

# STRATEGY TO INCREASE VACCINATIONS AMONG POST PCI PATIENTS

- SAFETY
- PRODUCTIVITY
- PATIENT EXPERIENCE
- QUALITY
- VALUE

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## Define Problem/Set Aim

### Opportunity for Improvement

Vaccinations are recommended by international guidelines as well as Ministry of Health for patients with cardiovascular diseases. However, the uptake remains low. It is rarely prioritized during hospitalization for a cardiac event such as Acute Myocardial Infarct.

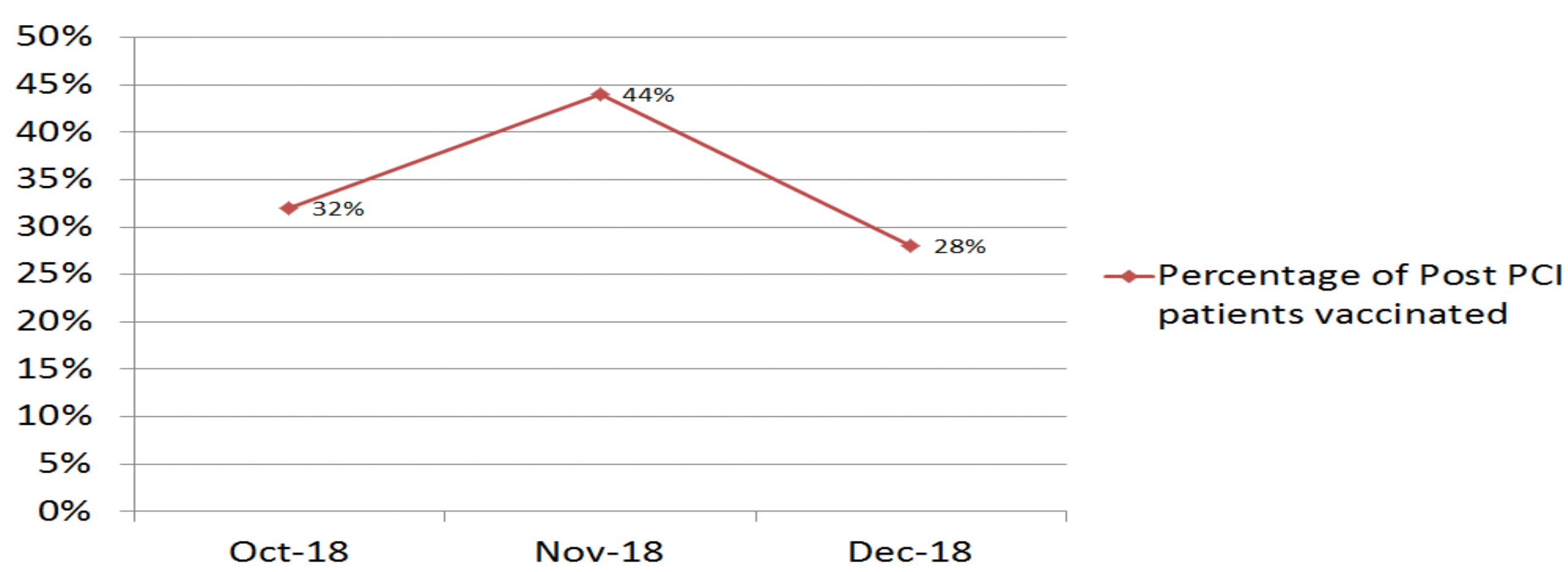
Between October 2018 to December 2018, an average of only 35% of all Post Percutaneous Coronary Intervention (PCI) patients were vaccinated.

### Aim

- To increase compliance to Influenza and Pneumococcal vaccinations by more than 60% among Post PCI patients within 6 months.
- To establish that vaccinations are safe to be offered to Post PCI patients.

## Establish Measures

Improvement will be measured by calculating the percentage of patients vaccinated during admission Post PCI. Graph 1 below illustrates the data prior improvement.



## Analyze Problem

### Current Process

Currently, there are no protocols for inpatient vaccinations. From October to December 2019, only some patients were offered vaccination. Due to the lack of workflow, the uptake of vaccinations were low. Based of that, the team has identified the causes as listed in Figure 1.

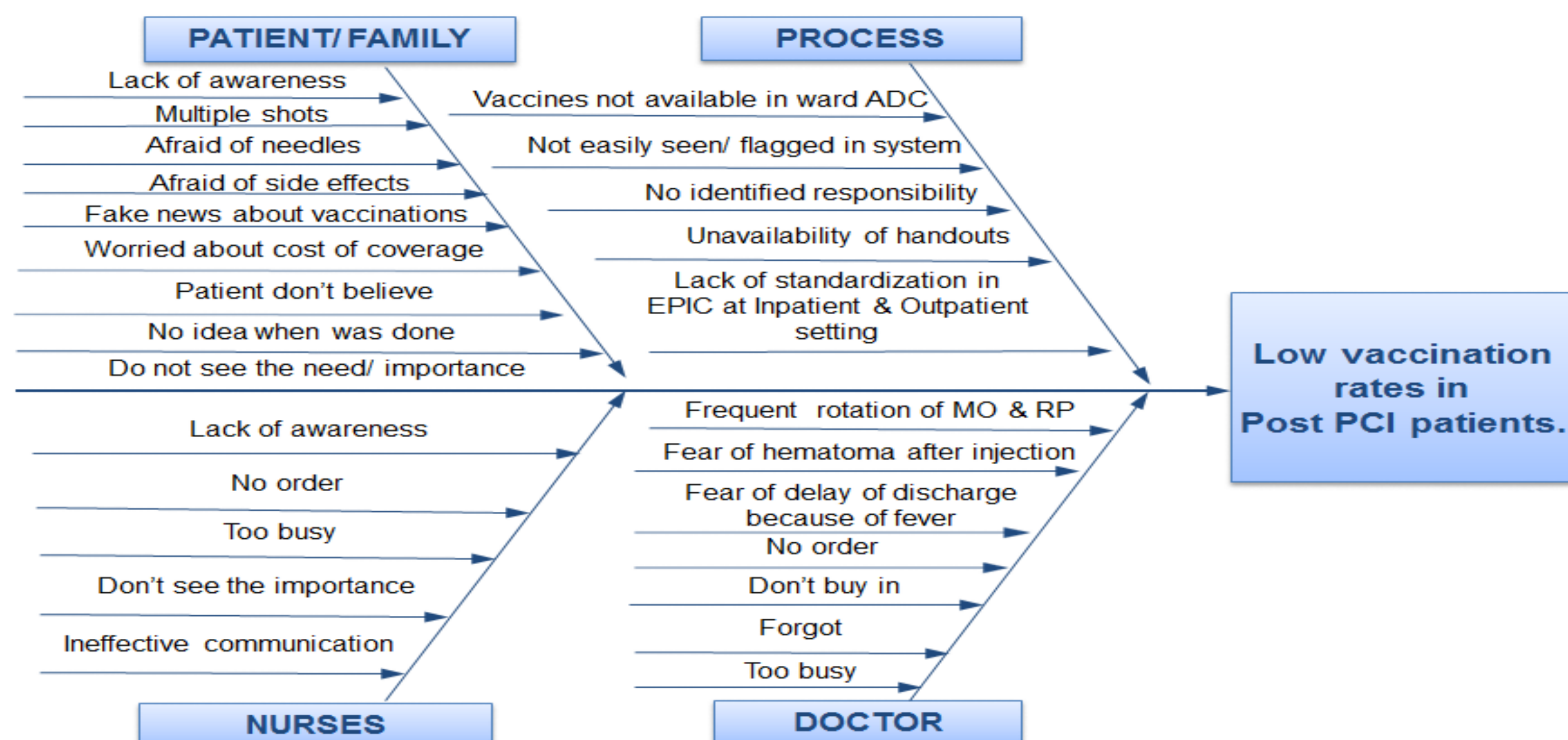


Figure 1. Cause and effect of low vaccination rates in Post PCI patients.

## Methodology

Based on the identified issue, the team then decided to offer vaccinations to all post PCI patients during Cardiac Rehab Phase 1. In addition to patient education, the Cardiac Rehab Nurse (CRN) will assess, educate, offer and provide advise post vaccinations. This allows patients to ask questions and clarify regarding vaccinations.

## Select Changes

In order to select changes, the team categorised the stakeholders using Power Interest Matrix. Understanding the stakeholders will help anticipate and predict reactions of all stakeholders. This allows the team to plan actions that will more likely to win support of all stakeholders. As illustrated in Figure 2, the team will work with each group to influence each group to move to the High interest and High power quadrant.

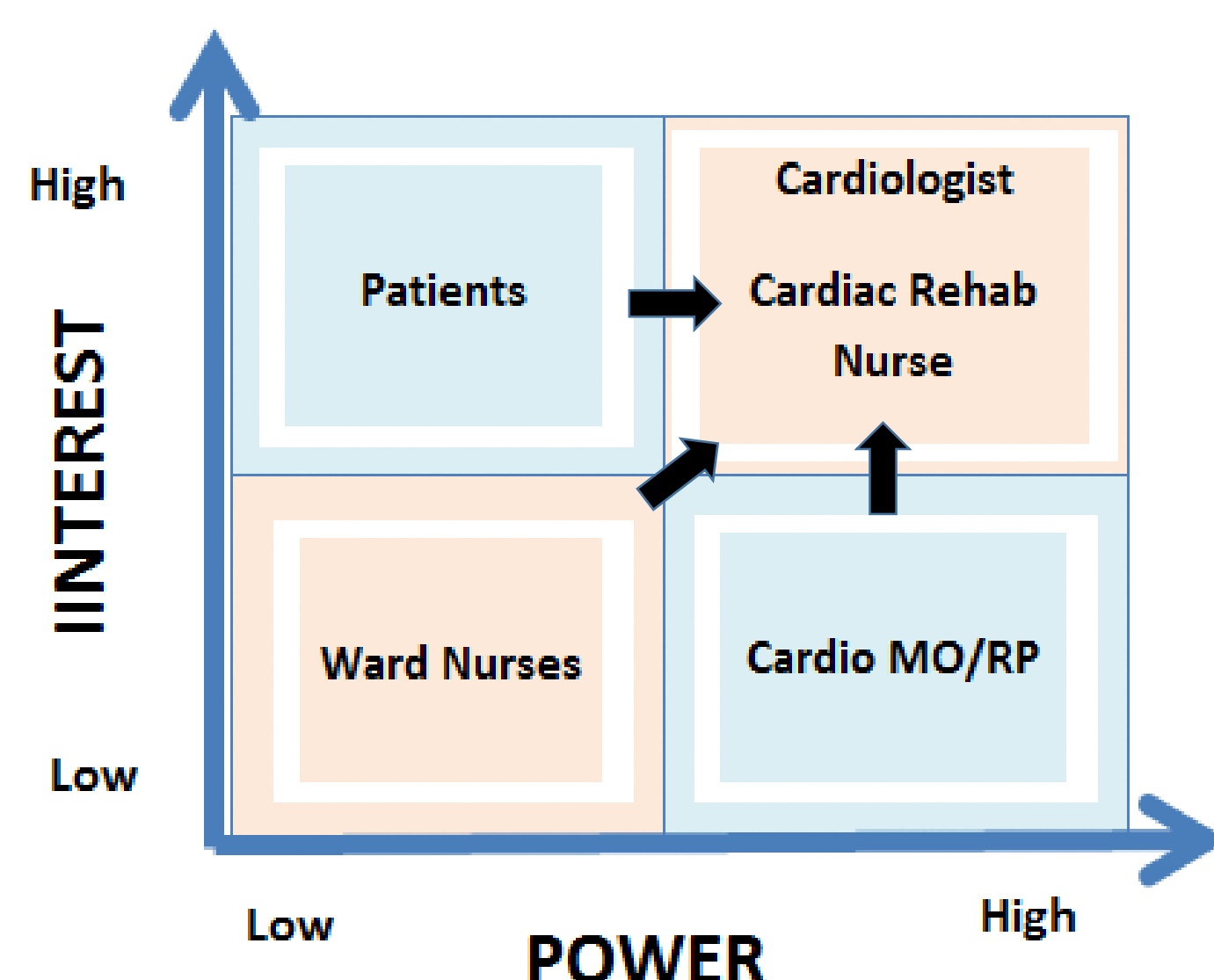


Figure 2: Power Interest Matrix

## Test & Implement Changes

The PDCA iterative tool as shown in Figure 3, was used in this project because it allows the team to test possible solutions on a small scale in a controlled environment. This encourages methodical way to problem solving as well as implementing solutions for this improvement project.

The Pre and Post intervention results are as illustrated in Graph 2. Overall vaccination rates increased to more than 60% over 6 months, a rate that has been sustained by systematically assessing, educating and offering vaccinations to Post PCI patients.

Despite intervention and understanding the barriers to vaccinations, main reason for declination of vaccinations were due to contraindication; e.g. Post PCI patients presented with thyroid storm. Other reasons for declination are as listed in Table 1. In addition, patients who had received vaccinations prior discharge were reviewed during their follow up with Cardiologist. There were no major illnesses related to vaccinations reported.

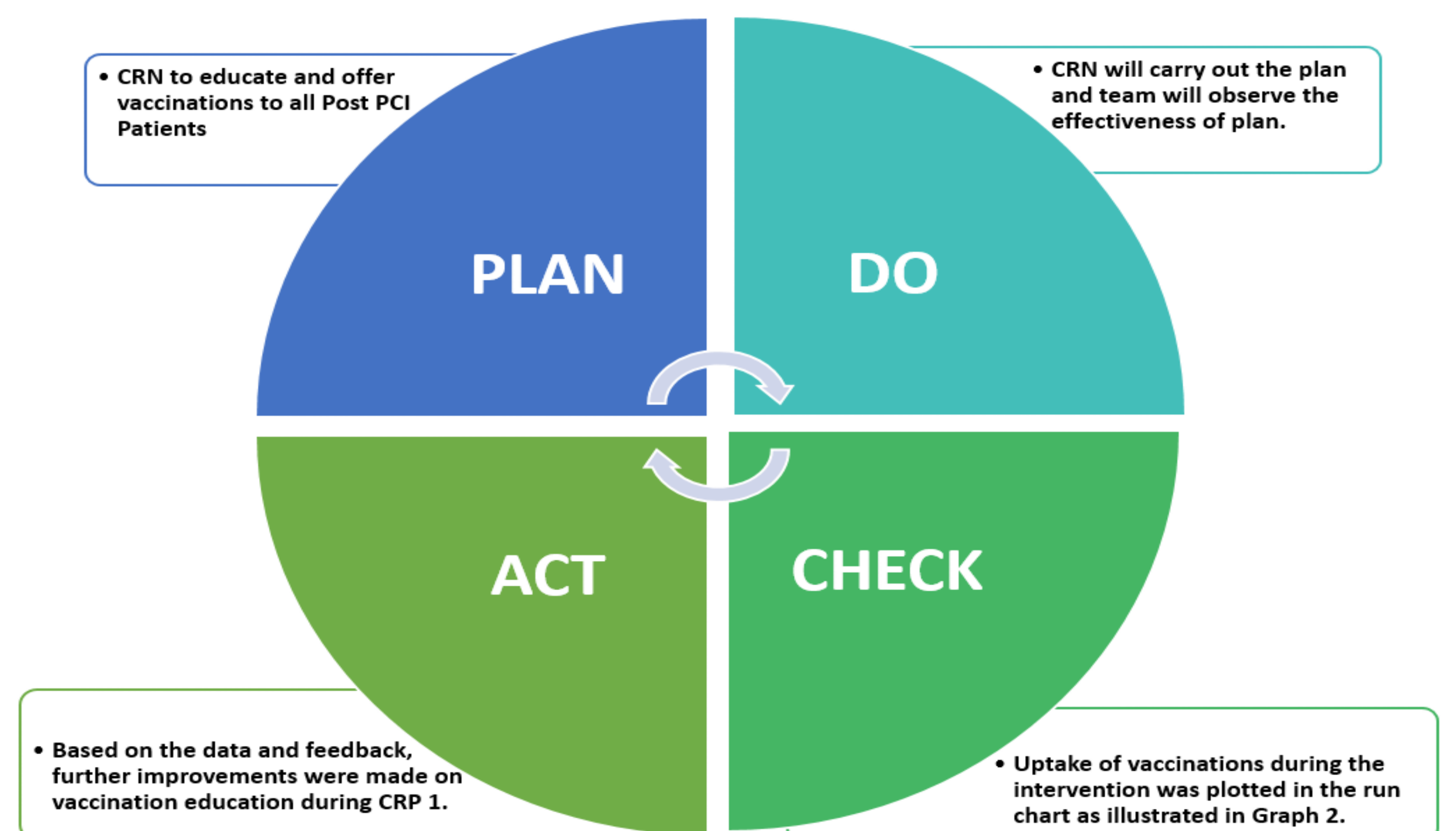
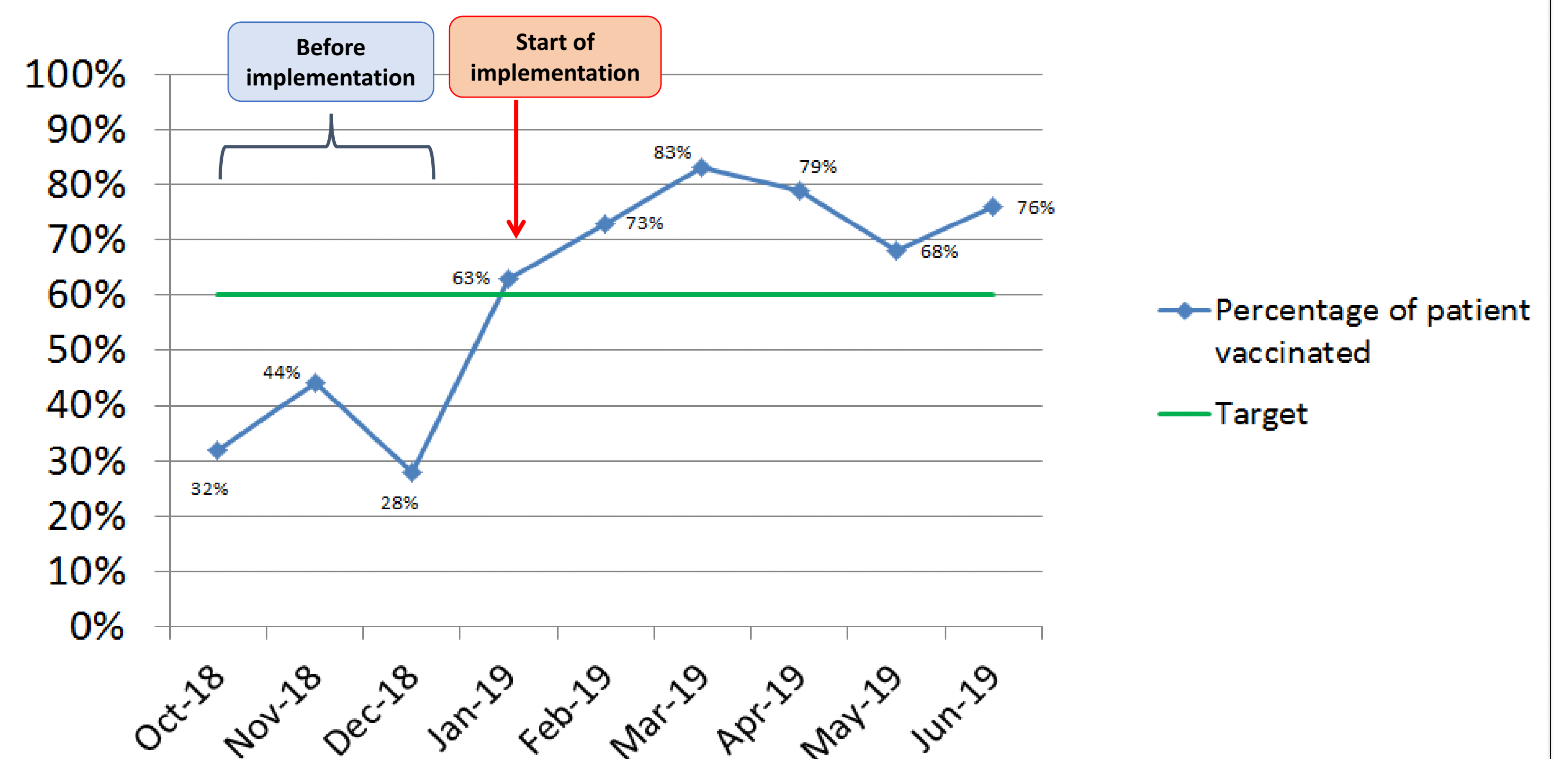


Figure 3: PDCA



Graph 2. Pre and post improvement strategies

- Reasons for declination of vaccinations were:-**
- Contraindicated
  - Fear of needles
  - Patient unsure date and type of last vaccination
  - Other/ philosophical

Table 1. Reasons for declination of vaccinations

## Spread Change/Learning Points

The target to vaccinate 60% of Post PCI patient is achieved. Vaccinations are also found to be safe for this patient population. The success could be attributed to effective patient education and assessment of vaccination status for all Post PCI patients.

Nursing role, as an educator and advocate, has been shown to increase the uptake of vaccination during hospitalization. This project could be improved further by offering vaccinations to all patients with chronic diseases hospital wide; through implementing a workflow of offering patients vaccinations prior discharge. This is done by empowering all nurses well as increase awareness of our patients through education.