

## Introduction

### Background

Patients who require treatment for dyslipidaemia will firstly have their lipid levels checked during their inpatient stay. After which, they are initiated on lipid modifying therapy. Treatment compliance and effectiveness is subsequently monitored in the specialist outpatient clinic (SOC).

Ordering a non-fasting lipid panel to test for low-density lipoprotein (LDL) is sufficient for clinicians to monitor the compliance of patients (on lipid modifying therapy) in managing cardiovascular risks. This is **because LDL values do not change with fasting status**.

Likewise, a large cohort of patients who seek treatment for dyslipidaemia concurrently have diabetes mellitus, and fasting in preparation for **full fasting lipid panels result in high incidences of fasting-evoked hypoglycaemia**.

Furthermore, patients are more likely to make 2 trips to the Cardiology specialist outpatient clinic (SOC) if they undergo full fasting lipid profiling, and **a full fasting lipid panel costs \$10 more than a non-fasting LDL test**.

### Aim

The aim of this project is to get clinicians to **order non-fasting LDL tests** for these patients, in order to **provide a more hassle-free experience for patients** (i.e. lower bill size, lesser trips to SOC, zero incidence of fasting-evoked hypoglycaemia).

## Methodology

### 1. Held intra-departmental discussions

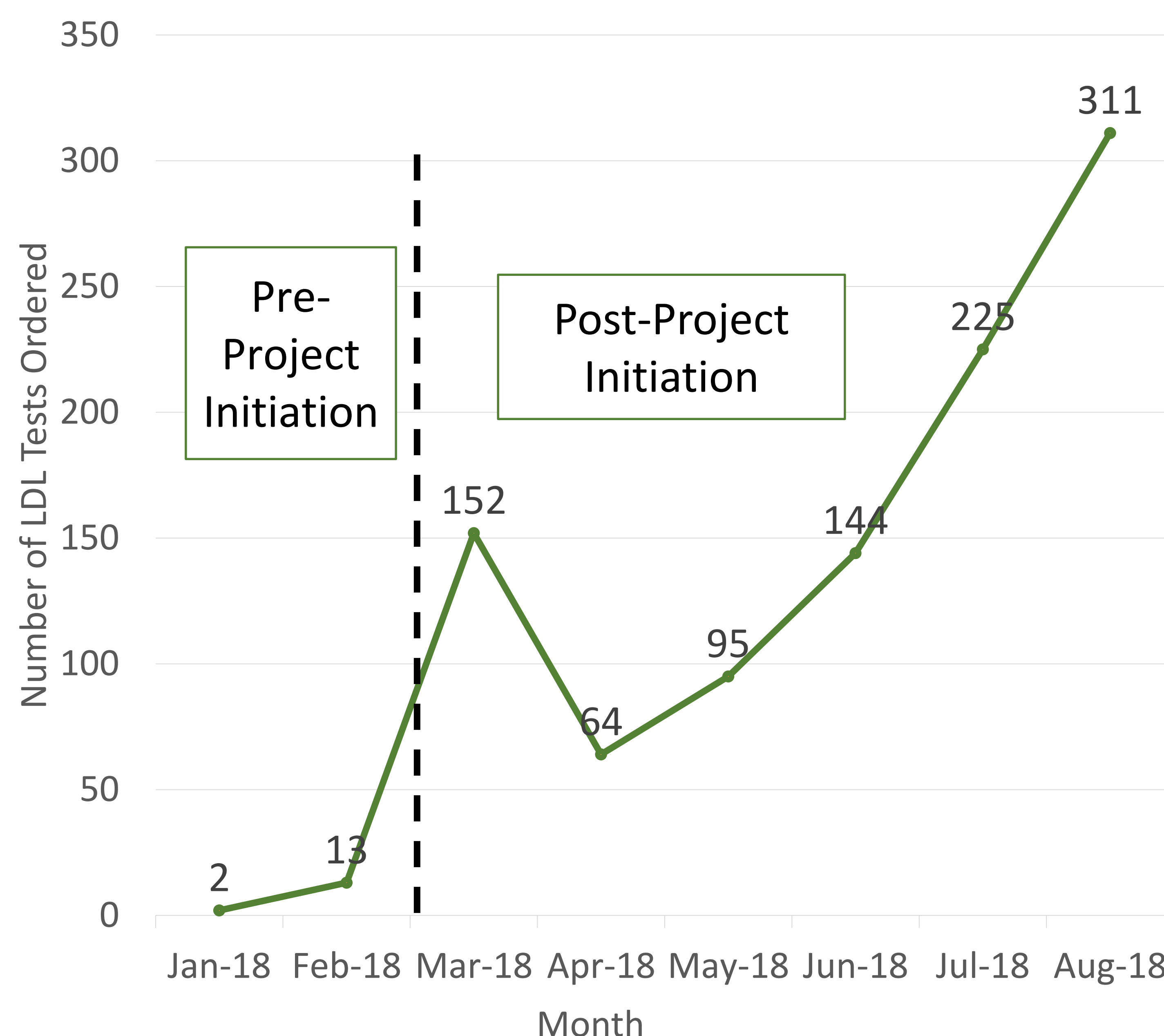
*Convinced Cardiologists to order non-fasting LDL tests instead of full fasting lipid panels.*

### 2. Implemented agreed-upon intervention on a department-wide basis

### 3. Tracked cost savings for patients pre- and post-intervention

## Results

### Number of LDL Tests Ordered: Pre- and Post- Project Initiation



- There is a **great increase** in the number of **non-fasting LDL tests ordered**.
- There is a **total cost savings of SGD 9,910** for 991 patients (\$10 cost savings per patient).
- There is **1 lesser** specialist outpatient clinic (SOC) visit for every patient, since blood tests no longer require patients to fast beforehand. Instead, patients can arrive an hour earlier for their appointments on the same day.
- There are **no incidences of fasting-evoked hypoglycaemia**.

Ordering non-fasting LDL tests therefore leads to:

- Increase in **cost savings** for patients.
- Improve in hassle-free experience** for patients as the number of clinic visits they need to attend is reduced.
- Increase in patient safety**, since patients will not have fasting-evoked hypoglycaemia.

## Sustainability

- To spread this Kaizen initiative with and in other departments so that more patients will benefit from it.
- Ordering non-fasting LDL tests has developed into a habit within the department, and the increasing test orders are supporting evidence of this habit.

## Conclusion

A simple intervention of only ordering the particular component of blood test required would enable patients to achieve cost savings. This intervention could be expanded into other fields within the hospital where applicable. By having the knowledge of the individual costs of blood tests, clinicians will be better able to **help patients achieve maximal cost efficiency**.