

Housekeeping Staff Utilization

**Internship Training
At
Wockhardt Hospitals (Rajkot)**

**By
Saptarshi Chatterjee**

**Under the guidance of
Dr. Nutan P. Jain**

**Post Graduate Diploma in Hospital & Health Management
2012–14**

 **IIHMR UNIVERSITY**
Institute of Health Management Research
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May 16, 2014

THIS CERTIFICATE IS AWARDED TO

Dr. Saptarshi Chatterjee

In recognition of having successfully completed his internship in
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Title: Utilization of Housekeeping Staffs

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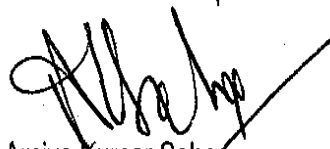
27.01.2014- 01.05.2014

At Wockhardt Hospitals

He comes across as a committed, sincere & diligent person who has a
strong drive & zeal for learning

We wish him all the best for future endeavours.

Yours sincerely,
For Wockhardt Hospitals Ltd.



Amiya Kumar Sahoo

Dy. General Manager- Human resource

Wockhardt Hospitals Limited Corporate Office: Wockhardt Towers, Bandra Kurla Complex, Bandra (E), Mumbai 400 051. India
Tel.: +91-22-2653 4444 • Fax: +91-22-26534242 • Web : www.wockhardthospitals.com

**INSTITUTE OF HEALTH MANAGEMENT
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled “Utilization of housekeeping staff” and submitted by Dr. Saptarshi Chatterjee, Enrolment Number- 1371 under the supervision of Dr. Swadesh Kumar Puri, for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 27.01.2014 to 01.05.2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature:

Preface

This dissertation is original, unpublished, independent work by the author, Dr. Saptarshi Chatterjee. The study deals with the research done at Wockhardt hospitals (Rajkot) about the importance and utilization of housekeeping manpower in the institution. Many hospitals have elegant & elaborate strategic plans, but, they often do not have supporting HR strategies to ensure that the overall corporate plan can be implemented. But, strategies don't fail, people do. Despite this fact, the healthcare industry as a whole spends less than half the amount that other industries are spending on human resources management. One reason for healthcare's reliance on an extensive workforce is that it is not possible to produce a "service" and store it for later consumption. In healthcare, the production of the service that is purchased and the consumption of that service occur simultaneously. After recruitment, hospitals like any other industry prefer to have optimum output from employees for continuous delivery of service. Hindrances are absenteeism and turnover. Hence, a study on manpower planning in the Wockhardt hospital was done with the main objective of observing the utilization of existing manpower in terms of number of hours that they have spent in performing the duties.

Whether we are running a corporate hospital, consulting firm, Software Company, or other project-based organization, utilization is an important issue for all services organizations. Maintaining high utilization of our employees drives higher billings, higher revenue and ultimately, higher profits. It is also a critical measure of financial success and sustainability. Yet tracking and measuring utilization poses challenges. Utilization is a measure of time spent working. The numerator includes either all or a subset of time put on a timesheet. The denominator is all or a subset of hours that could have been worked. When discussing utilization, companies often talk about the numerator (i.e., what hours count toward utilization) and the denominator (i.e., the baseline hours that someone could be utilized).

There is no clear answer to how a particular company should calculate resource utilization, but there are a few basic principles to follow when making this decision for our institutions. One, it is imperative to keep the calculation simple. By making the calculation simple, consultants will understand the goal. If they understand the goal, there is a better chance they will beat the goal, and if they don't beat it, they have less reason to complain. If the calculation is not simple, it is understood by no one, and ultimately becomes a number on a spreadsheet that everyone is aiming towards but does not really understand, which can hurt morale. Two, is to ensure that calculation is globally consistent. Whatever is decided is the right utilization formula for the institution, it is critical that it is applied consistently and uniformly across all users. Three, the inputs of utilization calculation should not be controlled by the individual resource, but rather decided at the task or project level. Take the human element out of the input, which will help ensure consistency in the application of the calculation.

ABSTRACT

Title: An analytical study of the organisation and housekeeping staff utilization, in Wockhardt hospitals (Rajkot).

Author: Dr. Saptarshi Chatterjee B.D.S/PGDHM.

Background: Housekeeping is defined as: “**The provision of a clean, comfortable and safe environment for the patients and public in a hospital setup**” Wockhardt hospitals Rajkot is a 170 bedded multi speciality hospital with a housekeeping strength of 145 staffs working at 41 different areas and departments. Maintaining high utilization of employees drives higher billings, higher revenue and ultimately, higher profits. It is also a critical measure of financial success and sustainability. Yet tracking and measuring utilization poses challenges.

Objective of the study:

1. To analyse high density areas of housekeeping staffs.
2. To minimise wastage of time and money.
3. To find ways to increase utilization in respective areas.

Methodology:

Study design is based on a series of questionnaire/ observations prepared to highlight following points:

- a) Time allocated for housekeeping staffs and the actual time utilization in Wockhardt Hospitals.
- b) Focusing on the areas and departments with the key responsibilities and work assigned.
- c) Focusing on high density and underutilized housekeeping areas.
- d) Communication between the staffs members and housekeeping in charge.

Result: The above study shows that the average utilization of housekeeping staffs in 21 focused areas is around 65%, out of 21 focused areas where housekeeping staffs are deployed 3 such areas are identified where the utilization of house keeping staffs are below 50%(OPD- 24.39%, MICU- 35.40%, SICU- 39%). It has also been noted that there is a correlation between high density HK staffs areas and low utilization of the same.

Conclusion: As the study shows that total staff utilization on an average taking 21 focused areas comprising 106 HK staffs is 65%. It also shows a clear correlation between high density housekeeping staff allocation and under utilization of the same in above mentioned respected areas. Under utilization of housekeeping staff results in monetary loss on an average RS 1, 95,000 /- per month taking in account wages per staff per month basis is of Rs. 5000.

Acknowledgement

It is with immense gratitude that I acknowledge the support, help and guidance received from my Supervisor Dr. Anand Galgali during the summer internship period of three months, (28.01.2014 – 01.05.2014) at Wockhardt hospitals Rajkot. I will always be indebted to him for the teachings and knowledge he imparted to me. I consider myself a fortunate and a privileged student, who got the opportunity to work in Wockhardt hospitals under the supervision and guidance of Dr. Anand Galgali, who not only guided me in difficult times but also made me feel at home at times when I missed the same the most.

I am indebted to my Professor and mentor Dr. Swadesh Kumar Puri VSM (Retd.) for his constant guidance, and correcting me on every step during my course of the summer internship.

I am indebted to my Professor and guide Dr. Nutan Jain, without whom the course of PGDHM at IIHMR would have not been possible.

I owe my deepest gratitude to Dr. Ravi Magoo, who always helped me from the beginning to the end to understand the official statements and protocols and also always made me feel at home by his humble ground to earth personality. I would thank all the staff members of Wockhardt Hospital Rajkot for contributing their precious time in making this report possible.

I will always be indebted to my parents my Father, Brigadier Soumitra Chatterjee and my Mother, Mrs. Kalyani Chatterjee who always supported me for the entire period of the summer internship programme.

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ABBREVIATIONS

- PATH LAB – PATHOLOGICAL LABORATORY
- ECHO – ECHO CARDIOGRAM
- BMW –BIOMEDICAL WASTE
- CSSD – CENTRALISED STERILE SUPPLY DEPARTMENT
- IP PHARMACY- IN PATIENT PHARMACY
- CT- COMPUTERISED TOMOGRAPHY
- USG- ULTRA SONOGRAPHY
- MICU- MEDICAL INTENSIVE CARE UNIT
- SICU- SURGICAL INTENSIVE CARE UNIT
- CICU- CARDIAC INTENSIVE CARE UNIT
- NS-NURSING STATION
- MB- MULTIBED
- CAG- CORONARY ANGIO GRAPHY
- MRI- MAGNETIC RESONANCE IMAGING
- HK- HOUSE KEEPING
- HR- HUMAN RESOURCE
- OPD- OUT PATIENT DEPARTMENT

1. INTRODUCTION:

The modern hospital is a matrix organisation, an amalgam of social, architectural and technological advancements. As we usher in the new millennium, issues refitting to quality are emerging as essential components in the delivery of health care. At present the customer is the focus of activity of any organisation, be it the manufacturing or 'the service sector.' This is becoming essential not only as a goodwill gesture but as a preventive legal requisite and a proactive marketing strategy. The concept of patient as a passive recipient of health care provider's beneficence appears outdated¹.

Wockhardt hospitals are one of the leading tertiary cares, super specialty healthcare networks in India offering high quality healthcare services. Wockhardt hospitals, originally called First hospitals and Heart Institute, were one of the early movers among corporate health-care chains in India. The company was established in 1989 and it started its first operations with a medical centre in Kolkata, 1989 and a heart hospital in Bangalore two years later. Wockhardt Hospitals currently runs 7 hospitals located at Goa, Nagpur (I & II), Nashik, Rajkot, Surat and Vashi. Wockhardt would initiate its presence in South Mumbai with a new hospital in 2014.

Wockhardt Hospitals follow process driven quality systems that adhere to international standards of clinical care, safe environment, medication safety, respect for patient rights and privacy and infection control standards. With the latest technology, multi-disciplinary capability, state of the art facilities, world-class infrastructure and excellent patient care ambience and processes, Wockhardt is poised to become the most advanced and progressive healthcare institution in India.

Housekeeping is defined as: **“The provision of a clean, comfortable and safe environment for the patients and public in a hospital setup”**¹. Wockhardt hospitals Rajkot is a 170 bedded multi speciality hospital with a housekeeping strength of 145 staffs working at 41 different areas and departments². Maintaining high utilization of employees drives higher billings, higher revenue and ultimately, higher profits. It is also a critical measure of financial success and sustainability. Yet tracking and measuring utilization poses challenges⁴.

¹ Quality and Hospital Housekeeping: Emerging Issues and Future Dimensions: Shakti Gupta* Sunil Kant**Additional Professor, Department of Hospital Administration, AIIMS, New Delhi, **MO (HS), Military Hospital, Dehradun. Vol. 3 No.2, April-June 2001.

² Wockhardt Hospitals Ltd. 2013

2. LITERATURE RIVEW:

2.1 Housekeeping-An Essential Service in Hospitals:

Housekeeping services in a hospital is entrusted with maintaining a hygienic and clean hospital environment conducive to patient care. It is a service function and an all pervasive activity which is performed in every department of the hospital. Housekeeping service has a direct effect on the health, comfort and morale of the patient, staff and visitors, hence is also an important public relations variable¹. The housekeeping team is responsible for the ordering, storage, delivery, preparation, regeneration and service of food. It ensures that the service is varied and flexible to meet the needs of long stay patients. The team also oversees the cleaning, linen and laundry services and reports issues of maintenance, pest control and waste to unit managers for action³.

2.2 Housekeeping Staff Utilization:

In its most simple form, utilization is a measure of time spent working. The numerator includes either all or a subset of time put on a timesheet. The denominator is all or a subset of hours that could have been worked. When discussing utilization, companies often talk about the numerator (i.e., what hours count toward utilization) and the denominator (i.e., the baseline hours that someone could be utilized)⁴.

Many hospitals have elegant & elaborate strategic plans, but, they often do not have supporting HR strategies to ensure that the overall corporate plan can be implemented. But, strategies don't fail, people do. Despite this fact, the healthcare industry as a whole spends less than half the amount that other industries are spending on human resources management⁵.

One reason for healthcare's reliance on an extensive workforce is that it is not possible to produce a "service" and store it for later consumption. In healthcare, the production of the service that is purchased and the consumption of that service occur simultaneously. After recruitment, hospitals like any other industry prefer to have optimum output from employees for continuous delivery of service. Hindrances are absenteeism and turnover. Hence, an extensive study on manpower planning in a medical college teaching hospital should be planned with the main objective of observing the utilization of existing manpower in

³Housekeeping: a first guide to new, modern and dependable ward housekeeping services in the NHS Department of Health (2000), The NHS Plan: A plan for investment A Plan for reform, Department of Health, July 2000,UK.

⁴ Calculating utilization in a services company: Open air –Boston (MA) USA

⁵ Manpower Utilisation Review of Staff Nurse & Radiographer In A Healthcare Organisation: Dr. Naveen K Pera, Assistant Professor, Department of Hospital Administration, Kasturba Medical College, 03-Aug-2012

terms of number of hours that they have spent in performing the duties, reasons for non-deliverance of work & understanding the reasons for turnover⁵.

Manpower is one of the most important resources utilized in an organization to achieve its objectives. A Hospital is a labor-intensive and capital-intensive organisation, in that healthcare professionals are available at a premium cost to the organisation. In hospitals, the manpower consumes about 30 – 40% of its annual budget. As per Myron Fottler, in Strategic Human Resources Management, 2006, one reason for healthcare's reliance on an extensive workforce is that it is not possible to produce a "service" and store it for later consumption. In healthcare, the production of the service that is purchased and the consumption of that service occur simultaneously. Thus, the interaction between the healthcare consumers & providers is an integral part of the delivery of health services⁶.

Given the dependence on healthcare professionals to deliver service, the possibility of heterogeneity of service quality must be recognized within an employee and amongst the employees. The intensive use of labor for service delivery and the possibility of variability in professional practice require that the attention of leaders in the industry be directed toward managing the performance of the persons involved in the delivery of services. The effective management of people requires that healthcare executives understand the factors that influence the performance of individuals employed in their organizations⁵.

Therefore, it is of paramount importance that the manpower is utilized optimally. After recruitment, hospitals like any other industry prefer to have optimum output from employees for continuous delivery of service. Hindrances are absenteeism and turnover⁵.

In case of absenteeism, it is generally observed that employees try to regularize attendance by applying for sick leave and as an employee can avail fixed number of paid sick leave the hospital has to pay an employee even for his absenteeism. Apart from that whenever an employee is absent, his work has to be attended by other employees, which leads to further wastage of time and reduction in quality of services as the new person may not be familiar with the working of the particular department⁵.

In case of turnover, cost is associated with recruitment, on-the-job training, and termination. In case of recruitment, cost is associated in terms of time spent in screening applications, organizing and conducting interviews, selection and joining formalities and induction⁵.

⁶ Human Resources in Healthcare: Managing for Success, II Edition, Bruce J. Fried, Myron D. Fottler, James A. Johnson, Standard Publishers & Distributors, Delhi.

In 1987, Mc Manis noted that, “While many hospitals have elegant & elaborate strategic plans, they often do not have supporting HR strategies to ensure that the overall corporate plan can be implemented. But, strategies don’t fail, people do.” Despite this fact, the healthcare industry as a whole spends less than half the amount that other industries are spending on human resources management⁷. Involving supportive stakeholders such as employees & HR Managers is crucial to the success of any HRM plan. If HR Executives are not actively involved, then employee planning, recruitment, selection, development, appraisal & compensation necessary for successful plan implementation are not likely to occur⁷.

2.3 Contract Labour Act, 1971:

In India, most of the hospitals do outsource certain supportive services to a third party agency. The contract labour, generally refers to, workers engaged by a contractor for the user enterprises. It is a significant and growing form of employment. These workers are millions in number and are engaged mainly in agricultural operations, plantation, construction industry, ports & docks, oil fields, factories, railways, shipping, airlines, road transport, healthcare facilities etc⁵.

The Contract Labour (Regulation and Abolition) Act, 1971 was enacted to protect and safeguard the interests of these workers. It applies to every establishment/ contractor in which 20 or more workmen are employed. It also applies to establishments of the Government and local authorities as well. Every establishment and contractor, to whom the Act, applies have to register themselves/obtain a license for execution of the contract work. The interests of contract workers are protected in terms of wages, hours of work, welfare, health and social security. The amenities to be provided to contract labour include canteen, rest rooms, first aid facilities and other basic necessities at the work place like drinking water etc. The liability to ensure payment of wages and other benefits is primarily that of the contractor, and in case of defaults, that of principal employer⁵.

⁷ Hospital Administration & Human Resources Management: D. K. Sharma, R. C. Goyal, 5th Edition, 2010, PHI Learning Pvt Ltd. New Delhi

3. RESEARCH TOPIC:

An analytical study of the organisation and housekeeping staff utilization, in Wockhardt hospitals (Rajkot).

3.1 Problem Statement:

Question that arises in perspective of a hospital administrator:

Does the hospital utilising the present housekeeping staffs optimally?

3.2 Research Question:

Did the health care industry develop a measure to ensure optimal usage of housekeeping staffs and minimise wastage of time, money, and resources?

3.3 Hypothesis

The current strength of housekeeping staffs working in N.M. Virani Wockhardt hospital (Rajkot) per day are excess in number than optimal requirement per day basis.

3.4 Aim of the study:

To analyse the utilization of housekeeping staffs in N.M Virani Wockhardt Hospitals (Rajkot).

3.5 Objective of the study:

4. To analyse high density areas of housekeeping staffs.
5. To minimise wastage of time and money.
6. To find ways to increase utilization in respective areas.

4. STUDY DESIGN AND METHODS:

Study design is based on a series of questionnaire/ observations prepared to highlight following points:

- e) Time allocated for housekeeping staffs and the actual time utilization in Wockhardt Hospitals.
- f) Focusing on the areas and departments with the key responsibilities and work assigned.
- g) Focusing on high density and underutilized housekeeping areas.
- h) Communication between the staffs members and housekeeping in charge.

4.1 Type of sampling:

Utilizing small sample technique proposed by Robert V. Krejcie, University Of Minnesota was used:

$$S = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

- S= required sample size.
- X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
- N = the population size.
- P = the population proportion (assumed to be .50 since this would provide the maximum sample size).
- d = the degree of accuracy expressed as a proportion (.05).

As per the study total housekeeping staffs working per day basis in N.M.Virani Wockhardt hospital Rajkot are 145. Therefore applying above formula the required sample size was calculated to be 106 housekeeping staffs.

S.NO	DEPARTMENT	STAFF ALLOCATED
1	OPD	13
2	PATH LAB	2
3	ECHO	1
4	BMW	2
5	CSSD	4
6	IP PHARMACY	3
7	DIALYSIS WARD	1
8	EMERGENCY	6
9	PERIPHERY	5
10	CT/MRI	2
11	X-RAY/USG	2
12	MICU	11
13	SICU	6
14	CCU	4
15	NS-1	11
16	NS-2	11
17	NS-3	2
18	MB	12
19	CAG	6
20	PHISIO THERAPY	1
21	STORE	1
	SAMPLE SIZE =	106

Table 1: Focused areas of Housekeeping staffs and required sample size

4.2 Data collection: - The facts pertaining to the organization and management of Housekeeping staffs were collected from the following sources:

1. Management authorities/personnel of the various departments of Hospital.
2. Direct observation of staff activities.
3. Self-monitoring using a log or a diary and relevant questionnaire.
4. Interviewing relevant staff.
5. Mathematical calculations.
6. Doctors and consultants.
7. Housekeeping, nurses and paramedics.

4.3 Methodology of study:

As already mentioned above there are 41 different areas where housekeeping staffs are deployed in N.M.Virani Wockhardt hospital Rajkot. Keeping in mind the high density staff areas of focus, 21 such areas with a required sample size of 106 staffs were followed in the study.

These 21 departments were considered due to their high staff density, as they were mentioned by the senior management of the hospital and cross-checked by the records were OPD Services, MICU, NS1, NS and MB.

1. First step was to know the existing job descriptions of the housekeeping personnel of the hospital. For housekeeping staffs their duties were classified, into Patient care & non-patient (administrative or teaching) activities.
2. Interviewing: Short interviews with Nursing Superintendent In-charge, Nursing supervisors, Technician in-charges in respective areas, in order to gain their perception regarding the workload and manpower requirement, Leave Policy, etc.
3. A time and motion study was carried out in selected 21 departments to assess the workload and the amount of work performed by individual staff.
4. Interaction with senior management of the Hospital, i.e. Chief Administrative Officer, Housekeeping staffs in charge Officer, to collect the data on day to day manpower posts sanctioned & filled, recruitment & selection criteria, personnel planning policies of the hospital was done.

5. RESULTS AND FINDINGS

5.1 Time Allocated Per Staff 8 Hours 5 Min Average (Table 2)

DEPARTMENT	AVERAGE TIME ALLOCATED PER STAFF
OPD	6 HOUR
PATH LAB	9 HOUR 30 MIN
ECHO	11 HOUR
BMW	5 HOURS 30MIN
CSSD	8 HOURS 45 MIN
IP PHARMACY	8 HOURS 40 MIN
DIALYSIS WARD	8 HOURS
EMERGENCY	7HOURS 40 MIN
PERIPHERY	8 HOURS
CT/MRI	8 HOURS 30 MIN
X-RAY/USG	10 HOURS
MICU	8 HOURS
SICU	8 HOURS 20 MIN
CCU	6 HOURS 30 MIN
NS-1	6 HOURS 49 MIN
NS-2	6 HOURS 49 MIN
NS-3	6 HOURS 30 MIN
MB	8 HOURS 18 MIN
CAG	8 HOURS 18 MIN
PHISIO THERAPY	11 HOURS 30 MIN
STORE	8 HOURS

5.2 Time Consumed Per Staff 5 Hour 16 Min Average (Table 3)

DEPARTMENT	TIME CONSUMED PER STAFF
OPD	1HOUR 30 MIN
PATH LAB	8 HOUR
ECHO	6HOUR 30 MIN
BMW	5 HOURS
CSSD	7 HOURS 15 MIN
IP PHARMACY	6 HOURS
DIALYSIS WARD	5 HOUR 20 MIN
EMERGENCY	5 HOUR
PERIPHERY	7 HOUR 50MIN
CT/MRI	5 HOURS 30 MIN
X-RAY/USG	6 HOURS 5 MIN
MICU	2 HOURS 50 MIN
SICU	3 HOURS 15 MIN
CCU	4 HOUR 41 MIN
NS-1	3 HOURS 19 MIN
NS-2	3 HOURS 32 MIN
NS-3	5 HOURS 30 MIN
MB	3 HOURS 50 MIN
CAG	3 HOURS 48 MIN
PHISIO THERAPY	10 HOURS 35 MIN
STORE	5 HOURS 30 MIN

* For calculations irt time consumption refer tables:

5.3 UTILITIZING THE FORMULA IRT UTILIZATION OF HOUSEKEEPING STAFFS

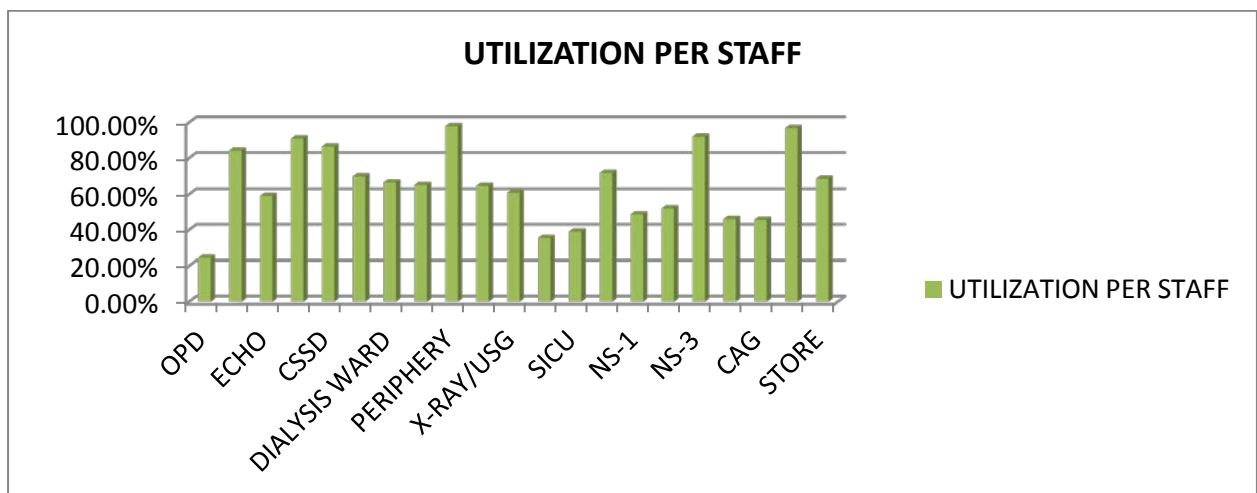
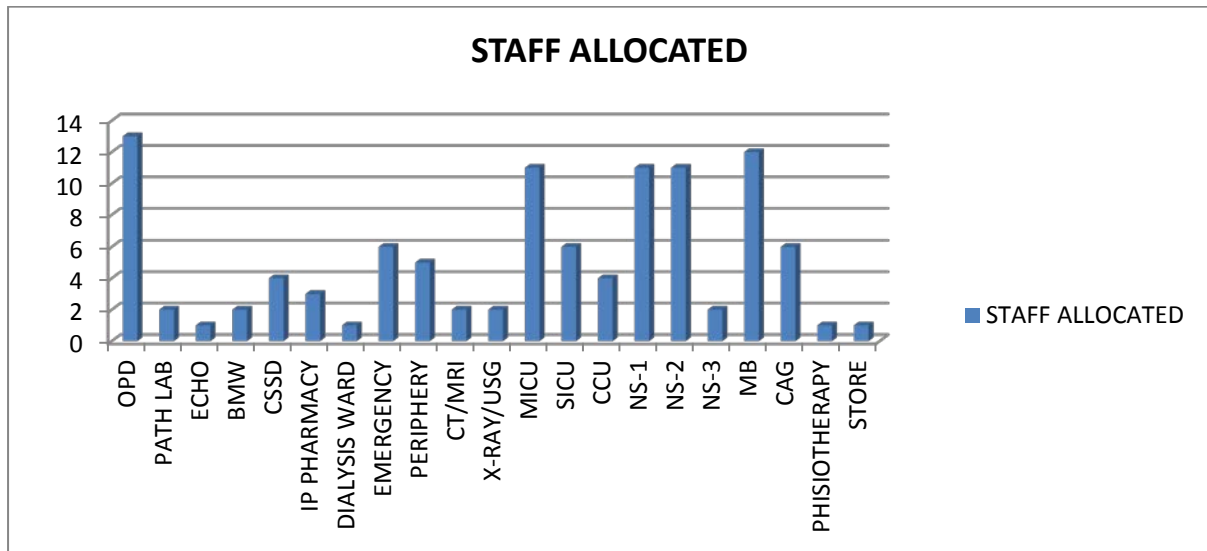
$$\text{* Utilization of housekeeping staff} = \frac{\text{Total time consumed} \times 100}{\text{Total time allocated}}$$

STAFF UTILIZATION PER DEPATMENT

DEPARTMENT	STAFF ALLOCATED	UTILIZATION PER STAFF
OPD	13	24.39%
PATH LAB	2	84.20%
ECHO	1	59.00%
BMW	2	90.90%
CSSD	4	86.40%
IP PHARMACY	3	70.00%
DIALYSIS WARD	1	66.60%
EMERGENCY	6	65.20%
PERIPHERY	5	97.90%
CT/MRI	2	64.70%
X-RAY/USG	2	60.80%
MICU	11	35.40%
SICU	6	39.00%
CCU	4	72.00%
NS-1	11	48.70%
NS-2	11	52.00%
NS-3	2	92.00%
MB	12	46.00%
CAG	6	45.60%
PHISIO THERAPY	1	96.80%
STORE	1	68.70%

Result: The above study shows that the average utilization of housekeeping staffs in 21 focused areas is around 65%, out of 21 focused areas where housekeeping staffs are deployed 3 such areas are identified where the utilization of housekeeping staffs are below 50%(OPD- 24.39%, MICU- 35.40%, SICU- 39%). It has also been noted that there is a correlation between high density HK staffs areas and low utilization of the same.

5.4 COMPARISON OF STAFF ALLOCATION & UTILIZATION



6. CONCLUSION:

- a) As the study shows a clear correlation between high density housekeeping staff allocation and under utilization of the same in respected highlighted areas.
- b) Focusing on OPD area with highest number of housekeeping staffs (13) and least utilization 24.39% we can draw a conclusion by focusing on ratio of patient flow and consultants overviewed them (patients) in year 2013. Out of 27 consultants-
 - 3 consultants (10.3%) contribute around 41.8% of total patients in OPD.
 - 7 Consultants (24.13%) contribute around 32.81% of total patients in OPD.
 - 10 Consultants (34.48%) contribute around 20.9% of total patients in OPD.
 - 7 Consultants (24.13%) contribute around 3.36 % of total patients in OPDTherefore it shows a clear picture that housekeeping staffs are mostly underutilized in low density consultant: patient areas as per their duties assigned.
- c) Total staff utilization on an average taking 21 focused areas comprising 106 HK staffs is 65%.
- d) Under utilization of housekeeping staff resulting in monetary loss on an average RS 1, 95,000 /- per month.

6.1 Factors which affect the efficiency (productivity) of labor:

1. Inheritance: Persons from good background are bound to work more productively. The quality and rate of physical as well as mental development, which is dissimilar in case of different individuals is the result of genetic differences.
2. Climate: Climatic location has a definite effect on the efficiency of the workers.
3. Health of worker: Worker's physical condition plays a very important part in performing the work. Good health means the sound mind, in the sound body.
4. General and Technical education: Education provides a definite impact in the working ability and efficiency of the worker.
5. Personal qualities: Persons with dissimilar personal qualities bound to have definite differences in their behaviour and methods of working. The personal qualities influence the quality of work.
6. Wages: Proper wages guarantees certain reasons in standard of living, such as cheerfulness, discipline etc. and keep workers satisfy. This provides incentive to work.

7. Hours of work: Long and tiring hours of work exercise have bad effect on the competence of the workers. At the same time the administrators should keep in mind the fact that, if workforce is given a break during their shifts, they would delay by the time they come back to the work after the break. It should be kept in mind to make policies against late arrivals, so that the reliever will not have additional burden. The current system with an off duty would be ideal for housekeeping staff.

7. RECOMMENDATIONS:-

1. Introducing a utilization method that attempts to maximize the efficiency of a house keeping staff. This can be accomplished by a training an employee in multiple areas so that they can switch from one role to another depending upon where they are most needed at a given time.
2. Focusing on areas of high/low density patient inflow and directing adequate staff directly proportional to the high/ low patient density areas.
3. Introducing flexitime, a system permitting flexibility of working hours at the beginning or end of the day, provided an agreed period of each day (**core time**) is spent at work.
4. Use of technology and reducing housekeeping staff density in selected areas, e.g TOKEN system in OPD similar to banks.

7.1 Token System In Reducing Hk Staff Density:-

- Token Issuing: Token will be issued only to a registered patient and also option is given to take print out of the token.
- Patient Calling: Doctor can call a patient from the list of patients shown in his Hand Held Unit.
- Housekeeping calling: Doctor can call HK staff from his Hand Held Unit .The name of the Doctor calling the HK will be displayed on the particular Station Display.
- Reports: Over half a dozen of management reports can be generated such as Doctors Login/Logout time, Average number of patients treated by a doctor for a month, Average waiting time of patient for a doctor etc which can be used to evaluate the performance of the OPD department.

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7. Hospital Administration & Human Resources Management: D. K. Sharma, R. C. Goyal, 5th Edition, 2010, PHI Learning Pvt Ltd. New Delhi

TABLES:

HOUSE KEEPING STAFF UTILIZATION IN OUT PATIENT DEPARTMENT								
TOTAL NUMBER OF HOUSE KEEPING STAFFS- 13				TOTAL TIME ALLOCATED EACH STAFF- 6 HOURS(10AM-1PM)(4PM-7PM)				
S.,NO	LOBBY	NUMBER OF STAFFS	NUMBER OF OPD/ FOLLOW UP PATIENT FLOW (2013-2014)	AVERAGE NUMBER OF PT FLOW PER DAY	TIME TAKEN(TOWARDS PATIENTS) BY EACH STAFF	TIME TAKEN(TOWARDS HOUSE KEEPING) PER STAFF	TOTAL TIME UTILIZED BY EACH STAFF	TOTAL TIME UTILIZED IRT EACH LOBBY
1	A(1-5)	3	39,133	125	125.42min	18min	143.42min	430.3
2	B(6-11)	3	13,758	44	44.01min	18min	62.01min	186
3	C(12-18)	2	14,041	39	58.2min	18min	76.2min	152.4
4	D(19-24)	3	19,104	61	61.23min	18min	79.32min	238
5	E(25-27)	2	9,942	32	47.79min	18min	67.79min	135.6
			95,978					1142
				WORK ASSIGNED/ TIME TAKEN BY EACH HK STAFF PER PATIENT(COMMON TO ALL HK STAFF)				TOTAL TIME ALLOCATED = 78 HOURS
				A) ENTERING- NAME, UHID NO, REGISTRATION TIME, OPD BILLING TIME- 2 MIN				TOTAL TIME NOT UTILIZED = 58.97 HOURS
				B) TO CALL PATIENTS AND GUIDE THEM TO RESPECTIVE CHAMBER-1 MIN				
				C) HOUSE KEEPING-MOPPING FLOOR, DUSTING FURNITURE, FILLING WATER, WASTE DISPOSAL- 18 MIN/day				

Table-1

HOUSE KEEPING STAFF UTILIZATION IN LABORATORY DEPARTMENT						
TOTAL NUMBER OF HOUSE KEEPING STAFFS- 2			TOTAL ALLOCATED TIME EACH STAFF =8am-5pm(9 hours)/ 8am - 8 pm(12 hours)			
			Total human hours allocated after one hour lunch break for each staff- 19 hours			
S.NO	TIME TAKEN TO COLLECT SAMPLE	TIME TAKEN TO DELIVER REPORT	FREQUENCY OF COLLECTION/DELIVERY/DAY	TOTAL TIME CONSUMED BY EACH STAFF PER DAY		
1	3min	3min	70	485.65 min		
2	3min	3min	70	485.65 min		
					TOTAL TIME UTILIZED= 16 HOURS	
					TOTAL TIME ALLOCATED = 19 HOURS	
					TOTAL TIME NOT UTILIZED = 3 HOURS	
			HOUSE KEEPING WORK & TIME TAKEN BY EACH STAFF			
			A) CLEANING- MOPPING FLOOR, DUSTING FURNITURE 2 TIMES DAILY, WASTE DISPOSAL= 60min/day			
			B)NEEDLE DISPOSAL= 15 min/day			
			C) MACHINE CLEANING = 40 min/day			
			D) SAMPLE DISPOSAL = 40min/3 day = 13.3 min/day			
			E) STAINING PROCESS= 15 min/day			
			F) BIOPSY SAMPLE DISPOSAL = 180min/60 days =3min/day			

Table-2

HOUSE KEEPING STAFF UTILIZATION IN ELECTRO CARDIOGRAPHY DEPARTMENT				
		TOTAL ALLOCATED TIME EACH STAFF = 11 HOURS (8 am-8pm) lunch break-1pm-2pm		
		Time allocated = 660 min		
		TOTAL NUMBER OF HOUSE KEEPING STAFFS- 1		
S.NO	TOTAL NUMBER OF CASES 2013-14=5279	NUMBER OF CASES / DAY=16.9/17	AVERAGE TIME CONSUMED= 270MIN/PT	
	TOTAL NUMBER OF TT-2013-14=53	NUMBER OF TT/DAY=0.17	HOUSE KEEPING WORK= 120 MIN	
			TOTAL TIME CONSUMED= 390 MIN / 6 HOURS 30 MIN	
		TIME CONSUMED / PT= 170 min		
		TIME CONSUMED IN TT PT/DAY= .17 x 40 = 6.8min		
		TOTAL TIME CONSUMED= 176.8 MIN		
			HOUSE KEEPING WORK & TIME TAKEN BY EACH STAFF	
		MAXIMUM ESTIMATED PATIENT FLOW/ DAY= 35 x10 min= 350min	A) CALLING PATIENTS, CHANGING CLOTHES- 10 min	
		MAXIMUM ESTIMATED TT/ DAY= .33 x 40= 13.2 min	B) CLEANING- MOPPING, DUSTING, WATER FILLNG, WASTE DISPOSAL - 60 min x 2= 120min	
		TOTAL ESTIMATED TIME CONSUMPTIONN= 363.2 min	C) PATIENT SUPPORT- TILT TABLING- (40 min/ pt)	

Table-3

HOUSE KEEPING STAFF UTILIZATION IN BIOMEDICAL WASTE DEPARTMENT				
	TOTAL NUMBER OF STAFFS- 2			
	TOTAL TIME ALLOCATED- 11 HRS/ 660min (8:3) 8am-5 pm/ 5pm-8pm			
	TOTAL TIME UTILIZED/DAY- 595 min			
	TOTAL TIME NOT UTILIZED- 65 min			
S.NO	WORK ASSIGNED TO STAFF	TIME TAKEN	FREQUENCY PER DAY	TOTAL TIME CONSUMED/DAY
1	WASTE COLLECTION	60 min	3(8am/1pm/7pm)	180min
2	SEGREGATION	40min	3(8am/1pm/7pm)	120 min
3	STOCKING OF WASTE	20 min	3(8am/1pm/7pm)	60min
4	PACKING OF WASTES	15 min	3(8am/1pm/7pm)	45min
5	HOUSE KEEPING: CLEANING OF BIOMED WASTE STORAGE AREA/CONTAINER	30 min	3(8am/1pm/7pm)	90min
6	LOADING OF BIOMED WASTE IN BIOMED TRUCK	20 min	1 IN 2 DAYS= 0.5	10min
7	WATING TIIME FOR LIFT	30MIN	3(8am/1pm/7pm)	90MIN
				595 min

Table-4

HOUSE KEEPING STAFF UTILIZATION IN CSSD DEPARTMENT					
TOTAL HUMAN HOURS ALLOCATED =35 HOURS TOTAL NUMBER OF HOUSE KEEPING STAFFS- 4 TOTAL SETS PRESENT = 85				AVERAGE TIME ALLOCATED PER STAFF=8 HOURS 45 MIN	
				TIME CONSUMED PER STAFF=7 HOURS 15 MIN	
S.NO	WORK ASSIGNED	TIME TAKEN/ SET	AVERAG SURGERY/ DAY/SETS USED	TOTAL TIME CONSUMED	
1	WASHING INSTRUMENTS (RAPID MULTI ENZYME CLEANER)	15 min	11	165min	TIME ALLOTMENT = 2 STAFF 7 am- 4pm/ 3 STAFF- 2pm- 10pm
2	WATER WASH	10 min	11	110min	
3	ULTRA SONIC MACHINE CLEANING	10 min	11	110 min	
4	WATER WASH	10 min	11	110min	TOTAL HUMAN HOURS ASSIGNED = 35 HRS
5	CLEANING WITH CIDEX	15 min	11	165min	TOTAL HUMAN HOUR CONSUMED = 30 HRS 15 MIN
6	WATER WASH	10 min	11	110min	TOTAL TIME ASSIGNED PER STAFF = 8 HRS 45 min
7	PACKING	15 min	11	165min	TOTAL TIME CONSUMED PER STAFF = 7 HRS 30 MIN
8	AUOCLAVING/ E TO	30 min	11	330min	
9	CONDEMNATION/MISELLENEOUS WORK	20 min	11	220min	
10	HOUSE KEEPING WORK: mopping, dusting, waste disposal/ Condemnation	30 min	11	330min	
				1815min/30 hr 15 min	

Table-5

HOUSE KEEPING STAFF UTILIZATION IN IPD PHARMACY DEPARTMENT				
			TOTAL AVERAGE TIME ALLOCATED PER STAFF = 8.6 HOURS	
			TOTAL HUMAN HOURS ALLOCATED = 26 HOURS(8AM-5PM/9AM-7PM/4PM-12AM)	
			TOTAL HUMAN HOUR CONSUMED = 17 HOUR 40 MIN	
			TOTAL TIME CONSUMED PER STAFF = 6 HOUR AVR	
			TOTAL STAFF = 3	
S.NO	WORK ASSIGNED	TIME TAKEN	FREQUENCY	TOTAL TIME CONSUMED
1	MEDICINE DELIVERY TO RESPECTIVE WARD	10 MIN	30	300 MIN x3 = 900 MIN
2	CLEANING : MOPPING OF FLOOR, DUSTING, WASTE DISPOSAL	30MIN	2	60 MIN
3	DELIVERY OF MED FROM STORE/ OPD PHARMACY	20 MIN	5	100 MIN
				1060 MIN

Table-6

HOUSE KEEPING STAFF UTILIZATION IN DIALYSIS DEPARTMENT					
					TOTAL TIME ALLOTTED = 8am-5pm(8 hours/1 hr break)
		TOTAL PATIENT FLOW (2013-2014) = 2709/7.5 pt/day			TOTAL TIME CONSUMED BY STAFF = 5 HOURS 20 MIN
					TIME NOT UTILISED = 2 HOURS 40 MIN
S.NO	WORK ASSIGNED	FREQUENCY	TIME CONSUMED	TOTAL TIME CONSUMED	TOTAL STAFF ALLOTTED = 1
1	PATIENT ASSISTANCE- transport from ward	7.5	20min	150min	
2	CLEANING- Mopping, dusting, toilet cleaning, waste disposal	2	30min	60min	
3	DIALYSIS MACHINE TRANSPORT- To wards	6	15min	90min	
4	FILLING WATER-	2	10min	20min	
				320 min	

Table-7

HOUSE KEEPING STAFF UTILIZATION IN EMERGENCY DEPARTMENT		
	TOTAL STAFF = 6	
	TOTAL PERSON TIME ALLOCATED = 2X 6 =12hrs(7am-1pm)/ 2X7=14hrs(1pm-8pm)/ 2X12=24hrs(8pm-8am)= 46 HRS	
	AVERAGE ALLOCATED TIME PER STAFF PER DAY = 7HRS 40MIN	
	TOTAL CASES YEAR 2013 = 10,541	
	PER DAY AVERAGE PT FLOW = 30	TIME UTILIZED/STAFF/DAY= 300MIN/5 HRS
	EACH STAFF = 5 PATIENT	TIME NOT UTILIZED = 2 HOURS 40MIN
S.NO	WORK ASSIGNED	TOTAL TIME CONSUMED/ STAFF/DAY
1	PATIENT SUPPORT-transport to	150MIN(30x 5= 150min)
2	ICU/IPD/OT/BID/AMBULANCE(PER PATIENT/STAFF) INSTRUMENT CLEANING-BED PREP, MONITOR, CART, RACKS, STRECHER, WHEEL CHAIR	30min
3	CLEANING- MOPPING, DUSTING, TOILET CLEANING,WASTE DISPOSAL	60min
4	CURTAIN CHANGE	15min
5	SPILLAGE- MERCURY, BLOOD, OTHER FLUIDS	20min
6	TRANSFER OF STERILE INSTRUMENTS FROM CSSD	15min
		290MIN/300MIN

Table-8

HOUSE KEEPING STAFF UTILIZATION IN PERIPHERY			
			TOTAL STAFF= 5
			TIME ALLOCATED FOR EACH STAFF= 8 HOURS/480MIN
s.no	WORK ASSIGNED	TIME TAKEN PER STAFF/DAY	TOTAL TIME ALLOCATED=5 hrs (8am-1pm)/3 hrs(2pm-5pm)/ 40 HUMAN HOURS
1	HOUSE KEEPING- DRY MOPPING, WET MOPPING, DUSTING(ADMIN OFF/MARKETINGOFF)	200 MIN	TIME CONSUMED PER STAFF PER DAY= 7 HOURS 50 MIN
2	CLEANING - PARKING AREA, FRONT AREA, SANATORIUM/GONDIA GUEST HOUSE, WASTE DISPOSAL	150MIN	
3	FILLING WATER (ADMIN OFF/MARKETINGOFF)	100 MIN	
4	TOWEL CHANGE	20 MIN	
		470 MIN/ 7 HOURS 50MIN	

Table-9

HOUSE KEEPING STAFF UTILIZATION IN X RAY / ULTRA SONOGRAPHY				
			TOTAL STAFF = 2	TOTAL PATIENT FLOW IN YEAR 2013-(X RAY= 22180)/ (USG= 9938)
		PER DAY PATIENT FLOW= 61.1 X RAY/ 27.6 USG		
			TOTAL CUMULATIVE TIME ALLOTTED= 20 HOURS	
S.NO	WORK ASSIGNED	TIME CONSUMED- X RAY/ DAY	TIME CONSUMED- USG	TOTAL CONSUMED TIME = 12 HOURS 48 MIN
1	PATIENT SUPPORT- patient dresss changing	61.1 x 3 min	27.6 x 3 min	
2	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	2 x 15 min	2 x 15 min	
3	FOLLOW UP PATIENT FILE / REPORT-	61.1 x 5 min	27.6 x 5 min	
		518 min/8 HOURS 38 MIN	250 min/4 HRS 10MIN	

Table-10

HOUSE KEEPING STAFF UTILIZATION IN CT/MRI DEPARTMENT				
			TOTAL STAFF ALLOTTED= 2	
			TOTAL CT/MRI PATIENT IN YEAR 2013= 6291(IPD FLOW= 40% OF TOTAL FLOW= 2517)	
s.no	WORK ASSIGNED	TIME CONSUMED	TOTAL TIME CONSUMED/ DAY	TOTAL TIME ASSIGNED= 17 HOURS(1 HOUR BREAK)
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, MACHINE CLEANING, WASTE DISPOSAL	90min x 2	180 MIN	PER DAY IPD FLOW= 7
2	WAITING TIME IN LIFT/WARD	30min x 7	210 MIN	
3	PATIENT SUPPORT- TRANSPORT(from ward- MRI/CT dpt, vice versa), lifting pt	30 min x 7	210 MIN	
4	REPORT DELIVERY	3 min x7	21 MIN	
5	FILLING WATER	10min x 3	30 MIN	
			651 MIN/ 11HOURS	

Table-11

HOUSE KEEPING STAFF UTILIZATION IN MICU DEPARTMENT				
		TOTAL STAFF= 11		TOTAL TIME ASSIGNED= 88 HUMAN HOURS
		TOTAL PATIENT BED/ DAY= 24		AVERAGE TIME ASSIGNED TO EACH STAFF= 8 HOURS
				AVERAGE PATIENT OCCUPANCY/DAY IN MONTH OF MARCH 2014= 16.63
S.NO	WORK ASSIGNED		TIME CONSUMED/ DAY	
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL, TOILET CLEANING	80 min x3	240MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 16.63	997.8MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER, WHEELCHAIR	30min x 15(MAX)	450MIN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10 (MAX)	150MIN	
5	FILLING WATER	10min x 3	30MIN	
			1869 MIN/ 31 HOURS 9 MIN/ PER STAFF= 170 MIN/ 2 HOURS 50MIN	

Table-12

HOUSE KEEPING STAFF UTILIZATION IN SICU DEPARTMENT				
		TOTAL STAFF= 6	TOTAL TIME ASSIGNED= 50 HUMAN HOURS	
		AVERAGE TIME ASSIGNED TO EACH STAFF= 8 HOURS 20 min		
		TOTAL PATIENT BED/ DAY= 10	AVERAGE PATIENT OCCUPANCY/DAY IN MONTH OF MARCH 2014= 5.8/6	
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL, TOILET CLEANING	60 min x3	180 MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 6	360 MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15(MAX)	450 MIN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10 (MAX)	150 MIN	
5	FILLING WATER	10min x 3	30 MIN	
			1170 MIN/19 hours 30 min	

Table-13

HOUSE KEEPING STAFF UTILIZATION IN CCU DEPARTMENT				
		TOTAL STAFF= 6		TOTAL TIME ASSIGNED= 26 HUMAN HOURS
		AVERAGE TIME ASSIGNED TO EACH STAFF= 6 HOURS 30 min		
		TOTAL PATIENT BED/ DAY= 10		AVERAGE PATIENT OCCUPANCY/DAY IN MONTH OF MARCH 2014= 6.4
		TIME CONSUMED PER STAFF= 281MIN/ 4 HOUR 41 MIN		
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL, TOILET CLEANING	60 min x2	120MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 6.4	384MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15 (MAX)	450MN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10 (MAX)	150MINN	
5	FILLING WATER	10min x 2	20MIN	
			1124 MIN/18 HOURS 44MIN	

Table-14

HOUSE KEEPING STAFF UTILIZATION IN NS-1				
		TOTAL STAFF= 11(9+2 TOILET)		
		AVERAGE PATIENT FLOW IN MARCH 2014= 20.7		
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		TOTAL PATIENT BED/ DAY= 13 +10 (MB)= 23
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	80 min x3	240 MIN	TOTAL TIME ASSIGNED= 75 HUMAN HOURS/ PER STAFF= 6 HOURS 49MIN
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 20.7	1242 MIN	TOTAL TOME CONSUMED/DAY= 36 HOURS 30 MIN/ STAFF= 3 HOUR 19 MIN
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15 (MAX)	450 MIN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10 (MAX)	150 MIN	
5	FILLING WATER	10min x 3	30 MIN	
6	TOILET CLEANING	20min x 4	80 MIN	
				2192 MIN / 36 HOURS 30 MIN

Table-15

HOUSE KEEPING STAFF UTILIZATION IN NS-2				
		TOTAL STAFF= 11(9+2 TOILET)		
		AVERAGE PATIENT FLOW IN MARCH 2014=23.2		
		TOTAL PATIENT BED/ DAY= 17+10 (CARDIAC MB)= 27		
		TOTAL TIME ASSIGNED= 75 HUMAN HOURS/ PER STAFF= 6 HOURS 49MIN		
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		TOTAL TIME CONSUMED/DAY= 39HOURS / STAFF= 3 HOURS 32 MIN
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	80 min x3	240MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 23.2	1392MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15 (MAX)	450 min	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10 (MAX)	150 min	
5	FILLING WATER	10min x 3	30 min	
6	TOILET CLEANING	20min x 4	80 min	
				2342 MIN/ 39HOURS

Table-16

HOUSE KEEPING STAFF UTILIZATION IN NS-3			
		TOTAL STAFF= 2	
		AVERAGE PATIENT FLOW IN MARCH 2014= 3.5	
		TOTAL PATIENT BED/ DAY= 8	
		TOTAL TIME ASSIGNED=13 HUMAN HOURS/ PER STAFF= 6HOURS30 MIN	
		TOTAL TIME CONSUMED/DAY= 11 HOURS / STAFF= 5 HOURS 30 MIN	
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY	
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	60 min x3	180MIN
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 3.5	210MIN
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 5	150MIN
4	BED PREPARATION, CHANGING CURTAIN	15min x 3	45MIN
5	FILLING WATER	10min x 3	30MIN
6	TOILET CLEANING	20min x 2	40MIN
			655 MIN/ 11 HOURS

Table-17

HOUSE KEEPING STAFF UTILIZATION IN MB				
		TOTAL STAFF= 12(9+ 3)MB=101-129/149-158		
		AVERAGE PATIENT FLOW IN MARCH 2014=30.1		
		TOTAL PATIENT BED/ DAY= 29+10 = 39		
		TOTAL TIME ASSIGNED= 100 HUMAN HOURS/ PER STAFF= 8 HOURS 18 MIN		
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	80 min x3	240 MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 30.1	1806 MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15	450 MIN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10	150MIN	
5	FILLING WATER	10min x 3	30 MIN	
6	TOILET CLEANING	20min x 4	80 MIN	
			2756 MIN/ 46 HOURS	

Table-18

HOUSE KEEPING STAFF UTILIZATION IN CAG DEPARTMENT				
		TOTAL STAFF= 6		TOTAL TIME ASSIGNED= 50 HUMAN HOURS
		AVERAGE TIME ASSIGNED TO EACH STAFF= 8 HOURS 18 MIN		
		TOTAL PATIENT BED/ DAY= 15		AVERAGE PATIENT OCCUPANCY/DAY IN MONTH OF MARCH 2014= 8.3
		PER STAFF CONSUMTION/DAY= 228MIN/ 3 HOUR 48MIN		
S.NO	WORK ASSIGNED	TIME CONSUMED/ DAY		
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	80 min x3	240 MIN	
2	PATIENT SUPPORT- CHANGING CLOTHES, SPONGING, LIFTING, SHIFTING TO/FROM OTHER WARDS	60 min x 8.3	498 MIN	
3	TRANSPORT OF MACHINE- ECG, XRAY(PORTABLE), STRECHER,WHEELCHAIR	30min x 15	450 MIN	
4	BED PREPARATION, CHANGING CURTAIN	15min x 10	150MIN	
5	FILLING WATER	10min x 3	30MIN	
			1368 MIN/ 22 HOURS 48 MIN	

Table-19

HOUSE KEEPING STAFF UTILIZATION IN PHISIO THERAPY DEPARTMENT				
		STAFF ALLOTTED= 1		
		TOTAL PATIENT FLOW YEAR 2013= 22098		TOTAL TIME ALLOTTED= 12 HOURS/ 11HOURS 30 MIN = 660MIN
		AVERAGE PATIENT FLOW/ MONTH= 1841.5		TOTAL TIME CONSUMED = 639.3 MIN/ 10 HOURS 35 MIN
		AVERAGE PER DAY PATIENT FLOW= 70.82		
S.NO	WORK ASSIGNED	TIME CONSUMED		TOTAL OPD PATIENT FLOW/DAY = 458.34/ 12= 38.19
1	PATIENT SUPPORT- transportation, assistance, chaging clothes	30 min x 16.31	489.3MIN	TOTAL IPD FLOW / DAY = 32.63
2	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, CLEANING INSTRUMENTS-	30 min x 2	60MIN	TOTAL PATIENT NEEDING ASSISTANCE= ASSUMING 50%= 16.31
3	FILLING WATER-	10 min x 2	20MIN	
4	WASTE DISPOSAL, TOILET CLEANING-	20 MIN x 2	40 MIN	
5	DELIVERING HANDOUTS	15 min	15MIN	
6	BED PREPARATION-	15 min	15MIN	
			639.3 MIN	

Table-20

HOUSE KEEPING STAFF UTILIZATION IN MEDICAL STORE DEPARTMENT				
		TOTAL STAFF=1		
		TIME ALLOTTED PER DAY = 8 HOUR		
		TIME CONSUMED PER STAFF= 5 HOURS 30 MIN		
S.NO	WORK ASSIGNED	TIME CONSUMED/DAY		
1	CLEANING- DRY MOPPING, WET MOPPING, DUSTING, WASTE DISPOSAL	60 x 3	180MIN	
2	TRANSPORT OF STORE MATERIALS/ ARRANGING STORE MATERIAL	20 MIN x 6	120MIN	
3	FILLING WATER	10 MIN X 3	30 MIN	
			330 MIN / 5 HOURS 30 MIN	

Table-21