Process Improvement of Preventive Health Checkups

By

Sowjanya V.D.

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2015-2017

The IIHMR University, Jaipur

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Sowjanya.V.D.** student of **MBA Hospital and Health Management** from The IIHMR University, Jaipur has undergone internship training at **Shalby Hospitals, Ahmedabad** from **February 13th, 2017 to May 13th, 2017.**

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Dr. Ashok Kaushik
Dean - Academics and Student Affairs
The IIHMR University, Jaipur

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Date: 11th May 2017

Reference Number: SA/CER/57/2017

TO WHOM IT MAY CONCERN

This is to certify that **Dr. Sowjanya .V.D.** D/O Mr. Raju .V.D. has successfully completed 3 Months (Feb 13th February to 13th May 2017) **Fulltime Internship programme in Clinical Operations Department in Shalby Hospitals, Opp. Karnavati club, S G Highway, Ahmadabad.**

During the period of her Internship programme with us she was found punctual, hardworking and Inquisitive.

We wish her every success in Life.

Mr. Rohitash Chaube

Head – Shalby Academy

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "**Process improvement of health checkups**" and submitted by **Sowjanya.V.D** Enrollment No. IIHMR-U/01/2015-17/0354 under the supervision of **Dr. Monika Chaudhary** for award of Postgraduate Diploma in Hospital and Health Management of the University carried out during the period from 13th February 2017to 13th May 2017 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

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that all ethical issues have been considered while collecting data for my dissertation titled **Study on Process Improvement Of Preventive Health Checkups.**

Signature

1. INTRODUCTION

Health is defined as a state of complete physical psychological and mental well-being and not merely the absence of any disease (WHO). It has become a fact that disease attacks human beings regardless of age, sex, culture, occupation and other additional factors. Hence, it is always better to check the status of health even if one is in normal health.

What is Health Checkup?

A Health Checkup comprises of a series of tests that are designed to check if you are on the precise health track. The basic goal of a health checkup is to discover the hidden disease in the body, prevent it from building and decrease its effect on body. By taking up consistent health checkups, you are increasing your lifespan by improving your health and preventing it from deteriorating.

Why health checkups are important?

In today's age, the varying lifestyle, pollution and stress levels can lead to health problems for which early checks are required before the problem becomes compounded. Many ailments commence without fair warning signals, but if detected prematurely, we can take up corrective measures. These measures can be dietary changes or just an adjustment in lifestyle without the requirement for medical intervention.

But, the expanding cost of healthcare shared with busy work schedules means that most of the people are pushing regular checkups on the last priority. But the truth of the matter is that regular doctors' visits can give the difference between death and life. Vital and often simple health screenings can sense the two most common chronic conditions-diabetes and hypertension-before they cause serious health problems. **The Centers for Disease Control** mentions that seven out of every ten deaths are caused by chronic disease. But appropriate disease management can prevent needless hospitalization and lessen the cost of primary care. Some of the benefits of health checkup are:

1. Prevention is better than cure

Regular health checkups will provide doctors with a way to spot any health issues early. Health Checkups incorporate several investigations, including physical examinations, preventive screenings and, to check patient's current health and risks. If any issues are found, doctor will provide necessary information on treatment plans and ways that can prevent health issues in the upcoming future.

Popular health checks include:

- Diabetes
- Blood pressure tests
- Cholesterol level checks
- Body mass index (BMI) and obesity tests
- Breast and cervical cancer early detection
- Colorectal cancer detection
- Oral health
- Immunization Schedules
- Skin Cancer Basic Information
- Prostate Cancer Screening
- Viral Hepatitis
- HIV/AIDS

2. Cut healthcare costs

For most of the people, the thought of a doctor's bill is enough to put off setting up a health checkup. However, there are quite a lot of ways that can help to find great savings on health care. Checkups could also help in saving a plenty of money in the long term run as they aid in minimizing the risk of potential health problems that will decrease the risks for surgery or more wide-ranging medical care in the future.

3.Stress related Diseases

The speeding life and hectic work schedules in today's world can result to many health disorders that are highly prejudiced by the stress levels. Any sort of rise in the stress levels can lead to various health problems – not only physical but mental as well. Some familiar ones include hypertension and high blood pressure, mental disorders weight problems, diabetes, Alzheimer's disease, asthma, gastrointestinal problems and depression. Well, regular medical checkup, it becomes easier to detect and diagnose these problems way before they turn into severe or deadly.

4. Makes you more aware about your Health

Depending upon the results of tests, the doctor or healthcare provider might warn about different habits based on your age, family history and health conditions. There are many areas of like that we don't take proper care of, despite it is being most crucial. Regular checkups make doctors, guide you to follow appropriate care for these areas and health aspects.

2.1 THE OTHER SIDE OF MEDICAL HEALTH CHECKUP:

While we cannot be certain that all health checks lead to benefit, as we know that all medical interventions can lead to harm. Possible troubles from health checks are over diagnosis, injury or distress or from invasive follow-up tests, over treatment, distress due to false positive test results, false reassurance due to false negative test results, possible addition of adverse health behaviors due to negative check results, adverse psychosocial effects due to labeling, and difficulties with getting the insurance. Organized programmes of health checks are likely to be costly and may result in losing the opportunities to get better other areas of healthcare.

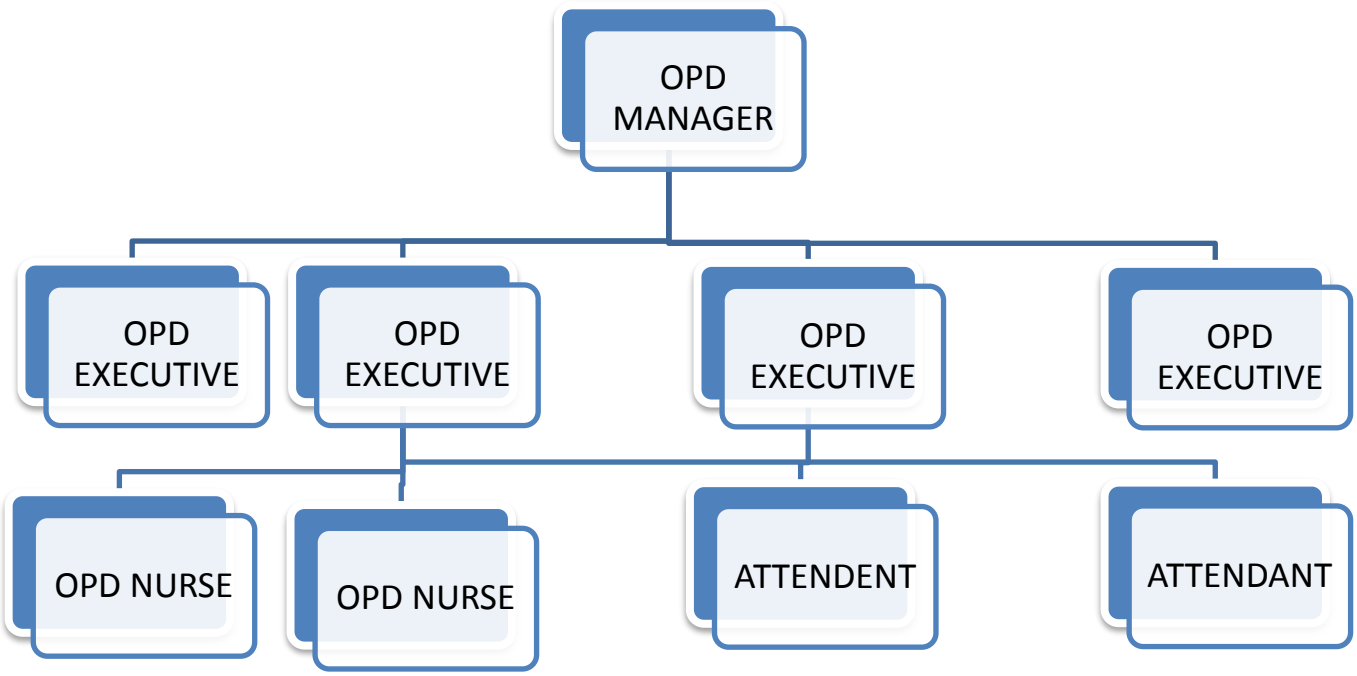
Preventive screening remains confusing and controversial to the health care consumers. While the benefits of preventive health screening for diseases are hard to encounter, there are arguments that health screening does not always lead to enhanced health. But, we can leave those arguments aside for the moment; because it is a real fact that preventive health check-ups help in

catching maladies very early. It is always better to check the health condition even if one is in normal health, for anyone who is over 35 years of age.

2. LITERATURE REVIEW:

- An article "Knowledge, Attitude and Practice of Medical checkup" (2008) given by The Department of Health Disease states that prevention is now recognized as a superior strategy to decrease the morbidity and mortality of different types of diseases. It is a cost-effective way to improve the population health. Attending regular medical checkups is one of the tools for disease prevention, which enables certain diseases or risk factors to be detected at an early stage for introducing timely interventions, such as lifestyle modifications, pharmaceutical or surgical treatment, to improve individual health outcome.
- Honey S, Bryant L, Murray J, Hill K and House A. (2013) (5) suggests that support for patient lifestyle change could help to reduce health inequalities and that the attitudes of healthcare professionals can influence the way in which that support is given.
- Some of the diseases which can become deadly if undetected are:
- **Breast Cancer**- The Indian Scenario (2016) given by the Health Checkup Knowledge center stated that the Breast Cancer is the most Common cancer among women in India and accounts for 27% of all cancer in women. In urban areas, 1 in 22 women develops breast cancer during her lifetime.1.45 lakhs of fresh cases diagnosed every year in India
- David R. Whiting, et al. (2011) (6) estimated that 61.3 million people aged 20-79 years live with **Diabetes** in India (2011 estimates). Unnikrishnan R, et al. (2011) (7) states that this number is expected to increase to 101.2 million by 203077.2 million people in India are said to have **Pre-diabetes** (The Global and Regional Burden of Disease and Risk Factors study (2001), in a systematic analysis of population health data for attributable deaths and attributable disease burden, has ranked **Hypertension** in South Asia as second only to child underweight for age.
- Dorairaj Prabhakaran et.al (2016), stated that Premature mortality in terms of years of life lost because of Cardiovascular diseases in India increased by 59%, from 23.2 million (1990) to 37 million (2010).

3. FUNCTIONAL ORGANIZATIONAL STRUCTURE:



4. OBJECTIVES AND ROLE OF FUNCTIONS IN PREVENTIVE HEALTH CHECH UP:

Executives involved in the process of health check-up are assigned with a particular role. As

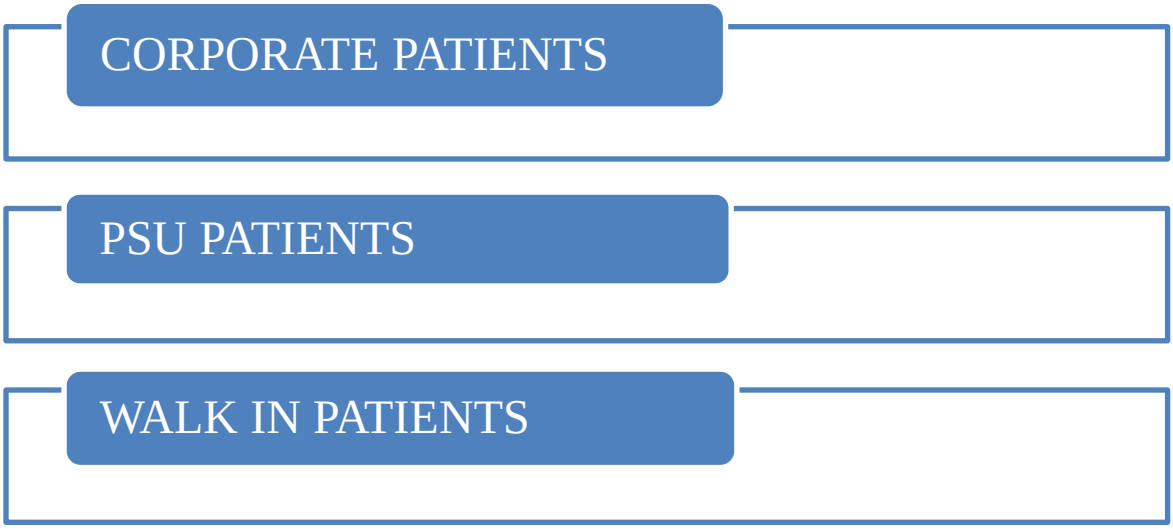
S.NO	ROLE NAME/TITLE	BELONG TO FUNCTION	ROLE IN PROCESS
1	OPD EXECUTIVE	OPD	Informing PHC customers about precautions and other information related to their packages
2	OPD EXECUTIVE	OPD	Escorting customers to various departments like sample collection, X-Ray, ECG, USG etc.
3	OPD EXECUTIVE	OPD	Collecting and compiling all reports and fixing the doctor consultation
4	OPD EXECUTIVE	OPD	Dispatching corporate package reports.

perSOP's of the PHC department roles and criticality of role are as following:

Table 1 Objectives & role functions of OPD Executives in PHC

5.1 PHC Patients:

Patients coming for the health chech-up are as following:



Corporate patients:

Patients who are visiting for their health check-up sponsored by their company or organization they are working with.

Patients have to come with their ID proof and reference letter.

PSU Patients:

Public sector unit patients are the patients who are working in any of the government sector organizations. They also come to Shalby hospital for yearly check-ups.

Walk-in Patients:

Patients visiting for their routine health check-ups are walk-in patients. They have various options in health packages as follows:

5.2 WELLNESS PACKAGES:

Health check-up packages offered in Shalby hospital, Ahmedabad are as follows:

- Youngies
- Wellness program for 30+
- Comprehensive health package
- Advanced health package
- Prince and princess
- Woman special
- Wellness program for 60+
- Cardiac screening
- Cardiac supreme
- Cancer screening
- All in one
- Diabetes pre-screening
- Diabetes screening

5. OBJECTIVES:

- To optimize the time spent in Preventive Health Checkup department.
- To analyze the gaps in the process flow of Preventive Health Checkup department.
- To analyze the trend of health checkup department from Nov-2016 to Apr-2017.

6. RESEARCH METHODOLOGY:

7.1 DURATION OF STUDY

Feb 13th to May 13th

7.2 AREA OF STUDY:

Medical Health Checkup Department

7.3 SAMPLE SIZE:

120

7.4 INCLUSION CRITERIA:

Customers who are healthy and come for health checkup alone and the customers from the companies tied up with Shalby hospitals for health checkup

7.5 EXCLUSION CRITERIA:

Inpatients

7.6 SAMPLING METHOD:

Convenience Sampling

7.7 TECHNIQUE OF DATA COLLECTION:

I will be taking TAT as well as total cycle time of each process in different health checkup packages for 120 samples. Process improvement is to carry out by applying Value Stream Mapping (VSM) on the time taken in the completion of the health-check process from the time of Billing till last consultation.

7. PROCESS MAPPING:

Process mapping is “A pictorial representation of the sequence of action questioned and s that comprise a process”

8.1 PURPOSE OF PROCESS MAPPING:

The idea of process mapping is for better understanding. It involves the gathering and organizing of information about different activities and displaying them so that they can be improved and questioned by knowledgeable people. Process maps help in understanding by abstracting, by using visual charting symbols constantly and masking unnecessary details.

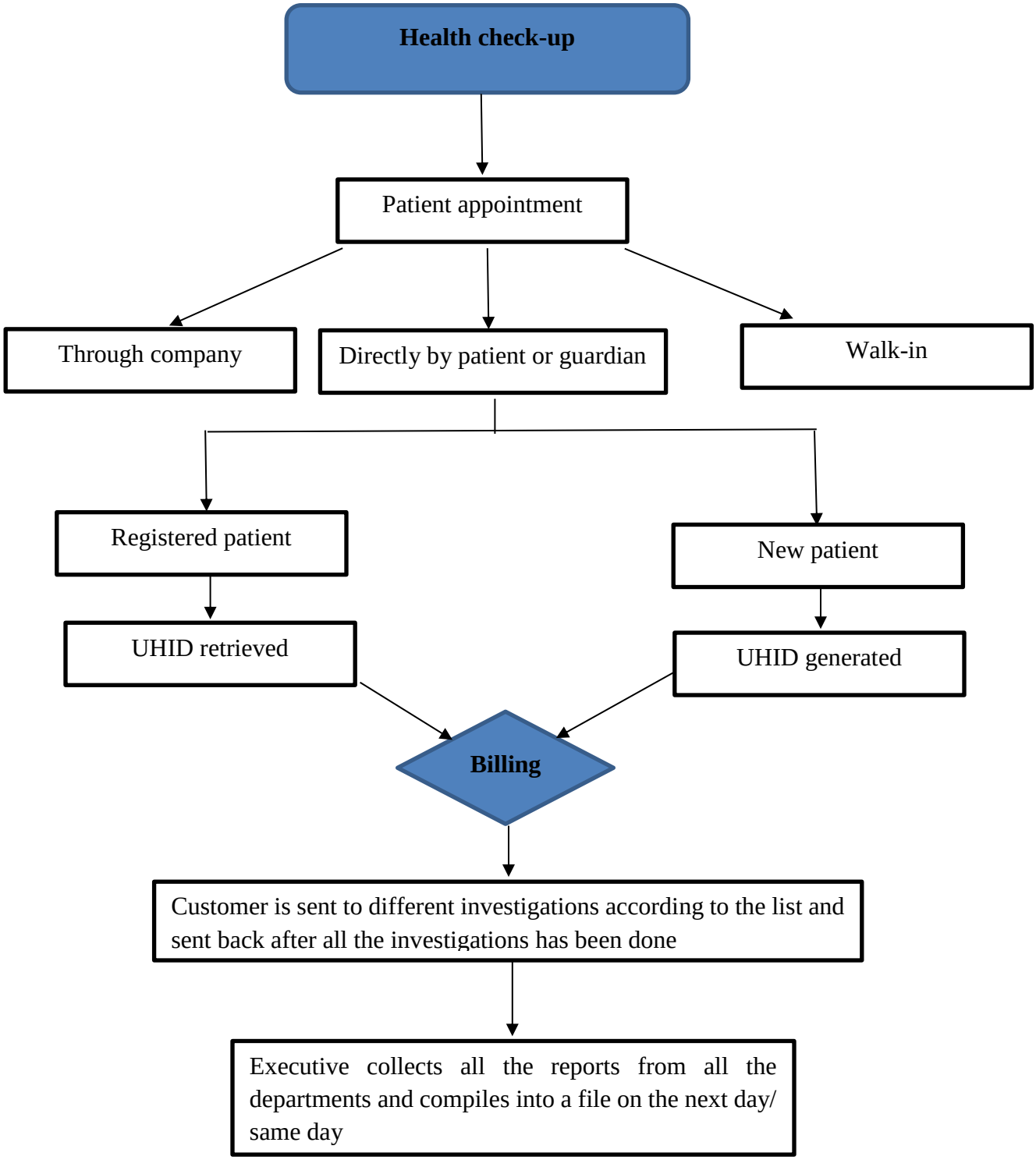
Process maps are used to:

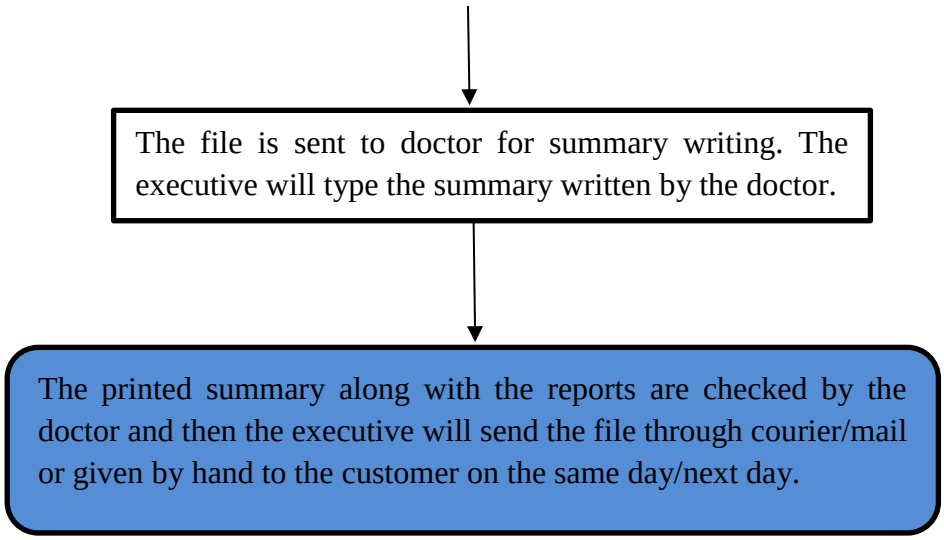
a) Document processes
   - Describe in detail and understand about the work which is done.
   - Provide a reference to discuss how things are done.

b) Analyze and improve the processes
   - Generate ideas for upgrading
   - Identify areas of re-work and complexity
   - Demonstrate process improvements

Process mapping of the health check-up is as the following:

The process mapping is depicted with the aid of a work flow diagram to bring forth a clear understanding of a process or parallel or series of processes.





8. FINDINGS:

Average health checkups per day -13 → Average Corporate health checkups -10
Average health checkups per day -13 → Average self-paying health checkups-2

Average OPD per day - 27
Average blood samples per day -120

OP registration needs - 3 min
Posting needs – 3 to 4 min
Summary typing needs – 7 to 10 min

Average health checkups – 13
Average OP registration time for 13 health checkups- 13*3=39min
Average time taken for posting is = 40 min to 52 min
Average registration time for 27 OPD =1 hour 11 min
2hour 40 minutes to 3 hours

THIS SHOWS THAT POSTING CAN BE DONE PRIOR TO 12'OCLOCK AT ANY CIRCUMSTANCES
BUT IN SOME CASES, LIKE WHEN NUMBER OF HEALTH CHECKUPS and OPD ARE 23; THEN

OP registration time – 69 min

Time taken for posting-69-92 min
Time taken for OP registration-69 min
Around 4 hours

POSTING GETS LATE IN THIS TYPE OF SITUATIONS

Example of an improper process flow:

8;40am- patient entry
9;00am – op registration done
9;15am-sent for blood sample collection and given water bottle for drinking for the test of ultrasonography
9;30-ECG
9;40-x-ray **PATIENT WAITED FOR 25 MIN TO FEEL THE BLADDER FULL**
10;05-patient went for Sonography
10;30-Sonography done and patient sent for breakfast
11;00-**PATIENT SENT FOR CONSULTATION EVENTHOUGH THERE ARE 3 PATIENTS IN QUEUE**.
11;25-consultation done
11;30 to 11;50-Echo done and sent for BMD.BUT HE IS THE FIRST PATIENT IN BMD
12;00-BMD done
12;00to 1;10-dental, Opthomology, Dermatology consultation done
2;15-patient came after lunch for getting consultation with reference doctors and waited till 3;00 as **THERE IS NOBODY TO INFORM HIM WHERE TO GO FOR THE NEXT DEPARTMENT. FROM PATIENT ENTRY TO THE TIME THEY HAVE GIVEN WATER BOTTLE IT TOOK AROUND 35MIN.BUT IF THEY HAVE GIVEN WATER BOTTLE ON THE TIME OF PATIENT ENTRY THE WAITING PERIOD OF 25MIN CAN BE AVOIDED.IF THE PATIENT IS SENT FOR BMD RATHER THAN FOR CONSULTATION, 25 MIN OF WAITING PERIOD CAN BE AVOIDED AS HE IS THE FIRST PATIENT IN BMD.**

Data collected was as following:

The entire data collected was formulated in a tabular form to calculate the TAT as below:

Table 2 Data Summary

Date	Patient ID	In time	Out time	TAT [MIN]
13-Feb-17	291670	08.30 AM	10.25 AM	115
13-Feb-17	291671	08.35 AM	10.40 AM	125
14-Feb-17	708032	08.45 AM	10.55 AM	130
14-Feb-17	291692	09.05 AM	11.15 AM	130
15-Feb-17	291774	08.35 AM	11.00 AM	145
15-Feb-17	291777	08.45 AM	10.50 AM	125
16-Feb-17	291783	09.30 AM	11.50 AM	140
16-Feb-17	291785	09.40 AM	12.10 PM	150
17-Feb-17	291851	09.10 AM	11.15 AM	125
17-Feb-17	291857	09.45 AM	11.30 AM	105
18-Feb-17	291876	09.15 AM	10.55 AM	100
18-Feb-17	291888	10.15 AM	12.10 PM	115
20-Feb-17	291952	08.30 AM	10.55 AM	145
20-Feb-17	291953	08.35 AM	10.30 AM	115
21-Feb-17	7080231	09.35 AM	11.55 AM	140
21-Feb-17	7080411	10.15 AM	12.40 PM	145
22-Feb-17	7080419	10.30 AM	12.15 PM	105
22-Feb-17	292201	10.45 AM	01.15 PM	150
23-Feb-17	292217	09.05 AM	11.30 AM	145
23-Feb-17	292223	09.30 AM	11.25 AM	115
24-Feb-17	292232	08.55 AM	11.30 AM	155
24-Feb-17	292238	09.20 AM	11.45 AM	145
25-Feb-17	292252	08.45 AM	11.15 AM	150
25-Feb-17	292265	09.15 AM	11.10 AM	115
27-Feb-17	292272	08.30 AM	11.00 AM	150
27-Feb-17	292275	08.40 AM	11.10 AM	150
28-Feb-17	292285	09.05 AM	11.20 AM	135
28-Feb-17	292288	09.15 AM	11.10 AM	115

Date	Patient ID	In time	Out time	TAT
01-Mar-17	292312	08.50 AM	10.40 AM	110
01-Mar-17	292315	09.05 AM	11.00 AM	115
02-Mar-17	292325	09.10 AM	11.35 AM	145
02-Mar-17	292327	09.20 AM	11.20 AM	120
03-Mar-17	292333	08.30 AM	10.50 AM	140
03-Mar-17	292340	08.50 AM	11.25 AM	155
04-Mar-17	292350	08.40 AM	10.25 AM	105
06-Mar-17	292355	08.50 AM	10.30 AM	100
06-Mar-17	292356	08.55 AM	11.40 AM	165
07-Mar-17	292368	09.00 AM	11.00 AM	120
07-Mar-17	292372	09.10 AM	11.40 AM	150
08-Mar-17	292385	08.35 AM	11.00 AM	145
08-Mar-17	292390	08.45 AM	11.25 AM	160
09-Mar-17	292412	09.00 AM	11.10 AM	130
09-Mar-17	292415	09.15 AM	11.00 AM	105
10-Mar-17	292430	10.05 AM	12.05 PM	120
10-Mar-17	292431	10.10 AM	12.05 PM	115
11-Mar-17	292455	08.55 AM	10.55 AM	120
11-Mar-17	292460	09.05 AM	11.40 AM	155
13-Mar-17	292475	10.30 AM	12.35 PM	125
13-Mar-17	292481	10.40 AM	12.50 PM	130
14-Mar-17	292502	08.30 AM	10.50 AM	140
14-Mar-17	292503	08.35 AM	11.05 AM	150
15-Mar-17	292522	09.00 AM	11.00 AM	120
15-Mar-17	292526	09.15 AM	11.15 AM	120
16-Mar-17	292546	08.40 AM	10.30 AM	110
16-Mar-17	292547	08.45 AM	11.15 AM	150
17-Mar-17	292601	08.50 AM	10.30 AM	100
17-Mar-17	292603	08.55 AM	10.55 AM	120
18-Mar-17	292620	09.35 AM	12.10 PM	155
18-Mar-17	292625	09.45 AM	11.50 AM	125

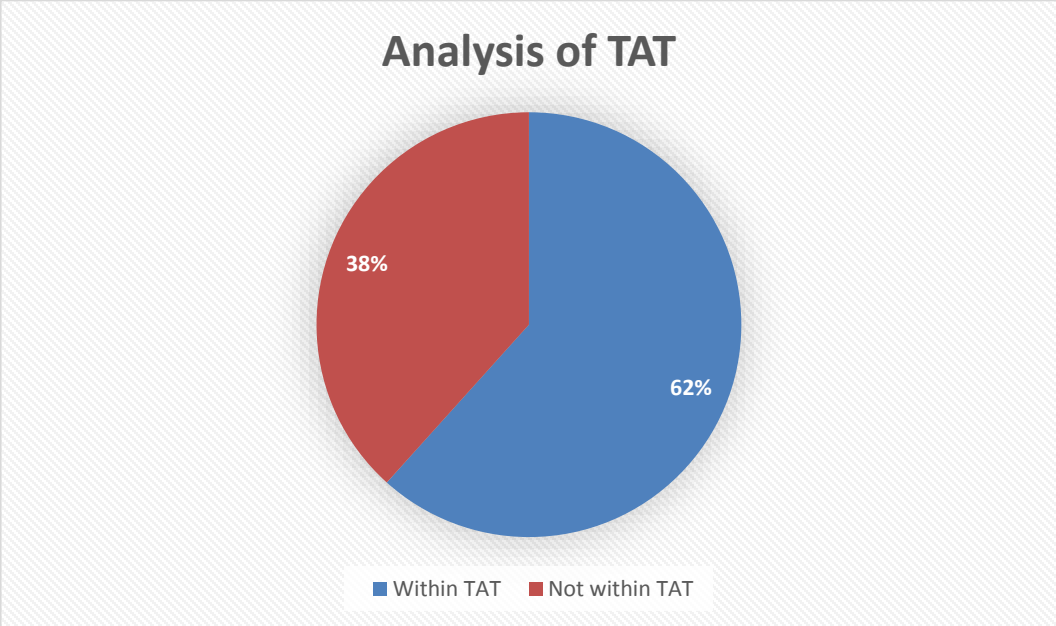
Date	Patient ID	In time	Out time	TAT
20-Mar-17	292712	09.30 AM	11.50 AM	140
20-Mar-17	292715	09.40 AM	12.00 PM	140
21-Mar-17	292731	09.10 AM	11.35 AM	145
21-Mar-17	292733	09.45 AM	12.15 PM	150
22-Mar-17	292745	09.15 AM	11.20 AM	125
22-Mar-17	292750	10.15 AM	12.15 PM	120
23-Mar-17	292769	08.50 AM	10.40 AM	110
23-Mar-17	292772	09.05 AM	11.20 AM	135
24-Mar-17	292801	09.10 AM	11.40 AM	150
24-Mar-17	292806	09.20 AM	11.10 AM	110
25-Mar-17	292827	08.30 AM	10.25 AM	115
25-Mar-17	292829	08.50 AM	11.20 AM	150
27-Mar-17	292842	08.55 AM	11.25 AM	150
27-Mar-17	292847	09.20 AM	11.55 AM	165
28-Mar-17	292860	08.45 AM	10.45 AM	120
28-Mar-17	292863	09.15 AM	11.25 AM	130
29-Mar-17	292871	08.30 AM	10.50 AM	140
29-Mar-17	292875	08.40 AM	10.50 AM	130
30-Mar-17	292888	09.05 AM	11.10 AM	125
30-Mar-17	292891	09.15 AM	11.40 AM	145
31-Mar-17	292905	08.55 AM	11.05 AM	130
31-Mar-17	292909	09.10 AM	11.10 AM	120
01-Apr-17	292925	08.50 AM	11.25 AM	155
01-Apr-17	292929	09.05 AM	11.15 AM	130
03-Apr-17	292939	09.10 AM	11.05 AM	115
03-Apr-17	292941	09.20 AM	11.50 AM	150
04-Apr-17	292953	08.30 AM	10.20 AM	110
04-Apr-17	292955	08.50 AM	10.35 AM	105
05-Apr-17	292962	10.05 AM	12.45 PM	160
05-Apr-17	292966	10.15 AM	11.55 AM	100
06-Apr-17	292975	10.40 AM	01.05 PM	145

Date	Patient ID	In time	Out time	TAT
06-Apr-17	292976	10.45 AM	12.45 PM	120
07-Apr-17	292981	08.30 AM	10.20 AM	110
07-Apr-17	292983	08.35 AM	11.40 AM	125
08-Apr-17	292997	09.35 AM	12.00 PM	145
08-Apr-17	293001	10.15 AM	12.15 PM	120
10-Apr-17	293010	10.30 AM	12.10 PM	100
10-Apr-17	293013	10.45 AM	12.55 PM	130
11-Apr-17	293025	09.15 AM	11.00 AM	105
11-Apr-17	293029	10.05 AM	12.05 PM	120
12-Apr-17	293041	09.05 AM	11.20 AM	135
12-Apr-17	293045	09.15 AM	11.10 AM	115
13-Apr-17	293059	09.10 AM	11.35 AM	145
13-Apr-17	293061	09.45 AM	12.15 PM	150
14-Apr-17	293075	09.10 AM	12.10 PM	120
14-Apr-17	293077	09.00 AM	11.10 AM	130
15-Apr-17	293089	09.15 AM	11.00 AM	105
15-Apr-17	293091	10.15 AM	12.30 PM	135
17-Apr-17	293101	08.30 AM	11.00 AM	150
17-Apr-17	293105	08.40 AM	11.10 AM	150
18-Apr-17	293119	09.15 AM	11.00 AM	105
18-Apr-17	293121	10.05 AM	12.05 PM	120
19-Apr-17	293132	10.10 AM	12.05 PM	115
19-Apr-17	293133	08.55 AM	10.55 AM	120
20-Apr-17	293145	09.45 AM	11.50 AM	125
20-Apr-17	293149	08.35 AM	11.00 AM	145
21-Apr-17	293157	09.10 AM	11.20 AM	130
21-Apr-17	293161	09.20 AM	11.25 AM	125
22-Apr-17	293177	09.05 AM	11.15 AM	130
22-Apr-17	293179	09.10 AM	11.05 AM	115
22-Apr-17	293181	09.10 AM	11.40 AM	150

9. RESULTS:

- 62% of patients from the whole sample have completed their investigations of Preventive Health Check-up within TAT.
- 38% of patients from the whole sample didn't completed their investigations of Preventive Health Check-up within TAT.

Figure 1 Analysis of TAT



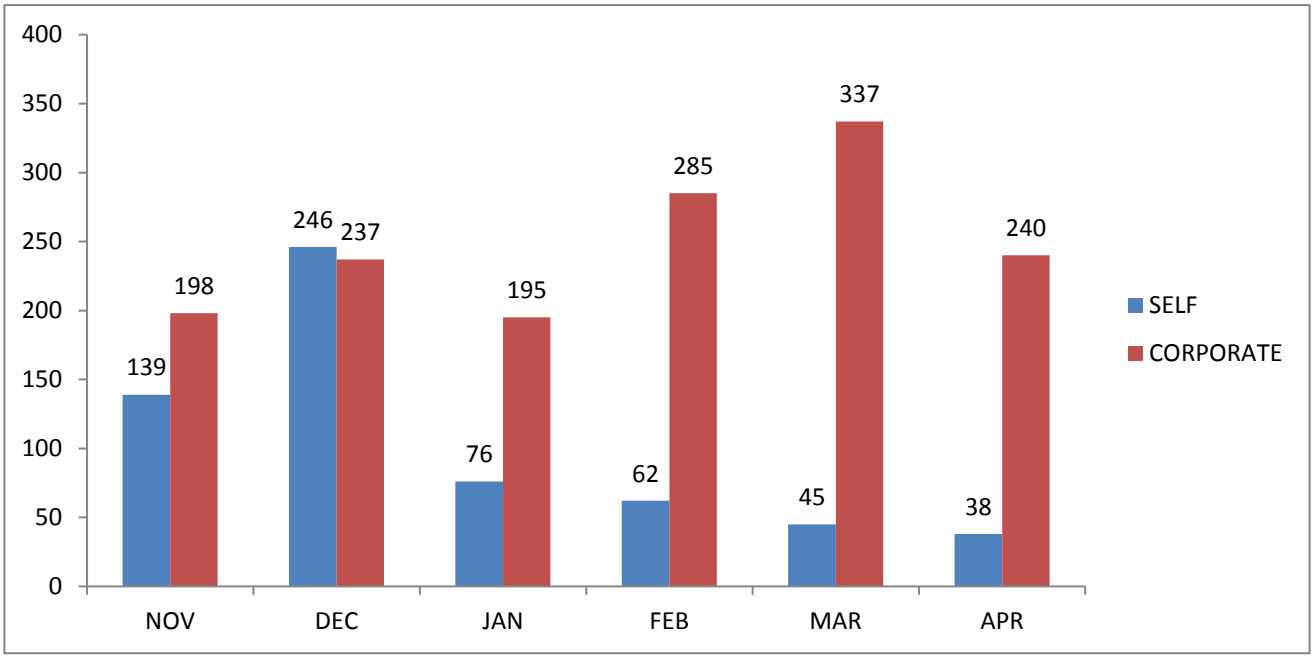


Figure 2Trend analysis from Nov-16 to Apr-17

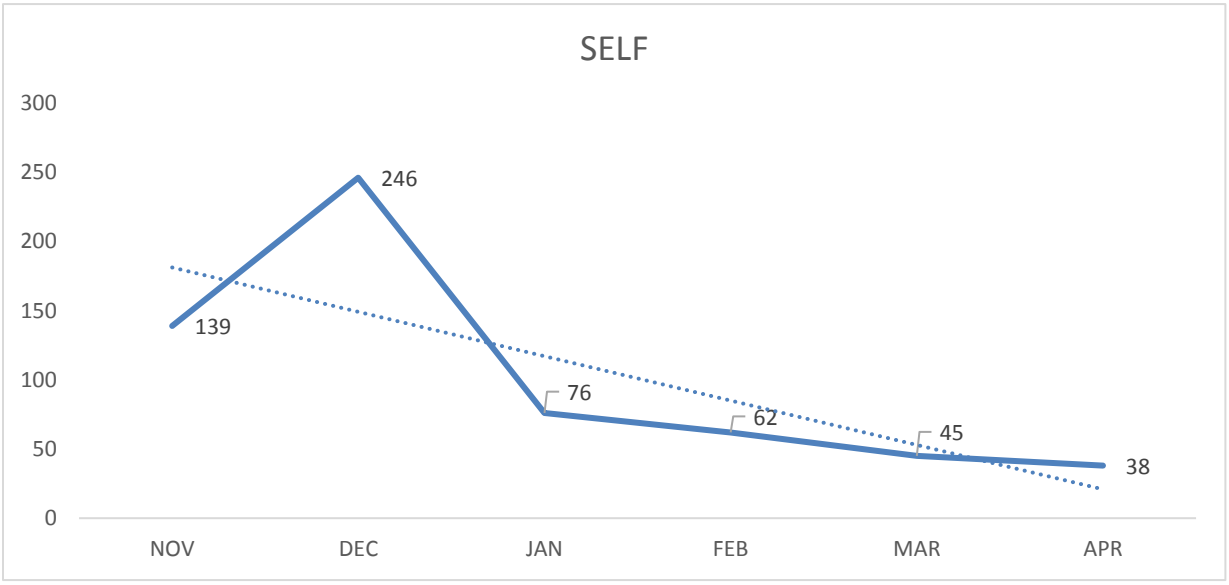


Figure 3 Trend analysis of SELF patients from Nov-16 to Apr-17

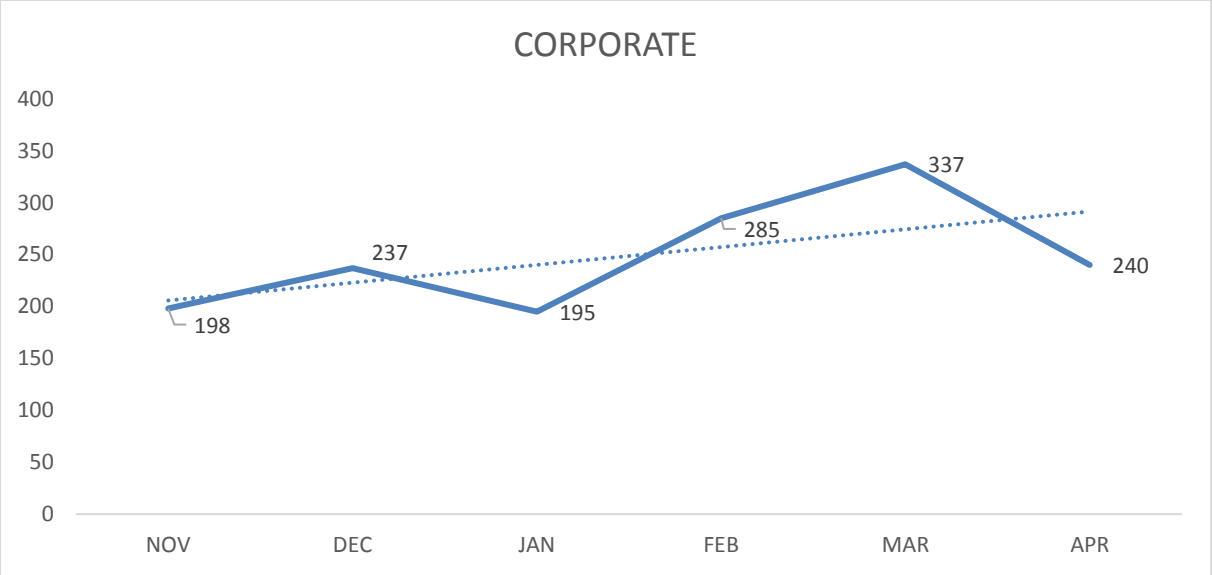


Figure 4 Trend Analysis of Corporate patients from Nov-16 to Apr-17

10.MANAGERIAL ISSUES:

- It's the duty of health checkup department to collect the reports from all the departments. But this process is not going well.
- They don't do the work on the priority basis.
- As there is only one computer, all the work is being done in that system only. This is one main reason for getting the work done late especially for postings and summaries.
- Environment of the health checkup is not impressive.
- The area allotted for health checkup along with other OPDs is very small when compared to the patients flow. This resulting in a great confusion to the patients.
- No dashboards like pathology billing, health checkup, etc.
- There is only one person for compiling the reports into a file. Whenever he takes leave all the work related to this gets pended. In such cases, other executives should take responsibility of this work in such conditions.
- As there is no MT, time taken for typing the summaries is more. Out of 10 ,8 summaries will have blunders as per Physician words .

11.RECOMMENDATIONS:

- Dedicated health-check area which reduces patient movement with all amenities at single place.
- Developing Appointment systems for patients.
- Proper scheduling of patients.
- All OPD billings can be done at one place.
- Posting should be done first and then the process can be continued.
- Echo test is done first then payment is made. It is due to unavailability of doctors as they have to do posting. If the process is reversed, system will get improved as doctors will be available as it becomes compulsory.
- If some of the packages has been classified as STANDARD and ADVANCED, rather than including all investigations into a major package can attract self-paying patients in selecting health checkup package of Shalby. For example, prince and princess standard and advance, women health checkup standard and women health checkup advanced. The ratio of price for standard and advanced can be in the ratio of 1:2.
- There should be some standard health package for all kinds of ages.
- There should be some discount rates for self- paying patient if they bring one of their family members for health checkup in the next time as a token of gratitude to customer loyalty.
- There should be some system which helps patient not to come back to health checkup department after each investigation.
    1. Such as an attender should go along with the patient for guiding to each department.
    2. There should be a systematic sequence in sending the patients to different departments.
- Training should be given regarding posting. Or actions should be taken on the people who do posting wrong frequently because of negligence.
- Reward programs for staff resulting into significant outcomes.

12.1 BENEFITS OF EFFECTIVE PLANNING FOR PHC:

For the patient

- ❖ It reduces the wastage of time.
- ❖ Patient satisfaction increases.

For the staff

- ❖ Well defined objectives and roles.
- ❖ Have opportunities to work in diverse settings and in diverse ways.
- ❖ Can develop new opportunities and skills.

For organization

- ❖ Optimum utilization of resources.
- ❖ Fewer complaints.
- ❖ Staff feel esteemed which, in turn, leads to improved retention.

12.ETHICAL CONSIDERATIONS:

1) Participants helped in research are not subjected to harm in any ways.
2) Respect for the dignity of participants was prioritized.
3) The safety of the privacy of participants was ensured.
4) Any exaggeration or deception about the aims and objectives of the research was avoided.
5) Anonymity of organization as well as individuals participating in the research was ensured.
6) Any type of communication in relation to the research was done with transparency and honesty.
7) Confidentiality of the research data was ensured.
8) Any sort of, representation of primary data findings in a biased way as well as misleading information was avoided.