

## INTRODUCTION

From 4 July 2012, Dietetic & Food Services (DFS), Changi General Hospital (CGH), started the provision of meals to patients in St Andrew's Community Hospital (SACH), our healthcare partner, which is located next to CGH via a link-bridge. The process of meal delivery to SACH involves the staff of DFS, SACH staff and their contract staff from ISS. Daily meals are cooked and assembled in CGH's kitchen and the plated meals are then loaded into the heated food trolleys. At specified time, ISS Staff will push meal trolleys 3 times daily to-and-from CGH to deliver meals and to return soiled meal trays. The aim of the project is

**To deliver daily meals to SACH patients efficiently while maintaining food service level.**

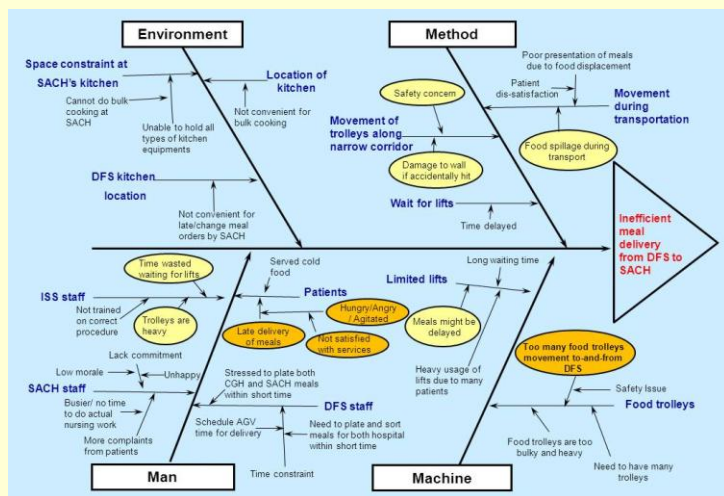
## METHODOLOGY

To extend a similar meal service to SACH, CGH must adopt a standardized process for both patients in CGH and SACH. The entire process flow needs to be mapped out collectively by the various stakeholders.

Based on the work flow, we targeted to reduce the number of trolley movement by 50%.

The root causes are identified using the Cause and Effect diagram.

### Cause & Effect Diagram



### Solution

The Tree Diagram is used to select the most effective and appropriate solutions.

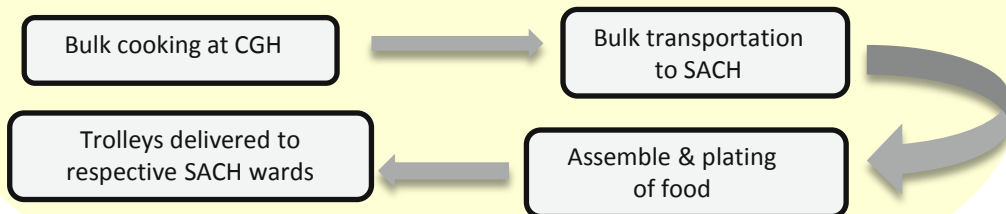
		Easy Implementation	Time Savings	Effectiveness	Customer Satisfaction	Cost Savings	Total
To improve the effectiveness of meal delivery to SACH patients	To reduce the number of food trolleys to SACH	Bulk delivery of meals to SACH	4	5	5	5	24
		Place 2 meals on to 1 tray	3	2	3	3	16
	Prevent late delivery of meals	Centralised cooking in CGH	5	5	5	5	25
		Start plating earlier	2	2	3	4	14
	Improve patients' satisfaction	Sorting of meal trays at SACH kitchen	4	4	4	5	21
		Plate the sauce in SACH	5	1	2	4	13
		Include more variety of dishes	3	2	2	4	13

**Solution 1: Bulk delivery**

**Solution 2: Centralized Cooking**

**Solution 3: Sorting at SACH**

The solution is to have the meals cooked centrally at CGH by the same staff cooking meals for patients in CGH as this 'pooling of resources' reduces cost and improves efficiency.

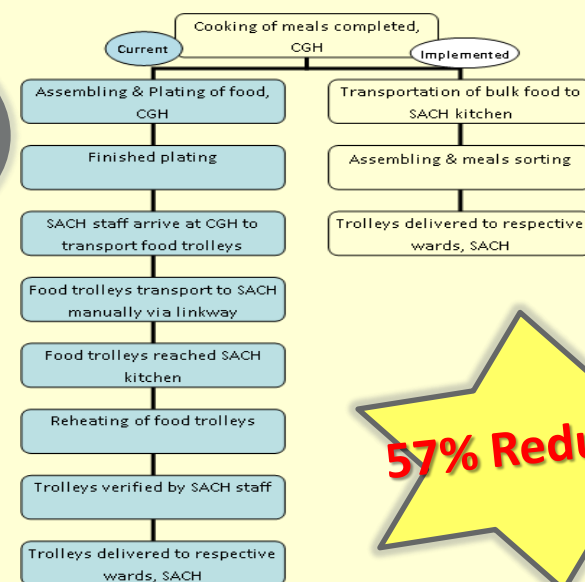


## RESULTS

Centralised bulk cooking and de-centralizing meal sorting service at the renovated SACH kitchen will allow for:

- a) Better, efficient flow for CGH meal service;
- b) Only 26 trips needed for food trolleys instead of 60; thus reducing manpower to push trolleys and risk of damage to corridor walls;
- c) Less demand for lifts and lifts waiting time;
- d) Little effect on meal delivery times to CGH patients;
- e) More time for CGH staff to do their other tasks;
- f) No need for CGH staff to wash the crockery and cutlery from the SACH meal service.

**Before 60 trolleys**



**After 26 trolleys**

**57% Reduction**

## IMPACT

**Pooling of resources through cooking the meals in a centralized kitchen saves costs, allows for standardization of service, reduces variability and increases operational efficiency.**

- ✓ SACH staff have less anxiety knowing that meals will be delivered on time. SACH staff are freed up for other work instead of using much time coordinating the delivery.
  - ✓ DFS staff can focus on plating the CGH patients' meals and will not be stressed to keep meals delivered on time.
  - ✓ DFS staff get less calls from SACH staff for late trolley deliveries.
  - ✓ Executives and Chefs have clearer responsibilities and supervision in the process at both the CGH and SACH ends to ensure good service standards.
  - ✓ ISS staff only need to transport 43% of the original number of food trolleys, thus freeing up their time for other duties.
- For improvement, DFS will review de-centralizing plating for further efficiency.

## CONCLUSION

With an efficient process flow for meal delivery to SACH, patient satisfaction and staff morale has improved. There is improved communication among all stakeholders and there is transparency in service standards. The process improvement has reduced excess people movement and food trolley transportation resulting in reduced waste and improved efficiency.