Process Improvement of Preventive Health-Check-Up

Nihar Bhatia

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ABSTRACT
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 irrespective of age, sex, culture, occupation and other factors.

Long waiting hours and wastage of valuable time makes people reluctant in investing time for their Health. This article describes the application of Lean approach to streamline Health check process at Fortis Escorts Hospital Jaipur. Team applied process mapping to make decisions. The objective was to provide the best health check services in timely manner, so that hospitals can save the community time with gift of their Good Health. Process improvement was carried 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. The findings suggested that focusing on reducing waste times would have greatest impact.

We worked on the Health Check process, to reduce variation, remove activities that contribute no value to the service produced, and improve customer satisfaction by eliminating waste--of money, people, materials, time, and opportunities, reducing the overall cycle time of the process. The outcome of the study showed significant improvements by eliminating waste in terms of Man, Money and Material--of money, man/staff, materials, time, and opportunities by removing activities that contribute no value to the service produced, and improve patient satisfaction, by working on value added steps of a process. The outcome of the study showed significant improvements saving the man-hours of client spent in the PHC.

The objective of the study was to
• Optimize time spent in Preventive Health check-up
• More than 95% patients to complete health-check within TAT
• Satisfied Individuals

Introduction

“An ounce of Prevention is worth a pound of Cure”

Good health represents a healthy community & helps individual maintain a high quality of life & productivity.

Research all over the World has proven that it is more economical to invest in preventive healthcare rather than to think of a hospital only in times of distress. More than the cost, it is about the sheer joy of living a happy life without having to worry about one’s health

Good health is the foundation of a happy, productive and rewarding life. The modern life style today symbolizes excessive stress, extended working...
hours, irregular eating habits, and inadequate rest, coupled with high level of pollution which is bound to cause health related problems. To meet the growing demands of the competitive world, most of us tend to ignore our health due to lack of time until we are compelled to confront a medical complication.

On the theme of “**Prevention is Better than Cure**” Fortis Escorts Hospital Jaipur provides Preventive Health Checkup (PHC) to the people, offering a wide range of health checkups to cover all age groups both for men and women.

As it is rightly said” Customer Experience is more important than Customer Service” We did brainstorming on how to make our services different from other; which provides the similar health packages; How to ensure that people visiting us get the value for money; improve the satisfaction & above all their experience.

But how are we different from other hospitals which provide the same packages. How to ensure that people visiting us get the value for money they have paid & improve the satisfaction.

Thus we took health check process as opportunity for improvement/innovation. The setting of this study was a health-check area catering to average 35-40 packages per day. At the time of the project, the health check was conducted in an area sharing its resources like Reception, Diagnostics, Physicians with OPD & IPD patients and staff, which has now been shifted to a dedicated PHC area, looking at the significant outcomes of the project.

For the purpose of this project, we defined the roles & responsibilities of stakeholders & TAT for each step. A team was constituted including the personnel from Quality, PHC, Laboratory, Radiology, who closely monitored the process.

**Presentation or Content**

Lean management principles have been used effectively in manufacturing companies for decades, particularly in Japan. Lean thinking begins with driving out waste so that all work adds value and serves the customer’s needs. Identifying value-added and non-value-added steps in every process is the beginning of the journey toward lean operations. (IHI.org)

Any service which entails long waiting’s & consumes lot of valuable time for non value added things makes people loose their interest in it. On monitoring the weekly trends of time taken in completing a health-check, it was observed that average time taken for a health check is more than 5 hrs. The challenge which hospital was facing was less opportunities of serving the community as per the resources available & on an average a health-check taking more than the desired time.

Value stream mapping (VSM) was applied & complete process was studied to identify the Value added activities & non value added activities. VSM is a tool to represent visually what is going on in the value stream. It
gives a 'one page picture' of the processes that occur in a function from the time a customer places an order for the service, until the customer has availed that service.

The challenges in the process were classified into three categories for improvement.

1. Infrastructure
2. Process
3. People

Based on the study various innovations were introduced like:

a) dedicated health-check area reducing patient movement with all amenities at single place,
b) developing Appointment system for patients,
c) proper scheduling of patients,
d) optimum utilization of equipments based on time motion study, &
e) reward programs for staff resulting into significant outcomes.

All this brought a significant improvement by:

1. Reduction of approx 2 hrs in Turnaround time.
2. With more than 95% compliance, saved more than 15000 man hours (9885 checkups).
3. 18.5% increase in foot falls.
4. 24.6% increase in revenue.
5. Less variability & robust processes.
6. It also lead to positive feedbacks & Increased Satisfaction level of patient.
7. Positive feedbacks & reward program lead to high morale of the staff.
Lessons Learnt

Any process can be improved by

1. Proper scheduling of activities
2. Optimum utilization of resources
3. Adequate allocation of resources
4. Close monitoring of process
5. Patient feedbacks
6. Staff motivation
7. Team work
8. Continuous improvement through periodic meetings

Conclusion

In this project, we applied VSM approach to streamline health check process at the hospital. Several tools are used including Statistical Process Control (SPC) Charting, Process Mapping, Cause-and-Effect matrices to analyze and solve the problem. We found that a significant reduction in the average time from 5.10 to 3.30 hrs was realized. More importantly, we could save 15000 man hrs. Subsequently, number of health check-ups increased by 18.5%. Physicians, nurses & coordinators were generally positive about the intervention. Success in this process relates to the data-driven Lean approach. In the course of this project, a checklist was developed for Patient tracking, tokens for food services differentiating Diabetic & non diabetic, defined appointment system which may be useful for other departments/functions of hospital.

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