Improving Meals End-to-End Process
Lentor Health Nursing Home (MacPherson)

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Introduction/Background

Lentor Health MacPherson Nursing Home started its operations in August 2023. Establishing a routine and standardised process for care staff in large group is essential, especially for those who are newly hired and unfamiliar with local nursing practice. Specifically, the team has recognised meals service as a high repetitive daily activity in the Nursing Home (NH), offering opportunities for improvement and standardisation.

Goal/Objective

The project aims to:
1. Ensure right meal is served safely and correctly to residents
2. Serve meals to the residents in a timely manner
3. Provide a variety of nutritious meals aligning with the International Dysphagia Diets Standardisation Initiative (IDDSI) Framework on food/ fluids texture

Problem Analysis

This improvement initiative utilised a dual-pronged approach. The **A3 thinking framework and Plan-Do-Study-Act** were used to guide the project team in improving the food distribution process. Concurrently, the NH also integrated the **Chef Partnership Programme** to facilitate menu planning, food preparation and the implementation of enhanced cooking methods.

Prior to the nursing home's opening, the project team and stakeholders (Operations Department) met and analysed meal serving process with guidance from AIC:
- Set goals and indicators for the meal serving process
- Understand staffs' perception of 'As Is' state of Meals Serving
- Roles of staffs from ordering, collecting, distributing, serving and documenting process determined

In the **Analysis,** Project team participated in the mapping of the 'To Be' State (Figure 1)

Figure 1

A **Rapid Experiment** was then conducted in the pilot ward (Level 3)
- Simulation of 'To be' State to distribute food tray and right diet is given for the right resident.
- Discuss on communications of meals' ordering
- Discuss meals roster
- Discuss food labelling on trolley according to IDDSI framework

From the debrief of simulation, staff concerns, and process enhancement were translated to **Action Plans.**

Subsequently, **Job Instruction** (Figure 2) were created. Senior staff will use the job instructions to provide guidance to their new staff. It also ensures the job consistency for each staff performing the same task to the same requirements.
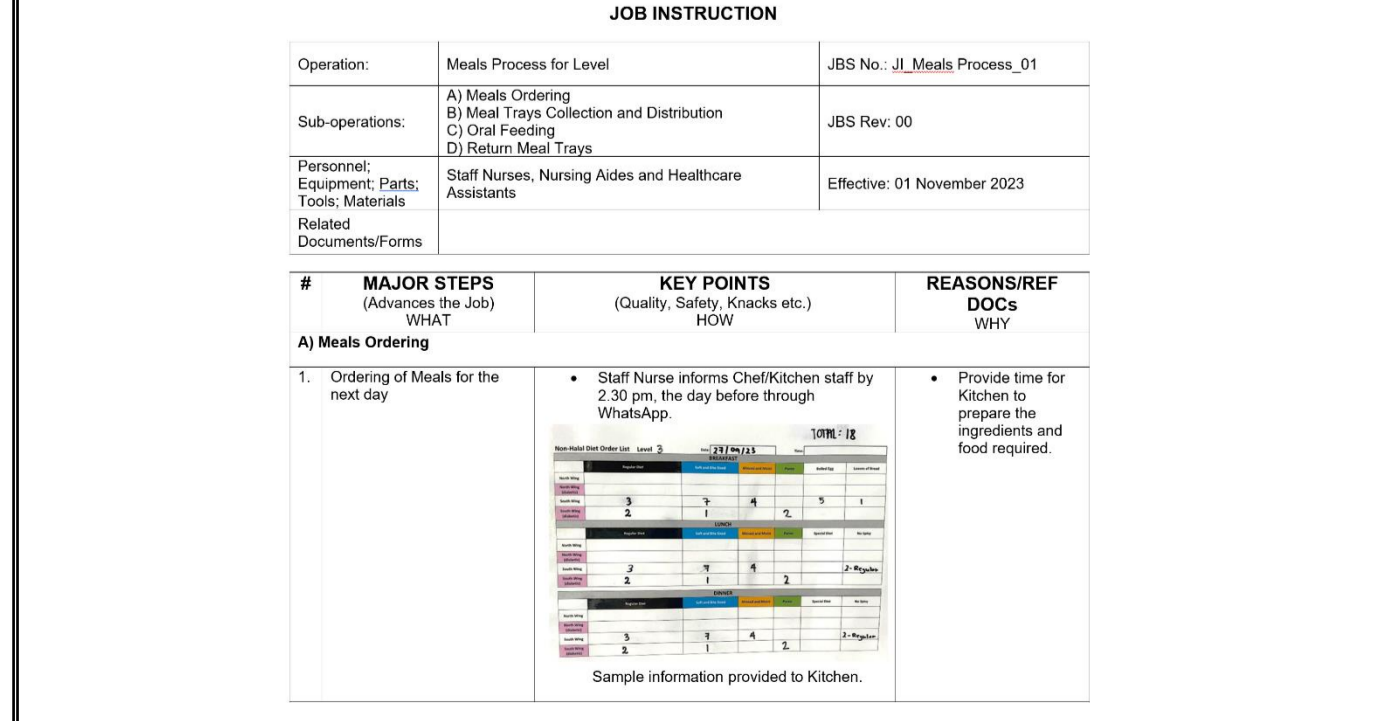

Figure 2: Job Instructions on Meals Process

Chef Partnership Program is an innovative initiative designed to elevate the standard of catering services in nursing homes.

The initiative focuses on menu innovation, staff training, workflow optimization, and resident engagement, creating a holistic approach to catering in the healthcare sector.

Menu Innovation and Nutritional Enhancement:
Develop a diverse range of dishes focusing on nutritional balance, tailored to meet specific dietary needs and preferences of residents.

Food Safety Enhancement:
Conduct in-depth food hygiene and safety training for all kitchen staff, with ongoing updates and refresher courses.

Kitchen Workflow Optimization:
Implement smart kitchen technologies for streamlined workflow and efficiency.

Staff Training and Development:
Offer specialized training sessions on advanced cooking methods, kitchen technology, sustainable cooking practices, and ergonomic techniques for staff well-being.

Resident Engagement:
Create interactive platforms for residents to contribute their ideas and preferences to menu planning, enhancing their dining experience.

Sustainability Integration:
Embed sustainable cooking practices and waste reduction strategies within daily operations.
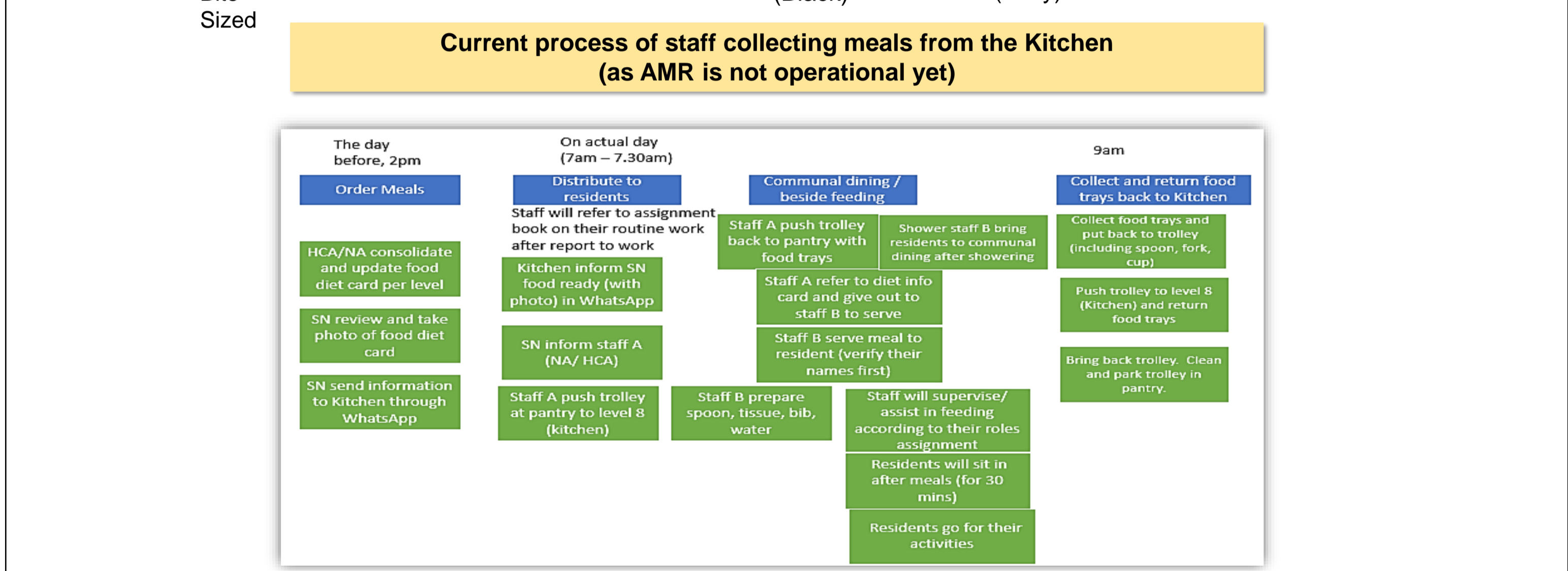
Meal Ordering and Distribution Process Improvement:
Redesign the meal distribution workflow for enhanced efficiency, ensuring meals are delivered in a timely manner and at the right temperatures.

Implementation Plan

BEFORE	AFTER
During Assisted Feeding Meal were served by the staff standing at the side of the resident.	During Assisted Feeding Care Staff seated facing front to the resident to ensure proper eating process while assisted feeding.
TV were switched on during meal serving.	TV were switched off to avoid distraction during mealtime (to prevent from choking).

Meal Trolley labelled according to different diet texture (IDDSI)	Separate Halal and non-Halal meal trolley	Diet List - for staff to refer and serve residents' meals correctly

Black – Regular Diet Blue – Soft and Bite Sized Orange- Minced and Moist Green – Puree Non-Halal trolley (Black) Halal trolley (Grey)

Current process of staff collecting meals from the Kitchen (as AMR is not operational yet)

Benefits/Results

Staff feedback (Qualitative)
- Reduce staff confusion during preparation, distribution and serving of meal.
- Staff better able to manage time when there is a well-defined routine.
- Meal routine is more organised and less hectic.
- **Chef Partnership Results**

	Pre-Program	Post-Program	Improvement
Q1. How would you rate the taste of the meals? (Is the food tasty? Is it too salty, sweet, bland or bitter?	2.75	3.70	**35%**
Q2. How would you rate the texture? (Too hard or too soft?, Is it easy to chew and swallow? Too sticky or watery?)	3.00	4.20	**40%**
Q3. How would you rate the variety of the meals? (Does service provider change the menu regularly or use the same dishes for a long period of time?)	2.75	4.10	**49%**
Q4. How would you rate the environment where you eat your meals? (How is the table cloth?. Is there any comfortable chair? Do you have friends to eat meals together?)	3.00	4.40	**47%**
Q5. How would you rate the overall quality of the meals? (Take consideration of taste, variety and texture altogether)	2.50	4.10	**64%**

Quantitative results
- There is no incidents of residents choking during mealtime till date
- Meal were provided correctly till date
- Time taken to from preparation till completion of mealtime estimated 45- 60 minutes.

Sustainability & Reflections

Sustainability
- To improve staff adoption of process and communication of JI to care staff
- Dissemination of the same standards to other floors
- Use of JI and infographics poster to train and remind the staff
- Gather feedback, review & refine process
- Improve staff awareness on benefits of process
- To further optimise staff time, plans to enable the daily meals process with the Autonomous Mobile Robots (AMR)

Learning from the project
- Establishing work process is important for work efficiency, enable new staff to settle in ward routine and corporation from resident.
- Work process must be developed by staffs to ensure ownership and practice.