

Improve Percentage of Patients Achieving Desired Functional Outcomes when Receiving Home Exercise Programme at the Centre of Geriatric Medicine

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Mission Statement

To improve percentage of patients with desired functional outcomes* from 59% to 100% for patients solely receiving Home Exercise Programme (HEP)+ at the Centre of Geriatric Medicine (CGRM), Tan Tock Seng Hospital within 6 months.

* Desired functional outcomes = Maintain or improve functional scores (5 times sit-to-stand & Gait speed)

^ Solely receiving HEP at CGRM = excluding those who are enrolled into additional centre-based or community-based rehabilitation programmes

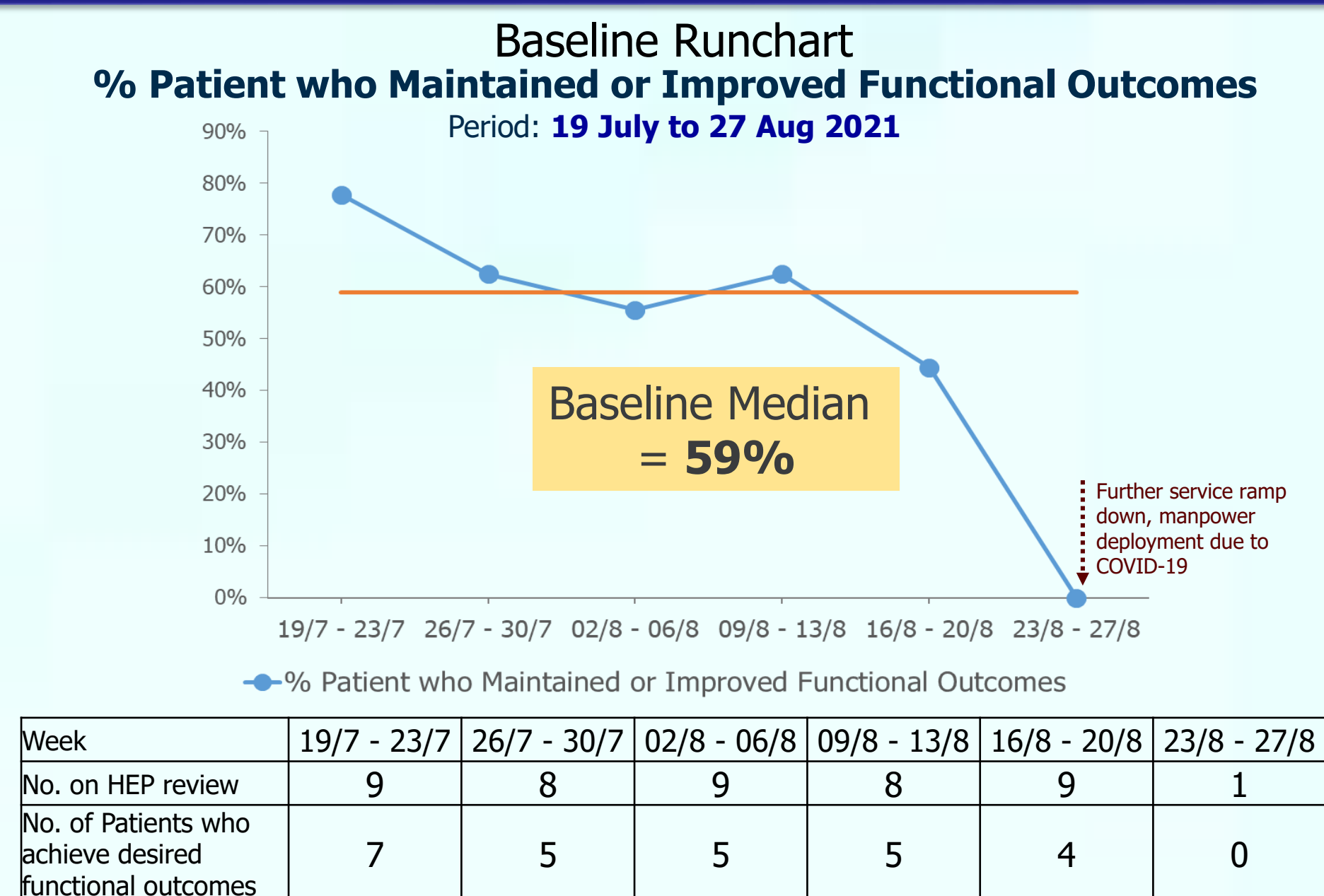
+ With a review interval of 6 weeks or less

Team Members

	Name	Designation	Department
Team Leader	Ms Rae Quek Li Qin	Senior Physiotherapist	Physiotherapy
Team Members	Dr Ong Eng Hui	Consultant	Geriatric Medicine
	Ms Show Lei Ping	PSA Supervisor	CGRM
	Ms Goh Gek Hum	Senior Staff Nurse	CGRM
	Ms Jazel Kan Sze Mun	Executive	Ops DICC
Sponsors	Dr Rani Ramason	Senior Consultant	Geriatric Medicine
	Ms Doris Yek Lee Ling	Nursing Manager	CGRM
	Mr Christopher Ng	Head	Physiotherapy
Mentors	Ms Shirlene Toh Ee Mui & Mr James Ang Wei Kiat		

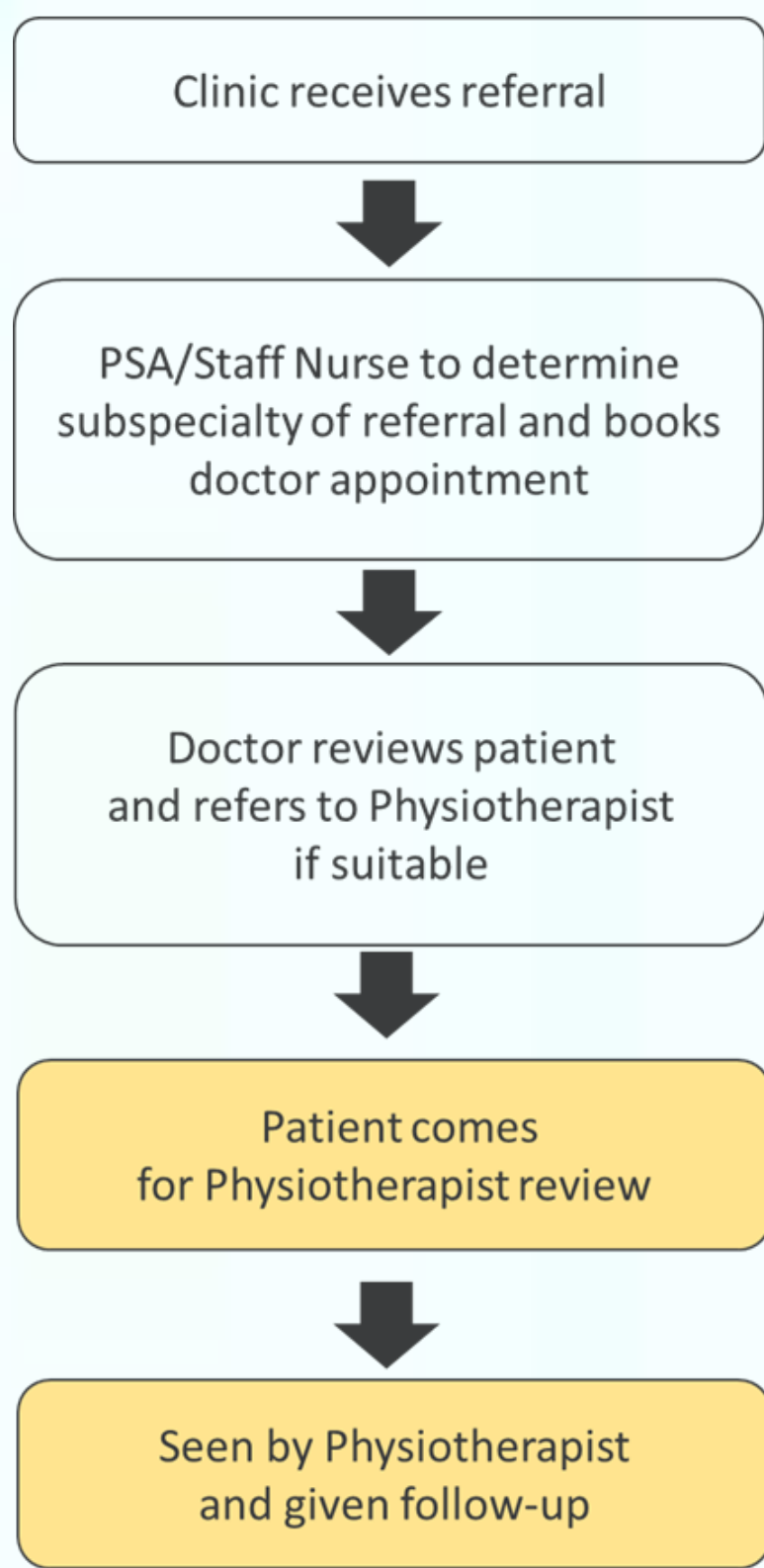
Evidence for a Problem Worth Solving

The geriatric population is vulnerable to functional decline and hence the aim of geriatric rehabilitation is to restore and/or improve functions of the older adult. Patients with functional decline are shown to have higher admission rates, which adds on to the burden of healthcare costs.

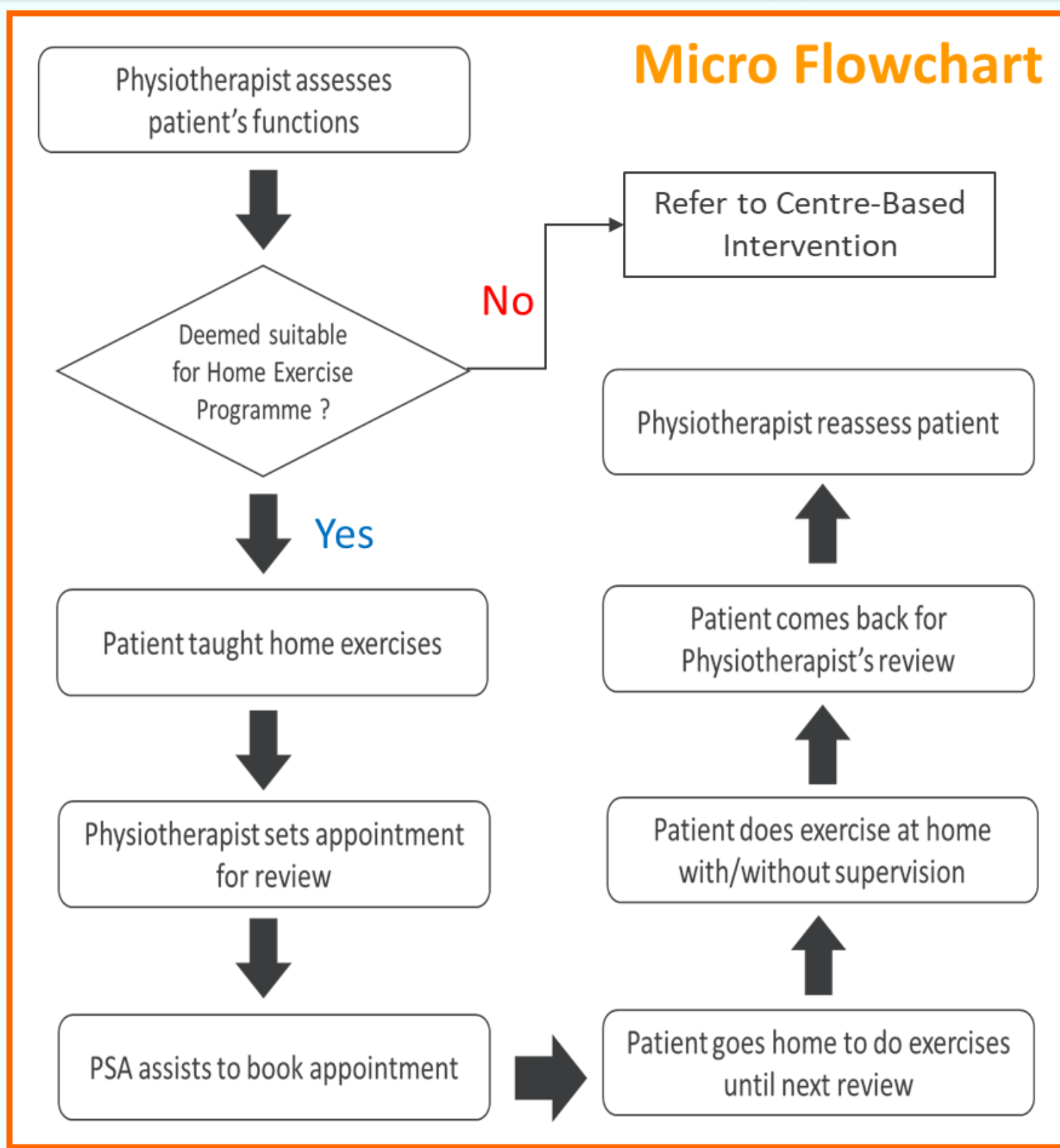


Flow Chart of Process

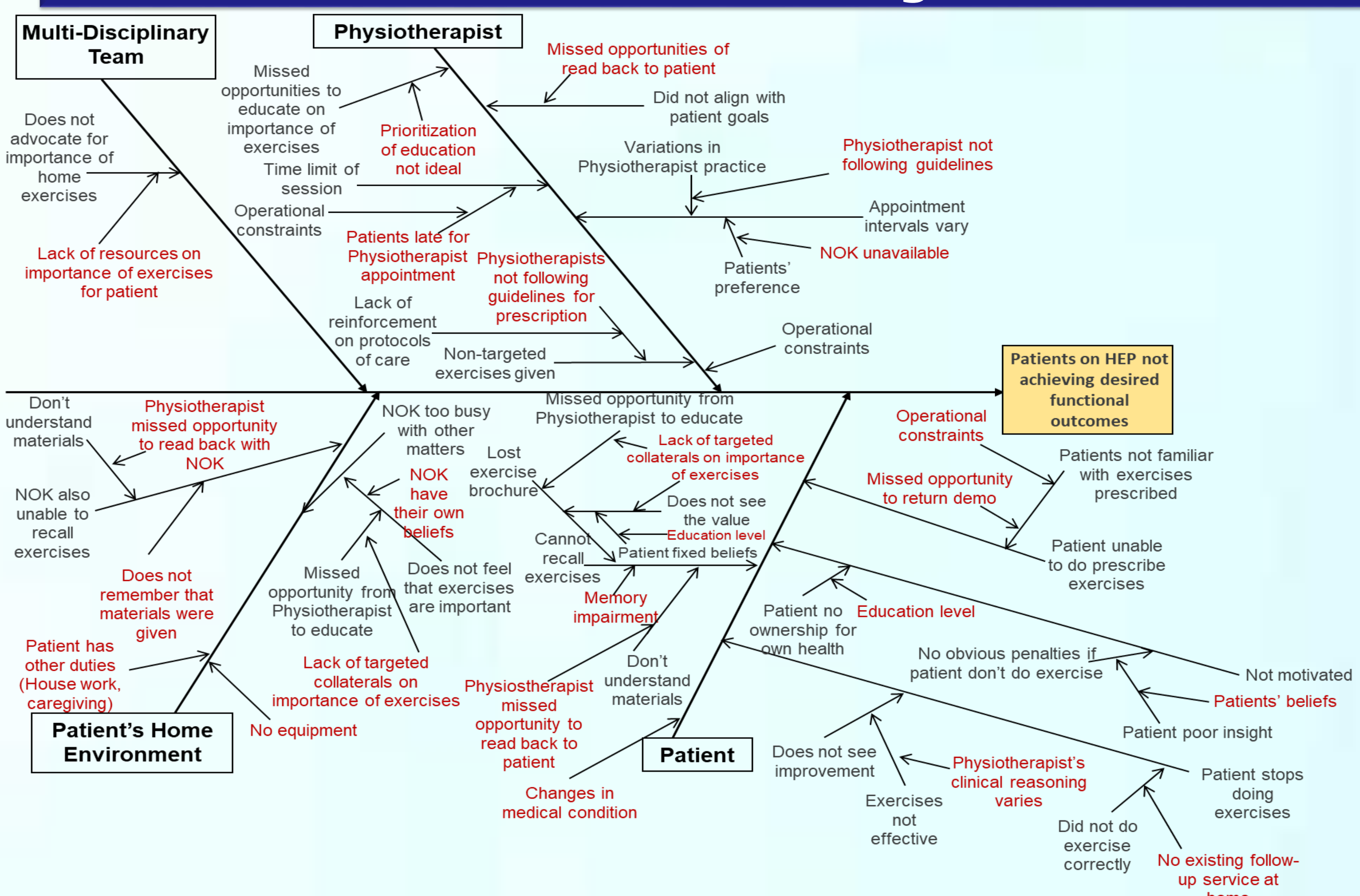
Macro Flowchart



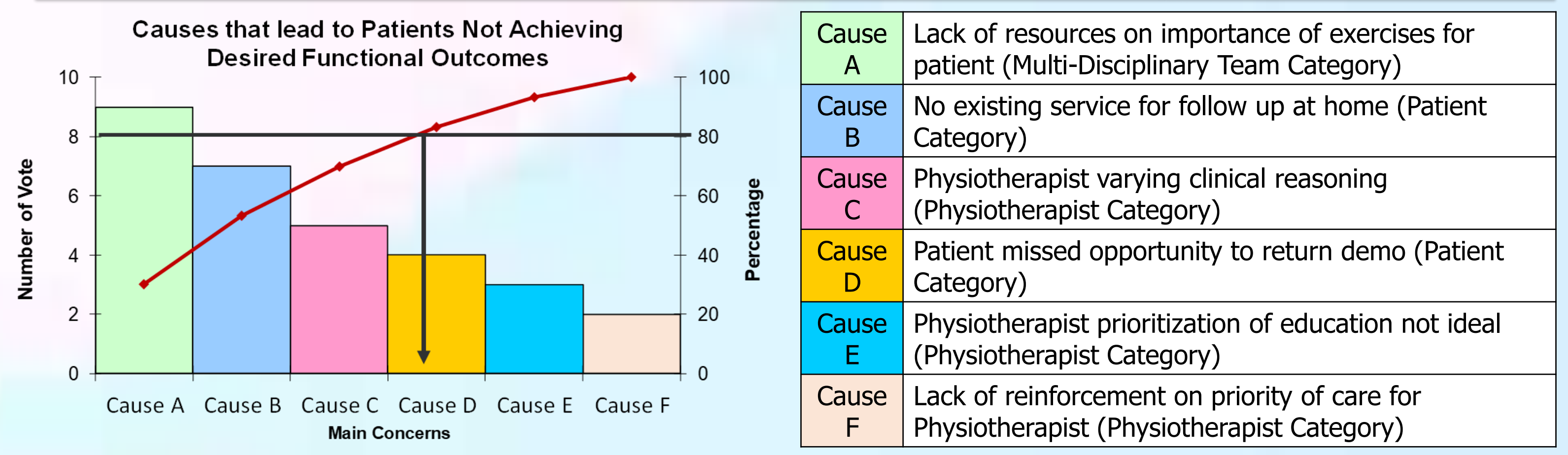
Micro Flowchart



Cause and Effect Diagram



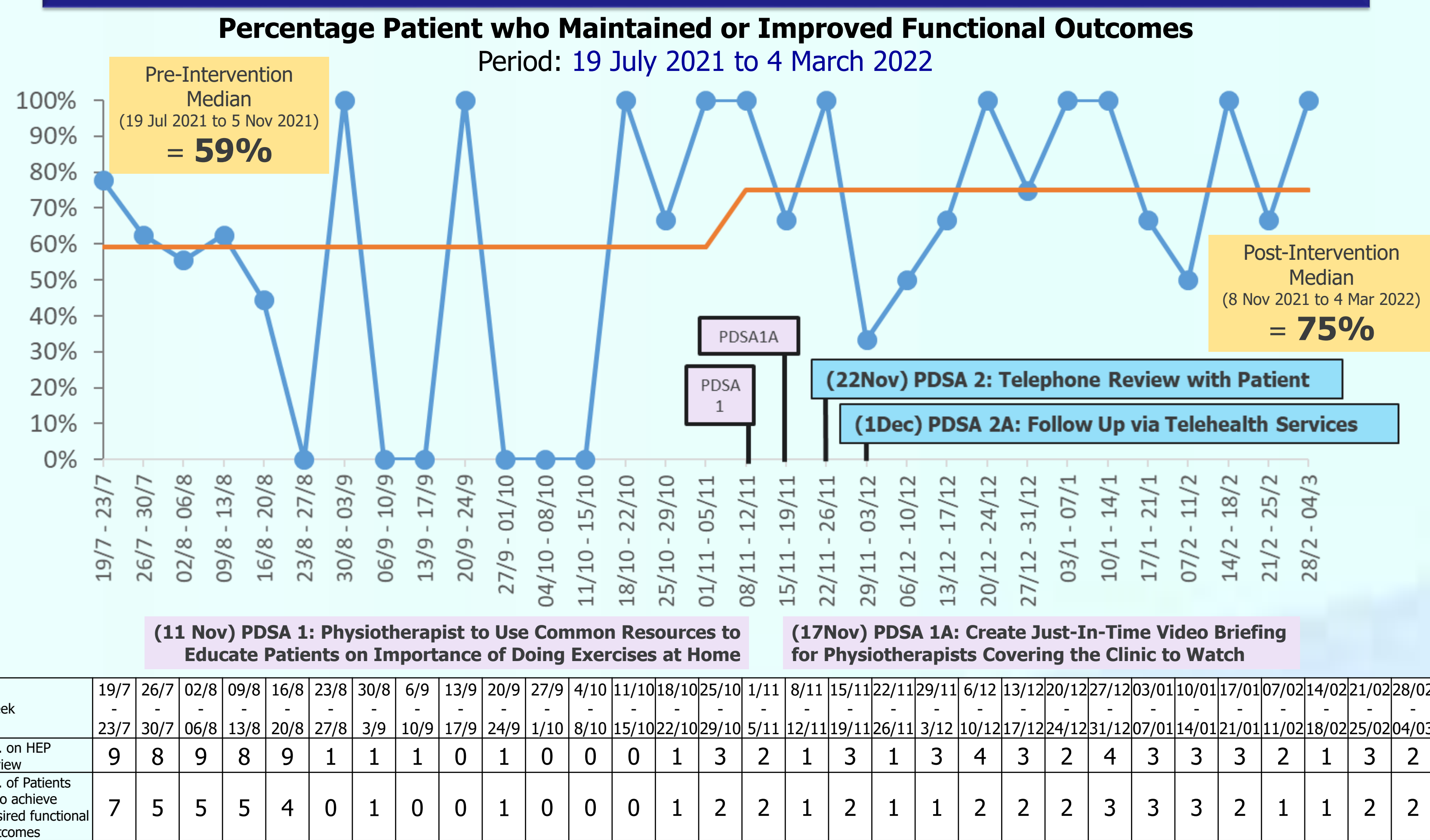
Pareto Chart



Implementation

Root Cause	Intervention	Implementation Date
Cause A: Lack of resources on importance of exercises for patient	PDSA 1: Physiotherapist to Use Common Resources to Educate Patients on Importance of Doing Exercises at Home PDSA 1A: Create Just-In-Time Video Briefing for Physiotherapists Covering the Clinic to Watch	11 th November 2021 17 th November 2021
Cause B: No existing service for follow up at home	PDSA 2: Telephone review to check patient understanding on the information shared at first visit PDSA 2A: Follow Up via Telehealth Services for Existing Patients who choose not to come back to hospital for review	22 nd November 2021 1 st December 2021
Cause C: Physiotherapist varying clinical reasoning	PDSA 3: Tutorial and case discussions of cases seen to seek alignment	18 th Mar 2022 (postponed due to conflicting requirements to manage COVID 19)

Results



Cost Avoidance

Item	Before Intervention	After Intervention
No. of Emergency Department admits for Functional Decline from CGRM	5	0
No. of Bed Days Saved	(5 - 0) x 11 = 55 Days (Per Month) 55 x 12 = 660 Days (Annualized)	
Cost of Inpatient Stay Avoided	55 x \$1,114 = \$61,270 (Per Month) 61,270 x 12 = \$735,240 (Annualized)	

Generally, Average Length of Stay for patient who are admitted to inpatient ward due to functional decline = 11 Days
Note: Unit cost for Inpatient Stay Per Day Per Patient = \$1,114

Problems Encountered

- PDSA Cycle 1 was affected as some stakeholders were not informed timely about the new interventions. It is thus important to have clear communication to all relevant and respective stakeholders during the implementation phase.
- Resource allocation to the project required careful deliberation due to the COVID 19 pandemic situation. The amount of resources that could be utilized was scarce, and needed in other COVID 19 efforts.

Strategies to Sustain

- Ensure compliance to interventions by monthly to bi-monthly check-ins for Physiotherapists
- To continue track runchart and intervene timely when there are performance dips
- To continue to target the subsequent root causes