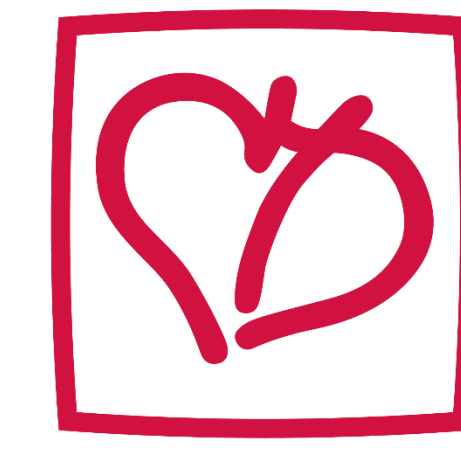




Load-levelling of Blood Test Appointment Slots at 2B Clinical Lab

Singapore Healthcare Management 2024



National Heart Centre Singapore SingHealth

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BACKGROUND

Lipid test is a commonly ordered blood test in National Heart Centre Singapore (NHCS), taking up to 70-80% of the blood tests ordered. It is used to measure the levels of cholesterol and other triglycerides in the blood to help predict the risk of heart diseases and stroke. As the lipid test requires fasting, this has resulted in a high volume of patients coming in the morning for blood tests, leading to long waiting time. This is especially frustrating for patients who have to wait for a long time while having to fast.



OBJECTIVE: To reduce patient's waiting time for blood test appointments during the morning peak period between 8am to 10am to below 30 minutes

METHODOLOGY

The steps taken by the team to decrease the waiting time for blood tests during the morning peak period are implemented in four phases as the team continued to refine the appointment distribution over time to ensure minimal waiting time for patients.

PHASE 1:

01

Jan - Feb 2023

- The hourly waiting time for blood test was studied to identify peak period, which is between **8am to 10am**. This is when most patients come early for fasting blood test appointments.

02

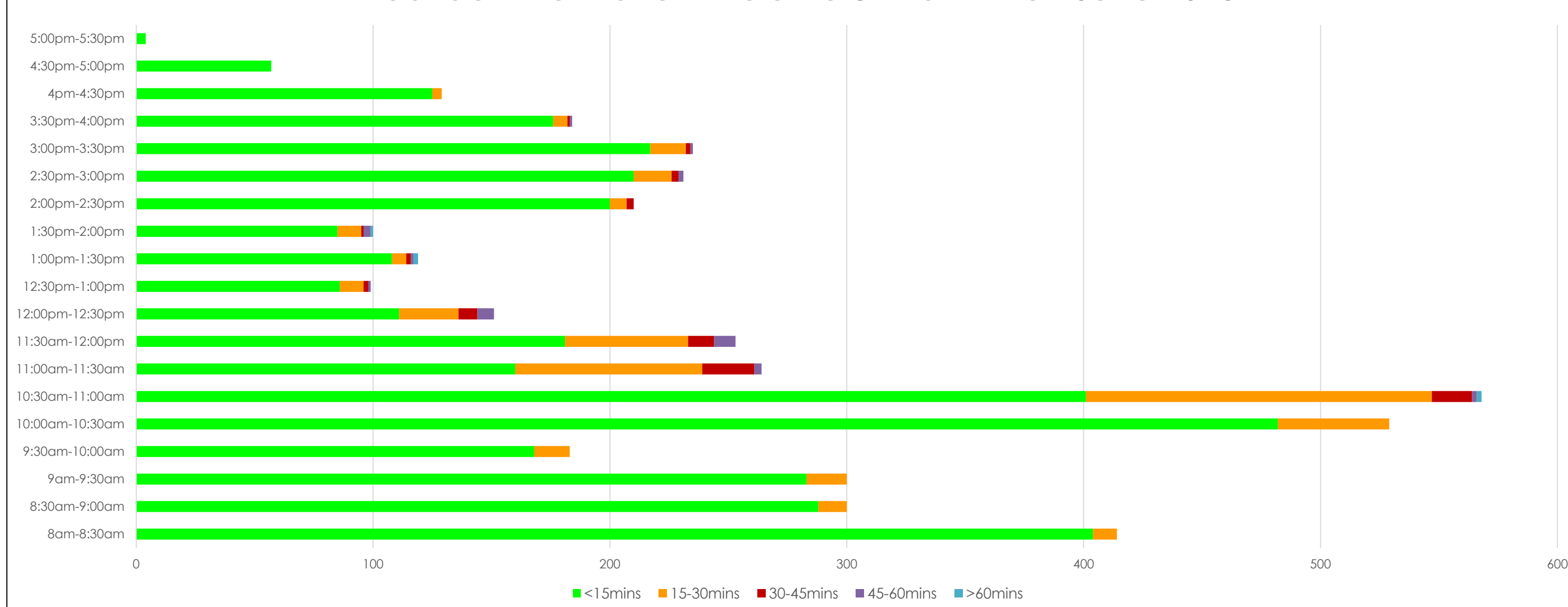
Mar - Jun 2023

- To reduce the waiting time during the peak period, the team had to **redistribute the fasting and non-fasting blood tests**.
- There was a study that fasting has no significant impact on Lipid blood test results, hence the Lipid test was changed from **fasting to non-fasting as default**.
- As such, the demand for fasting slots were reduced and the blood test appointments can be redistributed to other timings.



Poster to educate patients on the changes to lipid blood test.

Breakdown of Patient Volume & Wait Time - June 2023



After Phase 1, **86.5%** of the patients were attended to within 15 minutes. The wait time is closely monitored and continuously adjusted to meet the demands.

PHASE 2:

03

Jul - Dec 2023

- Number of non-fasting slots after 10am** were reviewed and adjusted to earlier timings between 8am to 9am.
- Additional appointment slots are open for patients to book via HealthBuddy, **empowering patients to manage their own blood test appointments**.

PHASE 3:

04

Jan - Apr 2024

- Additional blood test slots were added after a review showing extra capacity**; allowing for more fasting and non-fasting appointments to be accommodated.
- More appointment slots are open for booking via HealthBuddy.

PHASE 4:

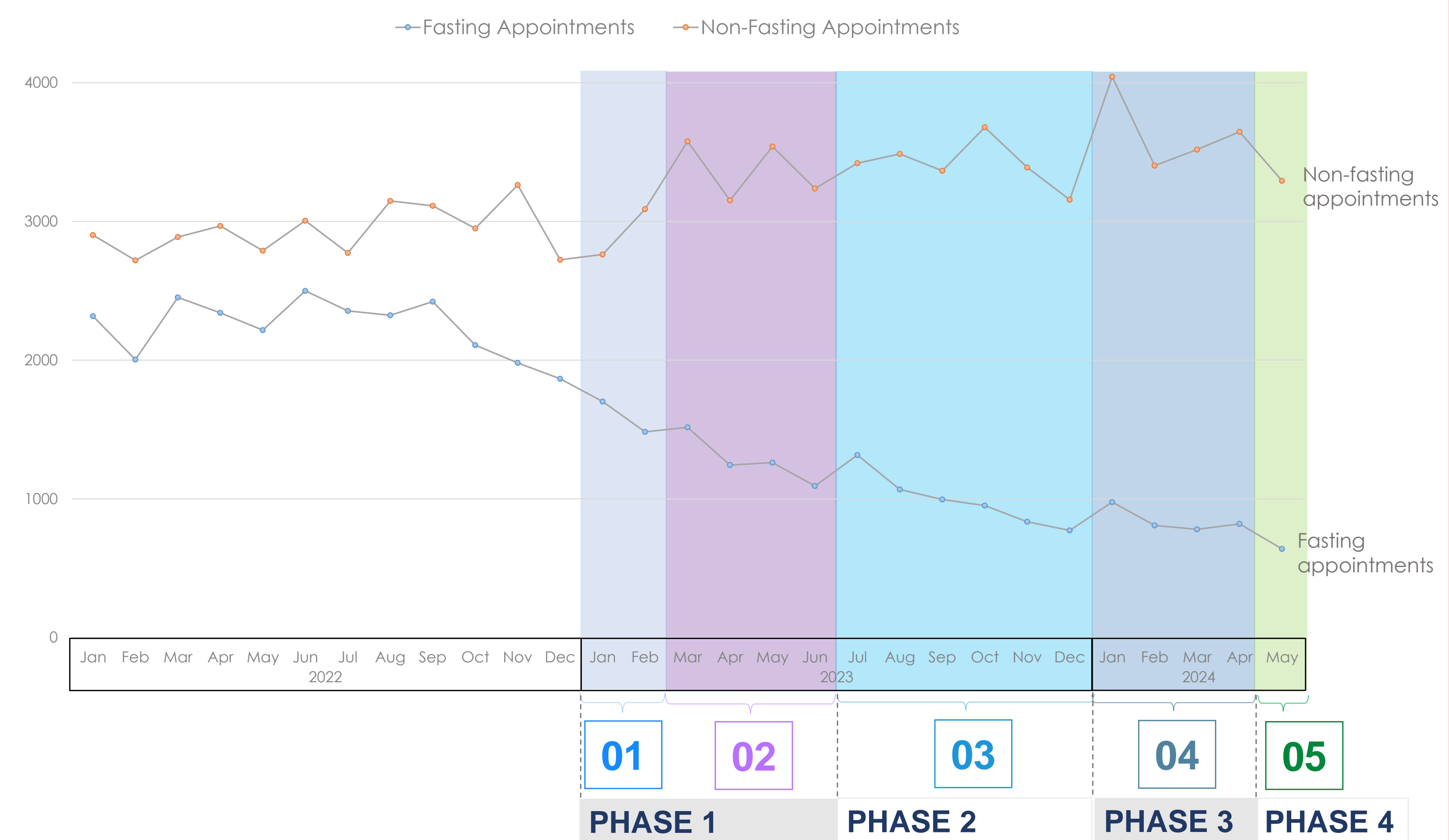
05

May 2024

- 8 slots** between 8am to 9am were **converted from fasting to non-fasting tests**.
- 12 new slots** added between 8am to 9am for **non-fasting tests**, as reviews showed that clinical labs could still accommodate more patients.

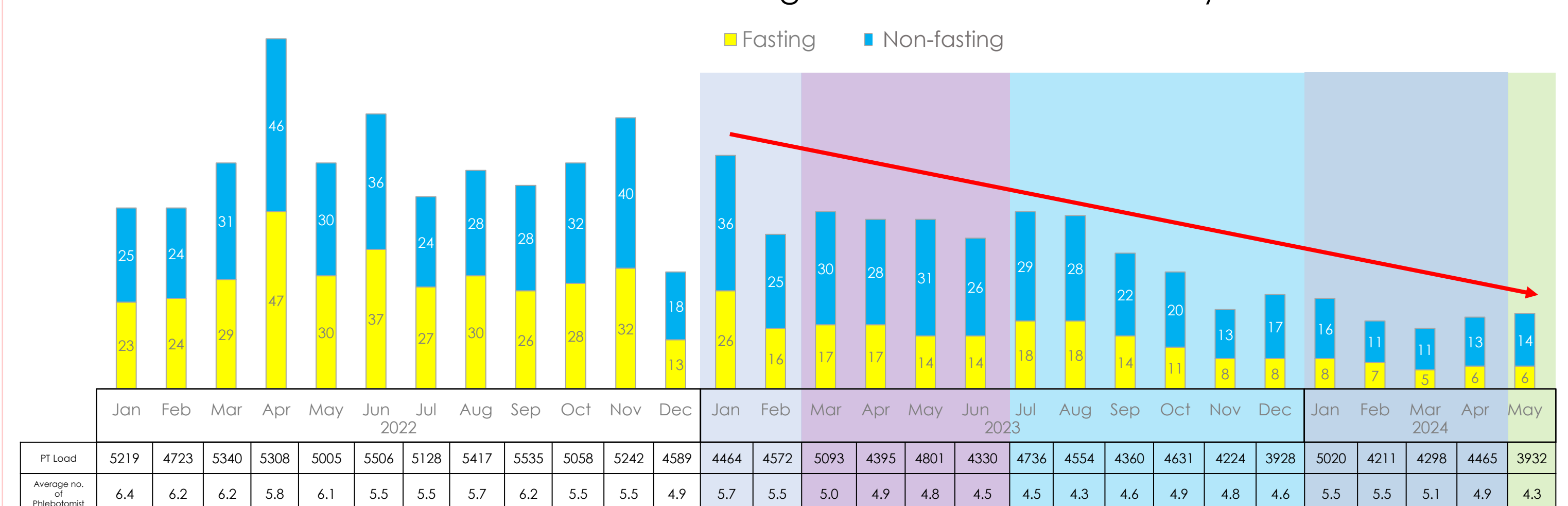
RESULTS

No. of fasting and non-fasting appointments actualized



With the implementation of Phase 3, the demand for fasting blood test appointments in the morning have reduced greatly. Since the patients taking Lipid blood tests no longer require to fast, they can select a non-fasting blood test appointment at a later time. The patient load is now more evenly distributed throughout the day, allowing staff to better manage the crowd in the blood test lab and provide better patient care.

95th Percentile Patient Waiting Time from Jan 2022 - May 2024



With the balancing of the patient load, the waiting time for blood tests have also decreased significantly for both fasting and non-fasting appointments.

The graph above shows the 95th percentile patient waiting time for fasting blood tests which **decreased from 23 minutes in January 2022 to 6 minutes in May 2024**, and for non-fasting blood tests it **decreased from 25 minutes in January 2022 to 14 minutes in May 2024**. This meets the objective set to reduce patient's waiting time to below 30 minutes.

Besides a reduction in waiting time for patients, there is less overcrowding at the blood test lab which greatly enhances patients' overall experience. The flexibility to select their blood test appointment time via HealthBuddy also allow patients to better plan their schedule and arrive more punctually for their medical consultation appointment after the blood test.

CONCLUSION

Through the balancing of fasting and non-fasting appointments, patient load is more spread out throughout the day, thus reducing the number of patients coming during the peak period. This results in reduced waiting time, which results in better patient experience and patient satisfaction, and also allows staff to tend to patients in a timely manner.