

“Plate Wise, Platewise: *Rethinking Hospital Meals to minimize food waste*”

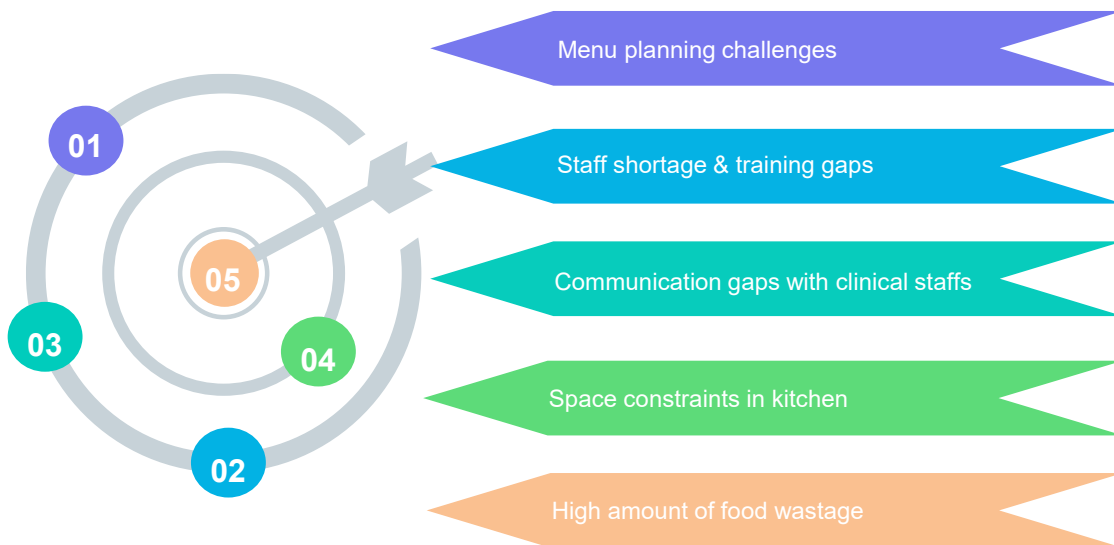


Introduction

The Food & Beverage team at BM Birla Heart Hospital plays a crucial role in supporting patient care by providing nutritious, hygienic, and diet-specific meals tailored to individual medical needs. Working closely with dietitians and clinical staff, the team ensures timely meal delivery while adhering to strict food safety and quality standards. In addition to patient meals, the department also manages staff dining and special dietary requirements. The team's primary focus is to promote healing, enhance patient satisfaction, and uphold the hospital's commitment to excellence in healthcare nutrition.

Challenges

Though the team strives to deliver its best, there are still a few Challenges within the department which includes the following



Problem Selection

Steps followed for Selection of the concern to work upon:

- Brainstorming sessions
- Daily work observations & feelings during work
- Monitoring data review (Food waste logs & kitchen reports)
- Feedback from staffs and patients
- Voting by project team members including Food & Beverage departmental staffs & Clinical Nutritionists
- Final consensus by project team

During team discussions and observations, food waste was identified as a recurring and concerning issue within the department. Its impact on cost, efficiency, and sustainability made it stand out among other challenges. As a result, it was chosen as the primary focus area for improvement.

Problem Definition

Hospital food waste refers to the disposal of uneaten or unused food that is prepared, served or ordered in healthcare settings. This includes food that is not consumed by patients, hospital staffs & visitors.



**Consequences of
wasting food**



Increased Operational Costs



Environmental Impact



Resource Inefficiency



Missed Opportunity to Help Others



Ethical Concerns

SMART Goals



S

SPECIFIC

Minimizing food waste
maintaining patient satisfaction



M

MEASURABLE

Reduction of 30%
daily food waste
Curtailment of
Waste cost by 50%



A

ACHIEVABLE

Through Training,
Digitalization &
Infrastructural
customization



R

REALISTIC

Sustainable
resource utilization
and financial
savings



T

TIME BOUND

Within 3
months



Food waste in hospitals is a significant issue, with studies showing that up to 40% of food prepared in healthcare settings goes uneaten. This wasted food could instead be redirected to help feed millions of malnourished children worldwide. In fact, about 9 million children die from hunger-related causes annually, a stark contrast to the food surplus thrown away in hospitals every day.

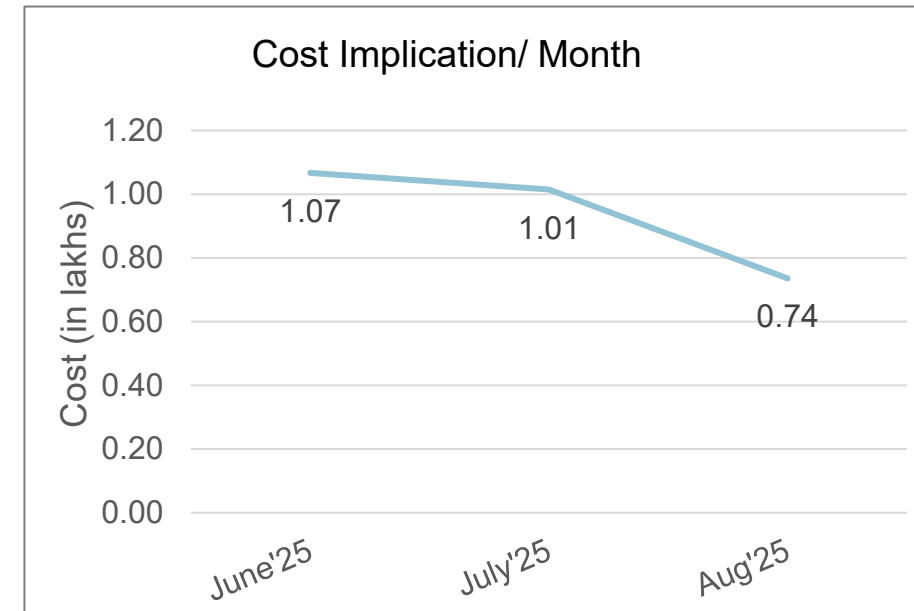
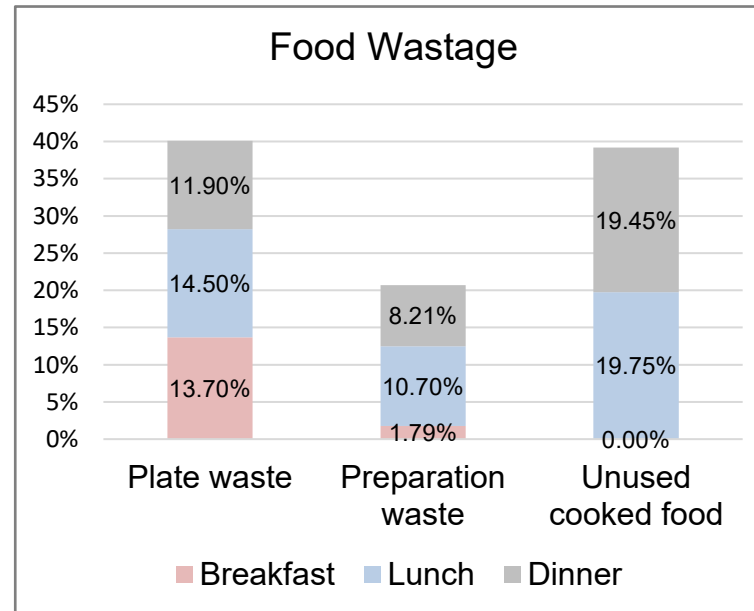
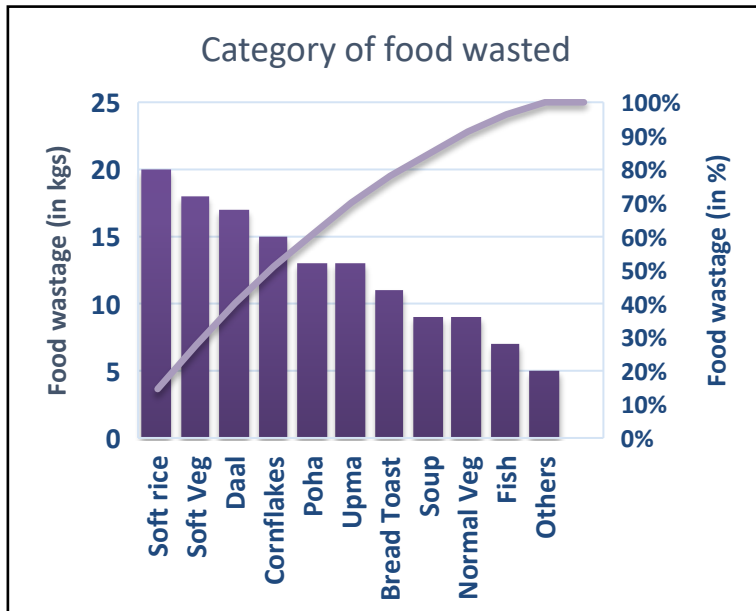
Baseline Data Analysis



Over the three month baseline (June'25 to August'25), 137 kg of food was wasted daily on average, enough to feed about 92 people



High food waste led to significant monthly cost losses, averaging about ₹0.92 lakhs per month



Problem Diagnosis

Avoidable

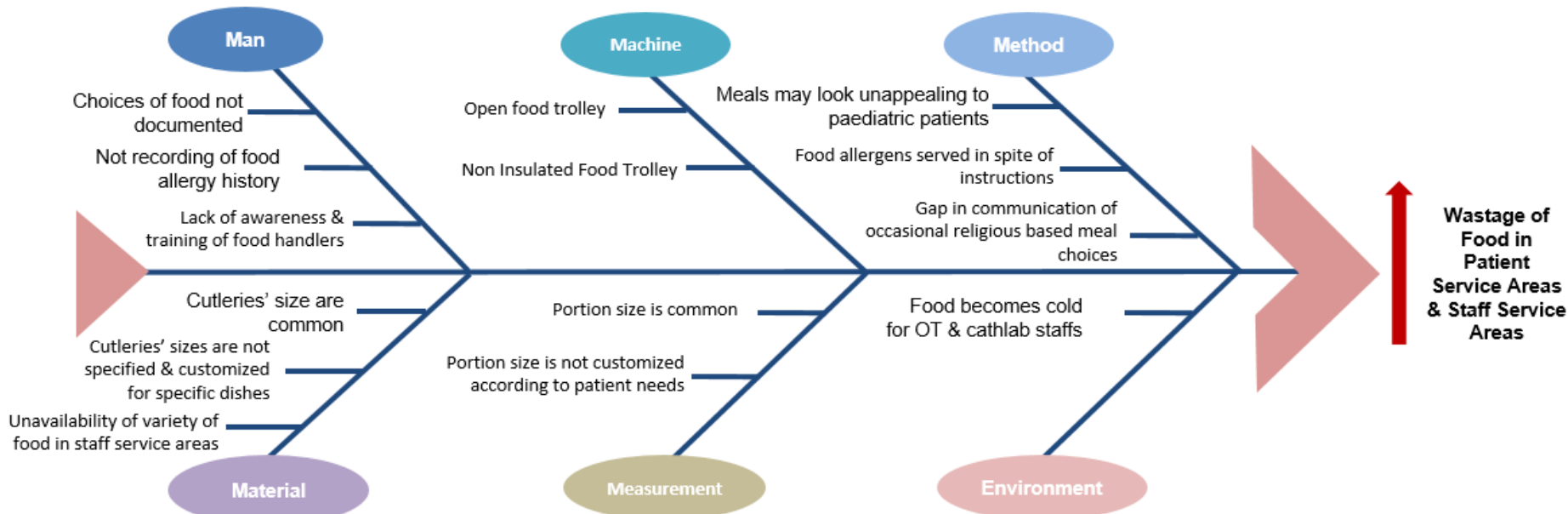
- Plate scrapings
- Leftovers
- Gone off fruit & vegetables
- Passed date items
- Damaged stock which cannot be used due to H&S issues, etc.

Potentially avoidable

- Bread crusts or heels made into bread crumbs
- Vegetable trimmings used for stock & soups
- Meat & fish bones used for stock
- Discarded butter for cooking
- Old fruits for jam & smoothies, etc

Unavoidable

- Banana skins
- Animal bones (before or after used to make stock)
- Unusable prep waste (e.g., potato peels with soil on them), etc






Methodology:

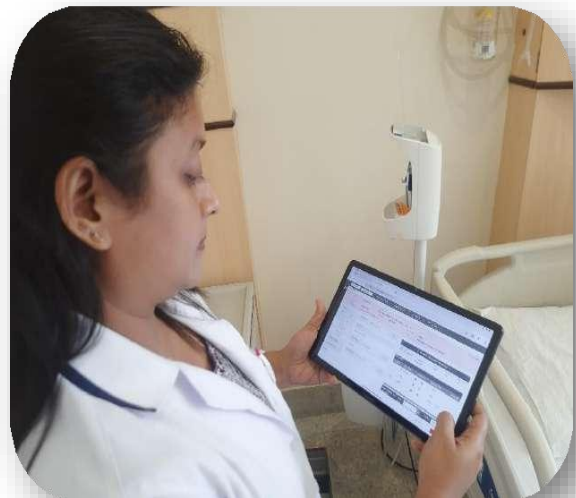
Root Cause Analysis has been performed using Fishbone diagram (Ishikawa Diagram) to identify the major contributing factors for food wastage

1 Training of F&B Staffs on Food Wastage Management



2 Digitizing Dietary Care: The "Paper to Pixels" Initiative

Challenges Before Implementing Module 	 What has been Digitised	 Outcome After Implementing Module
<ul style="list-style-type: none"> ● Inaccuracy & inconsistency of Data ● Challenges maintaining efficiency and time management ● Difficulty to access data and compromised integrity ● Difficulty in recording & retrieving data ● Communication barriers resulting obstacles to maintain patient safety. 	<ul style="list-style-type: none"> ● Nutritional assessment ● Diagnosis/clinical outcome ● Dietary advice ● Automatic calorific value calculation ● Alert generation (food allergy, category, dislike) ● Diet details ● Customised & printable colour coded meal tickets based on pt requirement 	<ul style="list-style-type: none"> ✓ Enhanced accuracy and efficiency ✓ Comprehensive patient records ✓ Improved patient safety ✓ Personalised and error-free meal service ✓ Streamlined food preparation and delivery ✓ Reduced food wastage



3

Initiative for food temperature control

Stainless Steel food trolley



Hot food trolley- CAMBRO made



4

Initiative for Controlling Portion Sizes

For Staffs



For Adult Patients



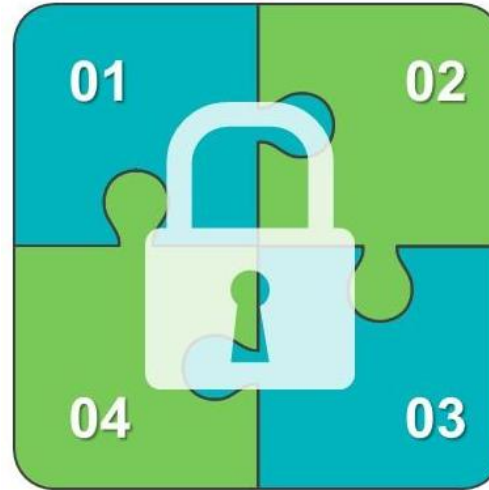
For Paediatric Patients



Locking the Improvement

Conduct regular audits to monitor and sustain improvements

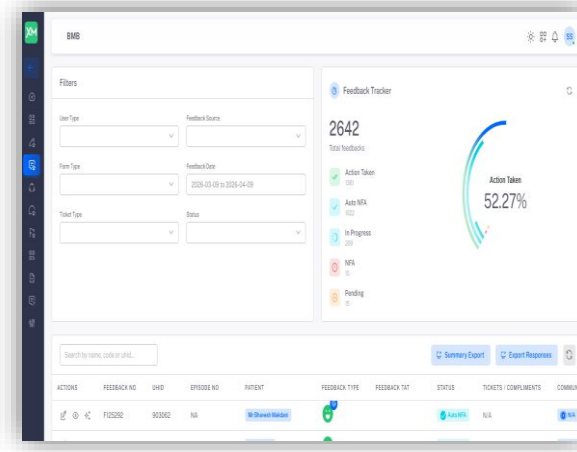
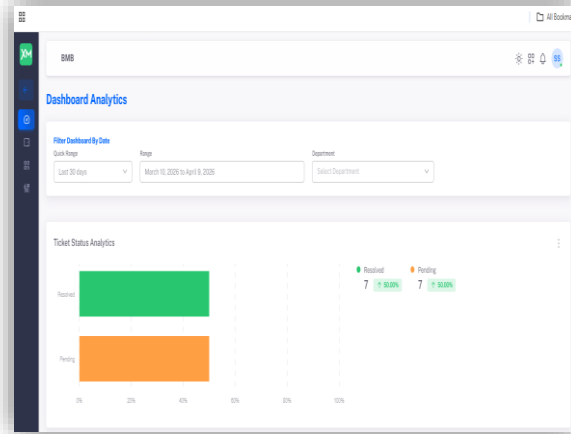
Provide continuous staff training to reinforce best practices



Implement structured feedback mechanisms for ongoing evaluation

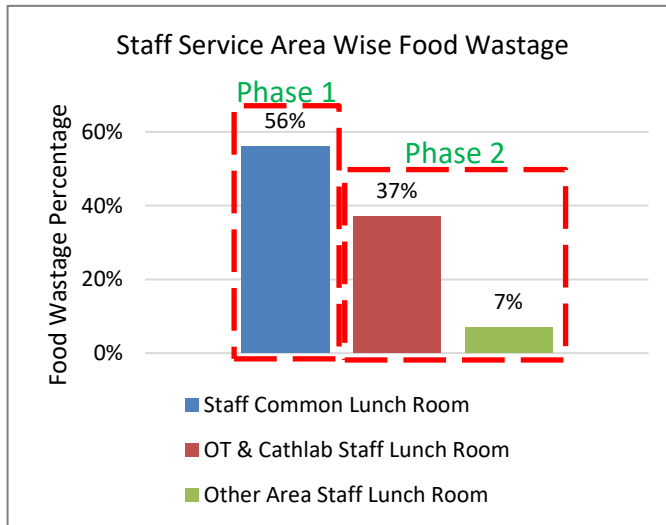
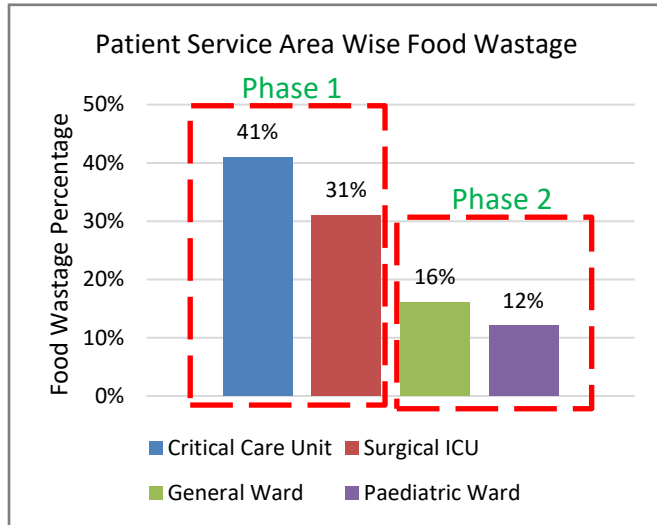
Ensure long-term sustainability through consistent monitoring and adaptation

EMR PERFORMANCE		MONTHLY WASTE AUDIT																			
DATE	WASTE	CAPTURED	KITCHEN WASTE					SARAGAR CLEANING CHECKLIST FOOD WASTE													
			WASTE	WASTE	WASTE	WASTE	WASTE	WASTE	WASTE	WASTE	WASTE	WASTE									
1	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	2.00	0	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Cloning the Improvements

Food waste quantity analysis was performed area wise for both staffs and patients and intervention was done accordingly



Patients

- Customized portion-controlled meals based on patient preferences
- Customized cutlery in general wards and critical care areas
- Attractive cutlery for paediatric patients to improve meal intake

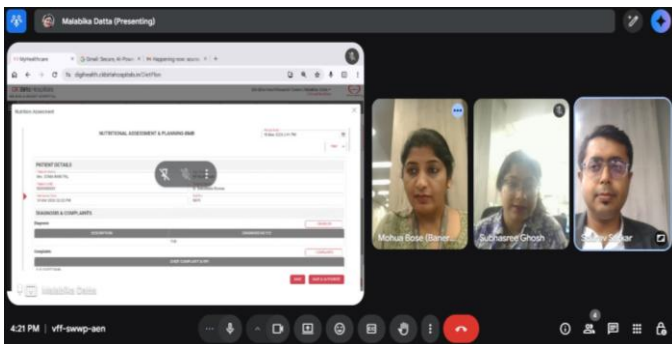
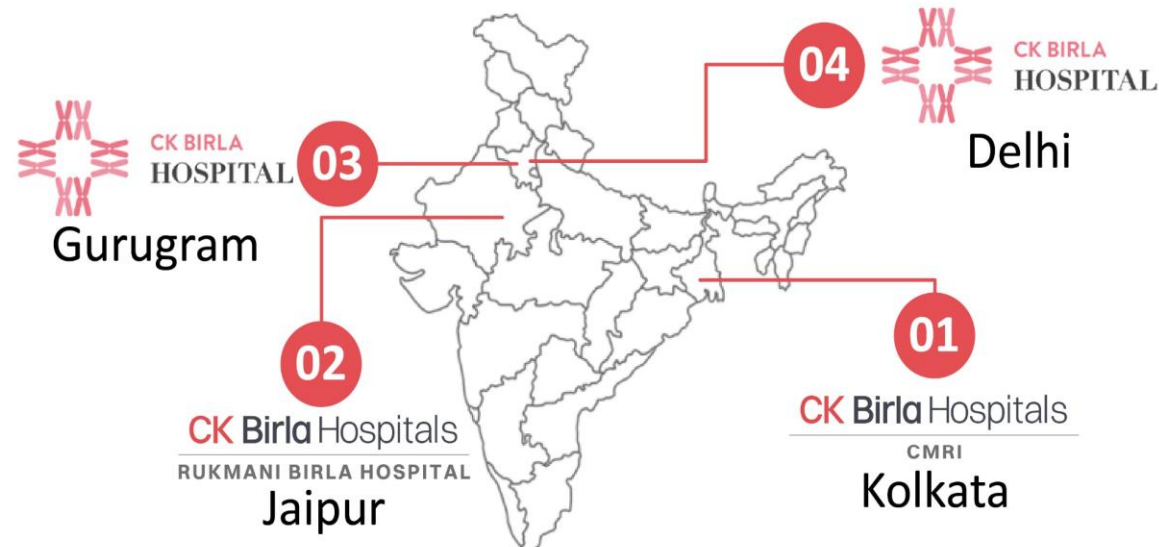
Staff

- Meals provided to OT & Cath Lab staff as per their convenience
- Portion-controlled meals in staff dining areas
- Staff encouraged to take only required quantities







Visitors

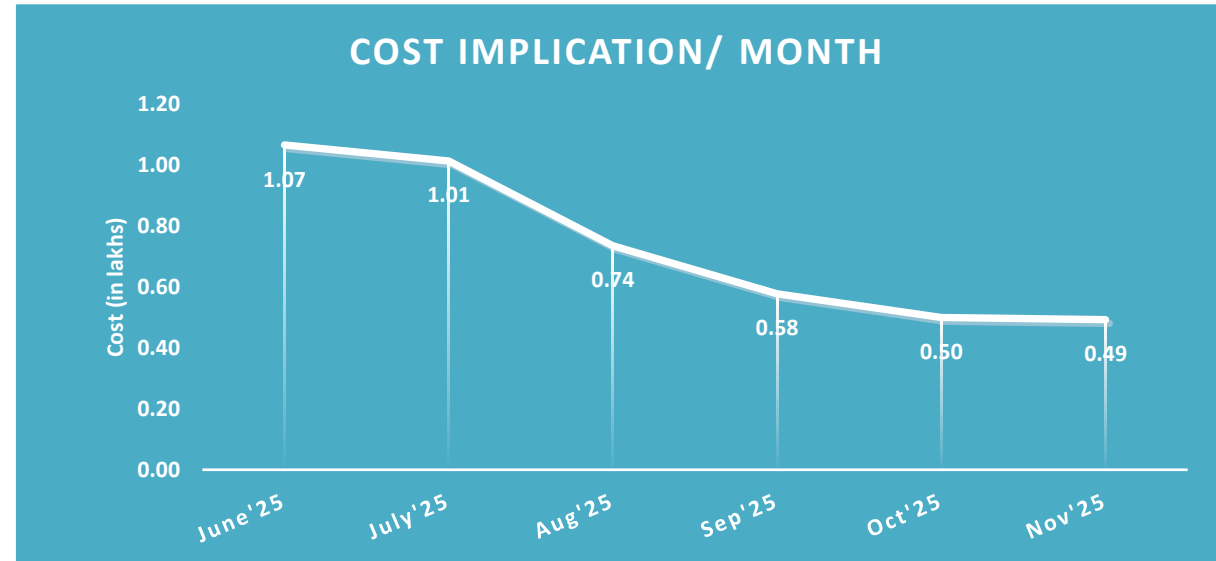
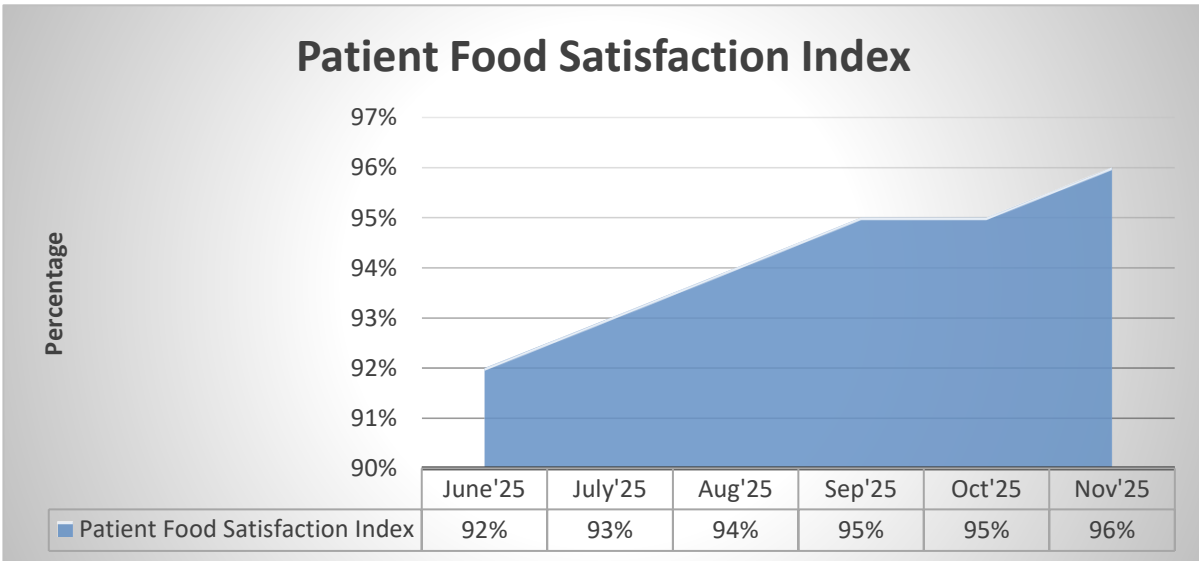
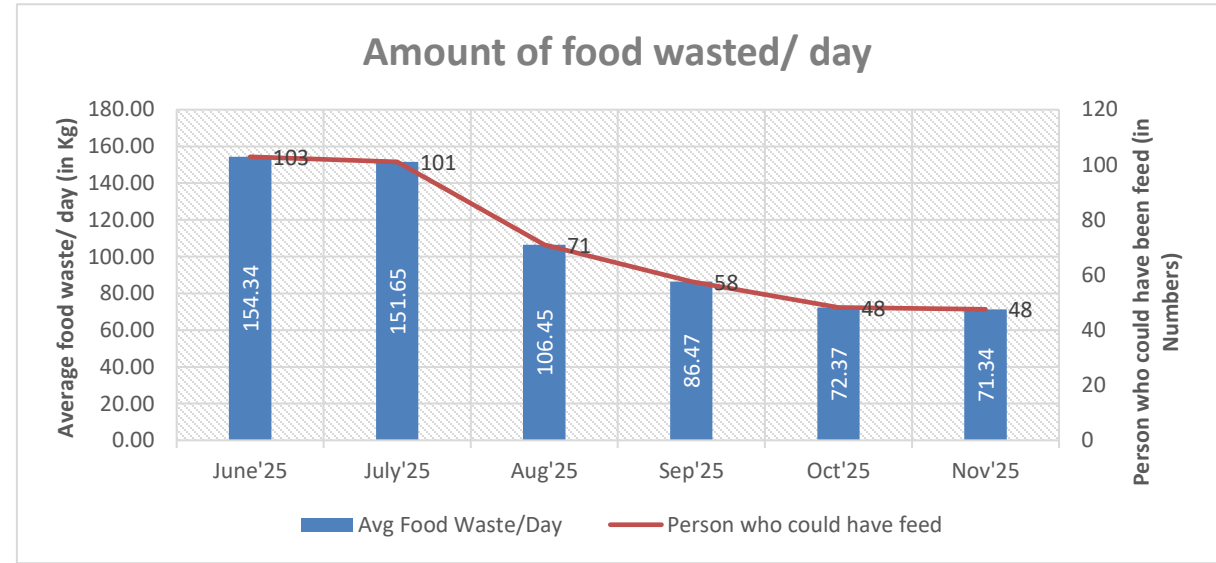
- Awareness messages to avoid food waste in visitor dining areas
- Controlled serving portions to minimize leftovers

Scaled across other CK Birla Group hospitals



Tangible Results

 <p>-53% Waste</p> <p>Food Waste Reduced 154 kg → 71 kg Daily reduction from June to November</p>	 <p>-54% Saved</p> <p>Monthly Cost Savings ₹1.07 L → ₹0.49 L Drastic reduction in waste-related costs</p>	 <p>+4% Index</p> <p>Patient Satisfaction 92% → 96% Food Satisfaction Index improvement</p>
 <p>100% Digital</p> <p>Digital Transformation Paper to Pixels Full transition to digital dietary management system</p>	 <p>Optimal Temp</p> <p>Food Quality Maintained CAMBRO Trolleys Insulated hot trolleys ensuring safe serving temps</p>	 <p>4 Cities</p> <p>Scaled Across Group CK Birla Hospitals Cloned to Delhi, Gurugram, Jaipur & Kolkata</p>



Intangible Results

Eco-Awareness



Staff embraced a culture of sustainability, recognizing that reducing food waste is part of caring for our planet.

01

Team Culture



Nursing, Dietetics, and F&B came together with one shared purpose - serving with care while wasting less

02

Hospital Reputation



The hospital emerged as a responsible community leader, showing that compassion extends beyond patients to the environment

03

Staff Morale



Employees felt a renewed sense of pride, knowing their daily actions respect food, effort, and resources - every grain matters

04

Patient Experience



Patients felt genuinely cared for through thoughtful portions and meals served hot, safe, and with dignity - bringing comfort at every mealtime

05

Social Impact



The initiative sparked awareness beyond hospital walls, inspiring conversations about food respect, security, and waste reduction for a better future

06



Feedback Response

Feedback Responses - F21763

How likely are you going to recommend CK Birla Hospitals to your friends and family ? 10

YOUR CONSULTANT	Excellent
YOUR NURSING CARE	Excellent
YOUR ROOM AND FACILITIES	Excellent
YOUR FOOD	Excellent
YOUR ADMISSION	Excellent
DISCHARGE	Excellent
ICU	Excellent

Would you like to mention any staff by name who gave especially good service and say what made them special?

Chef Somnath received apprecor yesterday custard and patient very much impressed for this including all staffs behavior. Also patient relative expressed that very efficient all the staffs.

Your overall experience [Quality of care at the hospital] 😊

[Read Less](#)

Feedback Response

Feedback Responses - F20252

The patient gave excellent feedback on the taste of the food, especially the Upma and Mixed Vegetables. The patient requested the recipes for these two dishes, and our Chef, Mr. Projesh, along with Kitchen Supervisor, Mr. Azim, personally met the patient and ensured the recipes were shared.

Can write the observation/complaint raised during rounds

How is your overall experience ? 😊

[Read Less](#)

Certificate No- FSSAI/2022/1006/10020

एक पूसएसएई
fssai
भारत में खाद्य सुरक्षा का प्रमाण

भारत के खाद्य सुरक्षा विभाग
MINISTRY OF HEALTH AND FAMILY WELFARE

**BM Birla Heart Hospital
Kolkata, West Bengal**

is certified as

**Eat Right
CAMPUS**

as per guideline established by
Food Safety and Standards Authority of India
for the period of 6 October, 2025 - 5 October, 2027

★★★★

FULL COMPLIANCE

Shri U. S. Dhyani
Executive Director, FSSAI

Implementation Partner: Kolkata Municipal Corporation
Auditing Partner: MS Certification Services Pvt. Ltd.
Training Partner: Food Safety Branch, Department of Health & Family Welfare, West Bengal

YOUR
LEFTOVERS
COULD BE
SOMEONE'S
MEAL TODAY



MAKE A DIFFERENCE

Thank You