Dissertation

in

"GAP ANALYSIS for OPD, IPD & Emergency"
Based on IPHS and ISO Standards
of
District Hospital, Muzaffarpur

A Dissertation Proposal for

Post Graduate Diploma in Health and Hospital Management

by

Raman Kumar
PG/10/033

International Institute of Health Management Research
New Delhi - -110075

Date: 27-04-2012

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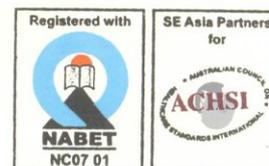
Dated: 9th May'12

CERTIFICATE OF INTERNSHIP COMPLETION

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Raman Kumar** has successfully completed his 3 months internship in our organization from **1st February, 2012 to 30th April, 2012**. During this internship tenure, he has worked on **"Gap Analysis of OPD, IPD & Emergency department based on IPHS and ISO Standards at District Hospital, Muzaffarpur, Bihar"** under my guidance and with my team at **Octavo Solutions Pvt. Ltd.**

During his internship tenure, he has worked diligently, efficiently, and his work performance has been found to be commendable.

We wish him good luck for his future assignments.

Dr. Alok Lodh
(General Manager Operations)

Octavo Solutions Pvt. Ltd.

Certificate of Approval

The following dissertation titled **"Gap Analysis for OPD, IPD & Emergency"** based on **IPHS and ISO Standards of District Hospital, Muzaffarpur** 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

Dated: 9th May'12

CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE

This is to certify that **Mr. Raman Kumar**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. He is submitting the dissertation project titled **"Gap Analysis of OPD, IPD & Emergency department based on IPHS and ISO Standards at District Hospital, Muzaffarpur, Bihar"** in partial fulfillment of the requirements for the award of the **Post-Graduate Diploma in Health and Hospital Management**.

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

Dr. Anandhi Ramachandran

Assistant Professor

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General Manager Operations

Octavo Solutions Pvt. Ltd.

New Delhi

Date: 14/5/2012

Date:

ABSTRACT

"Gap Analysis for OPD, IPD & Emergency" based on IPHS and ISO Standards of District Hospital, Muzaffarpur
by
Raman Kumar

Introduction

Ministry of Health and Family Welfare, Government of India in its bid to bring about a paradigm shift in healthcare delivery system across the country had undertaken initiative for quality improvement in the public health systems with the active technical assistance of National Health Systems Resource Centre (NHSRC), a technical support wing of Ministry of Health & Family Welfare, Govt. of India. Though, NHSRC realizes the significance of increasing availability of health services, it is also aware that availability does not directly improve its utilization. It needs concerted efforts to bring about improvement in the quality and comprehensiveness of services through improvement initiatives for service delivery processes. With this understanding, NHSRC had started a project to enhance the service quality level at the District hospitals. It is time now to look at how evaluation of the hospital and subsequent improvement, go hand in hand leading to better access and quality service to all service seekers with focus on erstwhile deprived section of the society.

This project is initiated by State Health Society Bihar, National health system Resources centre (NHSRC) and Octavo solutions Pvt. Ltd. to improve the quality of Public health services in the state of Bihar.

To facilitate the above goals, comprehensive study of Sadar Hospital, Muzaffarpur was carried out on the current processes, practices and existing infrastructure with other available resources to identify the major gaps based on ISO 9001: 2008 quality management system and Indian public health standards as applicable to Sadar hospital.

Aim

The aim of this study is to identify areas of the current and target quality management system for which provision has not been made in the technical architecture. This is required in order to identify projects to be undertaken as part of the implementation of the target quality management system for achieving ISO certification.

Objectives of the study are:

1. To describe the process flow of respective departments in the hospital with the identification of process Owners, Input(s), Outputs (s) and process flow of each process occurring at each section of the hospital with the relevant records.

2. To identify the significant gaps observed on all the processes in each section and explanation of the gap statement with document evidences and photographs. The gaps are analyzed based on IPHS and ISO 9001: 2008 standards.

3. To prepare Time Bound Action Plan to fulfill the gaps, if any.

Methodology:

STAGE I: IPHS Checklist was used for a total survey of the departments in terms of services provided, Manpower, Physical infrastructure, Equipments, drugs and Lab services.

STAGE II: Observation and personal interview were used to map the various processes of the hospital and to know the functioning of the each department.

STAGE III: Extensive analysis based on data collected from stage I and Stage II. Based on this Gap analysis was prepared reflecting the processes, Infrastructure, Equipments, Manpower. The report reflects strengths of the departments and various gaps observed in the processes and other parameters.

Area of Study: The study was under taken in Sadar Hospital, Muzaffarpur, Bihar.

Results and Recommendations

The study includes documentation and review of manpower, equipment, infrastructure, processes including training and capacity building activities, services & facilities provided legal compliances etc against IPHS and ISO 9001:2008 Quality Management System. For this the format for "Facility Survey" available in IPHS guidelines was used to capture the data. This includes all support processes including nursing, housekeeping & laundry services, security services, dietary services, information support services, out-sourced services, etc.

Conclusion

Special consideration on gaps of the department is given and time bound action plan is prepare and need to be monitor by the hospital's internal expert consist of Civil Surgeon, Deputy Superintendent, Hospital Manager and Nursing In Charge. It will help for the quality improvement process of Sadar Hospital, Muzaffarpur.

ACKNOWLEDGEMENT

It gives me immense pleasure to express my profound regards and sincere gratitude to my organization guide **Dr. Alok Lodh,** General Manage Operations, Octavo Solution Pvt. Ltd., New Delhi, for providing me the opportunity to work at District Hospital, Muzaffarpur, Bihar and helping me at every step of project.

It also gives me immense pleasure to acknowledge my indebtedness and deep sense of gratitude to **Dr. Gyan Bhushan (Civil Surgeon)** for giving me valuable persistent encouragement and inspiring guidance in the due course of data collection, compilation, analysis and report writing.

I also want to express my heartfelt gratitude to **Dr. B N Jha (Deputy Superintendent)** for providing thoughtful suggestions, encouragement and guidance during the entire duration of **Gap Analysis**.

Also my warmest thanks to **Mr. Shashi Ranjan (Head Clerk)** for his active co-operation without which, it would not have been possible to accomplish this task.

My heartiest thanks to my faculty guide **Dr. Anandhi Ramachandran, Assistant Professor** for academic guidance at each and every step in the preparation of this report. They gave their full support and attention in giving required directions for completion of the report. Without her support this report would not have been completed as required.

Thank You

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ABBREVIATIONS

ABG	Arterial Blood gas Analyzer
AERB	Atomic Energy Regulatory Board
AFB	Acid Fast Bacillus
AIDS	Acquired Immuno Deficiency Syndrome
ANM	Auxiliary Nurse Midwife
ARV	Anti Rabies vaccine
BHT	Bed head Ticket
BMW	Bio-medical waste
CMO	Chief Medical Officer
CS	Civil Surgeon
CSSD	Central Sterile Supply Department
DHS	District Health Society
DOTS	Directly Observed Treatment Short course
DPM	District Program Manager
DS	Deputy Superintendent
ECG	Electro Cardiograph
EEG	Electroencephalograph
ER	Emergency
HK	House Keeping
HR	Human Recourses
ICTC	Integrated Counseling and Testing Centre
ICU	Intensive Care Unit
ILR	Ice lined Refrigerators
IPD	Inpatient Department
IPHS	Indian Public Health Standard
IUD	Intra Uterine Device
JBSY	Janani Bal Suraksha Yojana
LHW	Lady Health Worker
LSCS	Lower segment Caesarian section
MLC	Medico Leal Case
MO	Medical officer
MOIC	Medical Officer In-charge

MRD	Medical Records Department
NHSRC	National Health System Resources Centre
NRHM	National Rural Health Mission
NSV	Non-scalpel Vasectomy
OPD	Out Patient Department
OPSL	Octavo Solution Pvt. Ltd.
OPV	Oral Polio vaccine
OT	Operation Theatre
OT	Occupational therapy
PT	Physiotherapy
RKS	Rogi Kalyan Samiti
RNTCP	Revised National Tuberculosis Program
RO	Reverse Osmosis Plant
SHS	State Health Society
TB	Tuberculosis
TURP	Trans Urethral Resection of the Prostrate
USG	Ultrasonography
VHN	Village Health Nurse

Part I:
Internship Report

1.1   OCTAVO SOLUTIONS PVT. LTD.

MISSION

To become the Leader in Healthcare Consulting in India by providing value for money; effective, efficient solutions and hands on support.

VISION

To focus on continuous development of processes for understanding the needs and expectations of the Clients; leading to continual improvement and achievement of real Client satisfaction.

To redesign (existing) and develop (new) quality healthcare institutions and hospital with competitive process designs/ models matching national and international standards.

About OSPL

Octavo Solutions Pvt. Ltd. (OSPL) came in operation in October 2006, formally incorporated as private limited company on 26th February 2007, as a multidisciplinary Health & Hospital Management Consulting firm, established and managed by health management experts, supported in its initiatives and efforts by experienced and reputed experts in field (like Architecture, Engineering, Public Health, Bio-medical Engineering, Clinical Experts, National and International Quality Gurus, Project Management experts), who have successfully undertaken health, hospital and other infrastructure projects ranging from small nursing homes to large medical college hospitals, including public health. OSPL is associated with a number of reputed consulting organizations and thus can draw upon qualitative and latest expertise as and when required. With its ongoing in-house research and quality improvement efforts, the organization always strive to be up-to-date and able to provide the client qualitative, cost effective and comprehensive solutions.
Octavo Solutions Pvt. Ltd. is the first Consulting firm registered with Quality Council of India (NABET) for providing consulting services in field of Healthcare.
It has Business alliance with many reputed organization like IIQ Systems (Hyderabad), Australian Council for Health Standards International (ACHSI), Sydney (Australia), Wellness Health & You (WHY), Kothari Associates, ARCOP, Mindbank Consultants.

Area of concern is

- Planning
- Systems Development & Operation
- Quality Healthcare Certifications
- Public-Private Partnership
- Capacity Building
- Knowledge Management
- Public and Rural Health

Currently above 70 projects are running in different parts of India in different area. In Bihar it is manly working for the ISO accreditation of District Hospitals and Primary Health Centers of several districts.

1.2   District/Sadar Hospital Muzaffarpur (Bihar) - Place of Internship.

District Hospital Muzaffarpur caters to the people living in urban and rural people in the district. District hospital system is required to work not only as a curative centre but at the same time should be able to build interface with the institutions external to it including those controlled by non-government and private voluntary health organization. This hospital is situated in Muzaffarpur (Bihar). It is Referral hospital for Primary Health centre & Sub-centers. It covers the 16 PHC. Approximately, It Covered the 24, 50,000 populations. The number of beds available in the Hospital is 218. The Hospital compound is good and enough area for patients cares. Environment is good surrounding of the hospital. Available of all departments is the positive point of the hospital but not in good condition and need to properly maintain. Transporting facility is good and the road is very good in condition. Patient comes easily in the hospital.

S. No	Area	Number
1	Total Population covered	24,50,000
2	Total area of hospital	22 acres
3	Total beds	218
4	Total functional bed	164
5	Total doctors	24
6	Total nurses	15(A grade) 8 (ANM) 1(LHV)
7	Total pharmacist	3
8	Total Indoor patient / month	1033
9	Total Outdoor patient / month	24074
10	Fee collection / Month	39754
11	Total emergency patient/month	950
12	Total referred patient/month	14
13	Total operation family planning	18
14	N.S.V	0
15	General Operation (Major) / Month	32
16	General Operation (minor) / month	111
17	Total still birth / month	41
18	Total caesarean / month	02
19	L.S.C.S death child /month	0
20	Delivery normal / month	680
21	Total delivery /month	685
22	Immunization mother/month	320
23	Immunization child / month	668
24	TB Positive	177
25	TB negative	1299
26	Kala-azar	16
27	Total death/month	03
28	Total dog bite (ARV)	04
29	Total snake bite (AVS)	00
30	Govt X – Ray	653

Table 1: FACT SHEET OF SADAR HOSPITAL, MUZAFFARPUR

The Departments and Services available on the hospital are:

Specialist services available in the hospital

- General Medicine
- General Surgery
- Obstetrics & Gynecology: Family Planning, Antenatal checkup, Intra natal care 24 hour Delivery services and Post Natal Care
- Pediatrics including Neonatology
- Emergency (Accident & other emergency/ Casualty)
- Anesthesia
- Ophthalmology
- ENT
- Dermatology and Venerology (Skin & VD) RTI / STI
- Orthopedics
- Radiology
- Dental Care
- Public Health Management
- School Health Services

Para Clinical Services

- Laboratory services
- Blood Bank
- Drugs and Pharmacy

Support Services

- Medico-Legal/ Post -Mortem
- Ambulance Services
- Dietary Services
- Laundry Services
- Security Services
- Nursing Services
- Sterilization and Disinfection

National Health program

- Universal Immunization Program
- Janani Bal Suraksha Yojana
- Revised National Tuberculosis Control Program
- National AIDS Control Program
- National Leprosy Eradication Program
- National Program for Control of Blindness
- Integrated Disease Surveillance Project (IDSP)
- National Vector Borne Disease Control Programme (NVBDCP)
- National Programme for Prevention and Control of Deafness (NPPCD)
- National Cancer Control Programme (NCCP)
- National Mental Health Programme (NMHP)
- National Programme on Prevention and Control of Diabetes, CVD and Stroke (NPDCS)
- National Iodine Deficiency Disorders Control Programme (NIDDCP)
- National Tobacco Control Programme (NTCP)
- National Program for Health Care of Elderly

Observation during Internship period

STRENGTHS

- The hospital is located in the centre of the town and easily approachable. The hospital is in close proximity to railway station and bus stand.
- The hospital serves as a referral centre for the whole district and caters a large population.
- The hospital has all the major specialties and trained manpower to deliver the services.
- The Rogi Kalyan Samiti is very effective in this hospital.
- Involvement of private sector in the hospital functioning is working very efficiently and effectively.

WEAKNESSES

- The Physical infrastructure is in a bad shape and needs development and renovation.
- Doctors requirements are not filled as per Patient load and IPHS standard
- Weak peripheral health care system needs to increased patient load and hence departments have not been developed as per the district hospital standards.
- Centralized decision making at state level leads to delay in approval and implementation.

OPPORTUNITIES

- Availability of space for the development of hospital.
- Proper planning and coordination with DHS, NRHM and RKS can lead to development of services and better delivery of health care in an integrated way.
- The centre can be developed to serve as a training centre for junior doctors and paramedical staff.
- Willingness of Government to Empower the Leadership.
- Devolution of powers at local level for smooth functioning.
- Involvement of Local Population in Development.

LIST OF PERCEIVED CHALLENGES BY LEADERSHIP TEAM

- Decentralization of decision making at the Hospital level.
- Following all legal requirements such as AERB, BARC, etc.
- Adherence to Biomedical Waste Management rules 1998
- Following infection control practices.
- Upkeep and Sanitation of Hospital building and environment.
- Rearrangement of the various facilities as per the flow of the patient.
- Provision of lift services in the OT and Labour room.

The main tasks performed as a management trainee are

- Process Mapping & Gap Analysis
- Assessment against ISO standard
- Preparation of Action Plan:
- Training Need Assessment of the employee of the Hospital.
- Collection of Forms and Format of the Hospital
- Patient Satisfaction Survey
- Employee Satisfaction Survey

LEARNINGS from the training

- Understanding the ISO Certification process
- Detailed Process mapping and process flow of all departments of Hospital
- Gap identification & Gap analysis of all departments of the hospital for quality improvement.
- Implementation of the quality process in hospitals
- Preparation of the action plan.
- Understanding of the Fund flow from State level

Part II
Dissertation on

"GAP ANALYSIS for OPD, IPD & Emergency"
Based on IPHS and ISO Standards
of
District Hospital, Muzaffarpur

District Hospital Muzaffarpur caters to the people living in urban and rural people in the district. District hospital system is required to work not only as a curative centre but at the same time should be able to build interface with the institutions external to it including those controlled by non-government and private voluntary health organization. This hospital is situated in Muzaffarpur (Bihar). This hospital is Referral hospital for Primary Health centre & Sub-centers. This hospital covers the 16 PHC. It Covered the 24, 50,000 population. The number of beds available in the Hospital is 218. The Hospital compound is good and enough area for patients care. Environment is good surrounding of the hospital. Available of all departments is the positive point of the hospital but not in good condition and need to properly maintain. Transporting facility is good and the road is very good in condition. Patient comes easily in the hospital.

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To facilitate the above goals, comprehensive study of Sadar Hospital, Muzaffarpur was carried out on the current processes, practices and existing infrastructure with other available resources to identify the major gaps based on ISO 9001: 2008 quality management system and Indian public health standards as applicable to Sadar hospital.

The Gap Analysis Report includes documentation and review of manpower, equipment, infrastructure, processes including training and capacity building activities, services & facilities provided legal compliances etc against IPHS and ISO 9001:2008 Quality Management System. For this the format for "Facility Survey" available in IPHS guidelines was used to capture the data. This includes all support processes including nursing, housekeeping & laundry services, security services, dietary services, information support services, out-sourced services, etc.
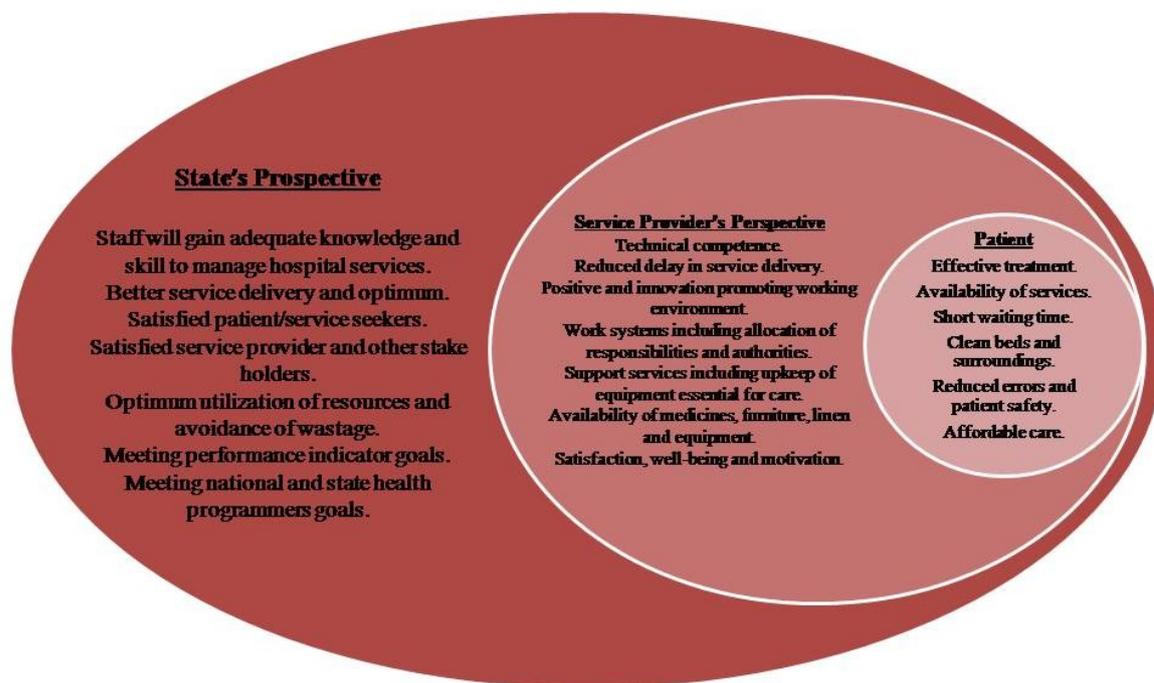

Figure 1: Different Prospective of Quality Management

The whole report is submitted as under

1. Describes the process flow of all the departments in the Sadar hospital, Muzaffarpur, with the identification of process Owners, Input(s), Outputs (s) and process flow of each process occurring at each section of the hospital with the relevant records.

2. Identifies the significant gaps observed on all the processes in each section and explanation of the gap statement with document evidences and photographs. The gaps are analyzed based on IPHS and ISO 9001: 2008 standards.

3. The annexure which contains the details collected in the Sadar hospital, Muzaffarpur and people interviewed with reference to the analysis done.

Area of Study	:	The study was under taken in Sadar Hospital, Muzaffarpur, Bihar.
Study	:	Descriptive Study based on primary and secondary data collection
Sampling	:	Convenience.
Target Sample	:	Doctors, Nurses, Hospital Administrator, housekeeping and utility services staff.
Tools	:	IPHS Checklist, ISO guidelines, interview schedule, Observation notes.
Method	:	Facility audit, in depth interviews with the Staff.

Sample size (for Patient Satisfaction Survey)

	:	OPD 200
	:	IPD 100

Research Methodology

Stage I

IPHS Checklist was used for a total survey of the hospital in terms of services provided, Manpower, Physical infrastructure, Equipments, drugs and Lab services.

Stage II

Observation and personal interview were used to map the various processes of the hospital and to know the functioning of the each department.

Stage III

Extensive analysis based on data collected from stage I and Stage II. Based on this AS IS Report was prepared reflecting the processes, Infrastructure, Equipments, Manpower. The report reflects strengths of the hospital and various gaps observed in the processes and other parameters.

Area and Sections Analyzed in the study

Area	Section
Administration	CS office
	DS office
	Account department
	Medical record dept
Ward	Emergency
	surgical ward
	medical ward
	Kala-Azar Ward
	Child ward
	Female Ward
	General OT
	Labour room
	Isolation
Outsourcing dept	Housekeeping department & BMW
	Laundry
	Dietary
	Generator
	Radiology & Laboratory (Sadhna)
Other departments	Hospitals own X-Ray Dept
	Hospital Store
	Pharmacy
	CSSD
	Security services
OPD	Consultation room
	Dressing room
	Data collection Room

Table 2: Area and Sections Analyzed in the study

List of People Interviewed for study

Designation	Department
Doctor	Psychiatry
Doctor	Dental
Doctor	Dental
Clerk	RKS
Clerk	Administration
Pharmacist	Medical store
NGO (Housekeeping Incharge)	Housekeeping
MWA	
MWA	
Store Keeper	
Matron	
Lab Tech	
X-ray Tech	
Lab Tech	
Lab Tech	
Dresser	
Grade A	
ANM	

Table 3: People Interviewed for study

List of Document Reviewed During Survey

Departments	Documents
Hospital statistics	Monthly Reports
Wards	Bed Head Tickets
	Doctor wise patient file
	Ward registers
Emergency	Emergency Registers
	MLC case register
Attendance	Nursing attendance sheet
	Employee attendance sheet
	Sweepers attendance sheet
Manpower	Total employee list
	Doctors roster department wise
	Doctors timing roster
	Nursing distribution ward basis
OPD	Patient registration register
	OPD tickets
	OPD statistics daily/ monthly basis
Store	Drugs register
	Furniture issuing register
Blood Bank	Drugs distribution register
	Total blood collection register

Table 4: Document Reviewed During Survey

3.1 Patient Satisfaction Survey

The Patient Satisfaction Survey is a short, easily administered questionnaire that provides health centers with information and insight on their patients' view of the services they provide. Health centers can use survey results to design and track quality improvement over time, as well as compare themselves to other health centers.

The objective behind this survey is to measure the level of satisfaction of the patients as an outcome of care in hospitals, to identify the areas of satisfaction and dissatisfaction in hospitals.

Some major findings of PSS:

- 80% of the patient has to wait for 20-30 min for registration at the registration counter.
- 100% of the patient says that staffs are very courteous to reply there query at the registration counter.
- 60% patient says that they have to wait for 10-20 min to go to consultation chamber after the registration.
- 100% of the patients are satisfied with the consultation of the doctor.
- 70% of the patients say that they don't want to undertake any investigation in the hospital.
- 60% of the patients are complaining that the investigation report is not available on time.

*Detailed PSS analysis is attached in annexure II.

3.2 OPD

The major findings in OPD:

- OPD patient's registration takes place from 8:00 am to 1:00 pm.
- There are two registration counters for both female and male patients.
- Drinking Water facilities is not available inside the hospital premises, There is one water cooler which is not in working condition, patient and visitor used to go for water near the temple which is inside the hospital premises.
- No Ramps and Hand rails for Disabled patients.
- There are no adequate chairs in waiting area.
- No availability of Wheel chairs & trolley.
- Information is not available in bi-lingual format at various locations.
- Too many patients and its relative enter the consultation chamber at a time.

3.3 IPD

The major findings in IPD:

- Nursing station is not located centrally or on one corner of ward for the direct observation and monitoring. In female wards nursing station is located at the one corner of the ward.
- Standard formats such as history sheet, consultant notes, Nursing notes, Medication chart, TPR chart, Investigation chart, consent form not available.
- Beds are cluttered together.
- Bed railings are not available in the wards.
- Bed side lockers are not provided to keep medicines.
- IV stands are not available in adequate number.
- Color coded bins for BMW segregation is not provided in the wards.

3.4 Emergency

The major findings in Emergency:

- Emergency patient comes directly to emergency.
- According to the nature of emergency cases doctors are called by staff that is looking after the emergency patient.
- Nursing staff is not deputed in the emergency.
- Nursing activity is done by dresser or pharmacist on duty in emergency.
- There is no one In-charge of ambulance for smooth coordination.
- The patient has to call 108 ambulance service himself to avail the service. 108 services provide both ACLS and BLS ambulance.
- Hospitals own ambulances are also in working condition. There are two BLS ambulance of hospital.

4.1   OUTPATIENT DEPARTMENT

The OPD department is situated in the new building of OPD which provide facilities like Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, Orthopedics, Dental, Ophthalmology, Skin and VD, Psychiatry. Total no. of OPD Room is 9 rooms and additional in this OPD building is ECG room, X-ray room, IPCTC room, HIV tests room and Plaster room is there. The total no. of Medical officers is 20. The OPD attendants are 24 in the OPD department. Every department have their own OPD register where they record the patients name, age, sex, registration no. and diagnosis and medicines prescribed to the patients.

Functionalities of OPD: It covers the patients who visit the OPD facility for new and follow up visits.

- Registration
- Consultation
- Examination
- Prescription
- Investigation Requisition
- Pharmacy Requisition
- Admission to IPD
- Referral

Responsibility

- The **Registration Clerk** is responsible for issuing Registration slip and providing consultation appointments.
- The **OPD Nursing In-charge** is responsible for monitoring the OPD unit functioning, maintaining necessary records and assisting the doctors/ Consultants.
- The **Doctors** shall be responsible for examination of the patients and for determining the line of management of the ailment / case thereof.

Flow Chart of the Registration Process and OPD consultation

```
┌──────────────────────────────────────────────┐
│      Patient comes to Registration Counter     │
└──────────────────────────────────────────────┘
                      │
                      ▼
┌──────────────────────────────────────────────┐
│    Patient asks for the availability of doctors │
└──────────────────────────────────────────────┘
                      │
                      ▼
┌────────────────────────────────────────────────────────────────────────┐
│ Registration clerk enters the details of patient in OPD registration     │
│ register and OPD Slip is generated                                        │
└────────────────────────────────────────────────────────────────────────┘
                      │
                      ▼
┌──────────────────────────────────────────┐      ┌──────────────────────────────┐
│ Patient is directed to General OPD         │─────▶│ Patient is directed to Specialty│
│ Consultation                               │      │ OPD Consultation room if required│
└──────────────────────────────────────────┘      └──────────────────────────────┘
                      │                                          │
                      ▼                                          │
┌──────────────────────────────────────────┐◀────────────────────┘
│    Concerned doctor examines the patient   │
└──────────────────────────────────────────┘
                      │
        ┌─────────────┴─────────────┐
        ▼                           ▼
┌──────────────────────┐   ┌──────────────────────────┐
│ The OPD slip is handed│   │ Goes to Laboratory /      │
│ over to patient with  │   │ Radiology for             │
│ prescription given.   │   │ investigations (if any).  │
└──────────────────────┘   └──────────────────────────┘
        │                           │
        ▼                           ▼
┌──────────────────────┐   ┌──────────────────────────────────┐
│ Patient goes to the   │   │ Patient collects the report from  │
│ pharmacy counter and  │   │ the laboratory / Radiology        │
│ receives medicine     │   │                                    │
└──────────────────────┘   └──────────────────────────────────┘
        │                           │
        ▼                           ▼
┌──────────────────────┐   ┌──────────────────────────────────┐
│ Scheduled for next    │◀──│ Doctor goes through the report    │
│ visit if required at  │   │ and gives prescription or advises │
│ OPD or Admission      │   │ admission and Inpatient treatment │
│                       │   │ if required                        │
└──────────────────────┘   └──────────────────────────────────┘
```

Figure 2: Process Flow chart for OPD

Registration counters for female

OPD Building entrance gate

Female Registration Counter
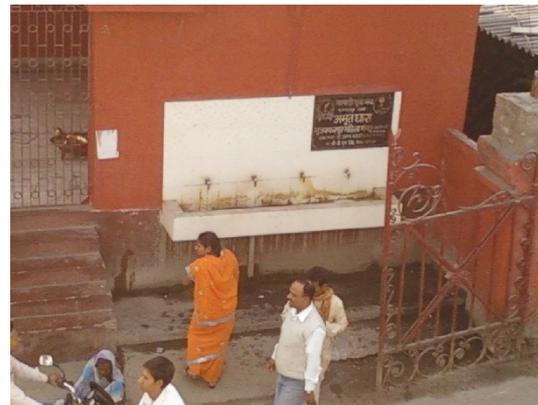
Drinking Water Facility for OPD

For Process Flow:

Process Group	OPD	Sub-Process	Registration
Process Location	Registration Counter	Process Owner	Registration Clerk
Input(s)	patient	Output(s)	No. of OPD registration per day

- **Process Flow / Process Description**
- OPD patient's registration takes place from 8:00 am to 1:00 pm.
- There are two registration counters for both female and male patients.
- The registration clerk at the Registration counter writes the patients name, age, sex, guardians name and address in a register and collects Rs 2 from the patients and allocates OPD Registration number on first cum first serve basis.
- After registration the patient waits for consultation with medical officer.

Patient Records		OPD ticket.

OPD Slip/ Registration slip
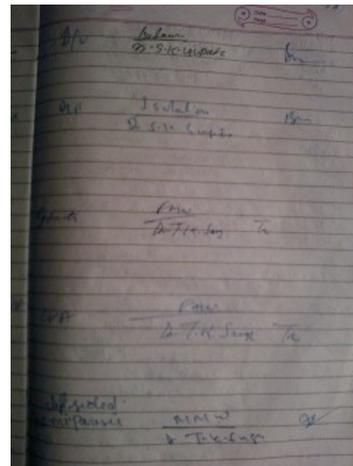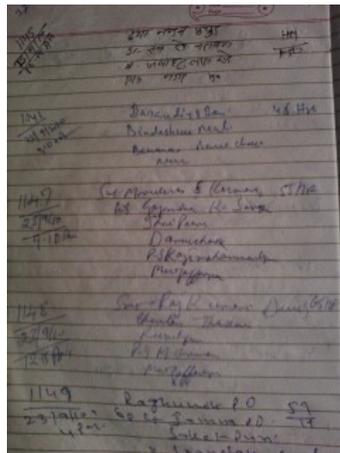
Doctor Wise IPD register
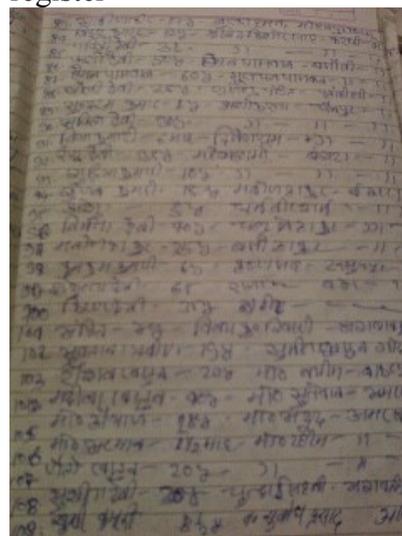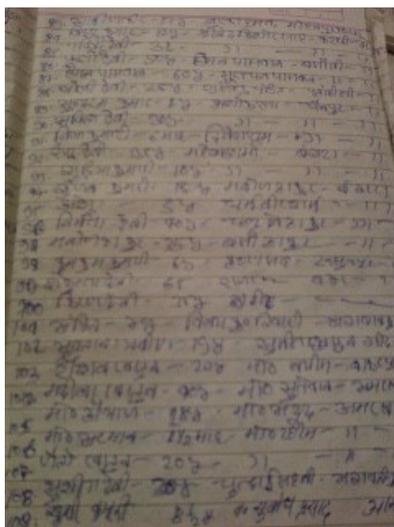
OPD Registration register

Doctors OPD register

Process Group	OPD	Sub-Process	Consultation
Process Location	Consultation Chamber	Process Owner	Medical Officer
Input(s)	OPD Ticket	Output(s)	- No. of OPD Consultations. - No. of investigation prescribed. - No. of medicine prescribed - No. of patients advised for follow up - No. of patients referred.

- **Process Flow / Process Description:**
- Medical Officer examines the patient as per their turn.
- After examination, the details are noted in the OPD ticket, and medicines/ dressing / investigations / admission / refer to higher centers/follow up is advised on OPD ticket.
- The Medical Officer enters the details of the patient in OPD diagnosis and Treatment Register.

Patient Records	
	- OPD Ticket - OPD diagnosis and Treatment Register

Process Group	OPD	Sub-Process	Dispensing of Medicines
Process Location	Pharmacy OPD	Process Owner	Pharmacist
Input(s)	OPD Ticket	Output(s)	• No. of Medicines dispensed per day. • No. of Medicines out of stock per day

Process Flow / Process Description:
- Patient is directed to the drug distribution counter to collect the medicines.
- Patient stands in a queue at the drug distribution counter with his OPD ticket.
- Patients give their prescription to the pharmacist.
- Pharmacist read it.
- Pharmacist searches that particular medicine in OPD pharmacy.
- Pharmacist gives medicine to the patient which is available in pharmacy/advice for purchase from outside which is not available in pharmacy.
- Patients are described briefly about the intake of medicines.
- Pharmacist enters the name of medicine in medicine dispensing register.

Patient Records	OPD Ticket, Pharmacy Drug Dispensing Register

Drug Distribution counter at OPD
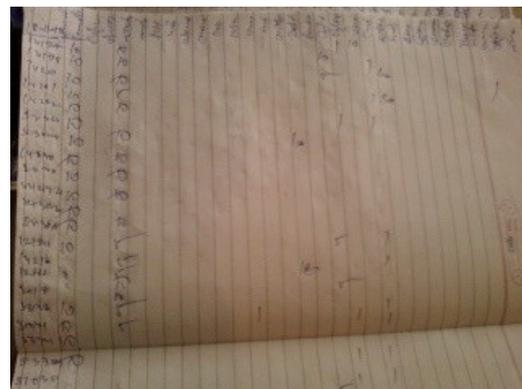
OPD Pharmacy Dispensing Register

Process Group	OPD	Sub-Process	Dressing of wound
Process Location	Emergency	Process Owner	Dresser
Input(s)	OPD Ticket	Output(s)	Wound dressing done

Process Flow / Process Description:
- The patient enters dressing room which is located at emergency premises, with the prescription for dressing given by the Medical officer.
- Dresser washes the wound with antiseptic solution.
- If suture is needed, suturing is done by dresser.
- The wound is dressed with cotton and gauze.
- The patient is advised to come for the next visit for dressing the wound again.

Patient Records	Dressing Register
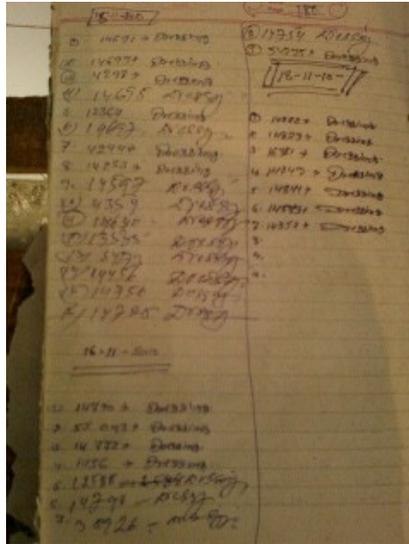
Dressing Registers both for OPD and Emergency

For Gap Analysis:

Gap ID No	OP001
Gap Statement: Basic facilities are not available in the OPD waiting area for public conveniences.	
Rationale / Explanation: The following are not available • Drinking Water facilities is not available inside the hospital premises, There is one water cooler which is not in working condition, patient and visitor used to go for water near the temple which is inside the hospital premises. • No Ramps and Hand rails for Disabled patients • There is no adequate chairs in waiting area • No Trash Bins • No availability of Wheel chairs & trolley	

Gap Classification Structure	*Gap Severity Rating High
Gap Reference	**IPHS 7.8.1.(I).b, d , ISO 9001: 2008 6.3.(a), 7.2.1 (b)**
Supporting Annexure	

Water cooler (out of Order)

Male Toilet

<table>
<tr><td>Female Toilet</td><td>Registration counter (Open area)</td></tr>
</table>

Gap ID No	OP002
Gap Statement: Information displays provided at the Waiting area / other public areas are inadequate	
Rationale / Explanation: • Rights of the patients / Patients Charter are not displayed. • Posters imparting health education • Information is not available in bi-lingual format at various locations.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1. (I).a, ISO 9001: 2008 7.2.3 (a)**
Supporting Annexure	

Gap ID No	OP003
Gap Statement: Patient privacy not maintained during the consultation	
Rationale / Explanation: • To many patient and its relative enter the consultation chamber at a time • Curtain is not available during the examination of the patient.	
Gap Classification Structure	***Gap Severity Rating** Medium
Gap Reference	**IPHS 7.8.1. (I). e, ISO 9001: 2008 6.3(a), 7.2.1(a)**
Supporting Annexure	

OPD Consultation Room

4.2 IN PATIENT DEPARTMENT

The Inpatient department of the hospital has two building one for male ward and another for female ward. One another ward is there which is situated far away from the female building ward i.e. isolation ward. The total no. of IPD beds is 164 which are functional. The total no. of nurses are present in the hospital is 27. The nursing station in male building is situated in the centre of the male medical and male surgical ward and in female building it is situated at the one end of the department. The registers present in the IPD are report book, diet register, admission register, injection expenditure and medicine expenditure register and dhobi book register.

Functionalities of IPD: It covers all indoor patients admitted and receiving treatment at the Hospital.

This includes:

- Admission of the patient
- Assessment of patient by doctors/ nurses
- Medication by doctors
- Administration of drugs
- Monitoring of patient's condition
- General hygiene and upkeep of ward
- Consent for procedures
- Complaint handling
- Discharge of patients
- Death of patients

Responsibility:

Doctor, Matron, Nursing In-charge and Housekeeping supervisor.

Process Flow chart for IPD
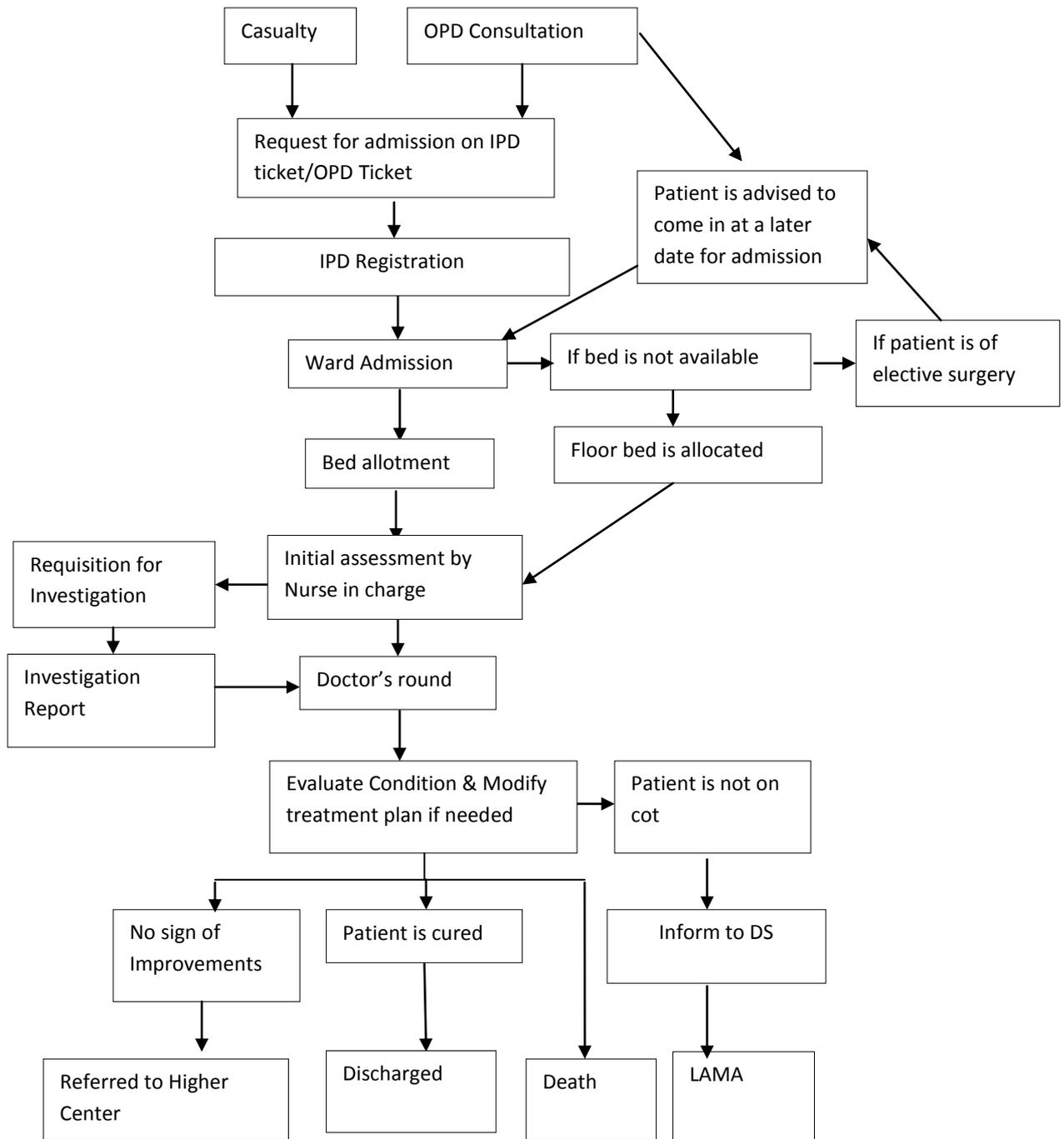
Figure 3: Process Flow chart for IPD
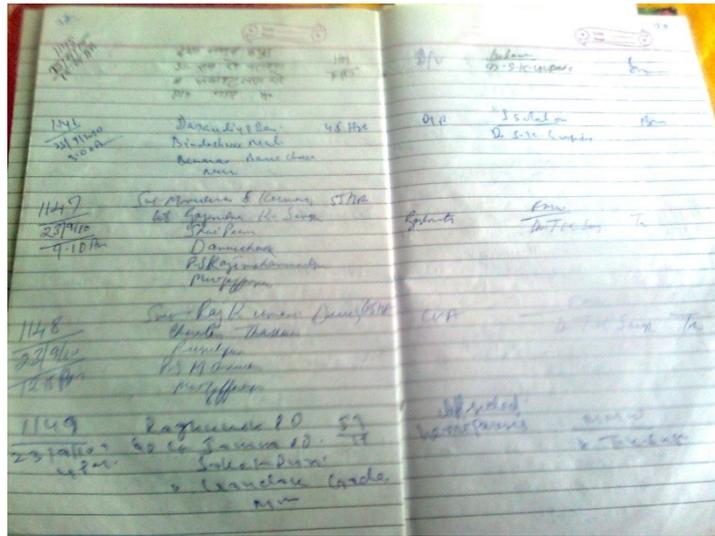
IPD admission register

For Process Flow:

Process Group	IPD	Sub-Process	Admission
Process Location	Wards	Process Owner	Admission clerk
Input(s)	OPD ticket with Doctors advice	Output(s)	No. of Admission
Process Flow / Process Description: - The doctor advices the patient for admission after examination and writes it on the OPD ticket. - The patient is admitted by the supportive staff of the concern OPD. - The supporting staff admits the patient and enters the detail In Indoor register and generates IPD no. and allots the bed. - The patient is escorted to the particular ward and handed over to the ward In-charge nurses along with Bed head ticket.			
Patient Records		Bed head ticket and Admission Register	

Process Group	IPD	Sub-Process	Patient Care
Process Location	Wards	**Process Owner**	Staff Nurse, Medical officer
Input(s)	Patients	**Output(s)**	Patients care

Process Flow / Process Description:
- Nursing staff check the vitals of the patient and monitor the condition of patient during a fix interval according to condition of patient.
- Nursing staff administrate medication of the patients.
- Medical officer make sure the condition of the patient by communicating with nursing staff and patient.
- If required, Medical officer changes the medication according the condition of patient.
- If any investigation required according to the condition of the patient nursing staff call the technician.
- If there is no improvement in the health condition of the patient, then the medical officer referred the patients to the higher centre.
- If the patient condition is satisfactory, the medical officer gives the discharge order.

Patient Records		**Bed Head Ticket,**	

Process Group	IPD	Sub-Process	Drugs / IV fluid Administration
Process Location	Wards	**Process Owner**	Staff Nurse, Medical officer
Input(s)	Bed head ticket with doctors advice	**Output(s)**	IV fluid administration

Process Flow / Process Description:
- Nursing staff administer drugs as per the direction in Bed Head ticket by Doctor
- Medical Officer evaluates and examines the patient.
- Nursing staff maintain the details of drug administration in IP medication register.

Patient Records		**IP medication register**	

Process Group	IPD	Sub-Process	Discharge
Process Location	All department	**Process Owner**	Nursing In charge
Input(s)	Bed head ticket with Doctors advice for discharge	**Output(s)**	Nos. of patient discharge per day,

Process Flow / Process Description:
- Doctors makes the patient round in the morning
- Patients who are fit to get discharge, the doctor advices for discharge on the bed head ticket.
- The Nursing In-charge collects the all the patient records and gives the discharge slip to the patient prepared by doctor and advices accordingly.

Patient Records		Nursing register and Discharge slip Discharge register.	

For Gap Analysis:

Male ward

Male ward

Inpatient Dressing Room

water spreads in front of gynaec ward

Patients bring materials for cooking with gas stove in the ward

Water spread in gynaec ward

| Maternity ward | Wall and window of maternity ward |

Gap ID No	IP001
Gap Statement: Hospital does not have disabled friendly infrastructure.	
Rationale / Explanation: The following are not available • Ramps • Handrails in various patient care areas, bathrooms to avoid patient fall. • Disabled friendly toilet is not available.	
Gap Classification Structural	***Gap Severity Rating** High
Gap Reference IPHS 7.8.2.(VII), ISO 9001:2008 6.3, 7.2.1	
Supporting Annexure	

Gap ID No	IP002
Gap Statement: Ward are not well equipped for patient care	
Rationale / Explanation: • Beds are cluttered together. • Bed railings are not available in the wards. • Bed side lockers are not provided to keep medicines. • IV stands are not available in adequate number. • Wheel chairs and trolleys not available in each ward. • Crash cart, ECG machine, Suction machine are not available in the ward. • Color coded bins for BMW segregation is not provided in the wards.	
Gap Classification Structure	***Gap Severity Rating** High
Gap Reference IPHS 7.8.1.(V), ISO 9001:2008 6.3	
Supporting Annexure	

Gap ID No	IP003
Gap Statement: Nursing stations are not located properly for patient monitoring	

Rationale / Explanation:
- In female wards nursing station is located at the one corner of the ward.
- Nursing station is not located centrally or on one corner of ward for the direct observation and monitoring.
- Basic requirements such as storage place for inventory, linen, drugs has not been provided
- There is no janitors closet for Housekeeping materials
- No washing areas are designated for washing of badly soiled linen.
- No staff change room provided.

Gap Classification Structure	*Gap Severity Rating High
Gap Reference	IPHS 7.8.1.(V), ISO 9001:2008 6.3 (a)
Supporting Annexure	

Gap ID No	IP004
Gap Statement: Standardized format for Medical record does not exist.	

Rationale / Explanation:
- Only bed head ticket generated does not reflect continuity of care.
- Standard formats such as history sheet, consultant notes, Nursing notes, Medication chart, TPR chart, Investigation chart, consent form not available.
- No discharge summary is given to the patient.

Gap Classification Structure	*Gap Severity Rating High
Gap Reference	IPHS 7.8.2 (XV); ISO 9001: 2008 4.2.4
Supporting Annexure	

Gap ID No	IP006
Gap Statement: Infection control not being practiced in the wards.	

Rationale / Explanation:
- There is no concept of BMW management in the wards.
- Color coded dust bins are not provided in the wards for segregation.
- Use of personal protective equipments like glove, mask etc not being used by the nursing staff.
- Staff is unaware about the BMW rules and regulations.
- All the waste generated including BMW waste in the hospital is dumped in an open area.
- There is no pest control in the ward or in the hospital for flies, rodents and mosquitoes.

Gap Classification Process	*Gap Severity Rating High
Gap Reference	IPHS 6.5.5/6.4.7/ H(i), ISO 9001:2008 7.2.1.(c)
Supporting Annexure	

Gap ID No	IP007
Gap Statement: Overcrowding of the patient care areas	
Rationale / Explanation: • There in no particular timing for visitors to see the patients. • Security personnel are not posted in the all the areas to control the traffic. • There is no policy regarding the no. of attendants who can stay with patients.	
Gap Classification **Process**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS 7.8.1.(V), ISO 9001:2008 7.2.1.(b)**
Supporting Annexure	

Gap ID No	IP008
Gap Statement: Internal transfer of patient is not effective.	
Rationale / Explanation: • There is no clear policy with regard to transfer of patients within the hospital. • Internal transfer is most of the time is done by their own relatives. • Inadequate no. of wheel chair and trolleys.	
Gap Classification **Process**	***Gap Severity Rating** **Medium**
Gap Reference	**IPHS 7.8.1.VI, ISO 9001:2008 7.2.1(b)**
Supporting Annexure	

Gap ID No	IP009
Gap Statement: Facilities for collection and storage of linen are inadequate	
Rationale / Explanation: • There is no soiled linen collection trolley • Storage cabinets for clean linen are not available • No sluicing room has been provided in the wards.	
Gap Classification **Structure**	***Gap Severity Rating** **High**
Gap Reference	**IPHS7.8.2.(IV), ISO 9001:2008 6.3, 7.2.1**
Supporting Annexure	

4.3   EMERGENCY DEPARTMENT

The Emergency dept. is working round the clock. The Emergency department physical infrastructure needs some maintenance. The emergency department has one entrance zone and one exit zone and one consultation chamber area with waiting area of the patients. In emergency department one medical officer present all the time. But the emergency equipments are not present in emergency department according to the IPHS standards. It has separate building.

Functionalities of Emergency: Scope of services of the Emergency range from providing Episodic, Primary, Acute (comprehensive) care to referrals.

This includes:
- Providing immediate care and stabilizing the patient
- Admission to IPD
- Referral of patients to higher medical Institutions
- Accepting referred patients from other hospitals
- Providing immediate medical and surgical intervention.

Overall Responsibility:

     Emergency: Emergency

     Disaster: DS/Senior Medical Officer, supported by all hospital staff and doctors

Process Flow chart for Emergency
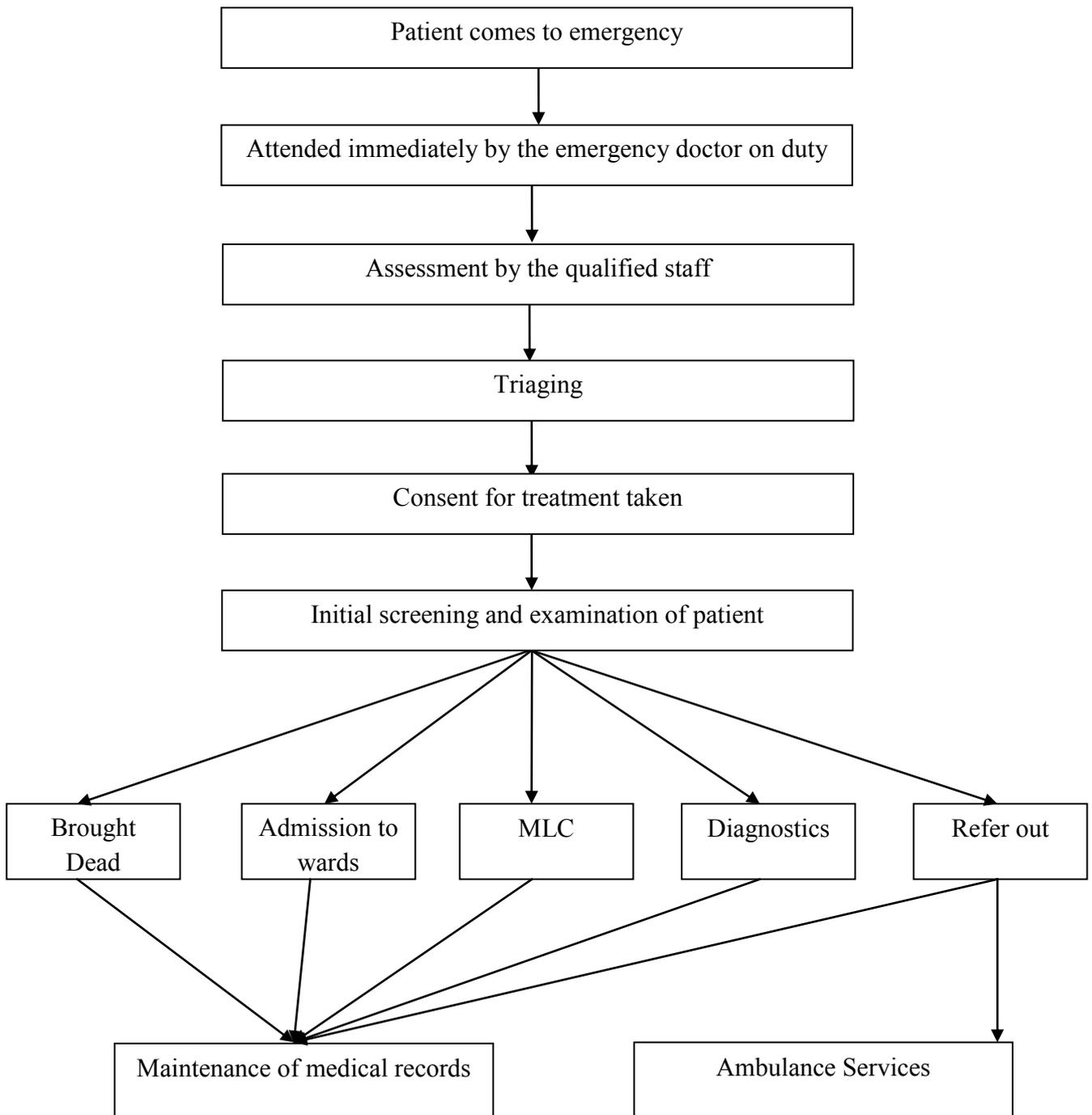
Figure 4 : Process Flow chart for Emergency

For Process Flow:

Process Group	Emergency	Sub-Process	Registration
Process Location	Registration counter	**Process Owner**	Pharmacist / Clerk
Input(s)	Patient	**Output(s)**	1. Total no. of patients seen in emergency per day. 2. Total no. of MLC cases 3. Total no. of patient admitted through emergency. 4. Total no. of patient referred. 5. Total no. of deaths in emergency.

Process Flow / Process Description
- Emergency patient comes directly to emergency.
- According to the nature of emergency cases doctors are called by staff that is looking after the emergency patient.
- Doctors examine the patient and as per the condition of patient they either admit the patient or discharge it.
- On duty staff registers the patient and inform the doctor.

Patient Records	**Emergency register**

Process Group	Emergency	Sub-Process	Consultation
Process Location	Emergency room	**Process Owner**	Consultant
Input(s)	Patient slip	**Output(s)**	No of patients, Prescription, Investigation slips, free coupons for Investigation

Process Flow / Process Description:
- After registration patient is examined by the doctor in emergency room.
- After examination doctor writes down the treatment and investigation as required.
- On duty staff/ dresser Starts the treatment as advised by the doctor.
- Nursing staff is not deputed in the emergency.
- Nursing activity is done by dresser or pharmacist on duty in emergency.
- The patient is shifted toward / OT / referred as per the needs.

| **Patient Records**	Prescription, Investigation slip, referral slip, Admission register, Bed Head Ticket

For Gap Analysis:

Entrance in emergency

Bed condition in emergency during dressing


Equipments in emergency
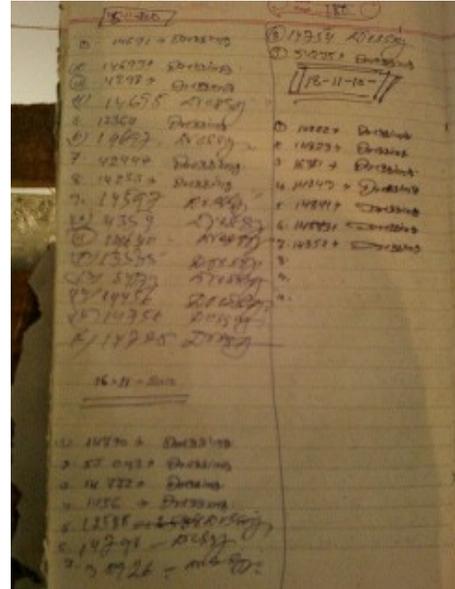

Emergency dressing register

Hospital ambulance

108 ambulance with equipments and facilities
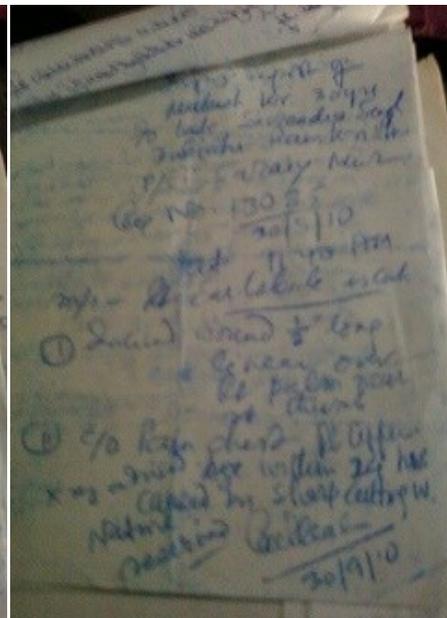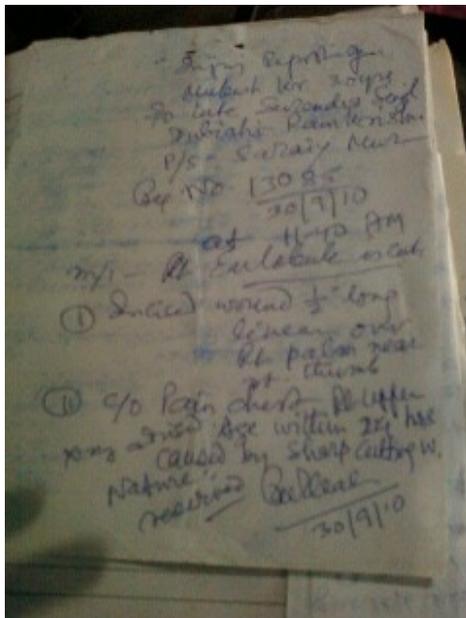
MLC cases register with Doctor's sign and Police station report

Gap ID No	EMER001
Gap Statement: Non availability of Ambulance control room for effective patient transport.	

Rationale / Explanation:
- There is no one In-charge of ambulance for smooth coordination.
- The patient has to call 108 ambulance service himself to avail the service. 108 services provide both ACLS and BLS ambulance.
- Hospitals own ambulances are also in working condition. There are two BLS ambulance of hospital.
- Hospital ambulance service is controlled by DS of the hospital.
- According to the patient requirement DS authorizes the request and informs the ambulance driver for patient pick and drop.

Gap Classification Structure	*Gap Severity Rating Medium
Gap Reference	**IPHS 7.8.1 (IX), ISO 9001: 2008 6.3 (c)**
Supporting Annexure	

Gap ID No	EMER002
Gap Statement: Nursing staff is not posted in emergency	

Rationale / Explanation:
- Pharmacist and dressers are posted in the emergency department instead of nursing staff.
- No Nursing staff is posted in the department for the nursing care.

Gap Classification Process	*Gap Severity Rating High
Gap Reference	**IPHS 7.8.1.(V), ISO 9001: 2008 6.2.2 (a)**
Supporting Annexure	
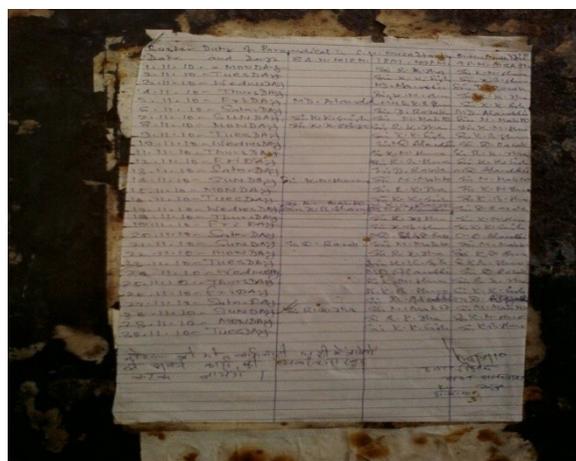
Duty roster for Emergency Department.

Gap ID No	EMY001
Gap Statement: Emergency department is not fully Equipped.	
- Emergency Crash cart with defibrillator is not available in the department. - Only emergency tray is available in the department - Disaster cupboard is not available in the department. - There is no resuscitation room in the emergency department. - Multi Para Monitor/ Oxygen Saturation probe is not available in the casualty.	
Gap Classification Process	***Gap Severity Rating** High
Gap Reference **IPHS 7.8.1 (IX), ISO 9001: 2008 6.3 (b)**	
Supporting Annexure	

Gap ID No	EMY003
Gap Statement:. Department is not designed as per requirements of the department.	
Rationale / Explanation: - The department is not organized as per the workflow. - There are no separate observation, treatment and consultation areas. - Area for triaging in case of disaster is not provided for. - Treatment / Dressing room has not been provided. - Dirty Utility has not been provided. - Waiting area for the attendants has not been provided.	
Gap Classification Structure	***Gap Severity Rating** High
Gap Reference **IPHS 7.8.1 (IX), ISO 9001: 2008 6.3 (a), 7.2.1**	
Supporting Annexure	

Conclusion

The study revealed and find out the gaps which need to be full filled for the quality improvement of the district hospital, Muzaffarpur. By achieving the quality care services District Hospital is able get ISO 9001:2008 certification.

Gaps of all the departments are mainly process gaps, some of those gaps are infrastructure, equipment and manpower gaps. Study also revealed that what specific and general action to be taken for full filling those gaps. What kind of trainings is required and will be given to the staff including nurses, housekeepers, ward boys and medical officers. Special consideration on gaps of the department is given and action plan is prepared and need to be monitored by internal experts who include Matron, Resident Medical Officer, Civil surgeon and Nursing In Charge.

Recommendations

Action Plan suggested OPD:

- Drinking water facility/water cooler to be installed near OPD waiting area.
- Ramp with side rails, Disable friendly toilets to be provided in the Hospital.
- Sitting arrangements to be made for waiting patients. No of chairs to be increased.
- Trash bins to be installed in proper places in adequate quantity. Also near water cooler and in toilets.
- Arrangements of Wheel Chairs, stretcher and trolleys.
- Arrangement of BP apparatus in the OPD chamber.
- Arrangement of weighing machine in the OPD.
- Patient privacy should be maintained in the OPD chambers.
- All patient care equipments and instruments to be provided in all patient care areas as per IPHS guidelines
- Adequate number of Tube lights to be provided.
- Uniform signage system to be developed and displayed throughout the hospital
- Rights of the patients / Patients Charter to be displayed in area where it is fully visible and readable by public.
- Posters imparting health education and awareness to be posted in prominent places in vicinity.
- Bilingual format for information dispersal to be implemented.
- Suggestion box should be available in the OPD and IPD area.
- Separate rooms for consultation have to be made available.
- Curtains to be provided for doors of consultation rooms and in all patient care areas.
- Security personnel have to be employed to help in control crowd.

Action Plan suggested IPD:

- Ramps, Handrails in various patient care areas, bathrooms has to be installed to avoid patient fall.
- Disabled friendly toilet has to be made available.
- The wards to be rearranged so as to provide adequate space for smooth movement.
- Crash Cart in IPD.(emergency medicine tray)
- Proper locker for keeping the medicines in the IPD.
- Water Supply to be made available in the IPD.
- Phototherapy, baby warmer has to be available in the post delivery ward.
- Visiting time to be fixed for patient's attendants.
- The ward need to be provided with adequate equipments, Instruments, patient furniture for proper patient care activities such as IV Stands, Crash carts, Lockers.
- Equipment such as ECG machine, Suction machine has to be made available in the ward.
- Wheel chair and trolleys to be provided for each patient care area
- Repair work of doors and windows has to be done at the earliest.
- Bed railings to be made available in the wards.
- Color coded bins for BMW segregation has to be provided in the wards.
- Nursing station has to be located centrally for the direct observation and monitoring.
- Nursing station has to be equipped with essential patient care equipments such as Crash carts, Dressing trolleys, sets, BP apparatus, Stethoscope, Suction apparatus, oxygen cylinders, Medicines etc.
- Basic requirements such as storage place for inventory, linen, and drugs have to be provided.
- Washing areas to be earmarked for washing of badly soiled linen.
- Hand washing facility to be provided in all patient care areas.
- A medical Records department to be created and Staff appointed for the same.
- Forms and Formats for documentation of Patient care to be standardized. Such as history sheet, consultant notes, Nursing notes, Medication chart, TPR chart, Investigation chart, consent form, discharge summery etc.
- Documents related to patient care have to be complete.
- The department to be integrated with Registration and Admission & Discharge units.
- Training of staff in BMW handling will be done.
- Proper channel of waste disposal to be ensured.
- Periodical pest control measures to be taken in the ward or in the hospital.
- Timing for visitors to see the patients has to be decided and strictly imposed.
- Help of Security personnel to be taken in all the areas to control the traffic.
- Hospital policy to be devised and implemented regarding the no. of attendants who can stay with patients.
- Hospital policy to be devised and implemented regarding transfer of patients within the hospital.
- Adequate no. of wheel chair and trolleys to be maintained.
- Soiled linen collection trolley has to be made available.
- Storage cabinets for clean linen have to be made available.
- Sluicing room has to be there in the wards.

Action Plan suggested Emergency:

- One person has to be made coordinator for ambulance services.
- Phone no. for Ambulance to be advertised.
- Availability of driver has to be insured.
- Staff to be appointed and positioned according to work pattern.
- Observation beds to be available in the Emergency department.
- Crash Cart with all essential drugs have to be available.(emergency medicine tray)
- Patient monitoring equipment to be available in the Emergency.
- Disaster cupboard to be made available in the department.
- Arrangement for resuscitation room has to be done.
- Signages of emergency department should be made available.
- Ramp in Emergency department to be made available.
- The department to be organized as per the workflow.
- There has to be separate observation, treatment and consultation areas.
- Triage Area needs to be earmarked just next to the entrance to the ER
- Treatment / Dressing room has to be provided.
- Waiting area for the attendants has to be provided.
- Stretcher, wheel chair bay has to be made available.

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8. Rationalisation of Service Norms for Secondary Care Hospitals, Health & Family Welfare Department, Govt. of Tamil Nadu. (Unpublished)
9. District Health Facilities, Guidelines for Development and Operations; WHO; 1998.
10. Indian Public Health Standards (IPHS) for Community Health Centres; Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India.

PATIENT SATISFACTION SURVEY - OPD
(Please tick the applicable box)

1. How long did you wait in the registration counter?

.................5 - 10 mins   .... 10 - 15 mins   ....15 – 20 mins

2. Was the staff courteous to you while replying to your queries at the registration counter?

Yes   ☐   No   ☐

3. How long did you wait to see the doctor after your registration?

.... < 10   .... < 20 mins   .... …30 mins<

4. Are you satisfied with the doctor whom you consulted?

Yes   ☐   No   ☐

5. Did the doctor explain you about your problems, treatment plan and other related information?

Yes   ☐   No   ☐

6. Was the doctor and the nursing staff courteous to you?

Yes   ☐   No   ☐

7. Did you undertake any investigation (Lab tests or X-ray) in the hospital?

Yes   ☐   No   ☐

8. How long did you wait for the investigations?

.................5 - 10 mins   .... 10 - 15 mins   ....15 – 20 mins

9. Was the report of the investigation available on time?

Yes   ☐   No   ☐

10. Is the waiting area of the hospital comfortable?

Yes   ☐   No   ☐

11. Are you satisfied with the following facilities?

Cleanliness of the Bathroom   Yes ☐   No ☐

Parking facilities   Yes ☐   No ☐

12. Will you visit this facility incase you need any medical treatment in future?

Yes   ☐   No   ☐

13. Suggestion if any: _____

We thank you for providing us your valuable feedback which will help us to serve you better.

IN PATIENT SATISFACTION SURVEY

1. Were you /your relatives informed about the reasons for your admission in the hospital by the consultant doctor?

Yes ☐   No ☐

2. How long Doctor came and see you in IP Ward?

. ...< 10 mins   ....< 20 mins   .... 30 ≤mins

3. How long did you wait before being shifted to the inpatient ward?

........................< 10 mins   ....< 20 mins
.......................30 ≤mins

4. Was the bed ready before you arrived in the inpatient wards?

Yes ☐   No ☐

5. Are you satisfied with the nursing staff and the care given by them?

Yes ☐   No ☐

6. Do the nurse provide you the medicines regularly at the right time prescribed by your doctor?

Yes ☐   No ☐

7. Do the treating doctor examine you every day?

Yes ☐   No ☐

8. Did you undergo any operation in the hospital?

Yes ☐   No ☐

If yes – Did the doctor inform you / your relatives about the need for such operation?

Yes ☐   No ☐

9. Are you satisfied with the food provided by the hospital?

Yes ☐   No ☐

10. Are you satisfied with the cleanliness of the wards and the toilets?

Yes ☐   No ☐

11. Suggestion if any: -
_____

We thank you for providing us your valuable feedback which will help us to serve you better.

PATIENT SATISFACTION SURVEY – OPD

1. How long did you wait in the registration counter?

10-20 min	20-30 min
20%	80%
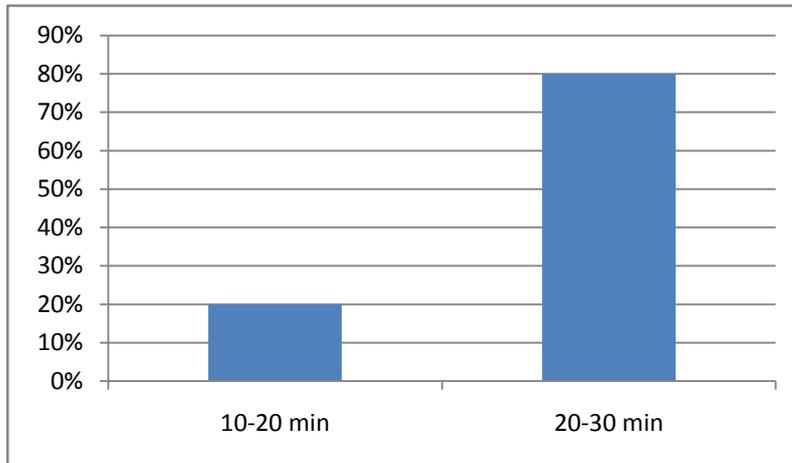
2. Was the staff courteous to you while replying to your queries at the registration counter?

Yes	No
100%	0%
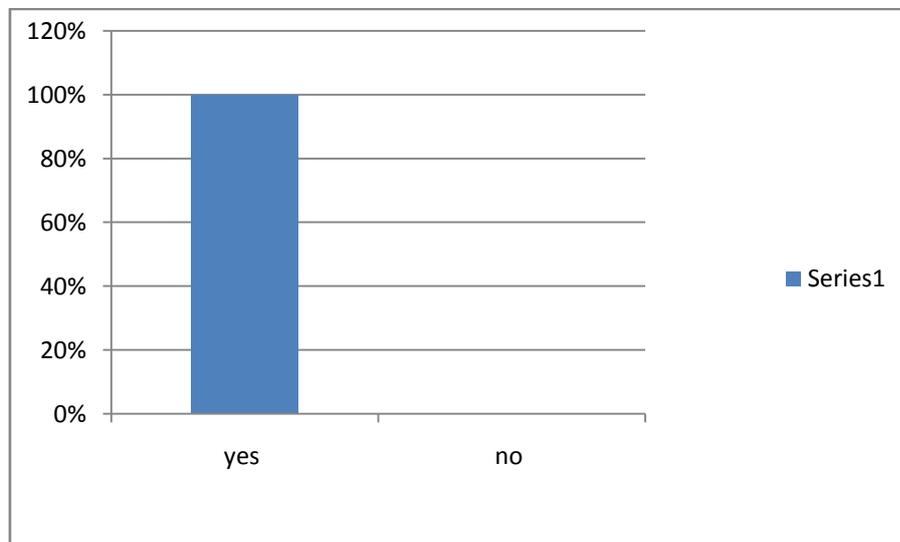
3. How long did you wait to see the doctor after your registration?

10-20 min	20-30 min
60%	40%
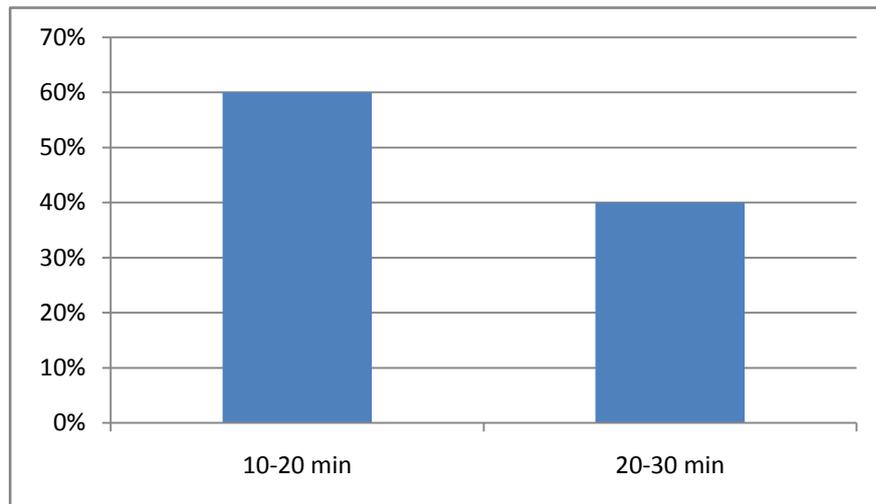
4. Are you satisfied with the doctor?

Yes	No
100%	0%
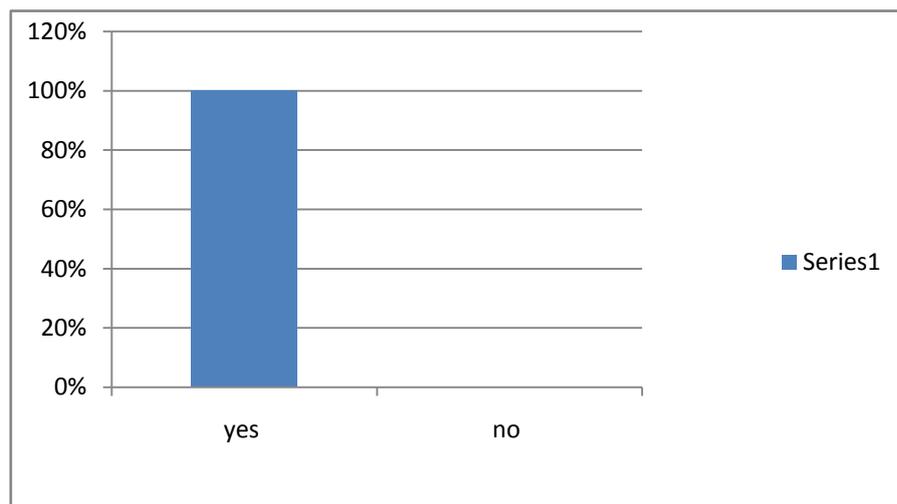
5. Did the doctor explain you about your problems, treatment plan?

| Yes	No
100%	0%
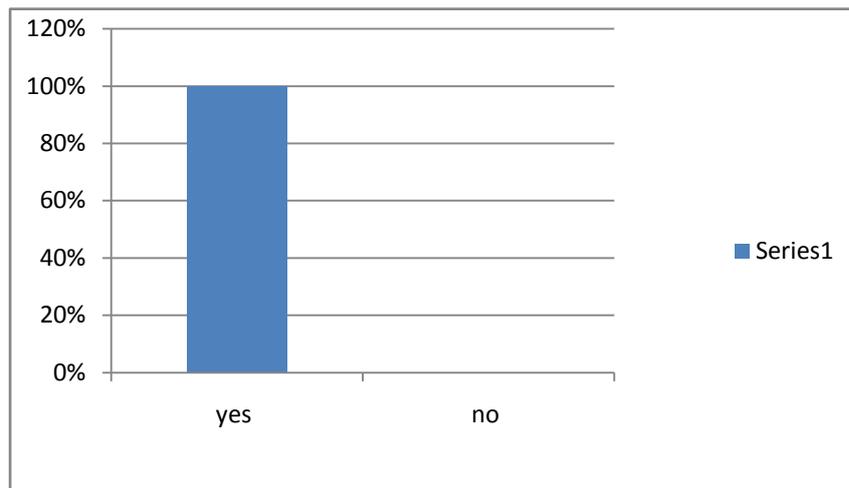
6. Was the doctor & nursing staff courteous to you?

Yes	No
80%	20%
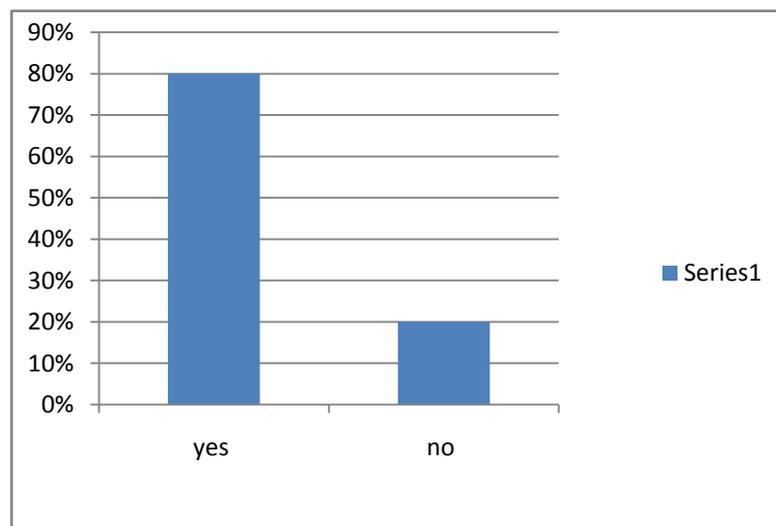
7. Did you undertake any investigation in the hospital?

Yes	No
30%	70%
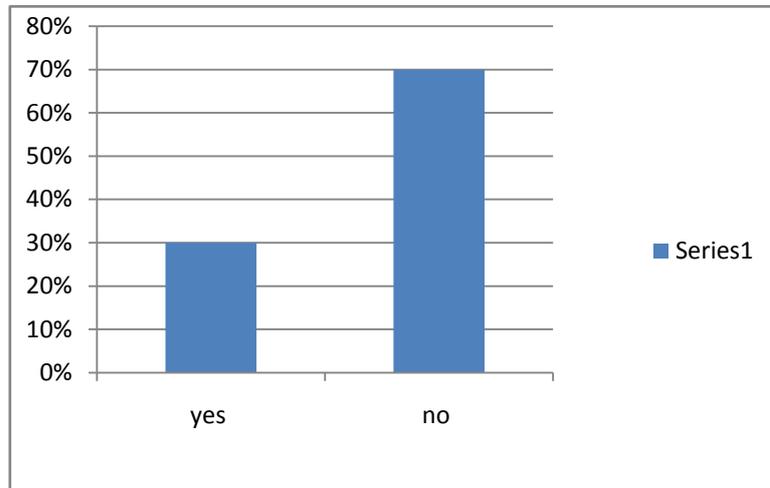
8. How long did you wait for the investigation?

Yes	No
50%	50%
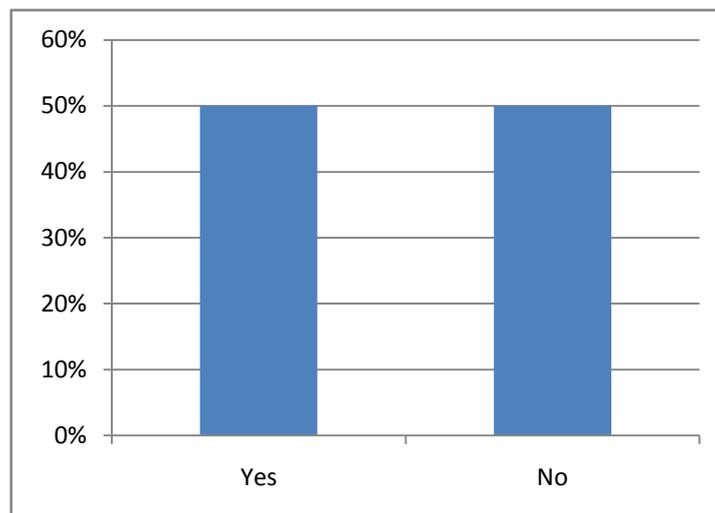
9. Was the report of the investigation available on time?

Yes	No
40%	60%
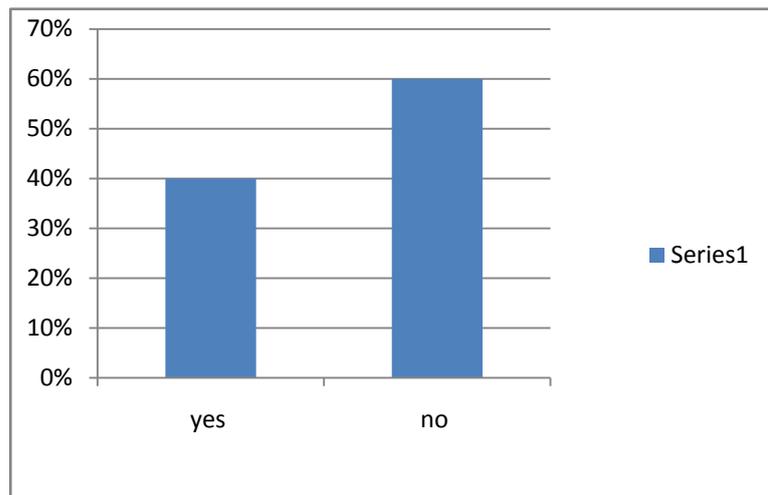
10. Is the waiting area of the hospital comfortable?

Yes	No
100%	0%
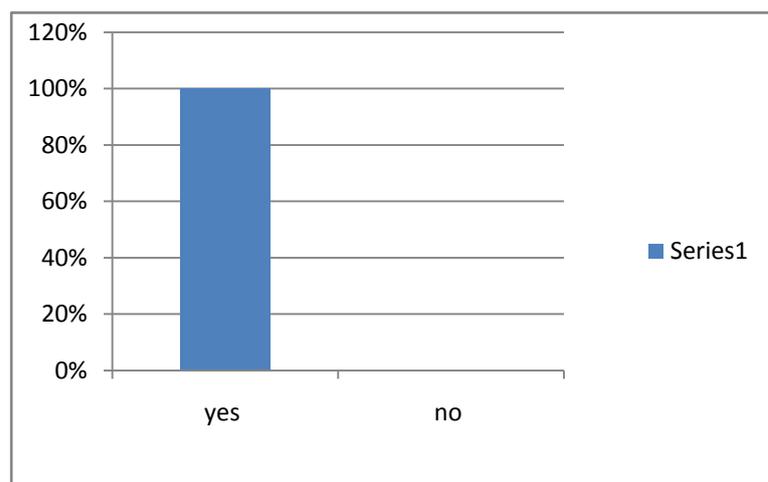
10. Are you satisfied with the following facilities?

➢ Cleanliness of the Bathroom:

Yes	No
50%	50%
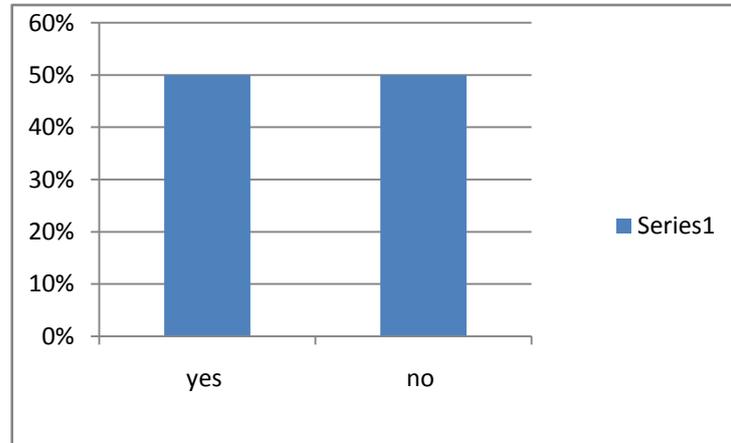
➢ Parking facilities:

Yes	No
100%	0%
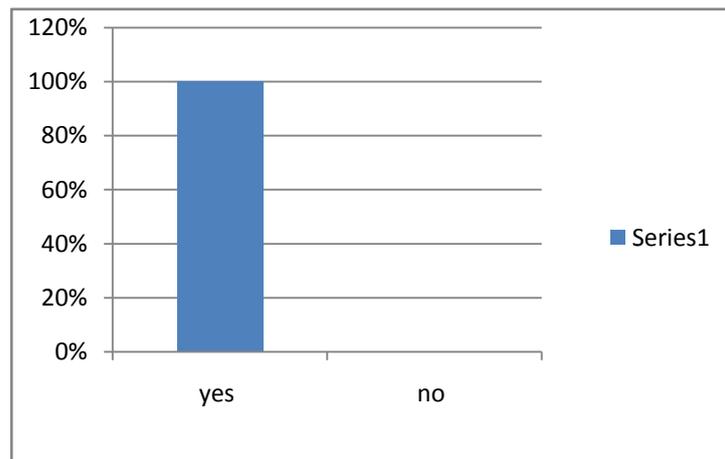
12.   Will you visit this facilitate incase you need any medical treatment in future?

| Yes	No
90%	10%
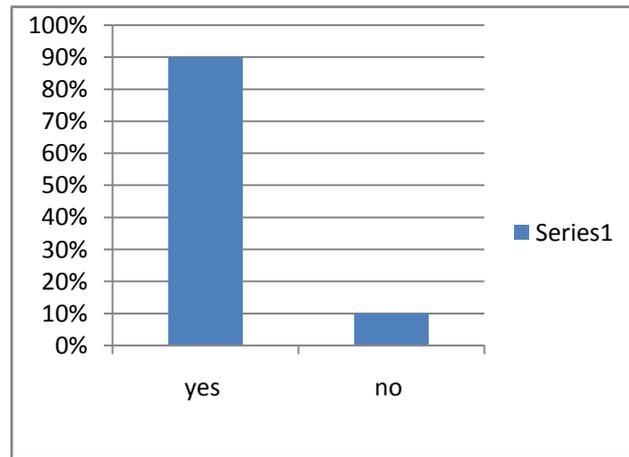
IN PATIENT SATISFACTION SURVEY

1.   Where you/your relatives infirmed about the reasons for your admission in the hospital by the consultant doctor?

Yes	No
100%	0%
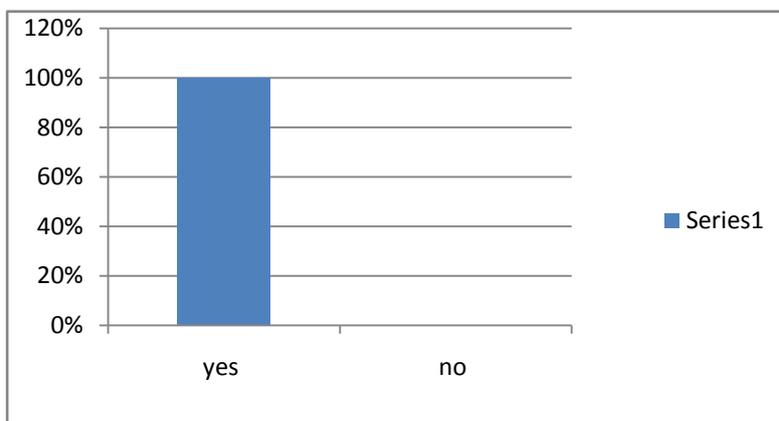
2.   How long Doctor Came & see you in IP ward?

10-20 min	20-30 min
70%	30%
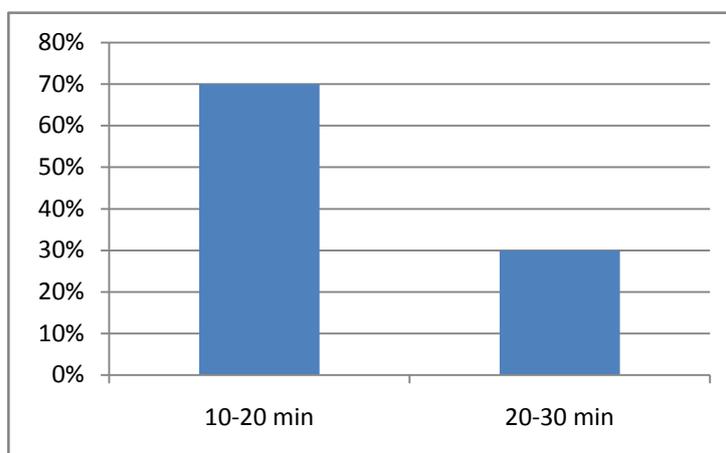
3.   How long did you wait before being shifted to the IP ward?

10-20 min	20-30 min
66%	44%
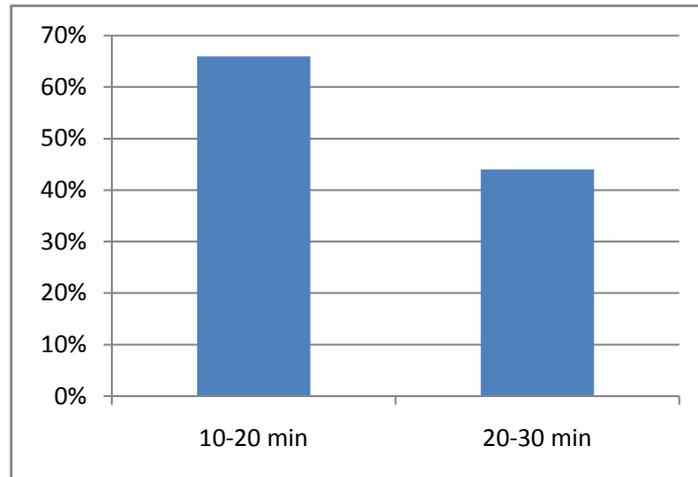
4.   Was the bed ready before you arrived in the IP wards?

Yes	No
94%	6%
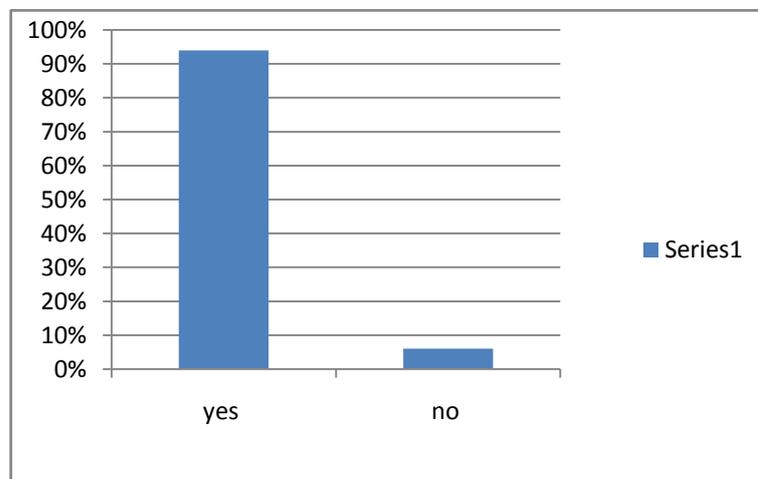
5.   Are you satisfied with the nursing staff?

Yes	No
100%	0%
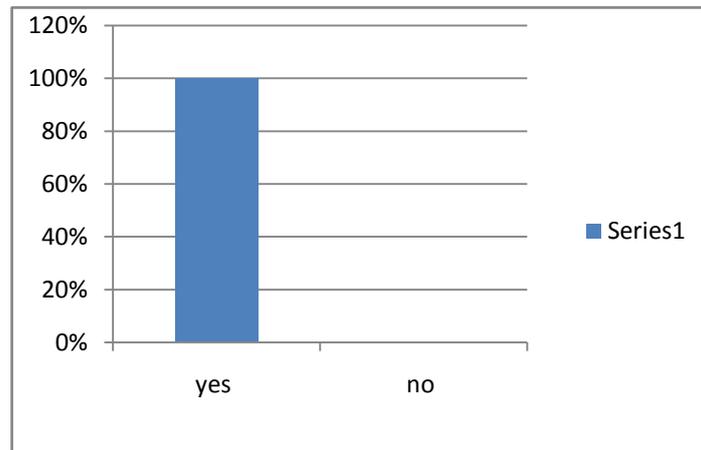
6.   Did the nurse provide you the medicines regularly at the right time prescribed by doctor?

Yes	No
100%	0%
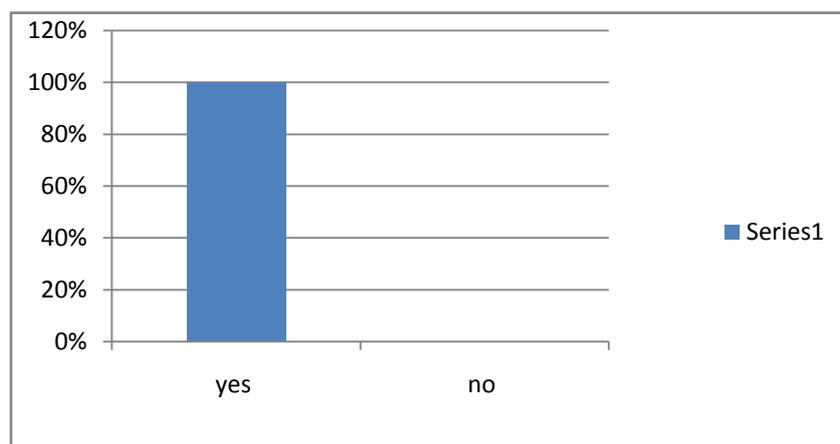
7.   Did the treating doctor examine you every day?

Yes	No
94%	6%
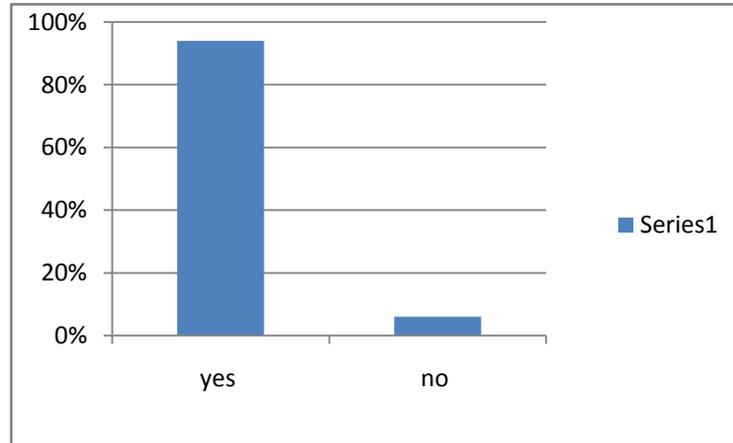
8.   Did you undergo any operation in the hospital?

Yes	No
53%	47%
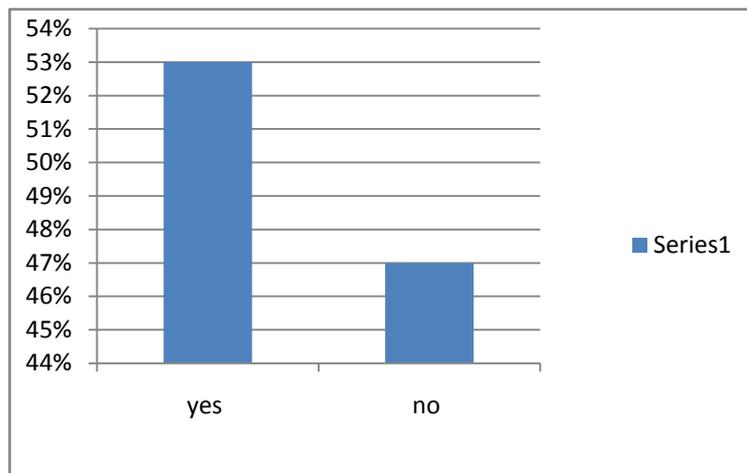
If yes- Did the doctor inform you/your relatives about the need of such operation?

Yes	No
100%	0%
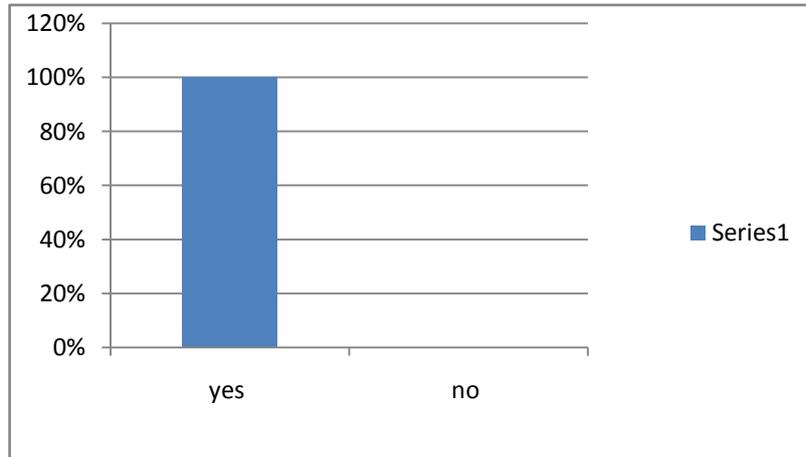
9.   Are you satisfied with the food provided by the hospital?

Yes	No
100%	0%
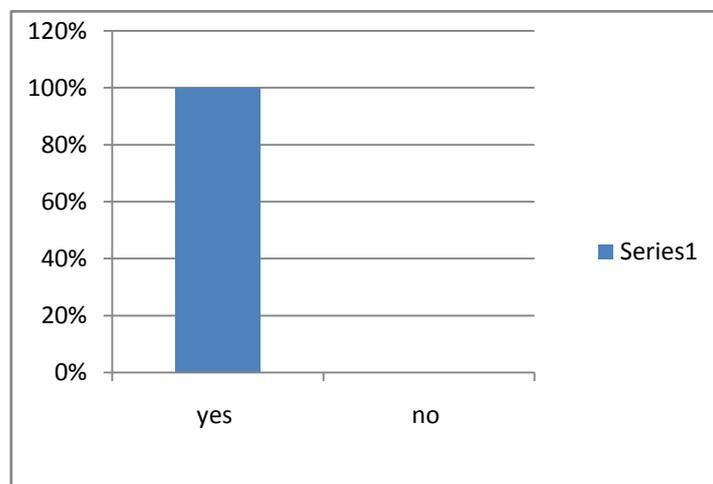
10.   Are you satisfied with the cleanliness of the wards & toilets?

Yes	No
0%	100%

Annexure III: IPHS Checklist
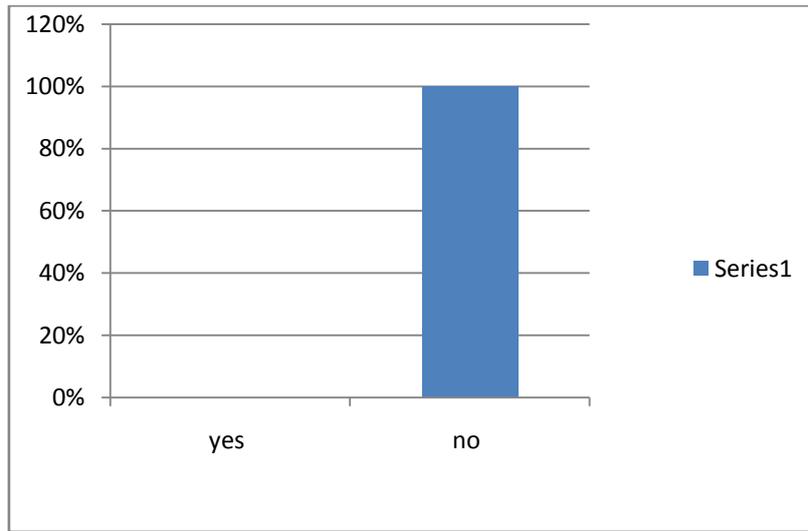
Physical Infrastructure

Physical Infrastructure			Current Availability in the Hospital
	2.1.	Size (Area) of the Hospital (In Sq. Meters)	22 acres
	2.2.	Number of indoor beds available	218/164
Location			
	2.3.	Is the hospital located near residential area? (Yes / No)	yes
	2.4.	Is the hospital building free from danger of flooding? (Yes / No)	no
	2.5.	Is the hospital located in an area free from pollution of any kind including air, noice, water and land pollution? (Yes /No)	no
	2.6.	Is necessary environmental clearance obtained? (Yes / No)	yes
	2.7.	Whether hospital building is diabled friendly as per provisions of Disability Act? (Yes / No)	yes
Building Status			
	2.8.	What is the present stage of construction of the building (Complete: 1; Incomplete: 0)	incomplete
	2.9.	Compound Wall / Fencing (1-All around; 2-Partial; 3-None)	partial
	2.10.	Condition of plaster on walls (1- Well plastered with plaster intact every where; 2- Plaster coming off in some places; 3- Plaster coming off in many places or no plaster)	plaster coming off in some places
	2.11.	Condition of floor (1- Floor in good condition; 2- Floor coming off in some places; 3- Floor coming off in many places or no proper flooring)	floor in good condition
Building Requirement			

s (Availability to be recorded in Yes / No)		
2.12.	Administrative Block	yes
2.13.	Circulation Area	no
2.14.	Entrance Area	yes
2.15.	Ambulatory Care Area (OPD)	yes
2.16.	Waiting Spaces adjacent to each consultation and treatment room	yes
2.17.	Registration Counter	yes
2.18.	Assistance and Enquiry Counter	yes
2.19.	**Departments / Clinics**	
a.	General	yes
b.	Medical	yes
c.	Surgical	yes
d.	Ophthalmic	yes
e.	ENT	yes
f.	Dental	yes
g.	Obstetric & Gynecologist	yes
h.	Paediatrics	yes
i.	Dermatology & Venereology	yes
j.	Psychiatry	yes
k.	Neonatology	no
l.	Orthopedic	yes
m.	Social Service	no
n.	Infectious & Communicable Diseases located in remote corner with independent access	no

o.	National Health Programmes		yes
2.20.	Nursing Stations		yes
2.21.	**Diagnostic Services**		
a.	X-Ray Room		yes
b.	Dark Room for X-Ray film developing and processing		yes
c.	X-Ray Reporting Room for Doctor		yes
d.	Is X-Ray room accessible to OPD, Wards and Operation Theatre?(Yes / No)		yes
e.	Ultrasound Room		yes (sadhna diagnostic centre)
f.	Is Ultrasound room accessible to OPD, Wards and Operation Theatre?(Yes / No)		yes
g.	Ultrasound Reporting room for Doctors		
2.22.	**Clinical Laboratory**		
a.	Fully equipped laboratory		no
b.	Sample Collection Room with facility for quick diagnosis of blood, urine, etc.		yes
c.	Separate reporting room for Doctors		yes
2.23.	**Blood Bank**		
a.	Fully equipped Blood Bank		no
b.	Is the blood bank located in close proximity to pathology department and at an accessible distance to Operation Theatre, ICU, Emergency and Accident department? (Yes / No)		yes
c.	Separate reporting room for Doctors		yes
2.24.	**Intermediate Care Area (Inpatient Nursing Units)**		
a.	General Wards (Number to be given)		
i.	Male		2
ii.	Female		2

iii.	Total		4
b.	Private Wards (Number to be given)		1
c.	Wards for Specialities (Number to be given)		3
d.	Nursing Stations (Number to be given)		4
e.	Doctors' Duty Room		yes
f.	Pantry		yes
g.	Isolation Room		yes (1)
h.	Treatment Room		yes
i	Nursing Store		yes
j.	Toilets		yes
2.25.	**Pharmacy (Dispensary)**		
a.	Medical Store facility for indoor patients		yes
b.	Separate pharmacy with accessibility for OPD patients		yes
2.26.	**Intensive Care Unit (ICU) & High Dependency Wards**		
a.	Number of beds available in ICU		no
b.	Number of beds available in High Dependency Wards		no
c.	Changing Room		no
d.	Is the unit located close to OT, X-Ray and Pathology department? (Yes / No)		no
e.	Essential Specialized Services		no
i.	Piped Suction		no
ii.	Medical Gases		no
iii.	Uninterrupted Electric Supply		no
iv.	Heating		no
v.	Ventilation		no
vi.	Central Air Conditioning		no

f.	Nurses' Station		no
g.	Clean Utility Area		no
h.	Equipment Room		no
2.27.	**Critical Care Area (Emergency Services)**		
a.	Critical Care Area with independent entry		no
b.	Adequate space for free passage of vehicles		no
c.	Covered area for alighting patients		no
2.28.	**Operation Theatre**		
a.	Fully equipped Operation Theatre		no
b.	Location of OT in close relation to ICU, Radiology, Pathology, Blood Bank		yes
c.	Specialized Services in OT		no
i.	Piped suction and medical gases		no
ii.	Uninterrupted Electric Supply		no
iii.	Heating		no
iv.	Air Conditioning		yes
v.	Ventilation		yes
vi.	Efficient Life Service		yes
d.	Other Rooms adjoining OT		
i.	Preparation Room		no
ii.	Pre-operative Room		no
iii.	Post-operative Room		no
iv.	Scrub-up Room for washing and scrubbing		yes
v.	Sub-sterilizing Unit		yes
2.29.	**Delivery Suit Unit**		
a.	Fully equipped Delivery Suit Unit located near OT		yes

b.	Facilities in Delivery Suit Unit		
i.	Reception and admission	yes
ii.	Examination and Preparation Room	yes
iii.	Labour Room (clean and a septic room)	yes
iv.	Delivery Room	yes
v.	Neo-natal Room	no
vi.	Sterilizing Rooms	yes
vii.	Sterile Store Room	no
viii.	Scrubbing Room	no
ix.	Dirty Utility	no
2.30.	**Physiotherapy**	
a.	Physiotherapy department located at a convenient access to both outdoor and indoor patients	for opd
b.	Facilities	no
i.	Physical and electro-therapy rooms	no
ii.	Gymnasium	no
iii.	Office	no
iv.	Store	no
v.	Separate toilets for male and female	no
2.31.	**Hospital Services**	
a.	Hospital Kitchen (Dietary Service)	yes (satya manav uthan sansthan)
b.	Central Sterile and Supply Department (CSSD)	yes
i.	CSSD located	yes
ii.	Easily accessible to OT	yes
iii.	Provision of hot water supply	no
c.	Hospital Laundry	no

d.	Medical and General Stores		yes
e.	Mortuary		no
2.32.	**Engineering Services**		
a.	**Electric Engineering**		
i.	Electric Sub Station and standby generator room		yes
ii.	Emergency Lighting (shadow less light in OT and Delivery Rooms and portable light units in Wards and Departments		yes
iii.	Call Bells		no
iv.	Ventilation (Natural or mechanical exhaust)		yes
b.	**Mechanical Engineering**		
i.	AC and Room Heating in OT and Neo-natal units		yes
ii.	Air coolers or hot air convectors		no
iii.	Water coolers and Refrigerators		no
c.	**Public Health Engineering**		
i.	**Water Supply**		
1	Round the clock piped water supply		yes
2	Overhead water storage tank with		no
	pumping and boosting arrangements		
3	Separate provision for fire fighting and		no
	water softening plants		
ii.	**Drainage and Sanitation**		
	Proper drainage and sanitation system for waste water, surface water, sub soil water and sewerage		no
iii.	**Waste Disposal System**		
	Proper waste disposal system as per National Guidelines		no
iv.	**Trauma Centre**		
d.	Fire Protection		yes

e.	Telephone and Intercom		no
f.	Medical Gas		yes
g.	Cooking Gas		no
h.	Laboratory Gas		no
i.	Office-cum-store for maintenance work		no
j.	Parking place		yes
k.	Administrative Services		yes
i.	General Section		
ii.	Medical Records Section		no
l.	Committee Room		
m.	Residential Quarters for all medical and Para medical staff		yes