



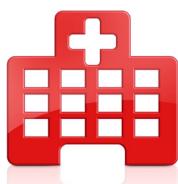
FACTSHEET

FOOD WASTE IN IRISH HOSPITALS

This factsheet shows the quantities and types of food waste generated in Irish hospitals. This information is based on a series of surveys carried out under the EPA's Green Healthcare Programme. The nature of a hospital setting is such that a certain amount of food waste is inevitable. However, the EPA's Green Healthcare Programme (GHCP) has found that there is always scope for some reduction in food waste amounts in hospitals, generating associated savings.

What is the cost of food waste in all Irish healthcare facilities?

Scaling the results of the programme for the number of beds available nationally, an estimate of the quantity, and associated cost, of valuable food waste generated per annum in Irish acute hospitals and PCCC facilities is as follows.



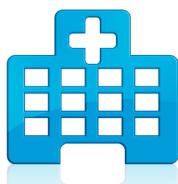
ACUTE



2,600 – 3,600 TONNES



UP TO €7.2 MILLION



PCCC



1,800 – 2,200 TONNES



UP TO €4.4 MILLION

A certain amount of food waste is inevitable in a hospital setting; the challenge for hospitals lies in identifying and implementing changes to try and realise some of these costs as savings.

The cost of food waste!

The price to buy a kilogramme of food varies from high values for meat and fish down to cheaper prices for the likes of porridge and bread. On average, the purchase cost of food is a minimum of €2 per kilogramme. In addition, there are costs associated with the storage, cooking and management of food.

Therefore, valuable food waste costs your facility a minimum of €2 per kg.





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Types of food waste

Certain types of food waste have no value, for example meat bones, onion skins, etc. However, much of it does have value, and this is the type of food waste which should be focussed on. It is referred to as Valuable Food Waste in this fact sheet. Valuable food waste is generated in both the service of patients and canteens. During surveys carried out under the GHCP valuable food waste was divided into three categories: unserved food, untouched food, and uneaten plate waste.



Unserved food waste - food provided in bulk, that is not provided to patients, and left in containers at the end of service. This food waste is usually disposed of straight from the container. Where bulk food systems are used the unserved food waste is generated in the wards. For centrally plated systems it is generated in the main kitchen.

Untouched food waste – this is plated food that was never touched or consumed in any part. For example, a patient is absent from the ward for a procedure, a patient is discharged, or a patient refuses a tray as feeling unwell, etc.

Uneaten plate waste - this is the food remaining on plates after a meal is finished.

Patient food delivery systems in Irish hospitals:

Bulk food supply -

food is prepared in the main kitchen and sent in bulk containers to the wards, where it is plated. This system can be operated with or without menus.

Plated centrally -

food is prepared in the main kitchen and plated in a central area. These plated meals are then delivered to the ward.

The food provided to the wards (in bulk or plated) can be hot or cook-chilled. Cook-chilled food is prepared a number of days in advance in the main kitchen and then chilled. The chilled food is then heated or regenerated in special ovens or trolleys in the wards.

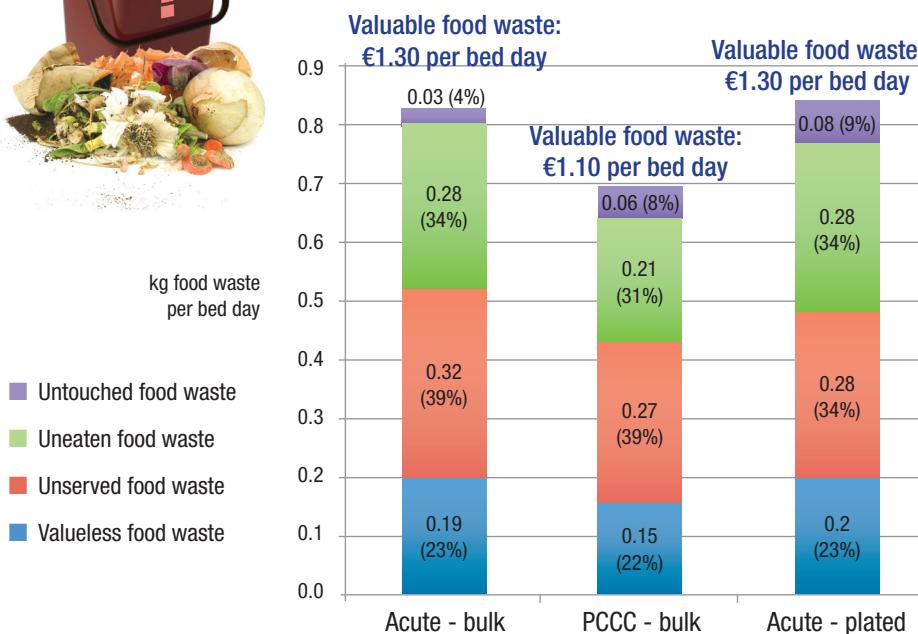


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How much food waste is generated in acute hospitals and Primary Community and Continuing Care (PCCC) facilities?



Looking at all of the facilities involved in the GHCP, the average Irish acute hospital generates approximately **0.73 kg food waste** per in-patient bed day, while the average PCCC facility generates approximately **0.77 kg food waste** per in-patient bed day.

As surveyed in 50% of all acute facilities.

Looking at the results of detailed food waste surveys undertaken in a number of the GHCP facilities (15 acute, 4 PCCC), it is possible to determine the quantity of each type of food waste generated. The average quantity of each type of food waste generated per bed day for each type of food delivery system is outlined in the graph to the left, along with the estimated cost of the valuable food waste.

How to read the graph above:

On average, bulk food systems in acute facilities generated 0.32 kg of unserved food waste, representing 39% of the total food waste generated. Uneaten food was generated in the next largest quantity with 0.28 kg of uneaten food waste generated per bed day, followed by valueless food waste representing 23% of total food waste. As expected, untouched food waste represented the smallest proportion of food waste, with 0.03 kg of untouched food waste generated per bed day.

Some key points to note from the graph:

- The bulk and plated systems generate a similar level of food waste, with the quantity of each type of food waste differing slightly between the two systems. The plated system generates a higher level of untouched food with the bulk system generating a higher level of unserved food. This variation is expected and explained with the example of a patient being absent for a procedure, with the kitchen not informed and adjusting accordingly. With the plated system food will not be eaten and be classified as untouched, while for the bulk system the food would not be plated and would be classified as unserved.
- PCCC facilities generated less food waste per bed day than acute facilities. Possible reasons for this include:
 - Smaller size of PCCC facilities - tighter stock control and ordering possible
 - Longer term occupancy of patients/residents - staff develop a knowledge of what patients can and will eat.
 - Type of treatment offered – at meal times patients/residents are less likely to be absent at a procedure or fasting.



Note: while the vast majority of hospitals now segregate their food waste in line with the Food Waste Regulations, a portion of food waste can still be found in the general waste. The GHCP has found in acute hospitals, on average, 15% of the general landfill waste was comprised of food waste, with the value increasing to 17% for PCCCs. The values quoted in this factsheet are for segregated food waste only. If you considered the quantity of food waste disposed of in the general waste, then the potential savings are even higher!



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How much of the food that is provided to wards is eaten by patients?

By measuring the quantity of food provided and the quantity of each type of food waste generated, it is possible to determine what proportion of the food provided is eaten by the patients. The average proportions for each of the food delivery systems are outlined below.

The figures below show that between 37% and 49% of the food prepared for and provided to patients is not eaten. By ensuring that the right amount of food is prepared and provided to patients, it is possible to reduce the quantity of food waste generated.

