

## **Project Title**

TEMI – All in One Robot Assistant

## **Project Lead and Members**

Project lead: Marcus Lee, Director, Operations

Project members: Punitha d/o Ram Keelavan, A. Head of Nursing; Angie Koh,  
Operations Executive (Projects)

## **Organisation(s) Involved**

Thye Hua Kwan Nursing Home Limited

## **Healthcare Family Group(s) Involved in this Project**

Healthcare Operations, Nursing

## **Aims**

To leverage on technology to improve staff productivity, expand operational capabilities, enhance clinical data taxonomy & provide easier access to curated entertainment and social connectivity

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## Lessons Learnt

From our experience, as these robots are user-friendly, it takes little time (possibly 15mins or less) for an average person to learn and start using these robots for the basic functions like video calls and entertainment. Setting them up is also straightforward.

However, advanced functions like mapping of wards and setting up tele-metric measures of vital signs etc can only be done by robot IT support team.

## Conclusion

Aside from the current usage, we will be exploring other forms of robots, possibly more multi-functional ones to streamline our work. For example, auto-disinfecting robots deployed to augment our housekeeping team. Such robots could be sent both ahead and after the human cleaners as a way to complement and reinforce the latter's efforts. Therefore, there is more to just what it is currently used for, since we can customize and add more purpose to it.

## Additional Information

Aside from the nursing team, the therapy team also found the robot useful in entertaining our residents in terms of music and video entertainment.

## Project Category

Technology

Care & Process Redesign

## Keywords

Care Process And Redesign, Productivity, Technology, Robotics, Artificial Intelligence, Automation

## Name and Email of Project Contact Person(s)

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# What is TEMI?

- All-in-one robot assistant
- Autonomous navigation
- Advanced AI
- Smart assistant
- Dynamic video & audio

**CATEGORY**  
 AUTOMATION, IT AND ROBOTICS INNOVATION (AIR)

**ADOPTION**  
 TEMI - ALL IN ONE ROBOT ASSISTANT

**BY**  
 THYE HUA KWAN NURSING HOME

### Summary

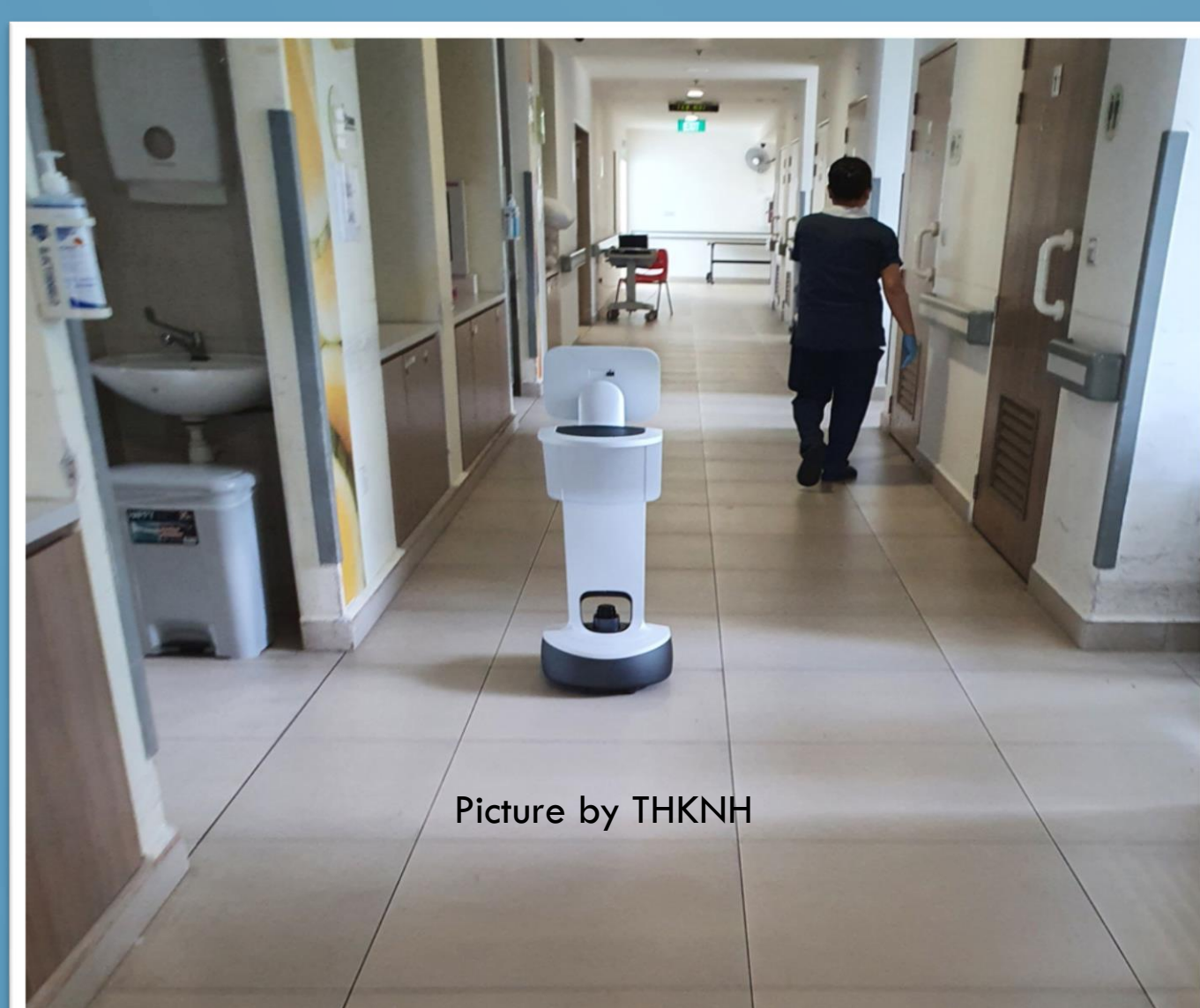
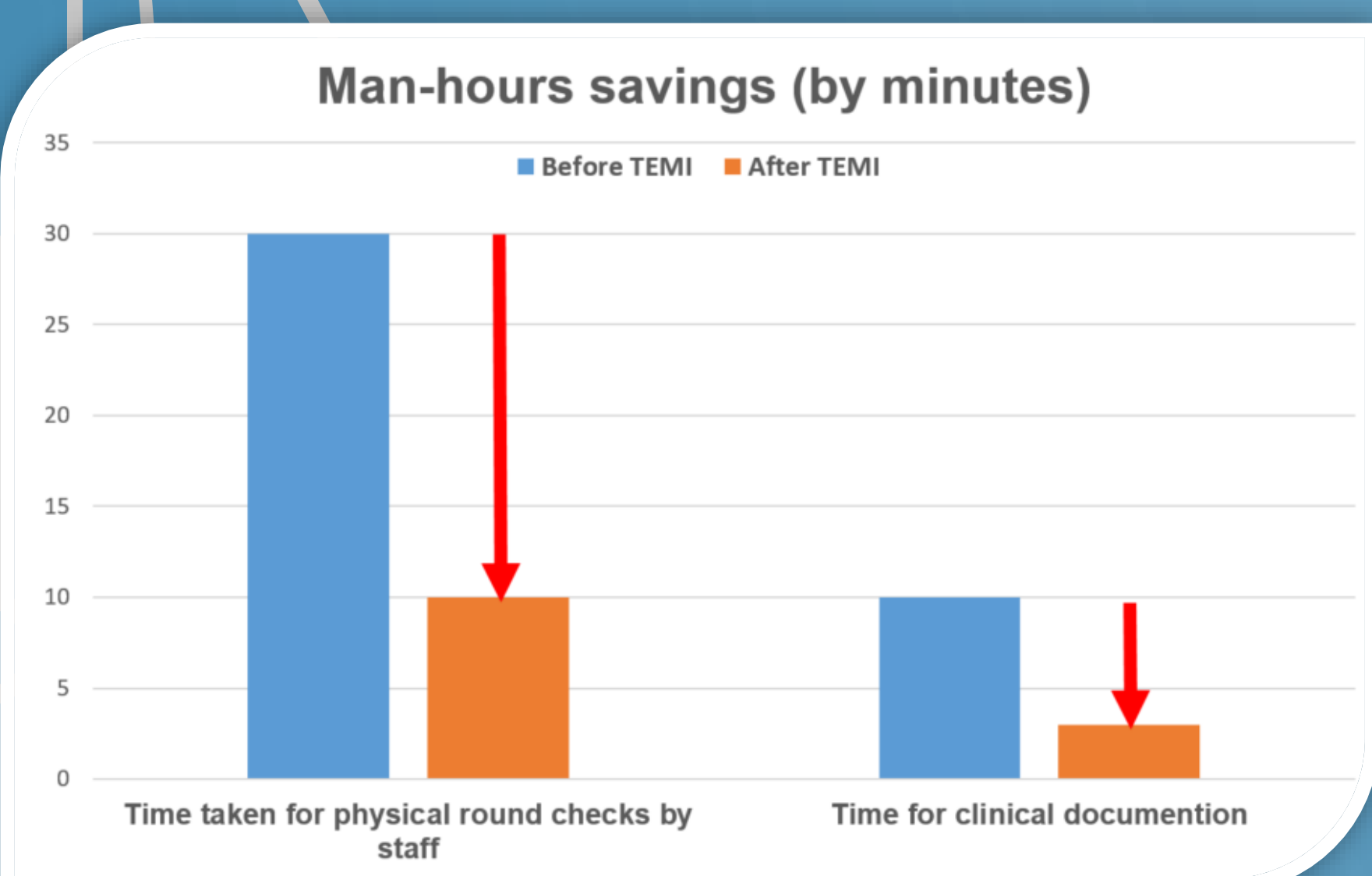
An all-capable robot assistant that can be programmed to automate and augment specific duties of nursing home staff. Besides benefitting the clinical side of house, it also improves residents' living experience.

### Benefits for Organisation

- (i) Improved Staff Productivity
- (ii) Expanded Operational Capabilities, and
- (iii) Enhanced clinical data taxonomy.

### Benefits for Patients

Providing easier access to curated entertainment and social connectivity. 6



## How Technology Helps

How does this technology demonstrate improved productivity and/or effectiveness?

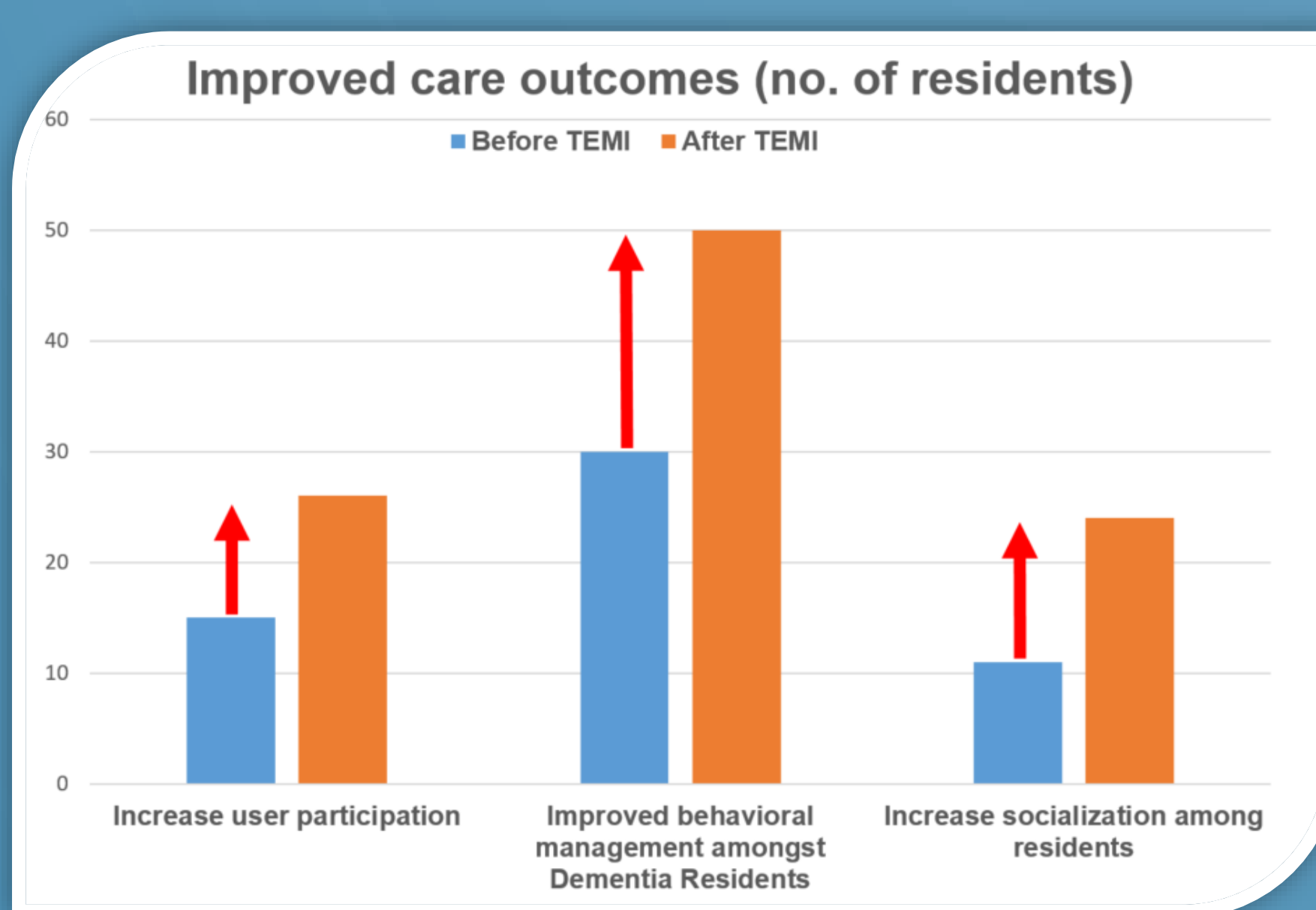
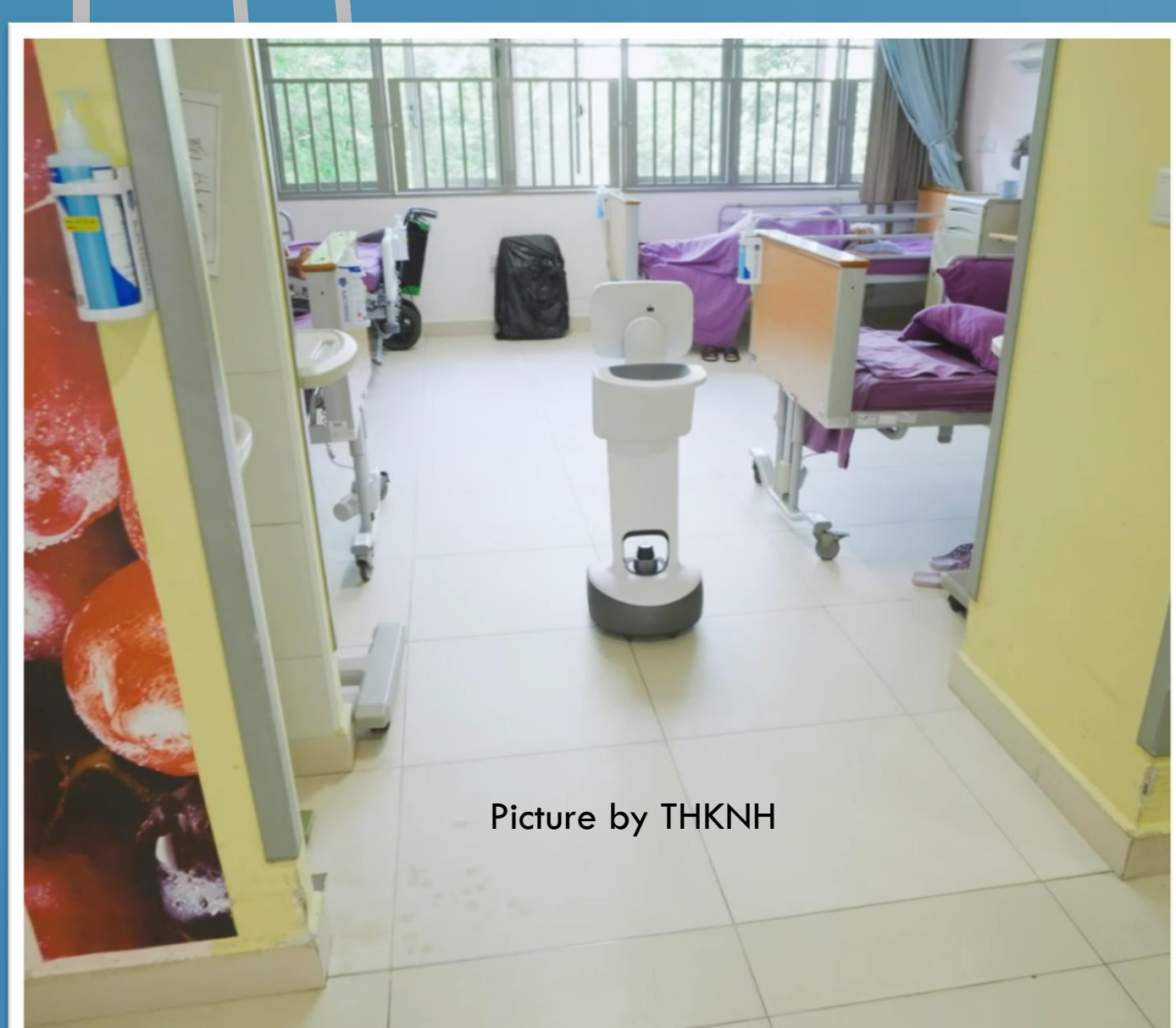
Through automation, the robot self-maps nursing prowling routes and record specific patient health data.

This frees up the nursing staff for other critical duties, and also reduces the possibility of human errors.

The collected data is better stored in a more organised way that facilities easy reviews and updating.

The impact of TEMI to sustain improved care outcomes. Through TEMI, greater resident-participation has been observed. Social networking with family members and volunteers also improved.

During engagement with family members and activity sessions like music therapy that bring about reminiscence, outcomes have shown better management of behaviours amongst dementia residents.



## Future Plans

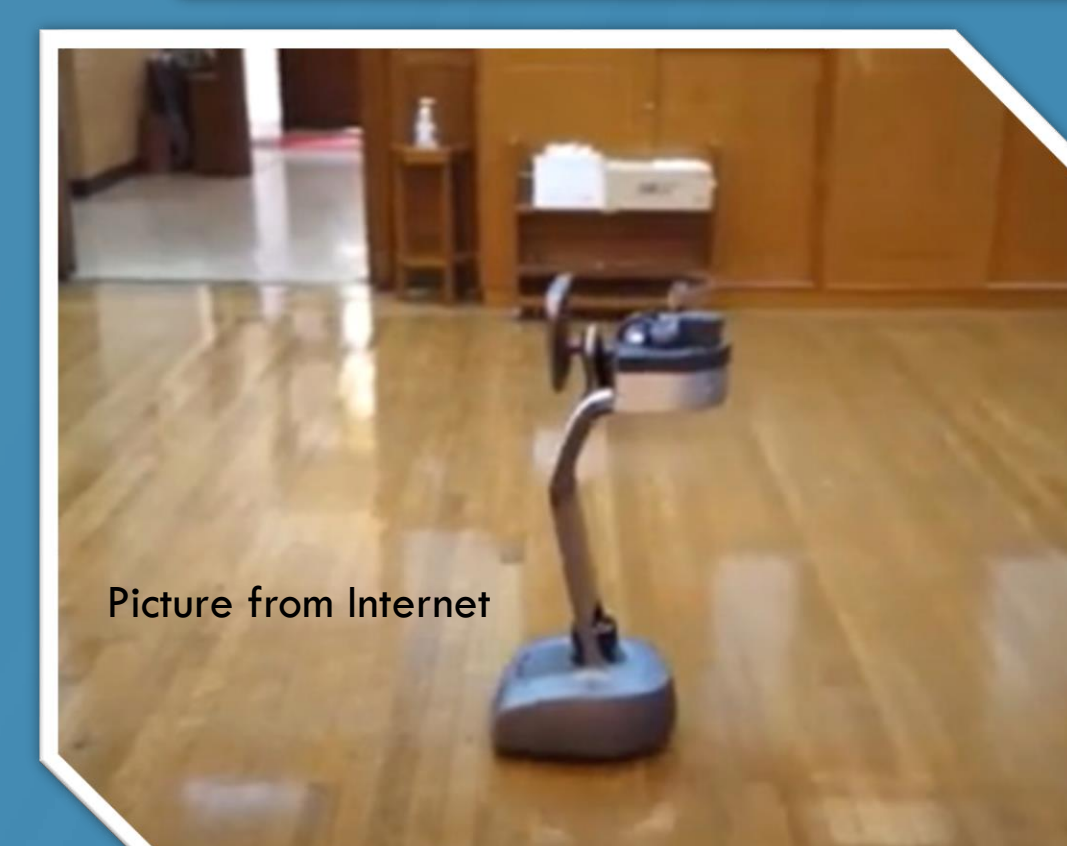
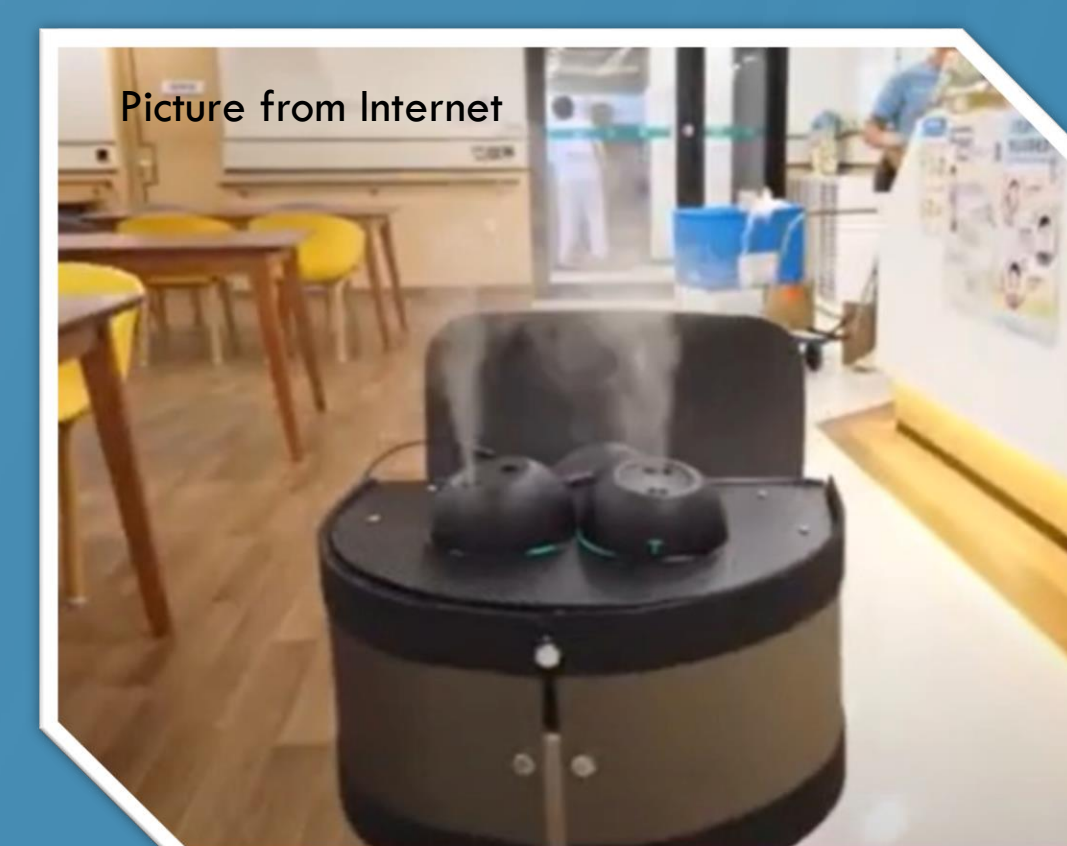
### TEMI Meal Server

To explore adding a suitable tray holder to allow staff to serve meals to our residents. Just by a simple touch on the screen to direct the robot to the specific bed and to return to staff when done.



### TEMI Disinfectant

To explore customizing a disinfectant spray and/or UV rays to complement the disinfection efforts of housekeeper staff, especially in high-risk areas.



### Reference:

<https://www.robotemi.com/wp-content/uploads/2020/11/Personal-robot-low-res.pdf>