

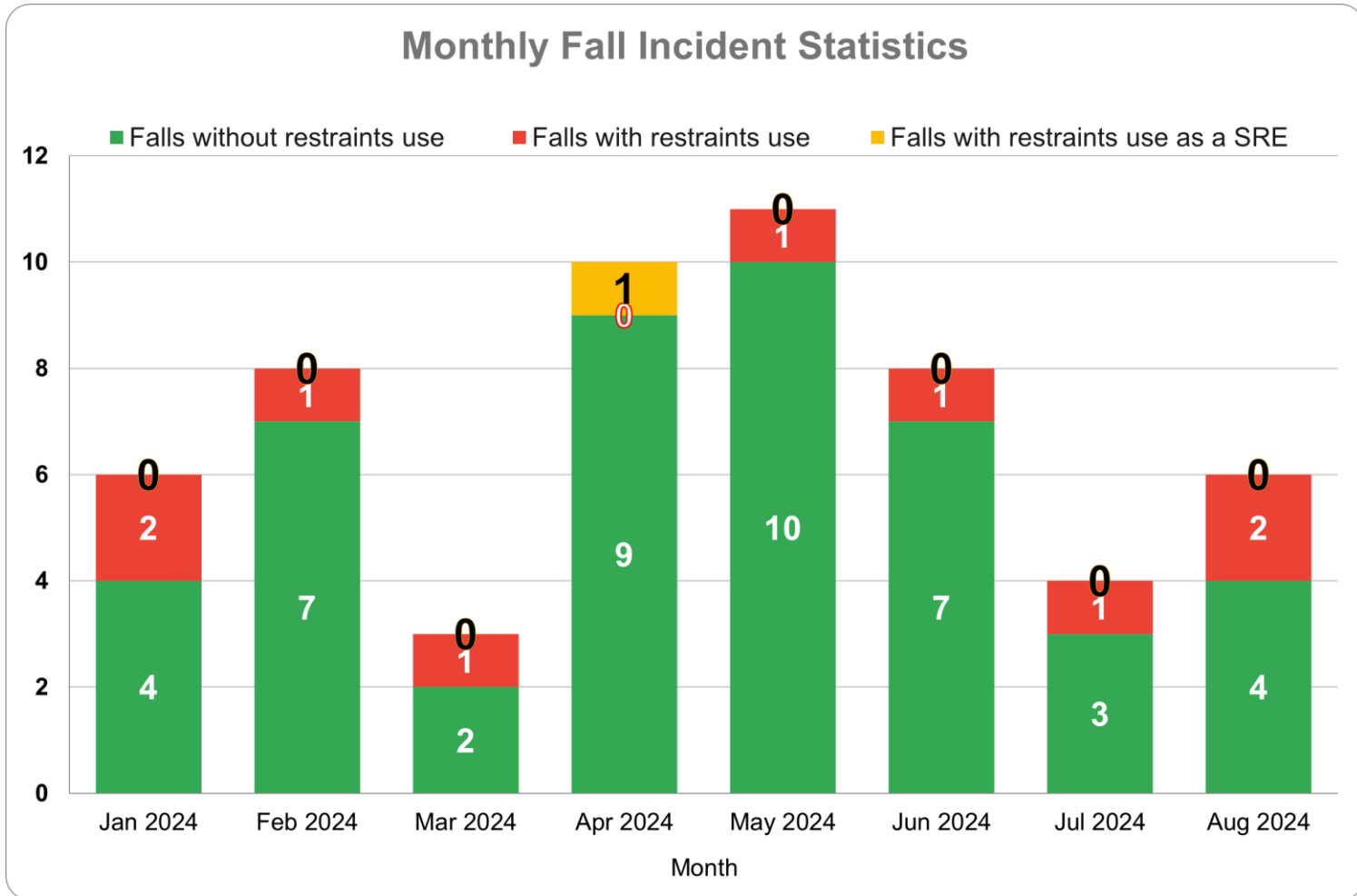
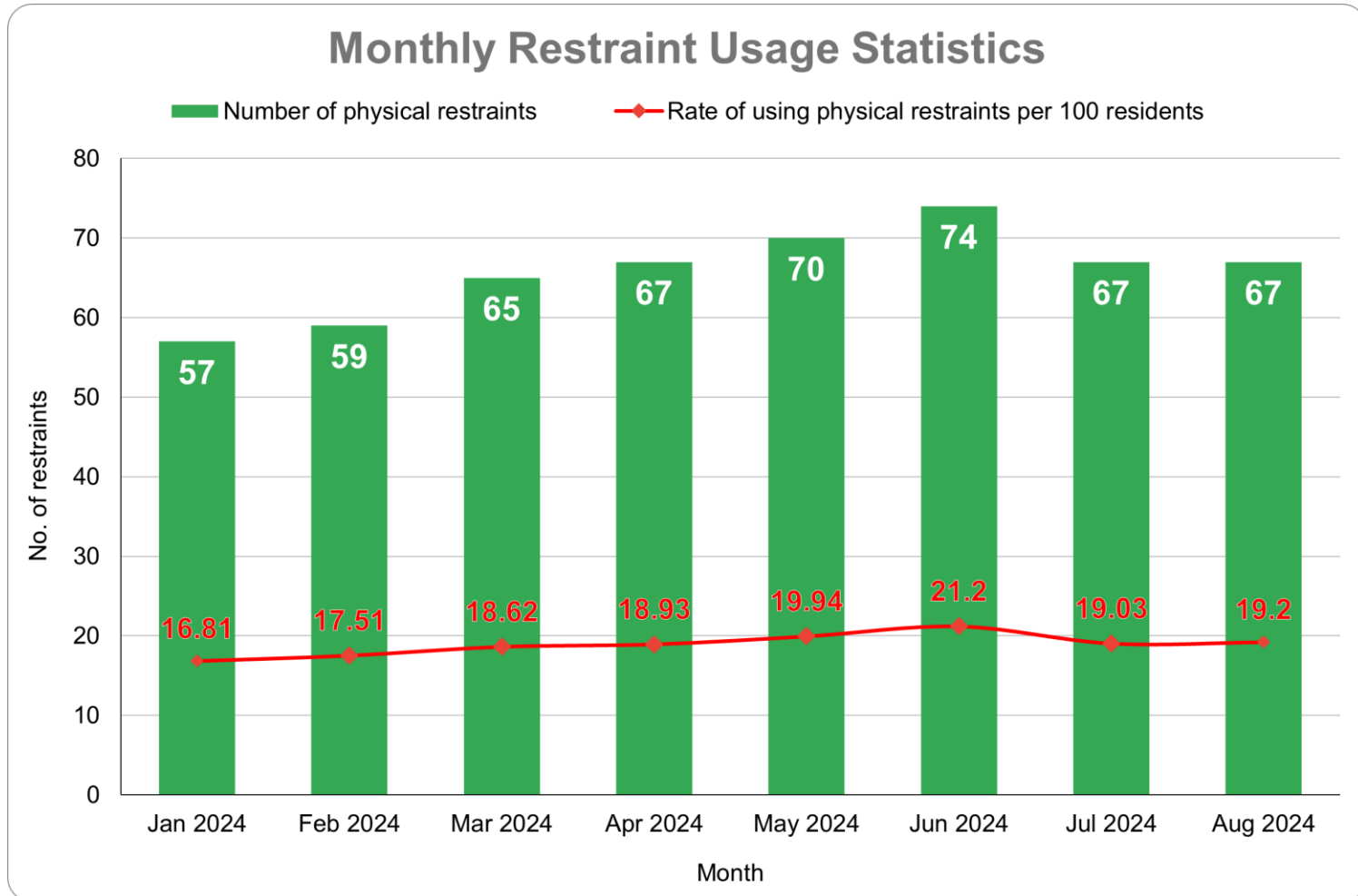
NTUC Health Co-operative Limited

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Background

While physical restraints are used in nursing home care, they have not been shown to reduce fall rates. In fact, fall rates remain high, questioning the effectiveness of restraints in fall prevention and safety.

Furthermore, frequent use of restraints can have adverse effects, including physical and psychological distress, decreased mobility, and reduced well-being. Therefore, exploring alternative, non-restraint methods for managing fall risks is essential. Research suggests that reducing restraint use can improve resident outcomes, but close monitoring of fall incidents is crucial during this transition to ensure safety.



Objectives

The project objectives were:

- Reduce physical restraint use by over 25% within six months while ensuring resident safety.
- Enhance resident well-being and autonomy through a person-centred care approach.
- Improve staff confidence in managing residents with a high risk of falls.

Problem Analysis

The 'Go and See' approach was adopted to observe the use of physical restraints within the home, followed by a root cause analysis to identify the underlying factors contributing to the high rate of restraint usage.

Problem / Effect	Observations	Root Causes	
High use of restraints in nursing home	Staff's lack of knowledge in alternative care approaches, de-escalation techniques, and person-centered care led to the default use of restraints.	Lack of exposure of staff to alternatives	Man
	Families requested restraints out of concern for their loved ones' safety.	Lack of education	
	Staff resorted to restraints in an effort to manage behaviors or perceived risks among residents with progressive dementia or Parkinson's disease.	Behavioural and cognitive challenges of residents	
	Staff believed restraints were necessary to prevent harm but may not have fully understood the associated risks, including physical injury, psychological distress, and reduced quality of life.	Lack of understanding and awareness	Method
	The overuse of sedatives, antipsychotics, or diuretics can indirectly lead to increased instability and the heightened need for restraints.	Medication mismanagement	Material
	The absence of alternative technology or equipment hindered the monitoring of residents transitioning off restraints.	Lack of alternative technology or equipment	Machine
	An institutional care approach, prioritising routines over individual needs, leads to a greater reliance on restraints.	Institutional culture	Environment

Implementation Plan

Engagement

- Inform families and staff of the benefits of a restraint-free environment.
- Promote a culture of person-centred care, restraint-free environment

Education & Training

- Dementia & Mental Health Training: Equip staff with skills for non-restraint based care.
- Person-Centred Care: Develop individualised care plans based on resident preferences.
- Fall Prevention: Train staff on safe mobility techniques and assistive devices by Allied Health
- Peer Mentoring: Experienced staff to guide less experienced staff.

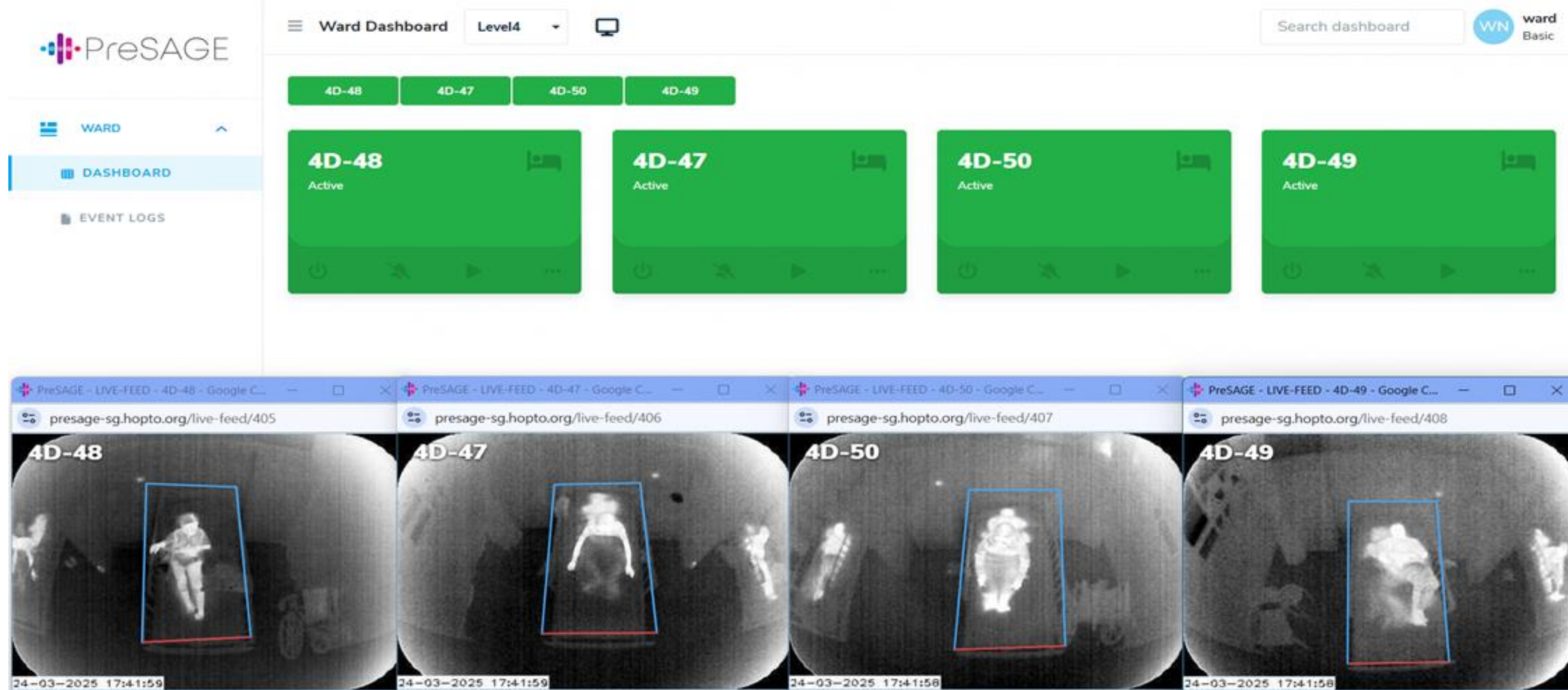
Fall Prevention Strategies

- Multidisciplinary Team Approach: doctors, nurses, pharmacists, allied health, and social workers collaborate on personalised fall prevention strategies.
- Nurse-led Activities: Promote independence and mental and emotional well-being.
- Daily Rounds: Assess fall risks and adjust care plans.
- Identified and explored the usage of PreSAGE AI and thereafter installing 8 units on levels 3 and 4 to monitor residents' movements and improve fall detection.

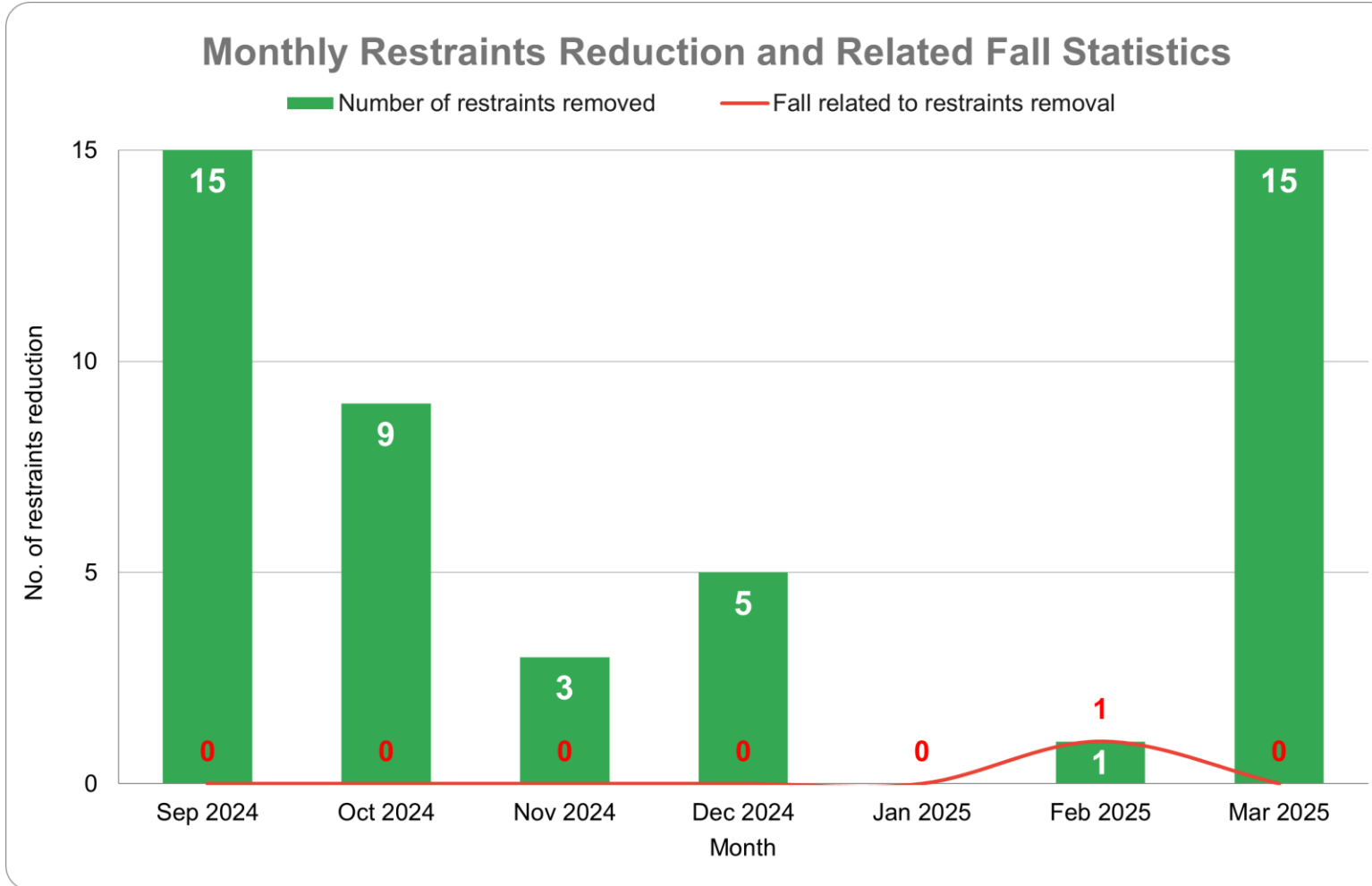
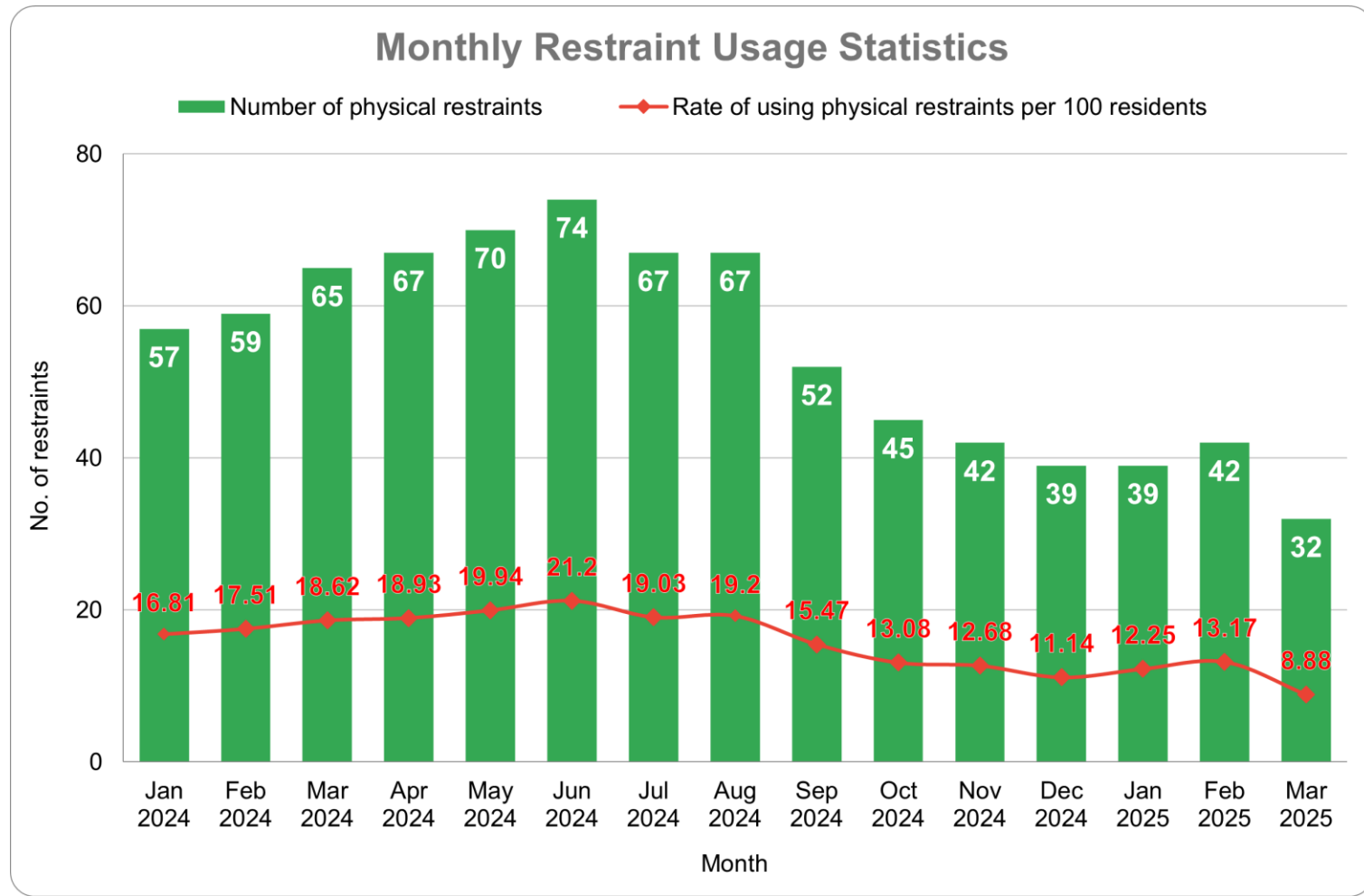
Monitor & Evaluate

- Track Restraint Use & Falls: Weekly monitoring of restraint use and related fall incidents.
- Bi-Weekly Staff Meetings: Discuss challenges, successes, and provide training.
- Resident & Family Feedback: Collect satisfaction data and adjust care plans accordingly.

PreSAGE Fall Prevention Solution ensures a safer environment by actively monitoring and detecting fall risks in real-time.



Benefits/Results



- Physical restraint use was reduced by 52% from Sep'24 to Mar'25.
- One fall occurred in Feb 25 due to the resident transferring off the bed without assistance after restraint removal. Thereafter, the resident was closely monitored under PreSAGE.
- 48 residents were removed from restraints after a multidisciplinary review in Mar'25. Their attention span during activities improved from 10 to 30 minutes within 7 months, significantly enhancing their well-being.
- 90% of the staff revealed that they are more confident in managing fall risk after training, which is an increase from 30% before the training.

All families surveyed for this project expressed strong satisfaction and confidence in the restraint-free approach, easing previous worries about managing risk-taking behaviours.

Sustainability & Reflections

Personalised care plans, developed by a multidisciplinary team and supported by ongoing staff training, reduced restraint use. Positive outcomes, such as increased resident engagement, propel progress toward a restraint-free environment where restraints are a last resort. This shift in staff mindset, coupled with next of kin's involvement, ensures the project's long-term sustainability.

Another key factor is the use of PreSAGE, which reduces the need for physical checks. This allows staff to focus on critical tasks, minimising restraint use while maintaining care standards.