

## **Project Title**

Strategies To Improve MBI Filing Habits for Timely and Accurate MBI Score On Admission And Discharge

## **Project Lead and Members**

Project Lead: Benjamin Fun

Project Members: Lau Yi Yin

## **Organisation(s) Involved**

Jurong Community Hospital

## **Healthcare Family Group Involved in this Project**

Allied Health

## **Project Period**

Start date: Jan 2022

Completed date: Feb 2023

## **Aims**

The goals of the project are:

- 1) To attain consistent reduction of error rates to <20% over 3 months.
- 2) To improve median MBI improvement scores back to baseline of 34.5%

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

### **Lessons Learnt**

The team learnt that formalization of work processes and reducing redundancies are key contributors to effective implementation.

### **Conclusion**

See poster appended/ below

### **Project Category**

Care & Process Redesign

Quality Improvement

Organisational Leadership

Organisational Development

### **Keywords**

Modified Barthel Index (MBI), Error Rates, Workflow, Physiotherapy, Occupational Therapy, Filing, Standardization, Departmental

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# STRATEGIES TO IMPROVE MBI FILING HABITS FOR TIMELY AND ACCURATE MBI SCORE ON ADMISSION AND DISCHARGE

- SAFETY
- QUALITY
- PATIENT EXPERIENCE
- PRODUCTIVITY
- COST

MEMBERS: BENJAMIN FUN, LAU YI YIN  
PHYSIOTHERAPY AND OCCUPATIONAL THERAPY

## Define Problem, Set Aim

### Introduction/Background

Modified Barthel Index (MBI) is an outcome measure to assess patient's functional improvement in Jurong Community Hospital (JCH). Between Jan 2022 to Feb 2022, there was a significant decrease in the median improvement in MBI scores. Hypothesising that the main contributing factor was errors in MBI filing, a review of the MBI data during that period was conducted. Analysis of the MBI data extracted from EPIC demonstrated a 33-63% error rates in MBI filing.

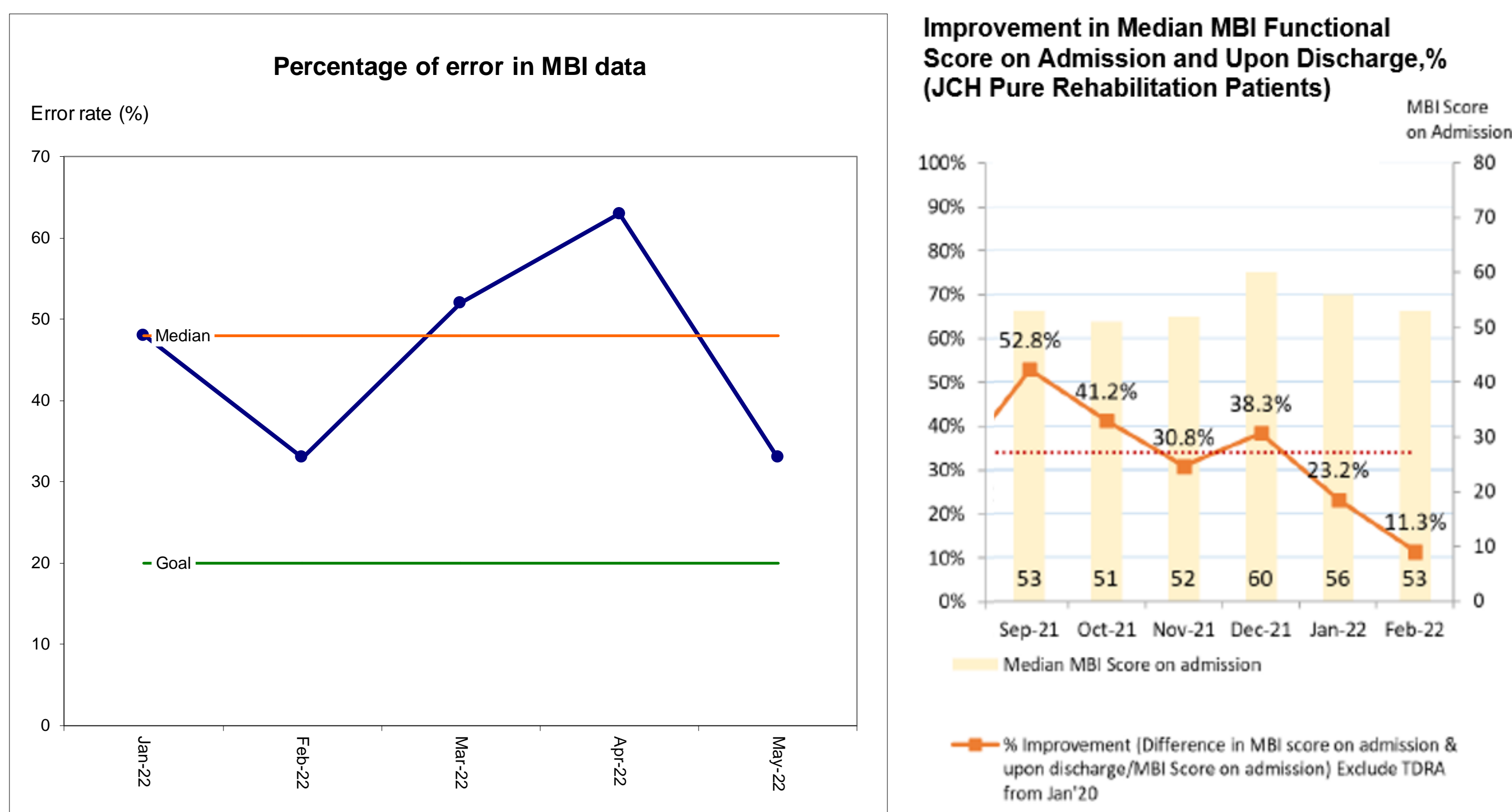
### Goal/Objective

The goals of the project are

- To attain consistent reduction of error rates to <20% over 3 months.
- To improve median MBI improvement scores back to baseline of 34.5%

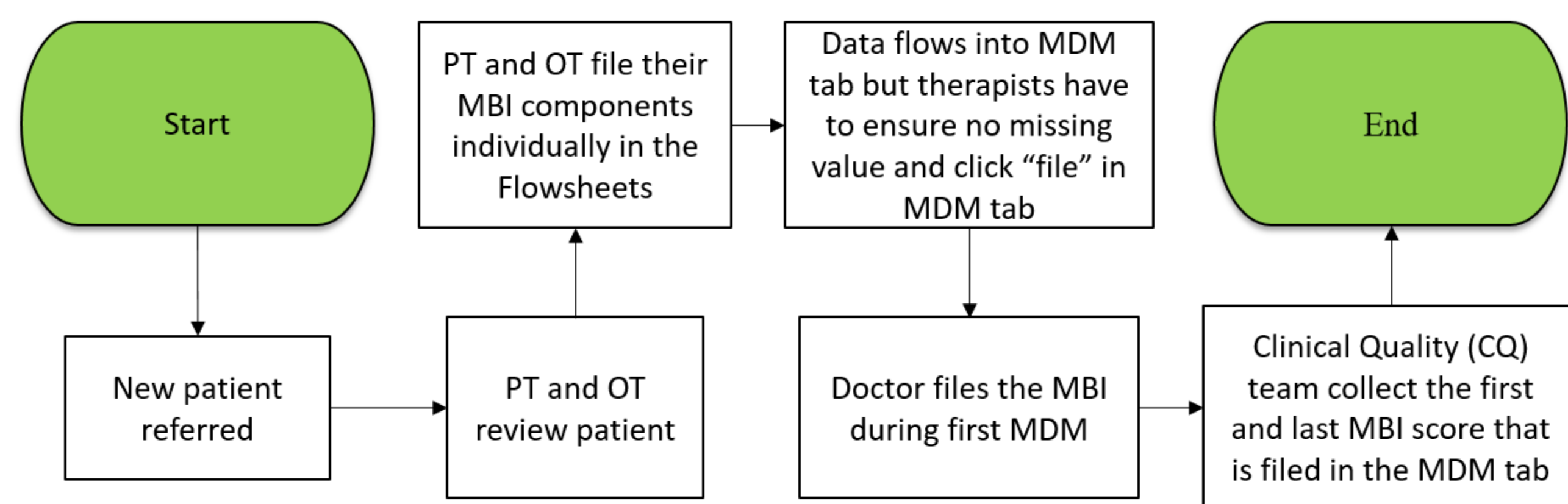
## Establish Measures

### What was your performance before interventions?

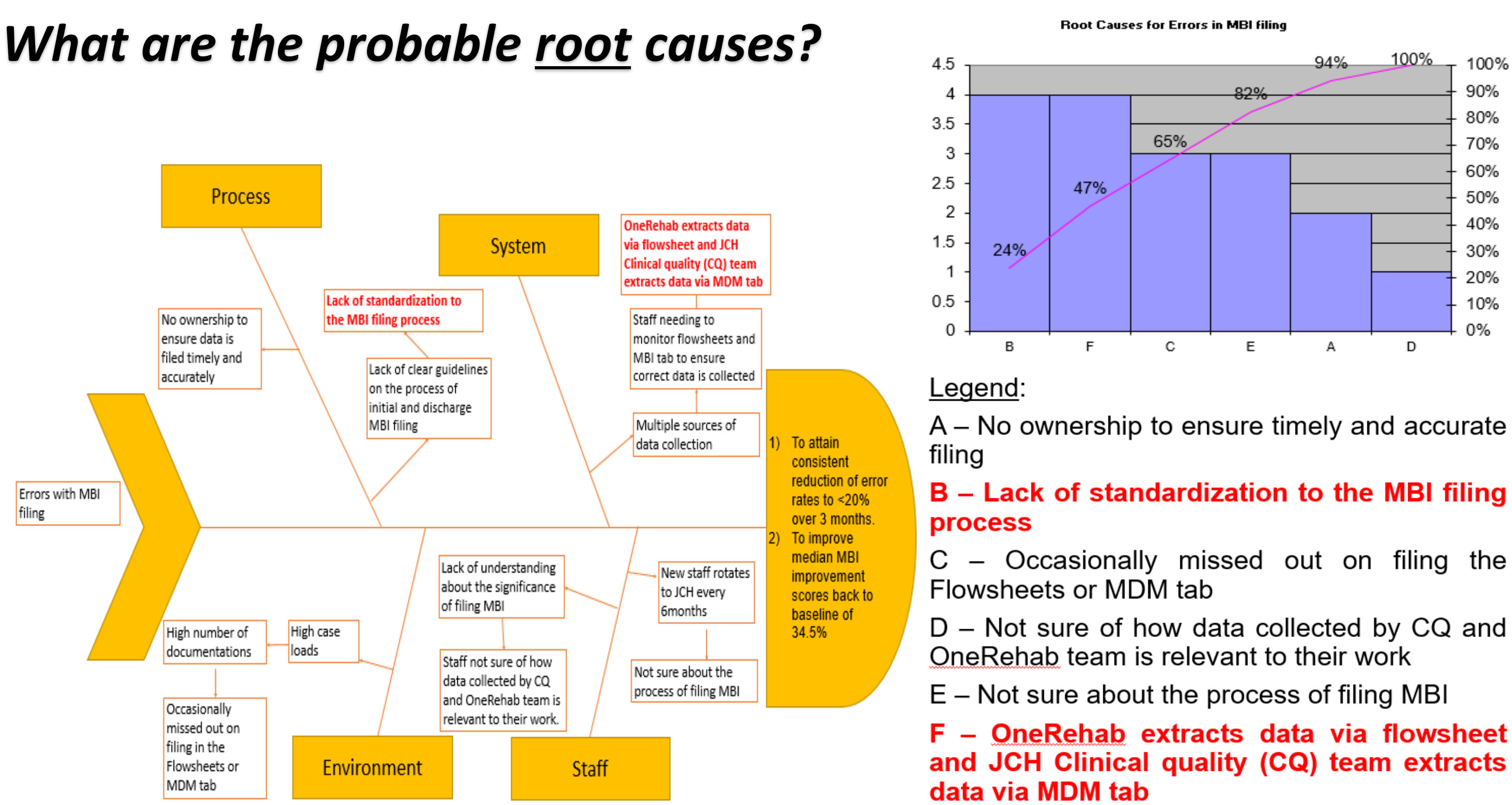


## Analyse Problem

### What is your process before interventions?



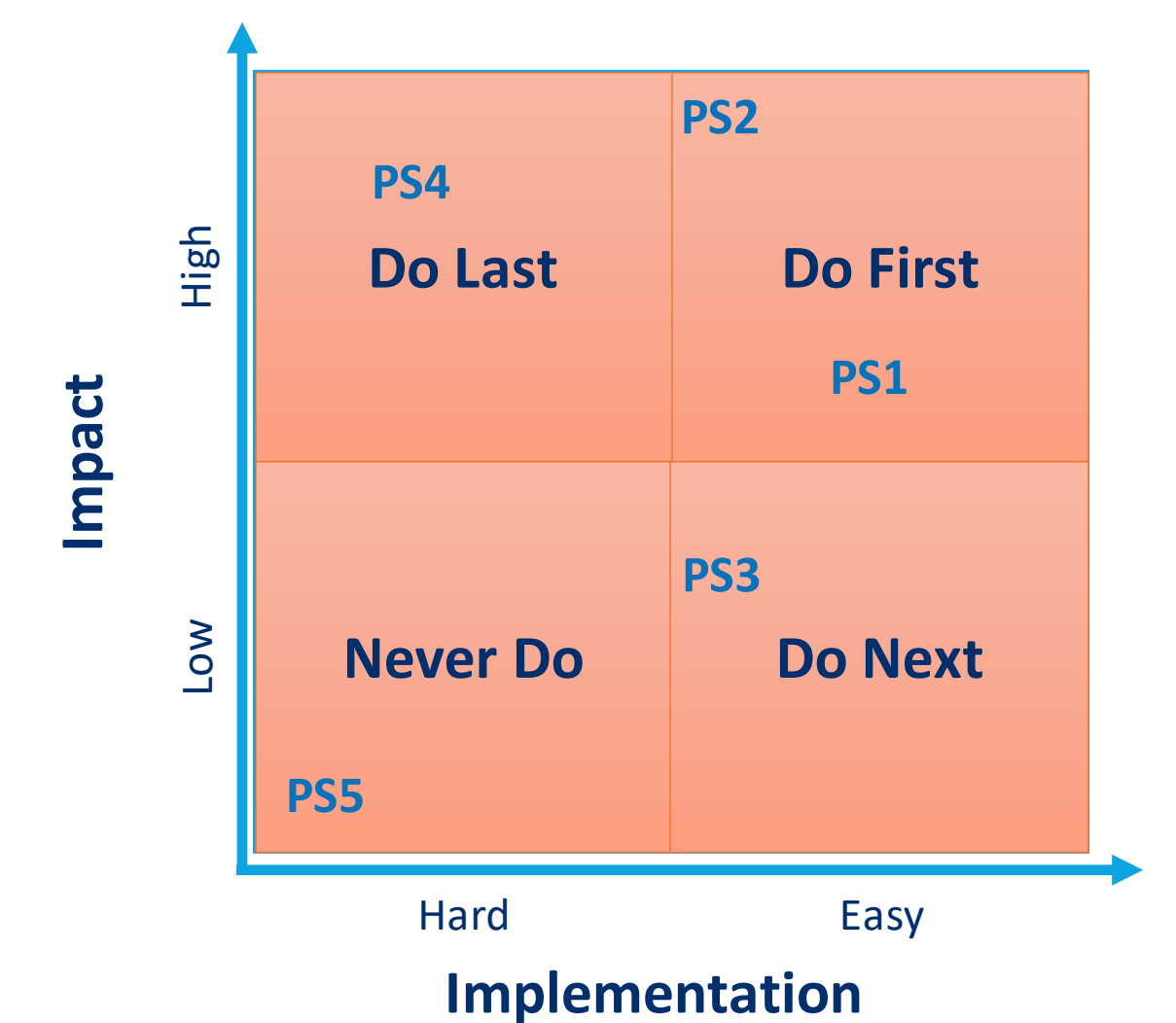
### What are the probable root causes?



## Select Changes

### What are all the probable solutions? Which ones are selected for testing?

Root Cause	Potential Solutions
Root cause B: Lack of standardization to the MBI filing process	PS1: Create a standardized workflow for PTOT to work together file admission and discharge MBI.
	PS2: Work with CQ team to collect data directly from flowsheets
Root cause F: OneRehab extracts data via flowsheet and JCH Clinical quality (CQ) team extracts data via MDM tab	PS3: Reinforcement during department meeting
	PS4: Work with EPIC to change flowsheet tabs and formats
	PS5: Establish consequence of non compliance



## Test & Implement Changes

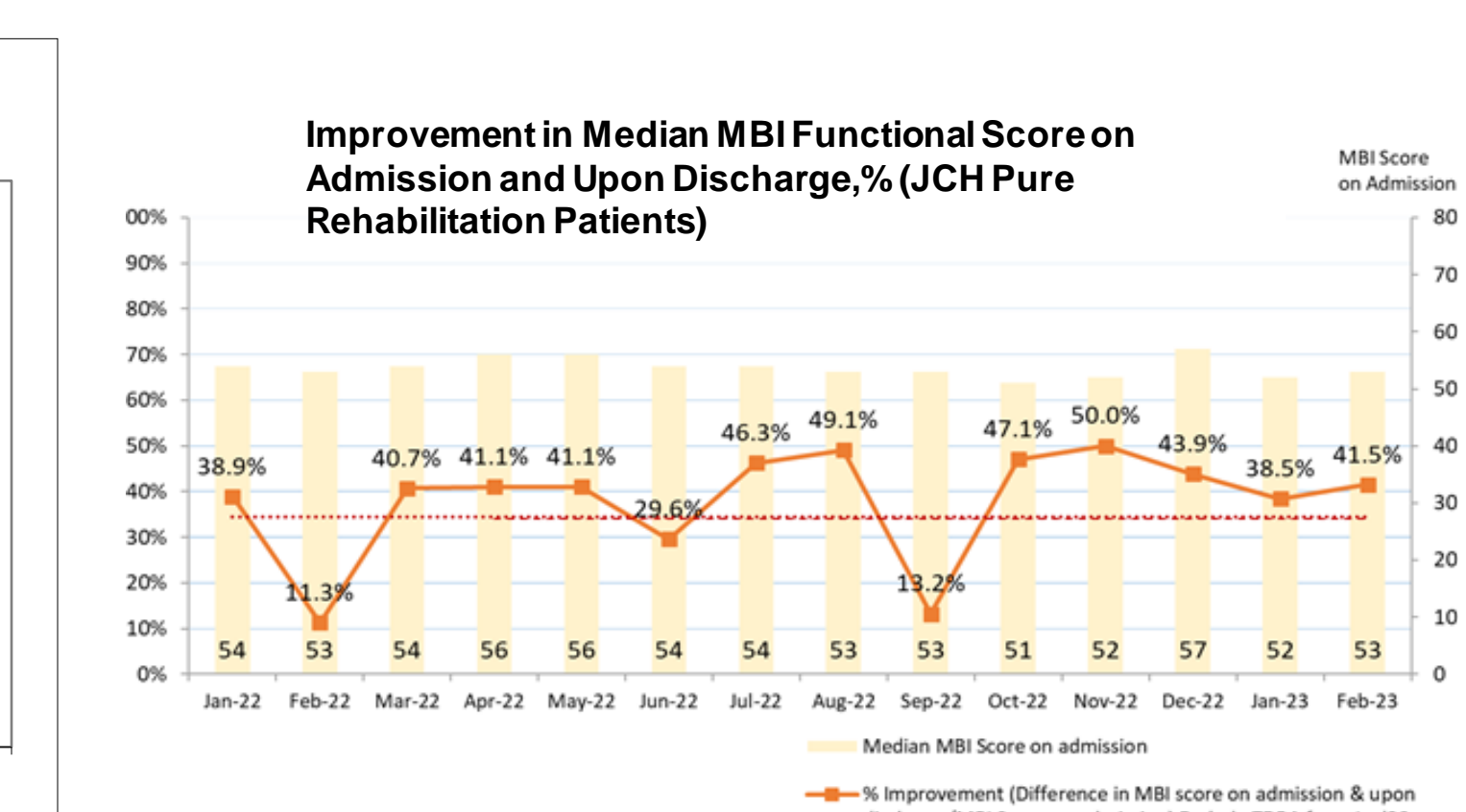
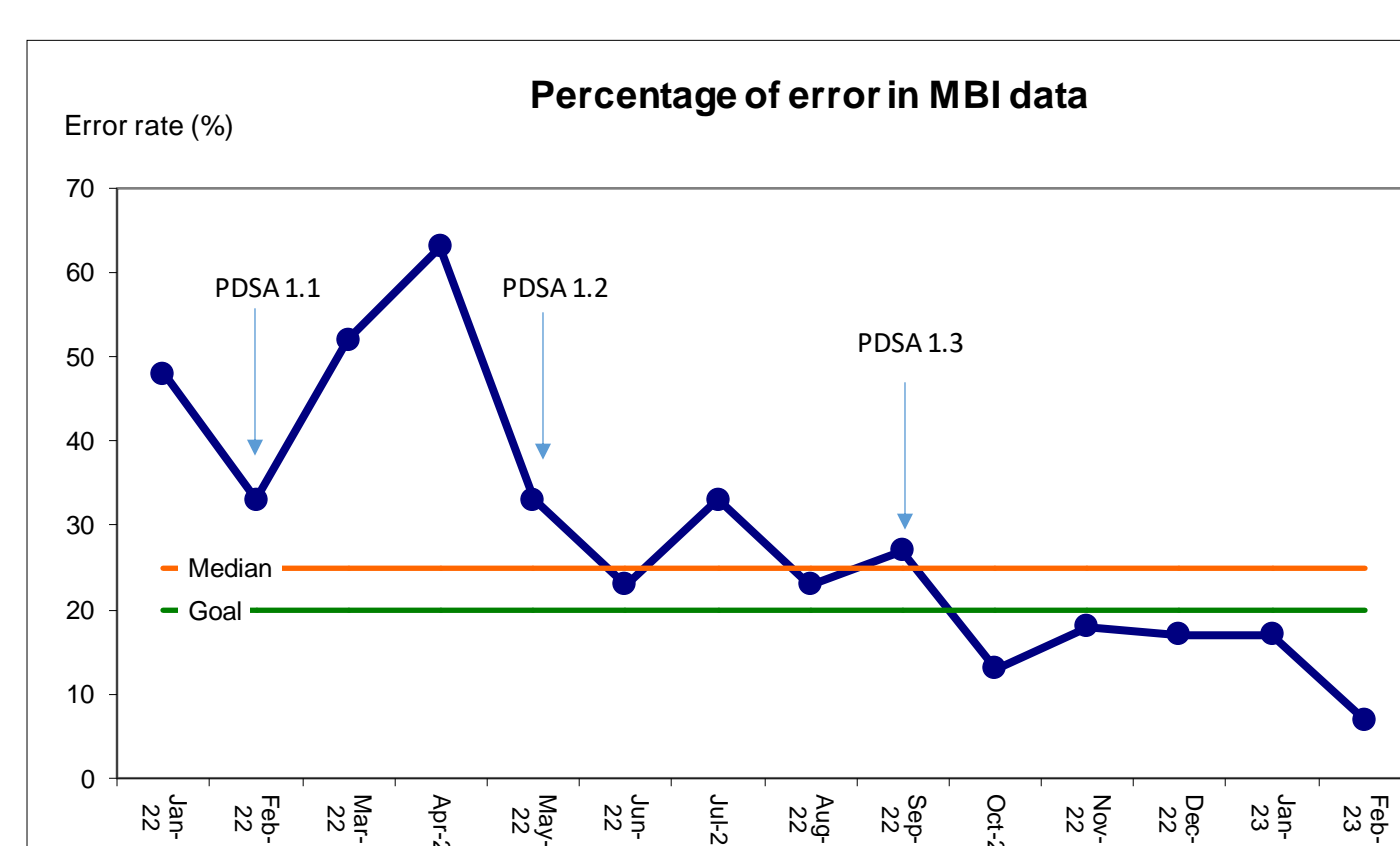
### PDSA Cycle

### Results

1.1 Feb 2022: create a standardised workflow for Physiotherapy (PT) likely due lack of ownership in full and Occupational Therapy (OT) to column filing. New staff in Apr 2022 work together to file the MBI on due to rotation. admission and discharge.

1.2 May 2022: worked with CQ Reduced variability in the % error team to collect data directly from but unable to reach below 20%. Flowsheets, removing the need to use the MDM tab to remove redundancy.

1.3 Sep 2022: ongoing Atained consistent reduction of reinforcements at department error rates to <20% over 5 months (Oct 22 to Feb 23). During the same period, the median MBI improvement score was also above baseline of 34.5%



## Spread Changes, Learning Points

This project was successful due to the strong collaborative efforts between the JCH PT OT department. Both the JCH PT OT head of department were receptive and supportive towards changes in workflow and standardization of MBI filing process. Thus, the team was able to work with the CQ team to implement changes and streamline the process.

During the PDSA cycle, the team noticed there was an increase rate of human error in September 2022. Reminders during monthly roll call was used as a strategy used to mediate the issue.

To further ensure consistent reduction of error rates, the MBI filing process was incorporated into departmental workflow, orientation of new comers, audits within department, and quarterly reminders of workflow.

The team learnt that formalization of work processes and reducing redundancies are key contributors to effective implementation.