



CASE STUDY Mayo General Hospital

Food Waste Prevention in Mayo General Hospital



Mayo General Hospital is a 265 inpatient bed acute hospital providing a wide range of inpatient and outpatient services including medical, surgical, A&E, maternity, dialysis, and oncology.

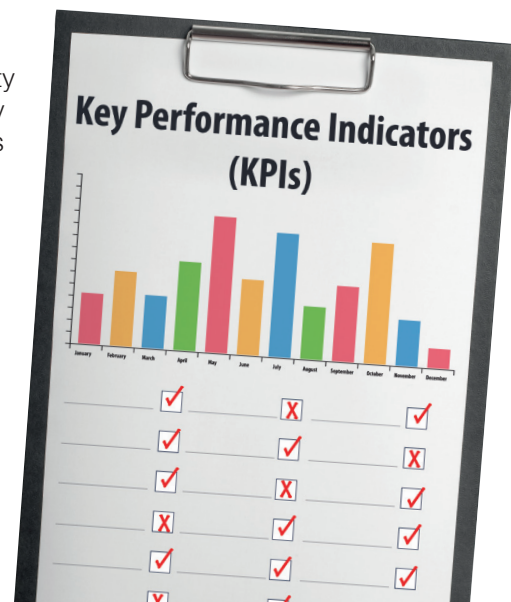
The Green Healthcare Programme (GHCP) undertook a detailed survey of the food provision system in Mayo General Hospital in 2010, with the hospital observed to have one of the lowest levels of food wastage of all the 22 facilities in which a food waste survey was undertaken.

This case study outlines the steps taken by the hospital to prevent and reduce the quantity of food waste generated in the provision of patient meals and staff and visitor meals in the public canteen.

Food provision system in Mayo General Hospital (MGH)

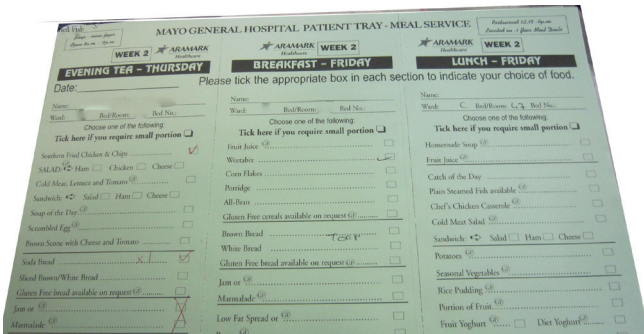
Food services in Mayo General Hospital (MGH) are provided by an external food contractor - Aramark Healthcare. When deciding to use an external private company to provide food services, the hospital wanted to ensure that nutrition and quality were not compromised for the sake of profit - a view shared by Aramark Healthcare. Thus, the food provision contract requires a number of key performance indicators (KPIs) to be met by the contractor. These include budget, nutrition requirement, waste generation levels and patient satisfaction. The continual monitoring, attainment, and reporting to management of these KPIs by Aramark Healthcare, ensures that the patients, visitors and staff of MGH are provided with an efficient, low food waste catering service.

MGH operates a cook chill system where food is prepared in the main catering kitchen, chilled and then provided in bulk containers to individual ward kitchens. The chilled food is heated to serving temperature in Burlodge trolleys and then plated to patient's requirements.



Key measures implemented by hospital

The system in MGH considers the minimisation of food waste throughout the different steps of food provision; from ordering of the food right through to the disposal of food waste following service.



Ordering of food - clear menus with meal size option

Surveys of patients in a number of healthcare facilities found that patients can quickly lose their appetite when presented with a large portion of food. This is particularly the case for older patients. The first choice to be filled in on the hospital's menu is the option of ordering a small portion. This option is highlighted in bold text to make it more obvious to patients. This ensures the patient gets the meal size they would like and that excess food is not provided.

Ordering of food - prevent miscommunication between the wards and main kitchen

Ward staff collect the menus from patients and compile the number of portions of each meal option that are required. A single staff member collects this information from all of the wards. This same member of staff communicates the orders to the chef and relevant staff in the main kitchen, and fills the ward trolleys with the required orders at each meal.

Provision of food - portioning of the main meal components

Hospital staff (catering and nutritionists) have undertaken considerable work to ensure that the correct meal size is provided to patients to meet their nutritional requirements, in line with national guidelines. Food provided in pieces e.g. chicken, fish, etc. can be bought in pre-prepared or prepared onsite to the correct size, but it can be difficult to ensure that the right sized portion of foods made in bulk e.g. casserole, cottage pie, etc. is provided. To overcome this the staff in the main kitchen, who are aware of the required portion size, pre-portion this type of food. Consequently there is no confusion for staff plating food in the ward kitchens.

Provision of food - providing only the number of portions required

In many of the facilities surveyed in the GHCP it was common to observe full trays of certain food, such as casserole, cottage pie, etc., being provided to wards, even when only a small number of portions had been ordered.

Many facilities outlined that this is unavoidable due to the limited size of containers available to fit ovens (only larger trays will fit the oven) and the excessive time that would be required to portion the food. MGH actively portions these types of meals and provides only the required number of portions to the wards in a smaller container. The hospital commented that the staff costs for the time required to portion the food is more than compensated for by the savings made in reducing the quantity of excess food prepared and consequently wasted.

Provision of food - ensure the right quantity of meal 'side' components is provided

The GHCP survey work has found that a large proportion of the meal side components provided e.g. potatoes, vegetables, chips, etc., is not served to patients and ends up as food waste.

MGH recognised this as a potential issue and has undertaken detailed work to determine the correct quantity of these foods that should be provided for each patient. Different sized containers were filled or half filled with the foods and weighed to determine how many portions were contained within. Based on the number of normal and small portions that are required, the staff member filling the food trolleys determines the number of portions of sides that is required, and provides the right sized container to the ward.

Condiment options on menu

The automatic provision of condiments (e.g. butter, marmalade) to patients can result in a significant number of condiments being unused. In general these condiments must be disposed of for infection control reasons, resulting in surprisingly large costs for facilities. To overcome this, MGH provides space in their menus for patients to outline what condiments they require.



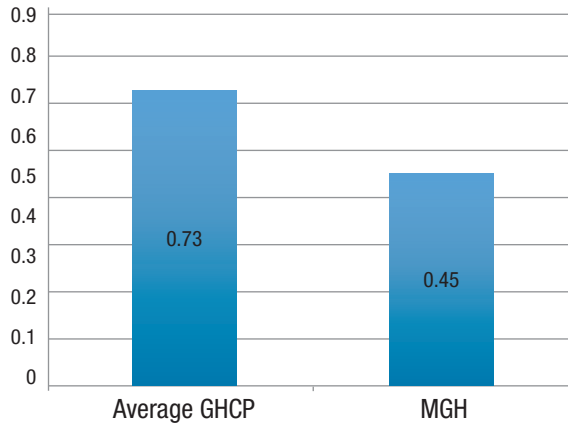


Results of the programme and comparison with the average acute facility

Information gathered through waste surveys carried out under the Green Healthcare programme

kg of segregated food waste produced per bed day

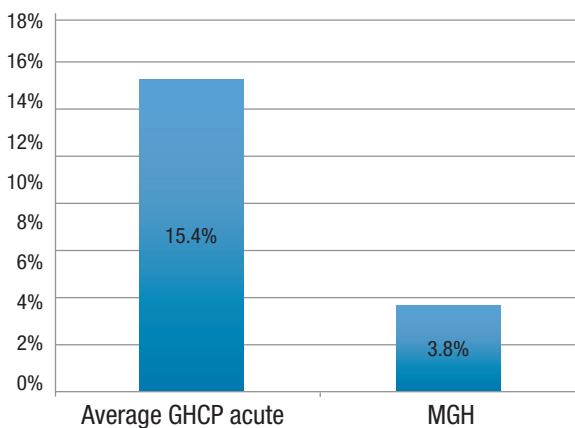
kg segregated food waste produced per bed day



The good practices implemented by MGH results in the hospital generating a low level of segregated food waste. MGH produced 0.28 kg less segregated food waste per bed day than the average GHCP acute facility. **This equates to estimated savings of 24 tonnes of food waste or cost savings of €48,000 per annum compared to the average acute facility.**

Level of food waste in general landfill waste bags

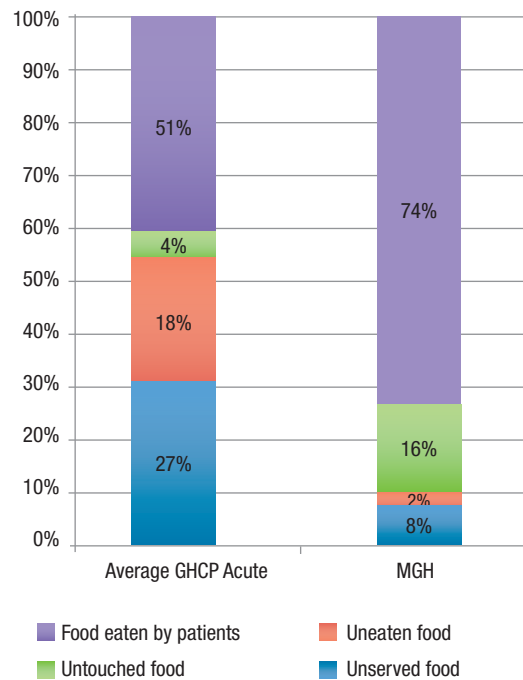
Level of food waste in general landfill waste bags



The contents of general landfill waste bags from across the hospital were reviewed to determine the level of food waste in the bags. Landfill waste bags from MGH contained 75% less food waste than the average GHCP acute facility. This indicates a high level of compliance with food segregation measures, as required under the Food Waste Regulations (2009).

Assessment of food provided to wards

Assessment of food provided to wards



An idea of how efficiently the food provision system is working, can be determined by looking at the quantity of food that is provided and the quantity of food that is disposed of as waste. Thus, the quantity or proportion of the food that is eaten by the patients can be determined.

26% of the food provided to MGH was disposed of as food waste, with 74% of the food eaten by the patients. In contrast 49% of the food provided in the average GHCP acute facility was disposed of as food waste, with only 51% of the food eaten by the patients.