lead to more accurate revenue forecasts.
- Reduce or eliminate need for paper forms, envelopes and stamps
- Plain and simple, using a clearing-house will greatly simplify your claims processing.

The best clearinghouses offer added features that provide a whole new level of claim intelligence for **revenue cycle management** that makes their services extremely compelling from a financial perspective, and as well, highly desirable from an office-staff efficiency point of view.

Here are some highlights on what Providers and Payers look for in a clearinghouse

- **Eligibility Verification** - Determine coverage before treatment
- **Electronic Remittance** - Have your accounting automatically updated
- **Claim Status Reports** - Know the status of a claim at all times
- **Rejection Analysis** - Have error codes displayed in plain English
- **Online Access** - Edit and correct claims day or night online
- **Printed Claims** - Have non-par claims automatically dropped to paper but still be able to track them electronically.
- **Real Support** - The best clearing houses offer 1-on-1 personal training and support provided by billing experts.

Affordability - When you take into consideration the purchasing of forms, printing, envelopes, and postage; a clearinghouse ends up costing about the same as sending paper claims.

Scope of Work during Internship

At HCX Pvt. Ltd., I was placed as a Project Trainee during Internship period of 3 months that is from 1st of February to 30th of April. This period so far has allowed me to gain an insight about different services of HCX mentioned above.

Learning and Experiences at HCX:

The experience of working in HCX was an enriching experience. I had a chance to learn and gain exposure to the entire limit possible. Organizational culture helped me to grow and enrich my knowledge. Apart from the research methods and procedures, I got an opportunity to work with other professionals of Insurance and IT sectors. Such an experience helped me to enhance my skills in the work related to health IT sector and insurance sector as well. Thus, I could develop more competencies and enrich my skills of working in collaboration and cooperation with other professionals while being in a team. Also it was the first time experience that learner got involved in developing of interview schedules (questionnaires) and understood the various aspects required in doing so i.e. client demands, sensitivity of the issues, and problems or challenges related to the hospital set up.

The expectations which I had from the organization in terms of supervision, coordination, and cooperation etc. went surpassed. Organizational culture and working environment was friendly and gave so much scope for me to learn maximum while in the organization and beyond. At the end I realized that it was a new learning and new experience ever since the day one till the end of internship at HCX Pvt. Ltd.

PART-2

Dissertation REPORT on

“Study to assess the maintenance and effectiveness of health related data and records of government hospitals and organisations in Delhi”

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Under the guidance of

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Certificate of Approval

The following dissertation titled **"Study to assess the maintenance and effectiveness of health related data and records of government hospitals and organisations in Delhi"** 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

Name Signature

Certificate from Dissertation Advisory Committee

This is to certify that **Mr. Abhishek Singh,** a participant of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. he is submitting this dissertation titled **"Study to assess the maintenance and effectiveness of health related data and records of government hospitals and organisations in Delhi "**in partial fulfilment 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.

Faculty Advisor	**Organizational Advisor**
Dr. T.Muthukumar Professor-Healthcare IT IIHMR, New Delhi	Mr. Ashok tandon Vice President - claims HCX india pvt.Ltd

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I hereby take this opportunity to thank **Mr. Ashok Tandon, Vice President-claims, Healthcare Infoxchnage India Pvt. Ltd.**, for giving me the opportunity to work in such esteemed organization that gave me the scope for playing an active role in different activities, which was indeed a learning experience.

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My sincere acknowledgement goes to **Dr. T. Muthukumar, Professor- Healthcare IT, IIHMR, New Delhi** who gave me the opportunity, encouragement and guidance throughout the training period and helped me come up with new and great ideas for the report.

I would like to thank my **friends and family** members who have been the pillars of support throughout my life.

Last but not the least, all my thanks goes to almighty god for his blessings bestowed on me always.

Thank You,

Abhishek Singh

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(2010-2012)

ABSTRACT

Medical records through which hospital statistics are generated and medical records are important to the hospital for evaluation of its services for better patient care. A medical record contains data on patients to support current and continuing patient care. Medical record department helps in making medical decisions .It also helps in case of legal obligations and it also has some economic benefits .Medical records can also be of great help in case of epidemiological data and through this disease surveillance can be done and that can be of great help .It can also help in practice management.

Realising this need the study was proposed to be conducted in various government hospitals of Delhi to assess the maintenance and effectiveness of health related data and records (medical records).The survey was conducted in various government hospitals in Delhi, study also included the study of the workflow of medical record department. A set of semi structured questionnaire was prepared as a tool for the purpose of primary data collection.

The responses were seen and the analysis was the done to portray the findings to the objectives of the study

The objectives of the study

- To study and analyse the streamlining process of the medical record department
- To see the effectiveness of the quality of maintenance for the huge government data of patients in government hospitals
- To study the insurance related problem in various government insurance schemes entertained by these hospitals

The complete study was scheduled for 3 months involving visits to various government hospitals in Delhi for primary data collection and the thorough analysis. MRD staff was also asked in general some questions which can benefit the study and can give the general idea about the workflow of MRD in hospitals. The complete process is described in detail in the study.

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CHAPTER 1

Introduction

1.1 BACKGROUND

DEFINITION

According to Dr. Malcom MacEachern, father of medical record science, medical record can be defined as a clear concise and accurate history of the patient's life and illness, written from the medical point of view, and in its true form is a complete compilation of scientific data derived from many sources, coordinated into an orderly document by the medical record department and finally filled away for various uses, personal and interpersonal.

Medical record as a clinical, scientific, administrative and legal document related to patient care in which are recorded sufficient data written in the sequence of events to justify diagnosis and warrant treatment and end results (Mc Gibony)

Medical Record of the patient stores the knowledge concerning the patient and his care. It contains sufficient data written in sequence of occurrence of events to justify the diagnosis, treatment and outcome**.**

The terms **medical record**, **health record**, and **medical chart** are used somewhat interchangeably to describe the systematic documentation of a single patient's medical history and care across time within one particular health care provider's jurisdiction. The medical record includes a variety of types of "notes" entered over time by health care professionals, recording observations and administration of drugs and therapies, orders for the administration of drugs and therapies, test results, x-rays, reports, etc. The maintenance of complete and accurate medical records is a requirement of health care providers and is generally enforced as a licensing or certification prerequisite.

The terms are used for both the physical folder that exists for each individual patient and for the body of information found therein.

Medical records have traditionally been compiled and maintained by health care providers, but advances in online data storage have led to the development of personal health records (PHR) that are maintained by patients themselves, often on third-party websites. This concept is supported by US national health administration entities and by AHIMA, the American Health Information Management Association.

PURPOSE

The information contained in the medical record is essential for:

1. Patient management and services: To diagnose and treat illness and document medical care services provided the patient
2. Financial reimbursement: To substantiate insurance claims of health facilities and patients and to ensure reimbursement under federal and state medical programs.

3. Management planning: To help administrative and medical staff in planning services and determining resources.

4. Utilization review and quality assurance: To evaluate the quality, adequacy and appropriateness of medical care services.

5. Research: To provide data to expand the body of medical knowledge. The record allows medical researchers to formulate new methods of treatment and to compare the effectiveness and efficiency of different treatment and medications

6. Legal affairs: To provide data to help in protecting the legal interest of patient, the physician and the facility.

7. Information: Pertinent patient care details can be provided to authorized organisations and third party payers if required.

8. Education: To provide actual case studies for the study of health care professionals

9. Reference: For providing continuity in patient care.

10. Accreditation: To provide the factual data necessary for accreditation and licensure

11. Public Health: To identify disease incidence to formulate plans to improve the overall health of the nation and the world

TYPES OF RECORDS

- Paper- based medical record
- Computer -based medical record

FUNCTIONS OF MRD

1. Daily receipt of case sheets pertaining to discharge, 2 A.M. an expired patients from various wards, there checking and assembly

2. Daily compilation of Hospital census reports.

3. Maintains & retrieval of records for patient care and research study.

4. Completion and Procession of Hospital statistics and preparation on different periodical reports on morbidity and mortality.

5. Online registration of vital events of Birth & Death
6. Issuing Birth & Death certificated upto one year.
7. Dealing with Medico Legal records and attending the courts on summary.
8. Arrangement & Supervision of enquiry and admission office.
9. Arrangement & Supervision of OPD registration
10. Management of disability boards.
11. Management of Medical Examination
12. Management of Mortality Review Committee Meetings (Twice month)
13. Assistance to Hospital Administration in various matters.

DATA FLOW DIAGRAM OF MEDICAL RECORD DEPARTMENT

1.2 LITERATURE REVIEW

Studies show that hospitals in Karnataka were found to be in compliance with the guidelines of JCI. There they have proper records maintained according to every department in which the patients sought care. Also disease coding was done according to international classification of diseases (ICD) framework. Very few hospitals reported improper handling of records. But in contradiction to that, only half of the records were there for the discharge summary of the treated patients. As such, it was a lacuna on the maintenance of proper discharge summary for hospitals in Karnataka. [(1)]

According to Code of Conduct formulated by Indian Medical Association, every physician shall maintain the medical records pertaining to his / her indoor patients for a period of 3 years from the date of commencement of the treatment in a standard proforma laid down by the Medical Council of India If any request is made for medical records either by the patients / authorised attendant or legal authorities involved, the same may be duly acknowledged and documents shall be issued within the period of 72 hours. As such, keeping in view the maintenance of medical health records of patients is the prime responsibility of the physician as well as MRD staff of every hospital. [(2)]

According to one of the studies done in Delhi and Rohtak, taking into account 20 hospitals in Delhi and Rohtak to assess and review the records maintained by the MRD departments of these hospitals and also to analyse and provide solutions for the problems faced by these setups in order to ensure quality maintenance of medical records in these hospitals. In some of the hospitals it was found that there was no proper coding systems for medical records was being followed. It was later recommended that:

- The medical record system in each medical/health institution should be computerized with appropriately designed software for both outpatient and inpatient records, while using meticulously designed formats, local area network as well as internet facility in all the departments/wards of the medical/health institution.

- The medical record department in each medical/health institution should be given highest priority and be headed by a senior level expert/officer of the same rank as in other existing technical departments in the same institution.

- There should be clear guidelines for period of retention of medical records for both outpatient and inpatient departments and after the said period, they must be destroyed. This will provide adequate space for the records. [(3)]

Hospital Information System (HIS) is vital to decision making and plays a crucial role in the success of the organization. Computerization of the medical records and documentation has resulted in efficient data management and information dissemination for the users. Managers, Clinicians and other healthcare workers can now access the information without delay or errors. The study reveals, the existing system requires up gradation to meet the requirements of the managers and the clinicians. Participants feel HIS assists in decision making, and medical audit. Participants felt that the existing HIS resulted in longer time for OPD consultation and delay in investigation results. Majority of the participants feel that HIS helps in education and research. [(4)]

Medical Records is an important document meant basically for recording the treatment procedure for a patient. It is important both for the patient, as well as, for the doctor. In 1995, after the Honourable Supreme Court gave the decision that Doctors also come under the purview of the Consumer Protection Act, 1986 the medical records have become an important aspect of the written evidence. It is important for doctors to realize that Medical Records have become the single, crucial and effective weapon in their hands to counter the false claims of the consumers, when they file a case for compensation. Outpatient treatment and inpatient management should be documented completely by the consultant. All preoperative instructions, prescriptions and consent for invasive procedures and surgery should be recorded carefully. [(5)]

1.3 NEED FOR THE STUDY

Medical Records of patients in India have so far been maintained manually. The practice of maintaining medical records manually is still continuing in most of the hospitals today also. These medical records mainly comprise of patient history, details of previous and ongoing treatments, tests and all other necessary information related to the patients in order to facilitate treatment in a better way.

As such, with the progress of technology and science, web portals and electronic softwares have been developed through which it has become easier to store, maintain and record all patient related data.

However, the desk review shows that majorly only private set ups in India have web enabled platforms for maintenance of patient's health records. As such, the study came up with an idea to assess the maintenance of health records in public hospitals and to provide ways by means of which they can be implemented in government hospitals.

In India, majority of the population seeks treatment from government hospitals. As such, in order to maintain their medico- legal and insurance cases, the medical record department of the hospitals plays a vital role. Therefore, the study was directed towards assessing the medical record departments of government hospitals for availability of authentic and proper records of such cases whenever needed.

Also, as HCX Pvt. Ltd. has got an expertise to enable and make easier the health related transactions more simpler and easier with the development of web enabled platforms like PHR, MY HEALTH PLAN, SMART HEALTH PLAN, for various government and private set ups in India, the study was undertaken to assess the feasibility and easiness for the patients for making claims and insurance coverage under various empanelled private and public hospitals under HCX and to provide necessary and practical recommendations for better service quality and delivery.

1.4 OBJECTIVES OF THE STUDY

- Broad objective

To study and assess the maintenance and effectiveness of health related data and records of government hospitals and organisations in Delhi

- Specific objectives

- To study and analyse the streamlining process of the medical record department
- To see the effectiveness of the quality of maintenance for the huge government data of patients in government hospitals
- To study the insurance related problem in various government insurance schemes entertained by these hospitals

1.5 Structure of the Report

The report will be followed by Chapter -2, presenting the methodology and the study framework.

Chapter -3 highlights the major findings of the study. For each of the tables in the report graphs are presented as well as binary responses are presented in the form of pie charts.

Chapter -4 represents the discussions based on the findings of the study

Chapter- 5 presents the recommendations and the conclusions drawn on the basis of findings and discussions of the study

Chapter- 6 presents us with the limitations faced while conducting the survey and carrying out the data collection process.

CHAPTER 2

Data and Methods

2.1 THE RESEARCH PROBLEM

Paper-based records are still by far the most common method of recording patient information for most hospitals and practices in India. The majority of doctors still find their ease of data entry and low cost hard to part with. However, as easy as they are for the doctor to record medical data at the point of care, they require a significant amount of storage space compared to digital records. In India, most states require physical records be held for a minimum of ten years. The costs of storage media, such as paper and film, per unit of information differ dramatically from that of electronic storage media. When paper records are stored in different locations, collating them to a single location for review by a health care provider is time consuming and complicated, whereas the process can be simplified with electronic records. This is particularly true in the case of person-centred records, which are impractical to maintain if not electronic (thus difficult to centralise or federate). When paper-based records are required in multiple locations, copying, faxing, and transporting costs are significant compared to duplication and transfer of digital records. Because of these many "after entry" benefits, central and state governments, insurance companies and other large medical institutions are heavily promoting the adoption of electronic medical records.

Handwritten paper medical records can be associated with poor legibility, which can contribute to medical errors. Pre-printed forms, the standardization of abbreviations, and standards for penmanship were encouraged to improve reliability of paper medical records.

Electronic records help with the standardization of forms, terminology and abbreviations, and data input. Digitization of forms facilitates the collection of data for epidemiology and clinical studies.

Due to such reviews that were found, there was called a need to undertake such a study to assess the maintenance and effectiveness of health related medical data and records in the most important government organisations and hospitals and to give recommendations and suggestions in order to make them more effective and efficient and error free.

2.2 DATA AND METHODS

A quantitative study methodology was adopted to conduct the study thereby fulfilling the specific as well as broader objectives. It was a retrospective study done with help of a semi structured questionnaire. Data was collected by interviewing the staff of medical record department of various government hospitals and organisations. The findings are generalized to assess the efficiency of maintenance of the health records in these government hospitals and analyse the need of implementation of computerised records in government hospitals.

2.3 DATA SOURCE

The study was conducted in the state of Delhi which included visit to the medical record department of various government hospitals to collect the data regarding the medical record storage process in various hospitals that included study of the workflow of the medical record department that was being followed by with the help of a standard questionnaire which contains detailed interview questions related with medical record department.

2.4 DATA ANALYSIS

SPSS version 15.0 was used for data entry and analysis. Before data entry, each and every questionnaire was scrutinized with respect to completeness and consistency of the questionnaires. The scrutiny and coding of the questionnaires was initiated and in-house data entry was started in HCX Pvt. Ltd. Delhi as soon as the field work was over. Once the data entry was over, data was checked manually for its completeness, correctness and consistency in a systematic manner and excel sheet was checked accordingly. The analysis/tabulation plan was prepared under the guidance of mentors in HCX.

CHAPTER 3

Results and Findings

This chapter provides the results and the findings of the study based on the information that was provided by MRD staff of the hospital. The findings are based on the field research, desk research and the publications which were open to access. The chapter will provide the analysis of the variables that were formulated to describe objectives of the study which were covered in different sections of the questionnaire.

3.1 BACKGROUND OF HOSPITALS

Different Departments in Hospitals

Almost all the 30 hospitals covered in the sample had all major departments like ENT, Orthopaedics, Obstetrics & Gynaecology, Ophthalmology, Surgery and Medical Records Department etc. Very few, rather just one or two hospitals covered did not have a separate department for maintaining medical records of the patients.

Background Information of MRD

The hospital staffs of MRD were asked about the time since when the MRD of hospital is in operation as shown in Table (3.1a). More than half (53%) of the respondents replied that MRD has been in operation since 10 years or more. Nearly one sixth (17%) of the respondents also said that it has been only 5 years since the MRD has started.

Table 3.1aTime since when MRD is Operational

MRD Operational	Categories	
	N	%
"5 years"	5	16.7
"10 years"	9	30.0
"More than 10 years"	16	53.3
Total N	**30**	**100**

Government Schemes Entertained by the Hospitals

All the respondents were asked about various government health insurance schemes which are entertained by the hospitals. Two third (67%) of the respondents reported saying the all the government schemes e.g. ESI , CGIS,DGHS and CGHS are being entertained by the hospitals. One tenth (10%) of the respondents were only found saying that only ESI is being entertained by the hospitals.

Table 3.1b Government Schemes Entertained by Hospital

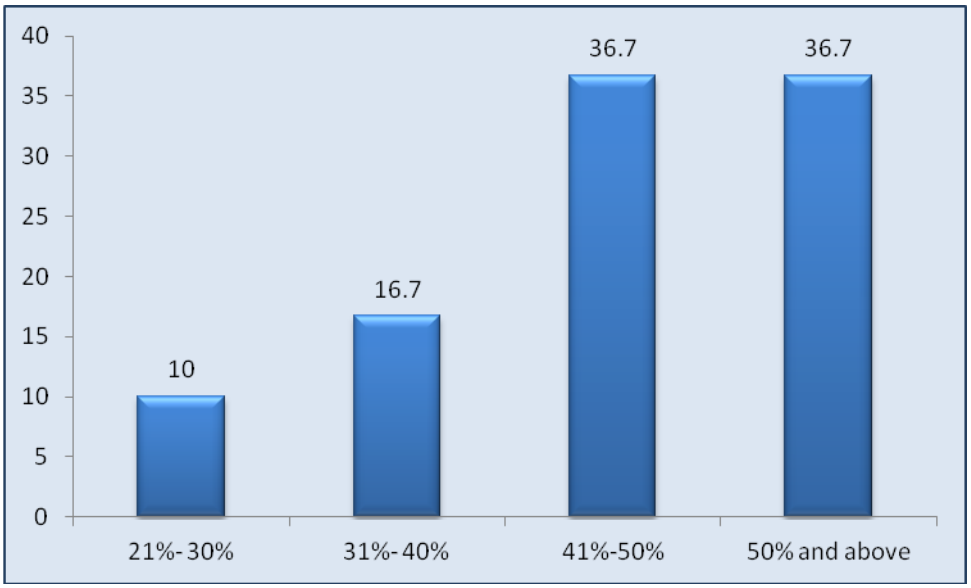
Government Insurance Schemes	Categories	
	N	%
ESI	1	3.30
CGHS	9	30.0
All Schemes	20	66.7
Total N	**30**	**100**

Average Number of Patients Returning back for Treatment

All the respondents were asked about the average number of patients who return back for treatment to the same hospital. More than one third (37%) of the respondents said that the average is somewhat between 40-50% and above for the patients returning back for treatment.

Table 3.1c Average Number of Patients returning for Revisit

Number of patients Revisiting	Categories	
	N	%
21%- 30%	3	10.0
31%- 40%	5	16.7
41%-50%	11	36.7
50% and above	11	36.7
Total	**30**	**100.0**

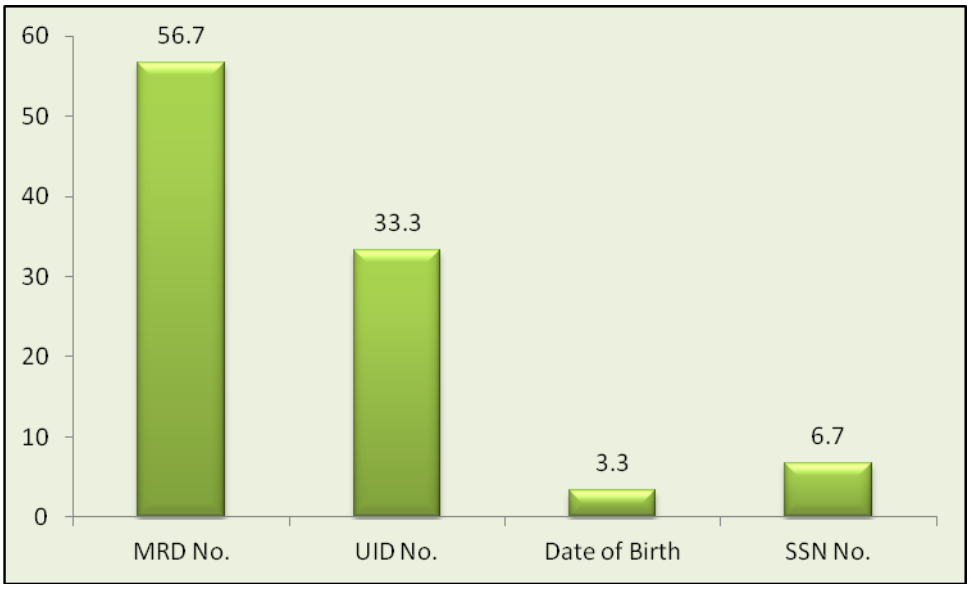


Tracking the Patients in case of Revisits

The respondents were asked about the procedure with which the patients are tracked in case they revisit the hospital for some treatment. More than half (57%) of the respondents said that it is done on the MRD number which is allotted to the patients followed by one third (33%) of the respondents saying that it can also be on the basis of UID number which the patients have as represented in Table—

Table 3.1d Tracking Revisiting Patients

Tracking of revisiting patients	Categories	
	N	%
MRD No.	17	56.7
UID No.	10	33.3
Date of Birth	1	3.3
SSN No.	2	6.7
Total	**30**	**100.0**



3.2 MEDICAL RECORD DEPARTMENTS

This section deals with the details of Medical Record Departments. The various tasks performed by medical record departments and various other duties carried out by the staff of medical record departments.

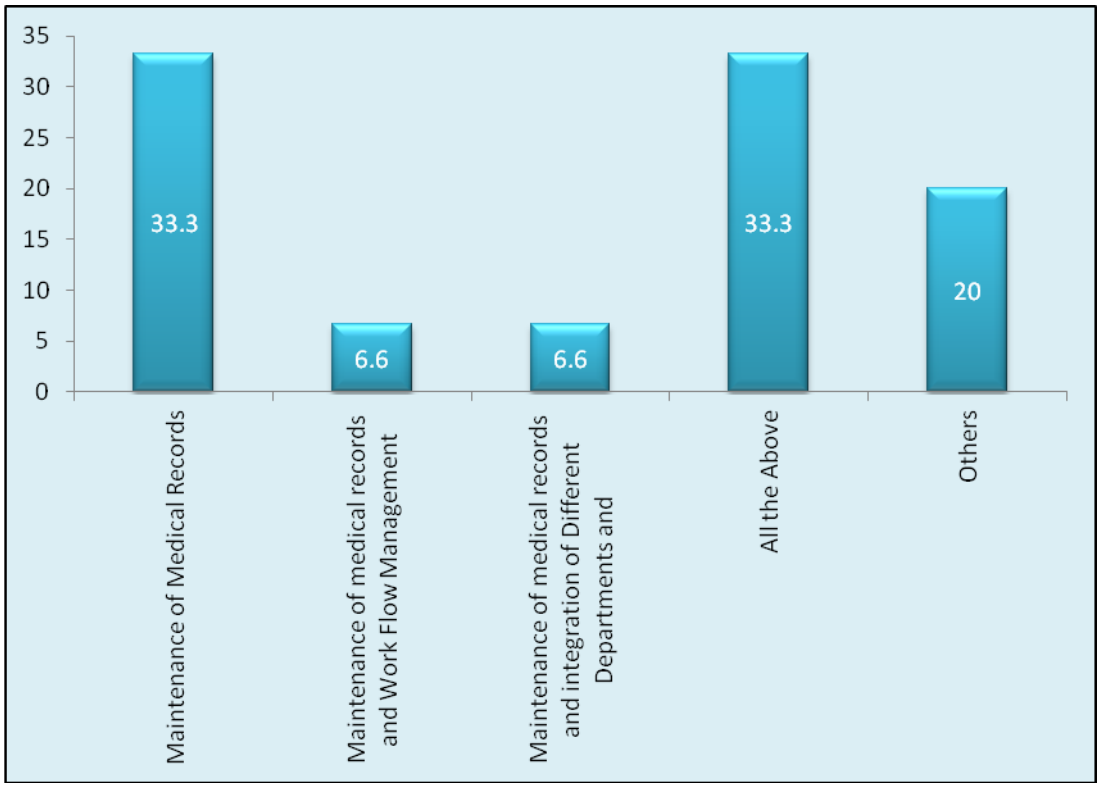
Functions of MRD

The hospital staffs were asked about the various functions performed by MRD as shown in Table 3.2a. Nearly one third (33%) of the respondents said that the major function of MRD staff is the maintenance of medical records. Apart from this, one third (33%) of the respondents also said that all the major functions like “maintenance of medical records”,

"workflow management" and "integration of different departments" are performed by medical record departments. Some other functions like Hospital census data, injured patients MLC case records, various statistics and records of government of India which are health related; are also maintained by medical record department as reported by one fifth (20%) of the respondents.

Table 3.2a Functions of MRD

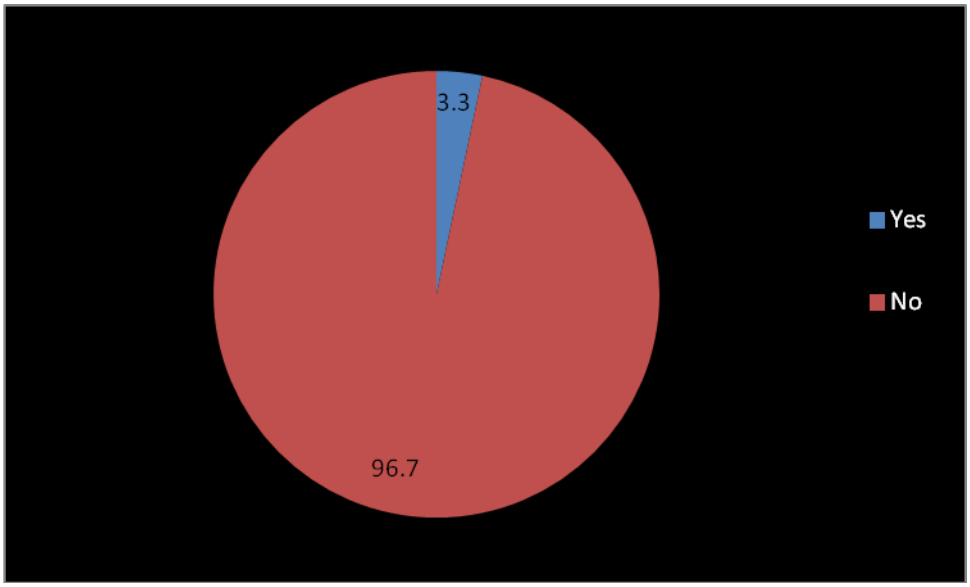
Functions of MRD	Categories	
	N	%
Maintenance of Medical Records	10	33.3
Maintenance of medical records and Work Flow Management and	2	6.6
Maintenance of medical records and integration of Different Departments and	2	6.6
All the Above	10	33.3
Others	6	20.0
Total N	**30**	**100**



Fee charged for photocopying the medical records

The respondents were asked about any fee which is charged for photocopying the medical records in the hospital. Figure 3.2a shows that almost all (97%) the respondents responded saying that no fees is charged for photocopying the medical records in the hospital

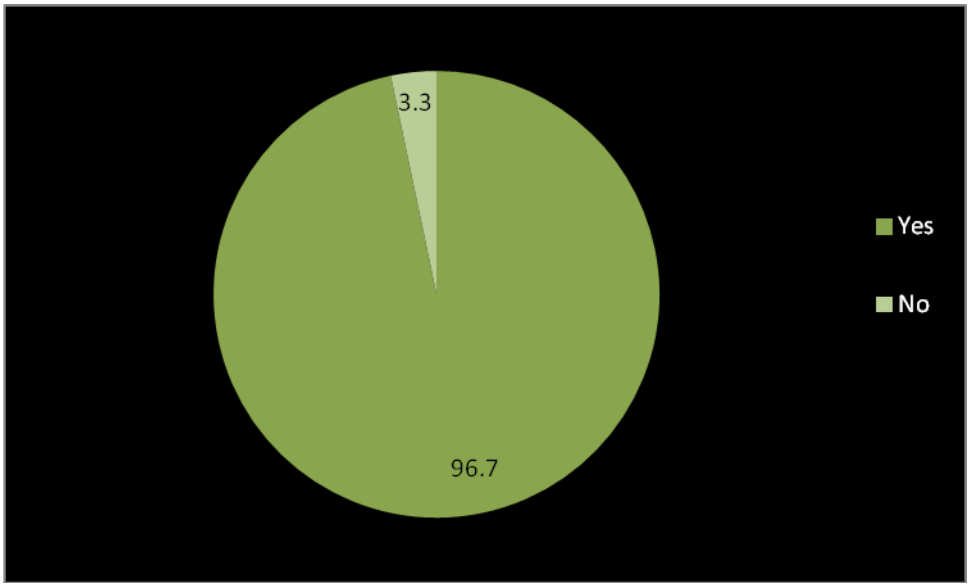
Figure 3.2a Fees charged for photocopying medical records



Use of Unique Identifier

All the respondents were asked about the use of Unique Identifier for patients in the hospital. Almost all (97%) of the respondents replied in affirmative.

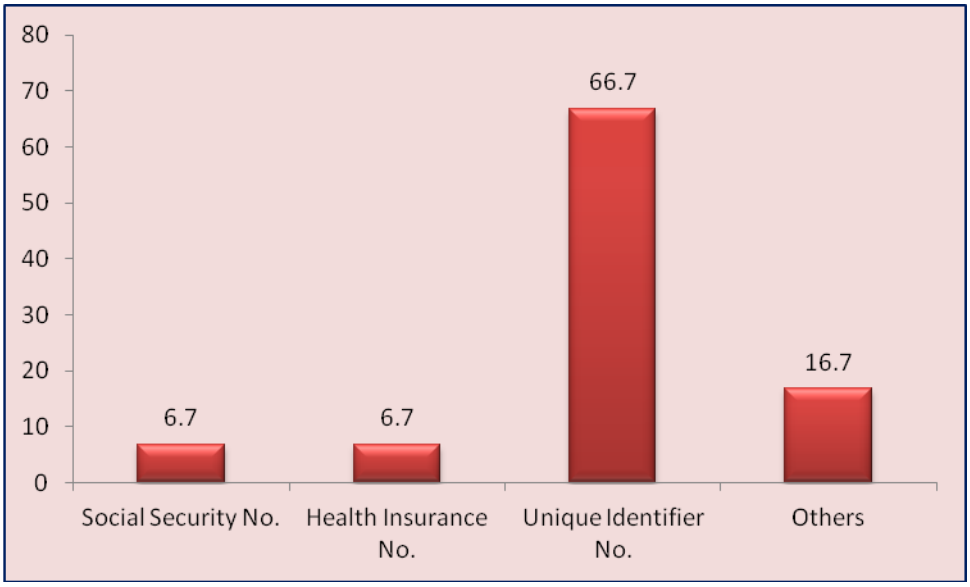
Figure 3.2b Use of Unique Identifier



Following this, the respondents were also asked about the kind of identifier used for the patients. Nearly two third (67%) of the respondents said that it is the Unique Identification number which is used for keeping a record of the patients. Apart from this, other kinds of identifiers such as "MRD No.", "CR No." or "OPD case no." is also used for keeping a record of the patients as reported by one sixth (17%) of the respondents.

Table 3.2b Kind of Identifier Used

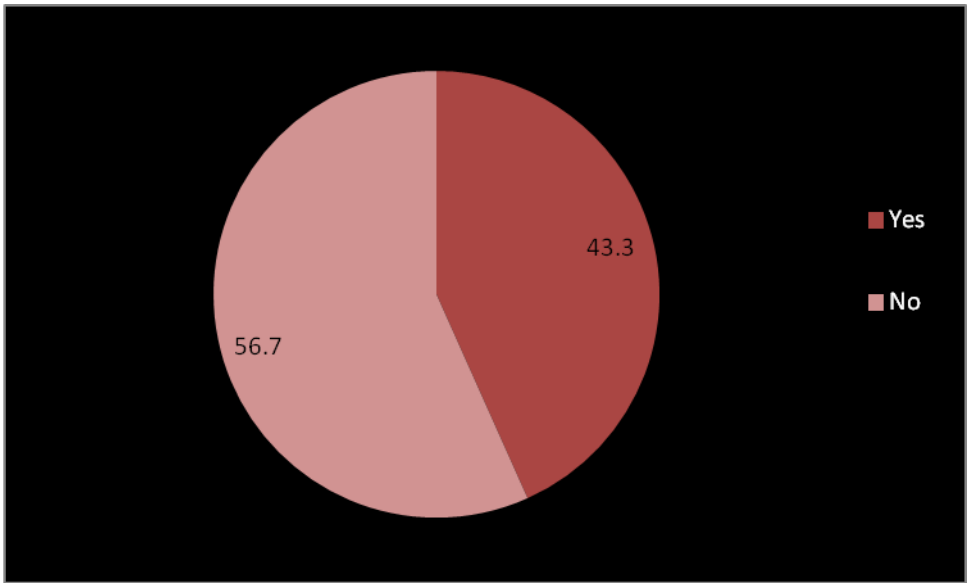
Kind of Identifier used	Categories	
	N	%
Social Security No.	2	6.7
Health Insurance No.	2	6.7
Unique Identifier No.	20	66.7
Others	5	16.7
Total N	**30**	**100**



Use of Number Register for allotting Medical Record Number

The staff of medical record departments was asked about the use of number register for allotting medical record number to the patients. Out of a total of 30 hospitals those which were covered, little less than half (43%) replied in affirmative. However, it was integrating to know that the 'No' percentage also was not too high (53%) as shown in Figure 3.2c

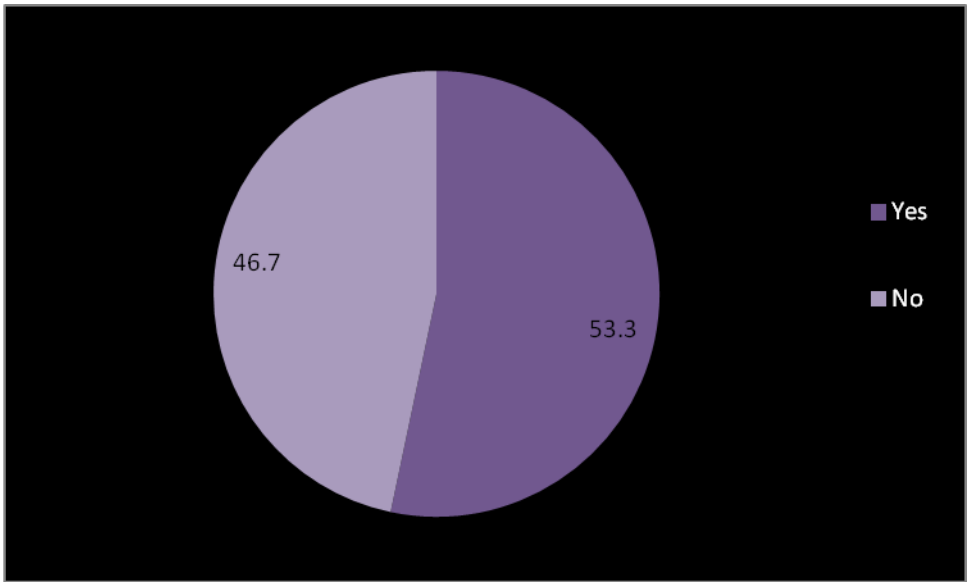
Figure 3.2c Use of Number Register



Use of Medical Records for Research Purpose and Disease Index

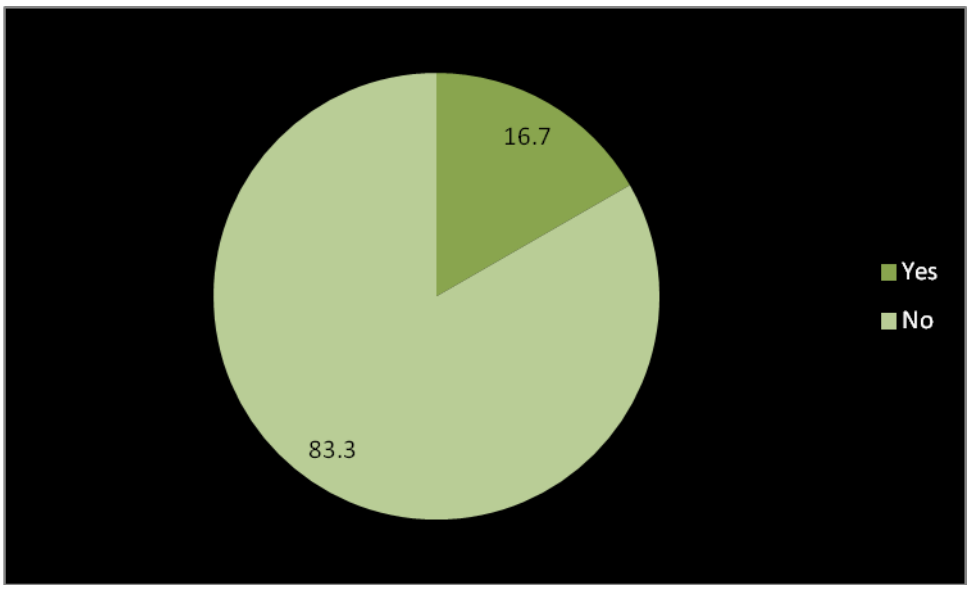
The respondents were asked whether the medical records maintained by them are also used for any kind of research purposes. Almost all the respondents replied in affirmative. They were further asked that if the medical records are used for some research purpose, does the hospital have disease index for that. More than half (53%) of the respondents said that they do have disease index for keeping patients records to be used for research purpose.

Figure 3.2d Disease Index



Apart from this, the respondents were also asked whether the hospitals have a computerised disease index or not. More than four fifth (83%) of the respondents said that the hospitals do not have computerised disease index for locating records of a specific disease.

Figure 3.2e Computerised Disease Index



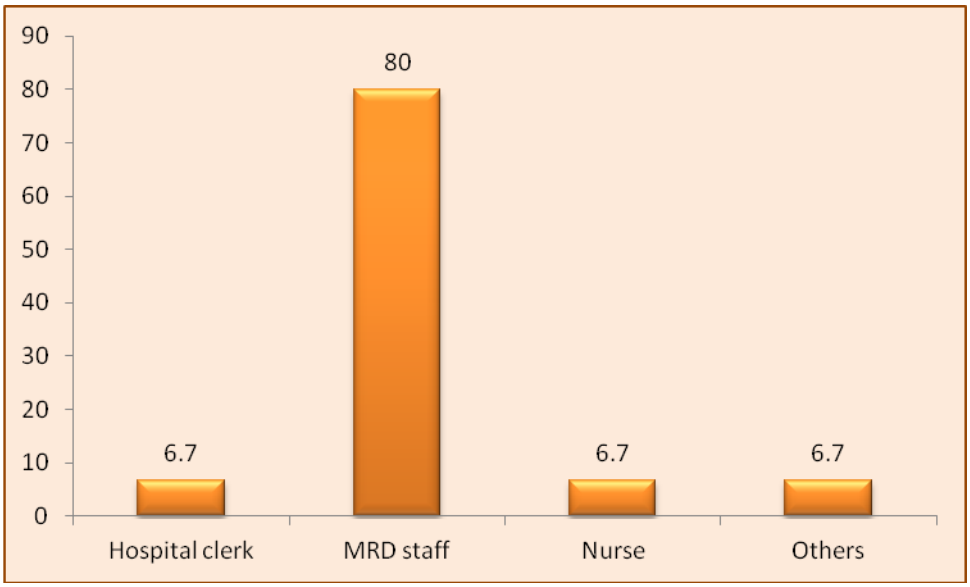
Kind of Filing Method Used in Hospitals

All the respondents were asked about the type of filing method used in the hospitals. Very few respondents said that it is numerically by filing the records according to the given numbers. However, most of the respondents said that they follow different procedures like according to date of discharge, providing colour schemes for different register records etc.

It was further asked about the persons who are responsible for filing the medical records. Four fifth (80%) of the respondents said that filing medical records is a responsibility of medical record department staff as seen in table –

Table 3.2c Persons Responsible for Filing Medical Records

Persons Responsible for filing medical records	Categories	
	N	%
Hospital clerk	2	6.7
MRD staff	24	80.0
Nurse	2	6.7
Others	2	6.7
Total	**30**	**100.0**



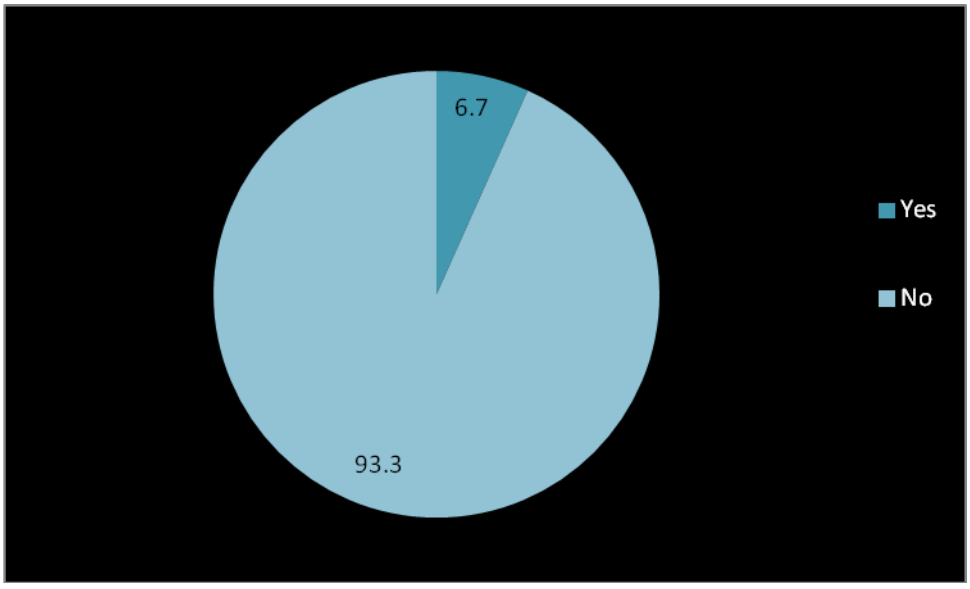
3.3 Health Insurance Schemes

A part of the study was also to find out the various health insurance schemes which are being entertained by these hospitals. Mainly it was to gather some knowledge and aspects about government health insurance schemes. This section in brief presents about government health insurance schemes.

Storage procedure for records of Insured Patients

All the respondents were asked about any particular storage method that the hospital has for storing records of medically insured patients. Almost all (93%) the respondents replied in negative saying that there is not separate procedure for keeping records of insured patients.

Figure 3.3a Storage of MR for Insured Patients



Government Scheme with Maximum Number of Patients

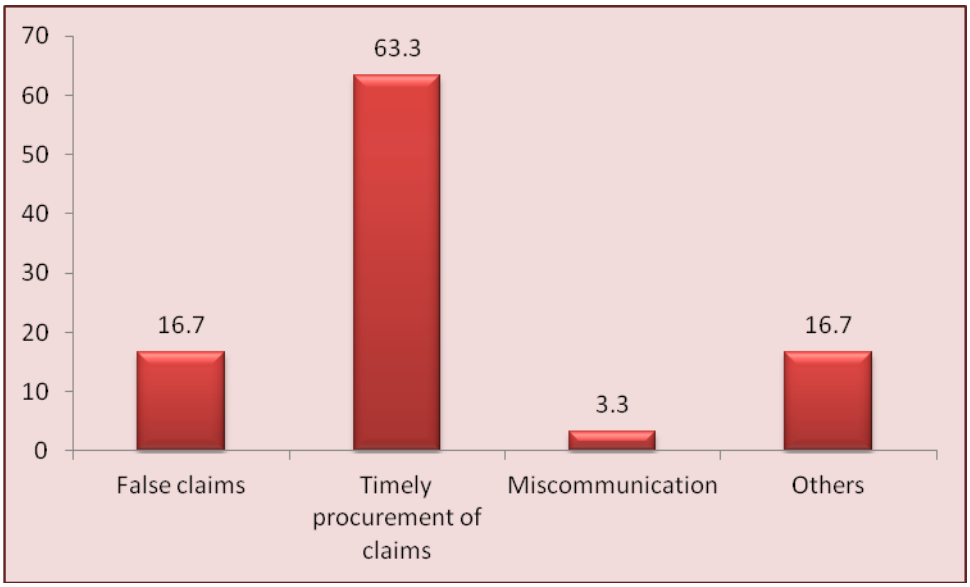
The respondents were asked about the insurance schemes under which maximum number of patients seeks treatment in their hospital. Most of the respondents said that it is according to the insurance scheme which is being entertained by the particular hospitals. There was no exclusive ranking of any government health insurance scheme which was being entertained.

Problems faced at the time of Claims Management

When asked about the various problems which are faced by the hospitals at the time of claims management, shown in table--, more than three fifth (63%) of the respondent said that it is the timely procurement of claims. It was mentioned by the hospital staff that they do not receive the claims money well in time from the insurance companies and this becomes problematic for them to treat large number of patients. Apart from this, one sixth (17%) of the respondents also said that the problem also is for false claims on the part of the patients.

Table 3.3a Problems faced in Claims Management

Problems	Categories	
	N	%
False claims	5	16.7
Timely procurement of claims	19	63.3
Miscommunication	1	3.3
Others	5	16.7
Total	**30**	**100.0**



Average Time Taken by the Hospitals (public/private) for Obtaining Claims

The hospital staffs were asked about the minimum or the average time they take for obtaining claims for insured patients. Open ended responses were gathered from the respondents where they said that a minimum of "one weeks' time" is always taken to obtain claims for insured patients.

CHAPTER 4

Discussions

The present chapter deals with discussion and conclusion based on the findings presented in the previous chapter. The broad objective of the study highlights the maintenance and effectiveness of the medical record department of various hospitals and a brief about the government health insurance schemes at these hospitals. As such, the present chapter will deal with the major finding about MRD and government health insurance schemes.

The results and finding have been described in three major sections which are:

1. Brief about the hospital
2. About Medical Record Departments
3. About Government Health Insurance Schemes

The major finding of the study deals with the effectiveness of the Medical records departments of the covered hospitals. Also, as mentioned in review of literature, medical records department is one of the most important and crucial departments of the hospitals whose up gradation, referrals and procurement of records on timely basis is the major need of any hospital.

The study finding shows that there were medical records department present in each of the hospitals covered in the study. This is a good thing on part of the hospitals as the presence of MRD is an essential requirement for all hospitals for different purposes like maintaining medical records, integration of different departments, in order to maintain proper work flow of all hospitals and in medico-legal cases etc.

One of the major finding of the study also deals with the filing of medical records of the patients. There were no standard procedures followed for filing medical records of the patients and also the lack of computerised disease index in almost all the hospitals came out to be another major drawback on the various operations of medical record departments of the hospital.

Also, another important finding that came up in the study was the maintenance and presence of disease index in the hospitals. Disease Index is necessary for naming or classification of diseases according to internationally laid standards. As such, for various retrospective researches and also other major researches the operationalization of disease index is absolutely necessary for any hospital in order to provide absolute and authentic records.

In most of the hospitals, the use of number registers was not in practice for allotting medical record number. However, in more than 50% of the hospitals it was being followed. That is a good practice on part of the hospitals in order to avoid loss of data for particular patients for specific diseases.

The study was conducted with as structured questioned which mainly had binary responses. One of the major findings of the study was when the medical record department staff was asked about any regulatory agency or organisation that governs the practice of medical records for release, confidentiality and content, none of the hospital staffs were able to tell about any organisation doing so. As such, in the findings chapter, it was not brought out very clearly and that went to be a missing response. As per GOI guidelines, there has to be a regulatory agency/organisation for keeping a check of patients' records for medical records department of the hospitals.

Talking about various government health insurance schemes, the study findings shows major problems which are being faced by the hospital staff in receiving claims on time and treating the patients. Timely procurement of claims is still a problem for majority of the hospitals which in turn may affect the treatment response also for the patients.

CHAPTER 5

Conclusion and Recommendations

The study done was to assess the effective of the medical records and their proper maintenance. As such, we conclude from most of the findings that majority of the hospitals does not have any standard method particularly for storage of medical records. As such, we recommend from the study that the hospitals should have certain standard procedures or guidelines for storage of medical records in order to avoid loss of data.

It seen from the findings that none of the hospitals covered under the study had computerised system for maintenance of medical records. As such, seeing present scenario, it is recommended for all the hospitals especially the public set ups to have computerised system for maintaining medical records in order to have efficiency and save time.

None of the hospital staff covered under the study had some regulatory agency to govern the practice of medical record departments with respect to confidentiality, appropriateness, release and content. As such, provision of an agency/organisation to govern medical record department should be there in order to ensure effectiveness, authenticity and completeness of medical records.

It is also recommended for hospitals to have computerised disease index system for maintenance of medical records so that when the records are used for any research purpose, it will be easier to locate the records of specific diseases with the help of computerised disease index.

As the study also covered in brief an aspect of insurance, we would recommend that the release of claims should be on timely basis so that it does not become troublesome for patients and also there should be separate patient recording system for insured patients so as to reduce time.

The medical records should be supervised very carefully by the MRD staff before filing the records.

CHAPTER 6

Limitations of the Study

Though the study was done with a broad perspective, yet it had some limitations which are:

- The sample size that was taken for the study was small due to the time constraint
- The hospital staff initially was reluctant to participate in the study and to disclose the correct information
- Due to the small sample size, the findings of the study cannot be generalized in a proper extent for all the hospitals

CHAPTER 7

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ANNEXURES

INTERVIEW QUESTIONS FOR HOSPITAL STAFF OF MEDICAL RECORD DEPARTMENT

Consent Form

Introduction: Namaste, My name is Abhishek Singh. I am a student of IIHMR, New Delhi. I am conducting a study which assesses the maintenance and effectiveness of health related data and records of government hospitals and organizations.

Consent for the Interview: Your participation for the study is voluntary and would be highly appreciated. Few questions will be asked in this regard. The complete interview is scheduled for 15-20 minutes. Information shared by you will be kept private and confidential.

I would like to get your consent to participate in the survey. You can wish to answer the questions and not to answer any question or all the questions. Your participation will be of great importance.

At this time, if you have any questions please ask?

Respondent Agrees to be interviewed begin the interview……Begin interview
If the respondent does not agree to be interviewed ……End

May I begin with the interview now?

Location of the Hospital……
Sub Area…….
Date…….
Signature of the Interviewee…….

Section A: About the government hospital/Organisation

Q. No.	Questions	Coding categories and codes	
1.	Can you please tell us about the various departments in your hospital	First Department name……. 1 Second department name……2 Third department name……3 Fourth department name……..4 Others (Please specify)……...5	
2.	Can you please tell us about the medical record department of the hospital? **RECORD VERBATIM**		
3.	What are the various functions that are performed by the medical record department of the hospital?	Maintenance of patient records……1 Work flow management……..2 Integration of different departments……3 Others (Please Specify)…….4	
4.	Since how long have you been maintaining the medical records in this hospital?	5 years……..1 2 years……..2 10 years……3 More than 10 years…….4	
5.	What are the various government schemes that are entertained by the hospital?	RSBY……1 CGHS…….2 Others (please specify)…….....3	

Section B: About the medical record department of the hospital

6.	Is there a fee charged in the hospital for the photocopying the medical records?	Yes……1 No……..2	→ **Skip to Q 9**
7.	**If YES in Q6**, how much is the cost?	Amount in Rs. _____	
8.	Which regulatory agency governs the practice of patient medical records with respect to release, confidentiality and content?	HIPAA……1 Others (Specify)……2	
9.	Is a unique identifier used in your hospital?	Yes……1 No……..2	→ **Skip to Q 11**
10.	**If YES in Q10,** Which identifier is used?	Social Security No. (SSN)……1 Date of births……2 Health Insurance No……..3 Unique Identification No…….4	
11.	What number of patients on an average returns back for the treatment?	Average No._____	
12.	How are patients tracked, if they revisit for any treatment under the insured schemes?	MRD No……1 UID No…….2 Date of Birth……..3 SSN No……..4	
13.	Do you follow a number register for allotting medical record number?	Yes……1 No…….2	
14.	Are all the forms in the medical record of same size?	Yes……1 No…….2	
15.	Who is responsible for the medical record service in the hospital?		
16.	Does anyone use the medical records maintained by the hospital for research purpose?	Yes……1 No…….2	→ **Skip to Q 19**
17.	**If Yes**, do you have a disease index?	Yes……1 No……..2	→ **Skip to Q 19**
18.	**If No**, how do you locate the medical record for a specific disease?		
19.	Does your hospital have computerized disease index?	Yes…….. 1 No…… 2	
20.	What type of filing method is used in your hospital?	Alphabetical filing……1 Straight numeric filing…….2 Terminal digit filing…….3 Others (Please	

		specify…….4	
21.	Who is responsible for filing medical record?	Hospital clerk.....1 MRD staff…….2 Nurse……..…3 Others (Please Specify)……4	

Section C: Insurance schemes

Q. No.	Questions	Coding categories and codes	
22.	What are the various insurance schemes entertained by your hospital? **RECORD VERBATIM**		
23.	Is there any particular storage procedure for medical records of insured patients?	Yes……1 No……...2	
24.	Government schemes with maximum number of patients (monthly/weekly)?	CGHS……1 RSBY……2 ESI……3 Others(please specify)……..4	
25.	Which is the biggest problem you face in claim management?	False claims……1 Timely procurement of claims……...2 Miscommunication ……...3 Others(please specify)……4	
26.	What is the average time taken for obtaining claim for insured patients? **RECORD VERBATIM**		
27.	How your hospital does check the status of claims of insured patients? **RECORD VERBATIM**		

Thank You for your Co-operation.

_____

Signature of the Interviewer