Project Title

Reducing the Lead Time from Referral to First Visit (Home Rehabilitation)

Project Lead and Members

Project lead: Fong Sin Dee

Project members: Samuel Chan, Rachel Tan

Organisation(s) Involved

St Luke's ElderCare

Healthcare Family Group(s) Involved in this Project

Ancillary Care, Allied Health

Applicable Specialty or Discipline

Geriatric Medicine

Project Period

Start date: Nov 2023

Completed date: Nov 2024

Aims

The aim of the project is to reduce the median lead time for first home rehabilitation visit from 23 to 10 working days from date of referral received.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category

Care Continuum

Intermediate and Long Term Care & Community Care

Technology

Digitalisation, Digital Platform

Keywords

Home Rehabilitation, Post Discharge, Appointments, Theapists

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Reducing the Lead Time from Referral to First Visit
(Home Rehabilitation)
St Luke's ElderCare

Fong Sin Dee, Samuel Chan, Rachel Tan

BACKGROUND

Continuity of care and timely access to home rehabilitation post discharge from hospital is crucial in the rehabilitation journey for clients recovering from an illness or injury. Any prolonged wait or delay may disrupt rehabilitation continuity, increased risk of functional decline and slows down recovery.

A recent analysis of the median lead time between client's first visit to the date of referral received between August 2023 to October 2023 is approximately 23 working days, thus presenting an opportunity to enhance and streamline the processes.
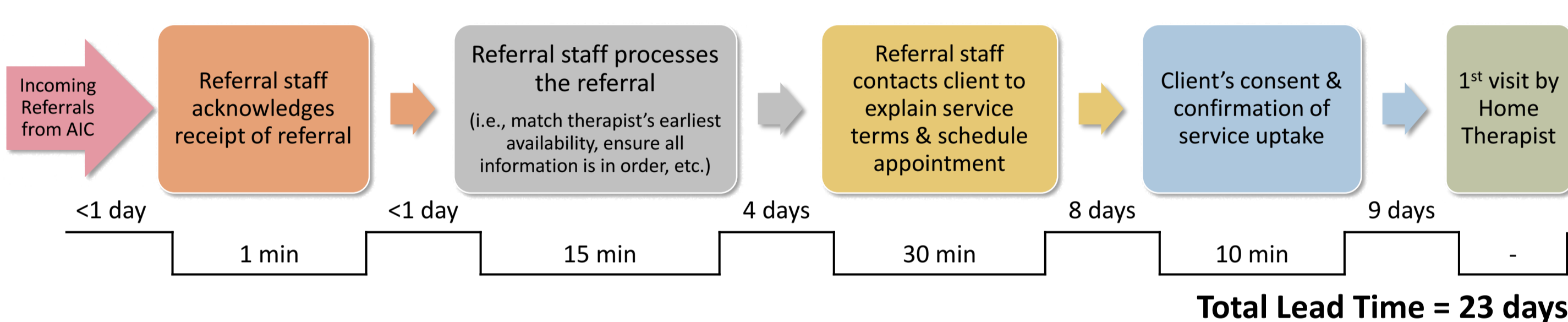
Recognising the importance of seamless care transition, the team aimed to investigate factors contributing to the lead time and explore solutions to streamline processes and optimise operations to enable timely home rehabilitation initiation.
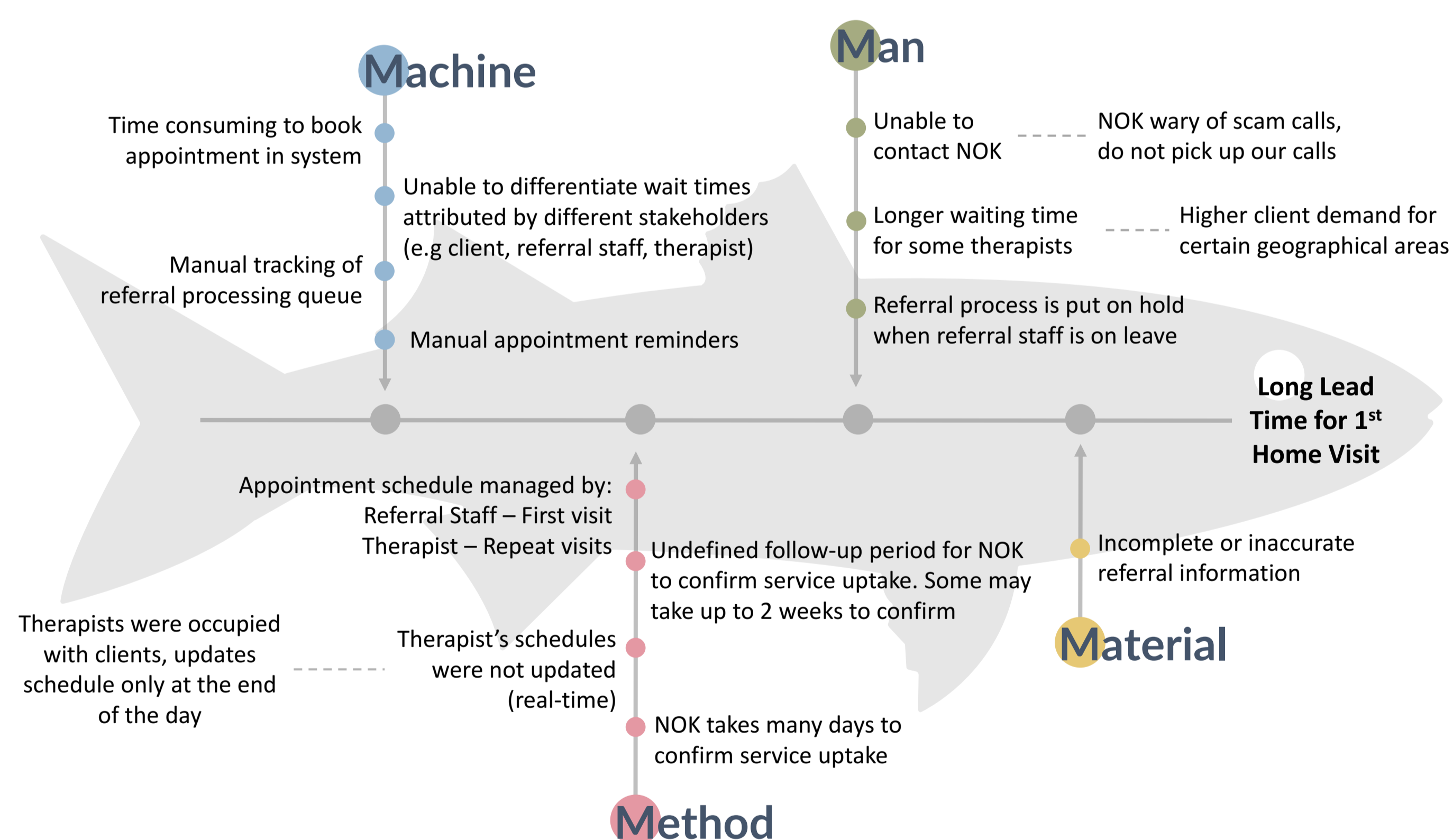
GOAL

The aim of the project is to reduce the median lead time for first home rehabilitation visit from **23 to 10 working days** from date of referral received.

PROBLEM ANALYSIS

1. ***Go and See*** & ***Value Stream Mapping*** performed to map the process from referral receipt to first visit by Home Therapist.

Incoming Referrals from AIC	Referral staff acknowledges receipt of referral	Referral staff processes the referral (i.e., match therapist's earliest availability, ensure all information is in order, etc.)	Referral staff contacts client to explain service terms & schedule appointment	Client's consent & confirmation of service uptake	1st visit by Home Therapist
<1 day	<1 day	4 days	8 days	9 days	
1 min	15 min	30 min	10 min	-	

Total Lead Time = 23 days

2. ***Root Cause Analysis*** was executed via ***Fishbone Diagram***.

Machine
- Time consuming to book appointment in system
- Unable to differentiate wait times attributed by different stakeholders (e.g client, referral staff, therapist)
- Manual tracking of referral processing queue
- Manual appointment reminders

Man
- Unable to contact NOK
- NOK wary of scam calls, do not pick up our calls
- Longer waiting time for some therapists
- Higher client demand for certain geographical areas
- Referral process is put on hold when referral staff is on leave

Method
- Appointment schedule managed by: Referral Staff – First visit, Therapist – Repeat visits
- Therapists were occupied with clients, updates schedule only at the end of the day
- Therapist's schedules were not updated (real-time)
- Undefined follow-up period for NOK to confirm service uptake. Some may take up to 2 weeks to confirm
- NOK takes many days to confirm service uptake

Material
- Incomplete or inaccurate referral information

Long Lead Time for 1st Home Visit

Main root causes identified attributing to the bulk of delay:

(i) High demand and limited therapist availability: Heavy demand for service in some geographic areas led to therapists' schedules being fully booked, resulting in clients in those regions having to wait around 9 days for the next available appointment.

(ii) Delays in decision-making: Clients and their next-of-kin (NOK) often needed time to discuss and decide whether to take up the service. However, there was no standardised timeline given to them or followed by referral staff for follow-up, leading to extended decision-making periods.

(iii) Communication challenges: Recently, heightened awareness of scam calls has led to next-of-kin not answering calls from referral staff, causing delays in establishing initial contact with clients.

(iv) Scheduling inefficiencies: Therapists and the referral unit handled appointment scheduling, but cancellations communicated to therapists were not always promptly reflected in the system, resulting in missed opportunities for earlier slots for other clients.

IMPLEMENTATION PLAN

Improvement Interventions	Nov '23	Dec '23	Jan '24	Feb '24
Sending a text before calling NOK to pre-empt and prevent assumption of a scam call	■	■	■	■
Referral staff to assist with all appointment bookings (First & Repeat) • Therapist can redirect admin time to client contact time	■	■	■	■
Therapist to cross cover other regions/zones to ensure timely response to referral demands (first visits)		■	■	■
Providing NOK with a timeline (ie. 5 days) for decision making – a standardised number of days for referral staff to follow up			■	■

BENEFITS / RESULTS

With implementation of the various initiatives to tighten the wait time within each process step, we were able to achieve an overall reduction of median lead time for first home rehabilitation visit from date of referral received progressively from 23 working days to **7 working days**, shorter than the initial goal of 10 working days.

The initiatives to optimise appointment availability and active follow ups with clients have enabled the clients to start/continue their rehabilitation within the week post-discharge.
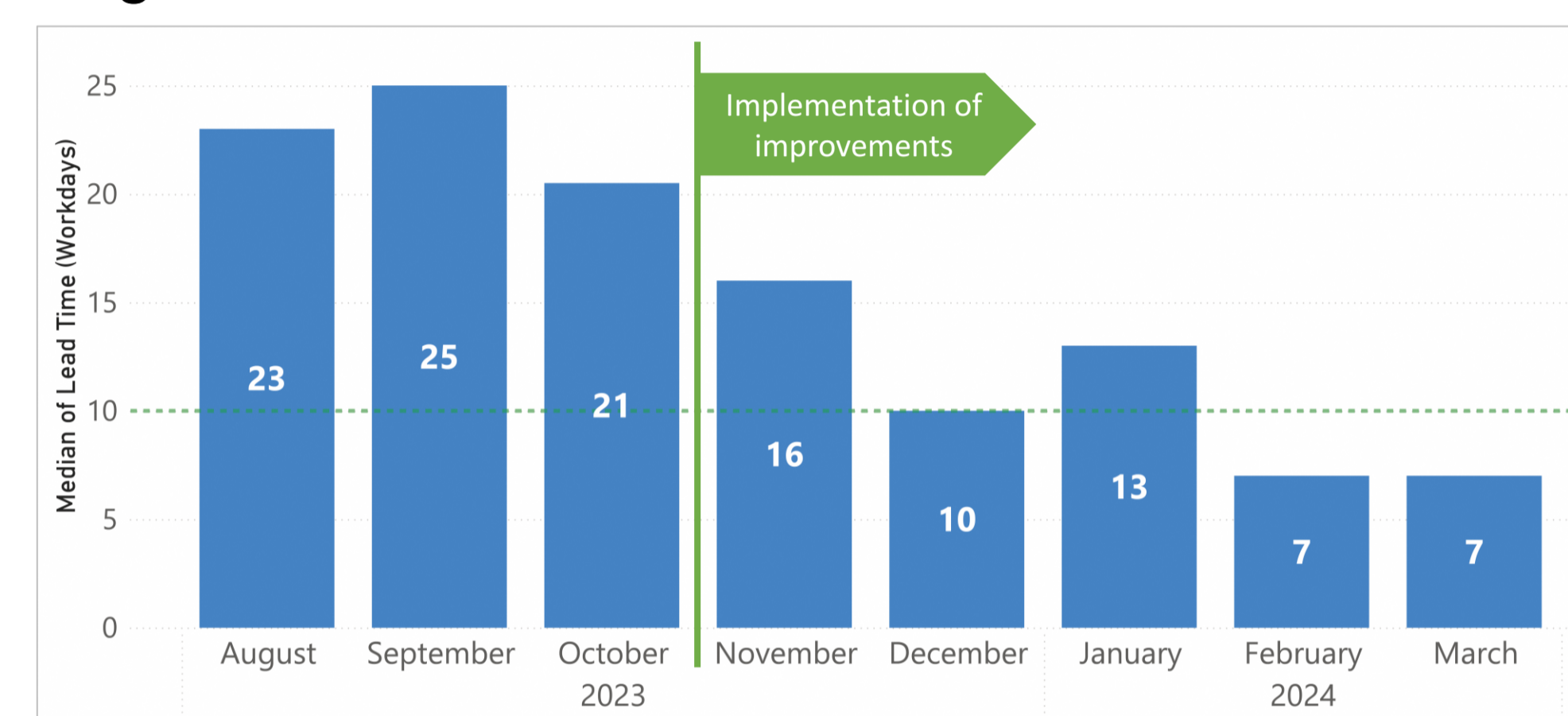

Graph 1: Median lead time from date of referral received to first home rehabilitation visit

The 3 main stakeholders of the process contributing to the total lead time are (i) referral staff, (ii) Therapists, and (iii) Client/NOK.

During the project, we recognised a need to differentiate individualised lead time attributed internally (referral staff and therapists) versus externally (client/NOK). Hence, we established lead time measures for each process step from January 2024 onwards and it has shown that the individual short lead time have impacted the overall total lead time.
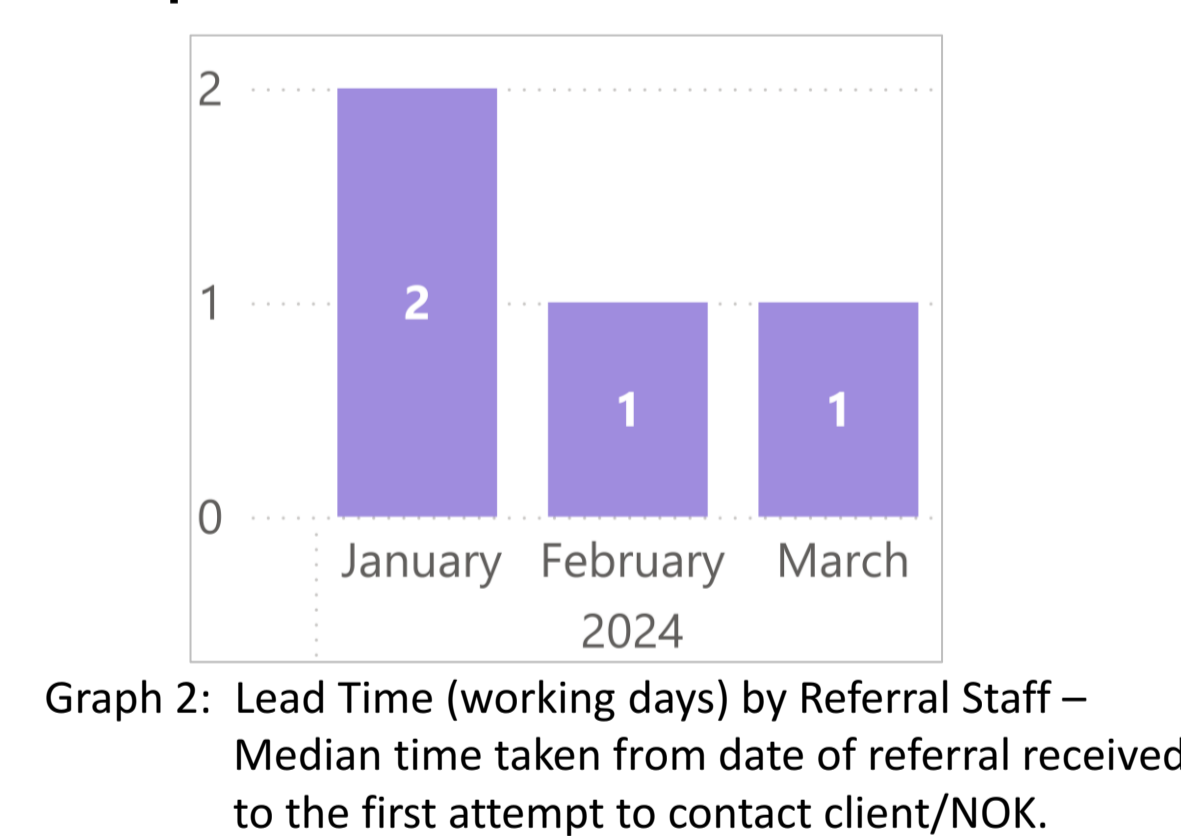

Graph 2: Lead Time (working days) by Referral Staff – Median time taken from date of referral received to the first attempt to contact client/NOK.
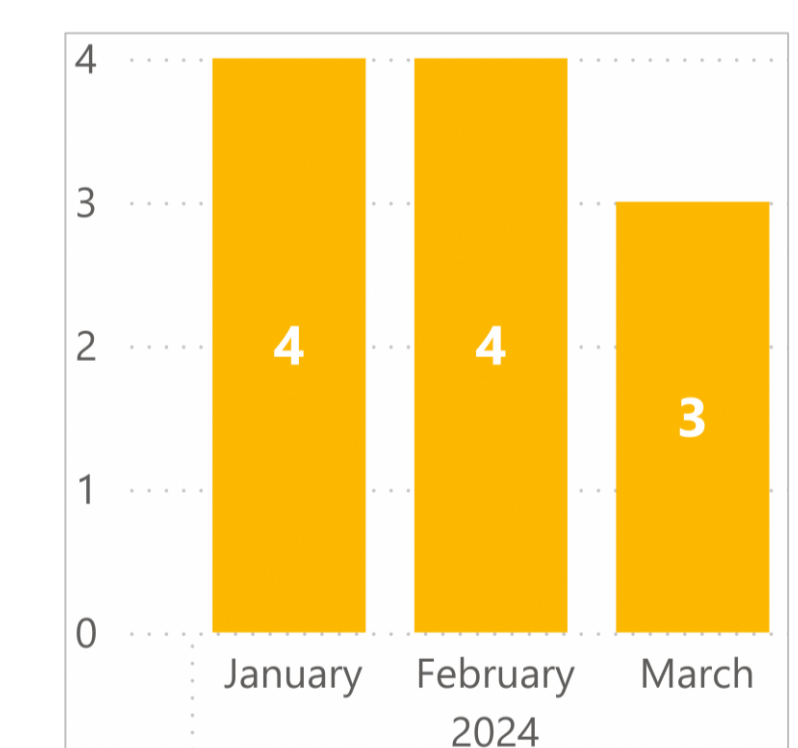
Graph 3: Lead Time (working days) by Therapist – Earliest availability from time of referral.

SUSTAINABILITY & REFLECTIONS

By implementing a new system of tracking, we will be able to continue to monitor the outcomes and ensure the new standard of 7 days will be maintained or even improved. It allows us to be more proactive in managing and optimising referral processing to ensure minimal delay in continuation of rehabilitation post-discharge.
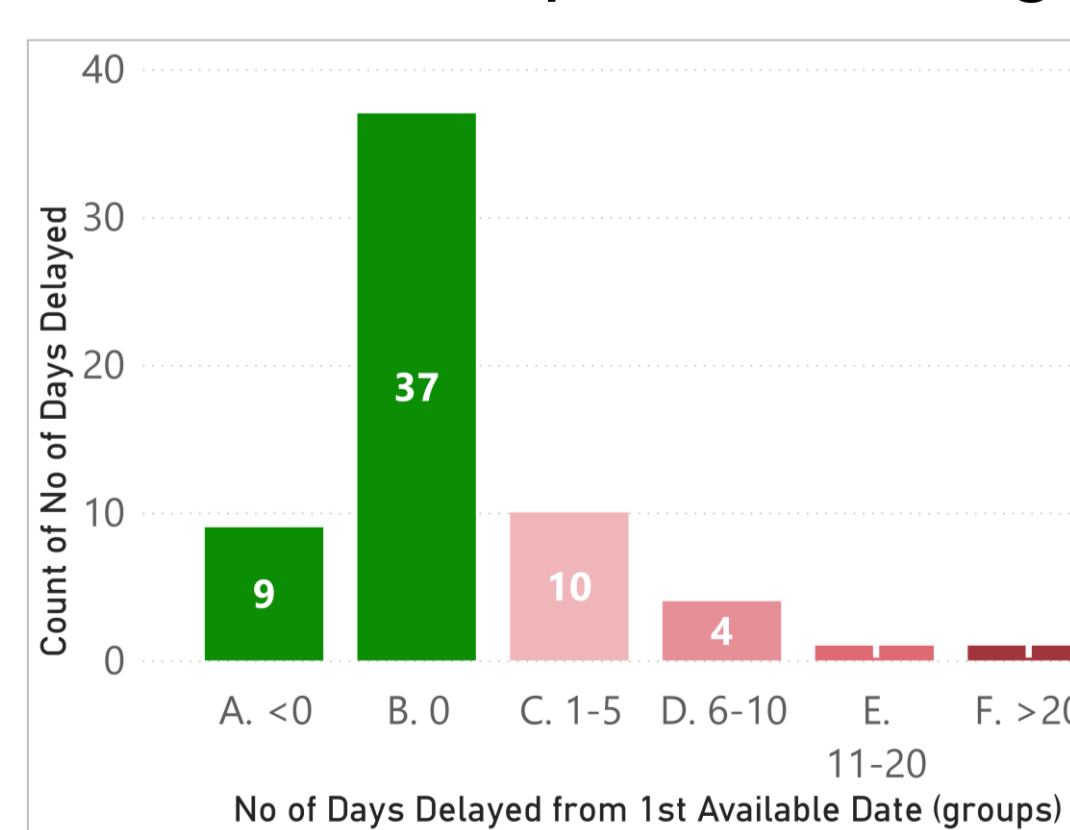
Graph 4: Client's acceptance to first offered appointment date. This will impact the overall lead time if they prefer a much later date. Most preferences for later dates (pink/red bars) are due to reasons like doctor appointments, festive season, or client is unwell.

Some other important non-controllable factors that we have started monitoring were the comparison of actualised first visits with the first available date offered.

This would further help us understand the typical preference for post-discharge first visits timeframe, and setting a realistic benchmark for the overall total lead time.

With changing client needs and preferences, continuous reviews to improve our work process is essential for seamless care delivery, and enhancing staff efficiency.