



Hospital food waste and portion sizes

– An evaluation of patient meals on a medical ward

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For more



information

724 g

=
Amount of food delivered per patient

414 g

=
amount of food eaten per patient

310 g

=
amount of food not eaten and wasted per patient

Background

Tons of hospital food is being thrown away annually around the globe. Food waste programs are becoming a top priority for numerous hospital administrations. Other than the substantial financial costs, food waste results in patients not getting the food they were intended to. Rather than just thinking of food as a service, hospitals are starting to consider nutrition as part of treatment.

In 2013 a nutritional research study was initiated on a medical ward at Landssjúkrahúsið – the National Hospital of Faroe Islands. The study is called “Kostverkætlanin á B6”. The study evaluates whether an improved food service including an increase in energy density has any effect on nutritional status and outcomes of hospitalized patients. The prevalence of disease-related malnutrition in patients is high; many patients do not meet individual nutritional requirements while hospitalized. No previous studies of nutritional status have been conducted in Faroe Islands.

Aim

To better understand the reasons for inadequate nutritional intake, this study evaluates portion sizes and waste of hospital food. The results will indicate what changes are needed in the food service system during phase 2 of “Kostverkætlanin á B6”.

Materials and methods

The study of food waste was carried out during five consecutive days on one medical ward.

- 1 During the study period, the amounts of food produced at lunch were weighed and nutrient composition was calculated.
- 2 On return from the ward, food waste was weighed and recorded by kitchen staff.
- 3 The amount of food eaten per patient was compared to the portion sizes that were produced in the kitchen.

Results

During the study period of five days data was collected from 76 patient meals:

- A total of 91 lunch servings were ordered by the ward, of which 76 were served to patients.
- In total, 53% of the food produced by the kitchen was wasted.
- A mean of 724 ± 40 g of food per patient per lunch meal was produced by the kitchen. One portion accounted for a mean of 730 kcal and 20 g of protein per day.
- A mean of 414 ± 91 g (57%) was eaten per patient, which accounted for an average of 417 kcal and 11 g of protein.
- The amount of food served, but not eaten and thus wasted was 310 g (43%) per patient.

Conclusions

The standard lunch serving sizes produced by the kitchen provide adequate amounts of energy and protein. However, most patients did not consume complete meals and a great proportion of food was wasted. As a result the patients are not meeting their recommended intake. It may be concluded that the calculated portion sizes

are too large and need to be adjusted. The energy density of the food needs to be increased accordingly. Following this study portion sizes have been reduced to a mean of 621 ± 43 g. Once additional improvements in the food and catering service have been implemented, food waste will be investigated once more.

