



WALES **AUDIT** OFFICE
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Hospital Catering and Patient Nutrition



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I have prepared this report for presentation to the National Assembly under the Government of Wales Act 1998 and 2006.

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**Report presented by the Auditor General for Wales to the
National Assembly for Wales on 24 March 2011**



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Summary

- 1 Hospital catering services are an essential part of patient care. Good-quality, nutritious meals play a vital part in patients' rehabilitation and recovery, and limit the unnecessary use of nutritional supplements. Hospital catering services should be cost effective and flexible enough to provide a good choice of nutritious meals that can accommodate patients' specific dietary requirements and preferences.
- 2 Effective hospital catering services rely on sound planning and co-ordination of a range of processes involving menu planning, procurement, food production and distribution of meals to wards and patients. Many staff groups are involved in meeting the nutritional needs of patients. In addition to the catering service staff who procure and prepare the food, nursing and medical staff play vital roles in assessing and monitoring the nutritional status of patients. Dieticians need to be involved in menu planning and in providing expert guidance and treatment for patients with dietary and nutritional problems. Speech and language therapists also have an important role in assessing and monitoring patients with swallowing difficulties and other associated complications. Effective co-ordination and communication between these staff is therefore an essential part of ensuring patients receive the nourishment they need in hospital.
- 3 The importance of good nutrition in supporting patients' recovery has been recognised in a number of Assembly Government initiatives and documents over the last decade (see [Appendix 1](#) for details). The most recent of these initiatives is the *Hospital Nutritional Care Pathway*, which was accompanied by the development of an all-Wales food chart to record food and beverage intake. These initiatives support the 2003 Council of Europe Resolution on Food and Nutritional Care in Hospitals¹ ([Figure 1](#)).
- 4 Work by the Audit Commission in Wales in 2002² found that there were some encouraging examples of good practice in relation to hospital catering, such as developing tools to assess patients' dietary needs, involving dieticians in menu planning and introducing flexible ward-based catering services. However, the good practice that was observed needed to be replicated more widely. It was rare to find hospitals systematically screening patients to identify nutritional needs on admission, minimising interruptions at mealtimes, using standard costed recipes to ensure consistency of quality and cost and agreeing the level of contribution to catering budgets from non-patient catering services.

1 Resolution ResAP (2003)3 on Food and Nutritional Care in Hospitals (Adopted by the Committee of Ministers on 12 November 2003 at the 860th meeting of the Ministers' Deputies) <https://wcd.coe.int/ViewDoc.jsp?id=85747>

2 Audit Commission in Wales, *Acute Hospital Portfolio – A review of national findings on catering*, March 2002



Figure 1

10 key characteristics of good nutritional care

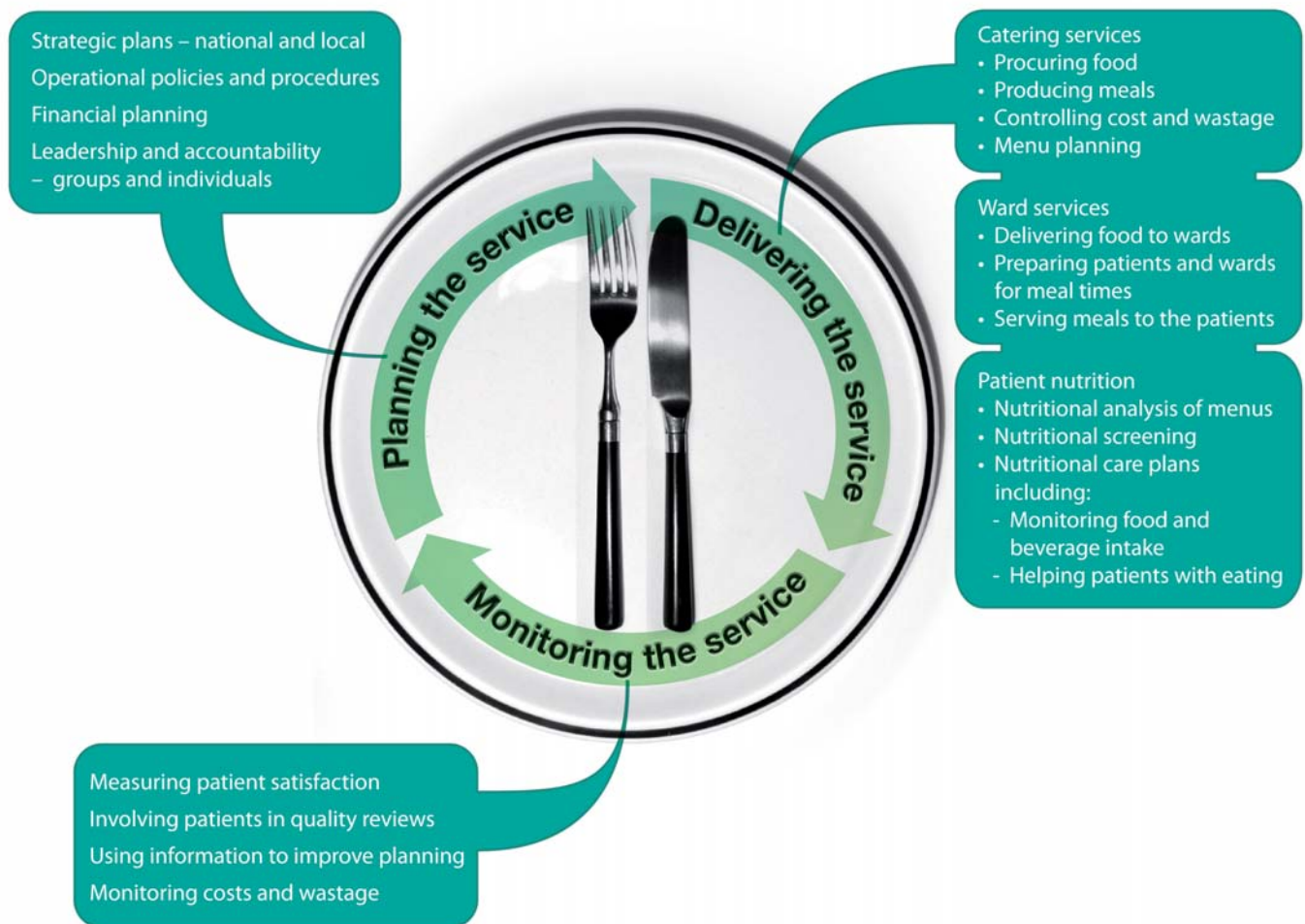
- 1 All patients are screened on admission to identify those with significant nutritional problems or at risk of nutritional problems. All patients are re-screened weekly.
- 2 All patients have a care plan, which identifies their nutritional care needs and how these are to be met.
- 3 The hospital includes specific guidance on food services and nutritional care in its Clinical Governance arrangements.
- 4 Patients are involved in the planning and monitoring arrangements for food service provision.
- 5 Protected mealtimes are implemented to provide an environment conducive to patients enjoying and being able to eat their food and all staff and departments respect protected mealtimes.
- 6 All staff have the appropriate skills and competencies needed to ensure that patients' nutritional needs are met and all staff receive regular training on nutritional care and management.
- 7 Hospital facilities are designed to be flexible and patient centred, and to provide and to deliver an excellent experience of the food service and nutritional care, 24 hours a day, every day.
- 8 The hospital has a policy for food service and nutritional care, which is patient centred and performance managed in line with governance frameworks.
- 9 Food services and nutritional care are delivered to the patient safely.
- 10 The hospital supports a multi-disciplinary approach to nutritional care and values the contribution of all staff groups working in partnership with patients and users.

Source: Council of Europe Resolution, *Food and Nutritional Care in Hospitals*, 2009 [accessed <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59865>]

- 5 Since the Audit Commission in Wales report was published, Welsh Health Estates (WHE) have produced annual performance data on catering services and other facilities management issues across NHS Wales. Year on year this information has highlighted significant variations between hospitals in the daily costs of feeding a patient, and continued problems with food wastage. The WHE data also suggest that the roll out of recognised good practice, such as protected mealtimes, costed menus and nutritional analysis of menus, is patchy.
- 6 We therefore undertook a review of hospital catering and patient services as a follow-up to the original work by the Audit Commission in Wales. We examined whether Welsh hospitals provide efficient and effective catering services that meet recognised good practice. Our audit approach examined each of the key areas involved in the planning, delivering and monitoring of hospital catering services (Figure 2). Further details on our approach are provided in Appendix 2.
- 7 Our overall conclusion is that catering arrangements and nutritional care provided to patients have generally improved since the Audit Commission in Wales study in 2002, and patient satisfaction remains high. However, more still needs to be done to ensure recognised good practice is more widely implemented, particularly in relation to nutritional screening and care planning, and to ensure that food wastage is minimised.
- 8 This report groups our findings into the following areas:
 - a part one examines how well patients' nutritional needs are identified;

- b part two looks at menu planning, the arrangements for ordering patients' meals, patients' mealtime experiences and patients' overall satisfaction with the food they receive;
 - c part three of the report looks at the overall costs of hospital catering; and
 - d part four looks at the progress that has been made in developing clear national and local frameworks for planning and delivering catering services.
- 9 The audit included a survey of patients' experiences of hospital catering arrangements. A total of 694 responses were received and the findings are referred to throughout the various sections of this report. **Appendix 3** provides further information on what patients told us about hospital food.

Figure 2 – The hospital catering process



Source: Wales Audit Office



Patients are typically screened for nutritional problems but the quality of nutritional screening can be improved

Nutritional screening has improved but important information is often missing

- 10 Research has indicated that as many as one in three adult patients admitted to hospital is malnourished. Nutritional screening should be undertaken on admission and is a quick and simple procedure for identifying patients with nutritional problems, or those at risk of such problems. Nurses should weigh patients and assess them for any recent weight loss, as well as their ability to eat and drink safely. Then a clear plan of action should be implemented for patients identified with, or at risk of, nutritional problems.
- 11 We examined the casenotes of 291 patients across 23 Welsh hospitals and in all cases we found that some form of nutritional screening had occurred. However, in one in ten cases a nutritional screening tool was not used and as a result a risk score was not calculated. Important measurements and information like weight, height, recent weight loss and appetite were often missing. The audit identified a number of reasons for this, including ward staff not having access to appropriate equipment and a lack of refresher training in how to use the screening tools or assessment documentation.
- 12 Importantly, none of the information gleaned from nutritional screening is used by NHS organisations to fully appreciate the number of patients admitted with nutritional problems, the effectiveness of the nutritional care pathway in improving nutritional health and the impact this is having on providing catering and nutrition services.

Too many patients identified with nutritional problems do not have a care plan in place and are not referred for further dietetic assessment

- 13 Nutritional screening should result in a plan of care to ensure that patients receive the nutritional care they need. We found that just over half (52 per cent) of the patients identified with nutritional problems did not have a care plan in place. Moreover, less than half the patients (47 per cent) identified with, or at risk of, developing nutritional problems were referred to a dietician.
- 14 Patients identified at low risk of nutritional problems on admission should be weighed and re-screened weekly to ensure that their nutritional status has not changed. However, we found that this did not always occur and when re-screening did occur, information recorded was often of insufficient detail to enable changes in nutritional risk to be properly assessed.

Recording food intake for at-risk patients is not always carried out

- 15 It is important to monitor and to record the food and beverage intake of patients with nutritional problems. The Assembly Government rolled out the all-Wales food charts at the same time as it introduced a nutritional care pathway. This means that wherever patients are hospitalised, nursing staff should record all the food and drink consumed throughout the day in a systematic and consistent way.
- 16 Although nursing staff actively monitored what patients consumed, we found on some wards that food charts were not always completed, and in some instances nursing staff relied on patients telling them what they had eaten in order to complete the food charts.

Most hospitals provide an appropriate choice of meals and patients are generally satisfied with the food they receive, but the nutritional assessment of menus and patients' mealtime experiences need to improve

Most hospitals provide patients with an appropriate choice of meals but not all menus have been nutritionally assessed

- 17** Most hospitals we visited had menus that provided patients with an appropriate choice of food. We also found that dieticians were involved in menu planning at all hospitals. However, despite this dietetic involvement, not all hospital menus have been nutritionally assessed to ensure that they have the appropriate nutritional content to meet patients' needs.
- 18** Standardising the menu within a health board should make it easier to procure food at the most competitive price and to cost recipes, and ensure patients receive the same quality of food, wherever they are. Currently only three health boards use a standard menu across all their hospitals. The remainder still use the different menus and recipes inherited from their predecessor NHS trusts.

There is scope to improve meal ordering systems at a number of hospitals

- 19** NHS bodies use a range of meal production methods and different models of service delivery to the wards. In all organisations visited, the process for recording patients' meal choices was paper based, which is often time consuming and resource intensive.

- 20** Whilst most patients received the meal they ordered, we found on some wards we visited, patients were not always able to choose their own meals. This was either because they were not given the opportunity to complete a menu order form, or because ward staff ordered food on the patients' behalf. Consequently, we saw some patients given meals that were unsuitable for their needs or preferences. Whilst some hospitals need to fundamentally review their ordering systems, in many cases better communication between nursing and catering staff could improve ordering processes and promote better choice of food for patients.

The majority of patients are satisfied with the food they receive but many patients indicated that snacks were unavailable between meals

- 21** Most patients responding to our survey are generally satisfied with the food they receive in hospital. More than half (55 per cent) told us that the food they received was good or excellent and another 27 per cent said the food was acceptable.
- 22** Most hospitals have arrangements in place to provide snacks and several have implemented snack menus. However, procedures for ordering snacks can vary between hospitals within the same health board. Ward sisters/charge nurses were confident that the arrangements for ordering snacks met the needs of their patients, but responses from our patient survey highlighted a less positive picture. Three-fifths of respondents reported that snacks were rarely or never available. This suggests that the present arrangements are not working well, either in terms of provision of snacks, or awareness of their availability.



The environment in which patients eat their meals has improved substantially

- 23** Even before food arrives on the ward, it is important that staff prepare the ward environment so that it encourages patients to eat their meals. Most patients eat their meals in or beside the bed with only a small number given the opportunity to eat their meal in a communal environment, mainly because facilities are unavailable to do this.
- 24** In 2002, the Audit Commission in Wales found many patients eating meals surrounded by waste, such as unemptied bedpans, and other clutter on bedside tables, which was not only unpleasant for the individual patient but often affected other patients nearby. This has improved substantially with most wards taking active steps to remove clutter from bedside tables before each mealtime. Nearly all patients (94 per cent) responding to our survey told us that the area where they ate their meals was always clean and tidy or clean and tidy most of the time.

The principle of protected mealtimes is becoming increasingly embedded but more could be done on some wards

- 25** Protected mealtimes³ are an important part of creating a ward environment that encourages patients to eat and enjoy their meals. All NHS organisations in Wales have established protected mealtime policies. Auditors observed a high level of commitment to protected mealtimes amongst most ward staff, many of whom who were not afraid to challenge doctors, ambulance crews, visitors and others if they entered the bedside area or interrupted patients unnecessarily during mealtimes. However, our ward visits showed that compliance with these policies can be

quite variable with mealtimes coinciding with a number of other activities, such as cleaning, medicine rounds, physiotherapy treatment and pharmacist reviews, as well as some patients leaving the ward for diagnostic tests.

Not all patients get the help they need at mealtimes

- 26** During our ward visits, we observed good examples of ward staff helping patients get ready for mealtimes. However, of those patients responding to our survey who needed help to get comfortable before eating, fewer than half received the help they needed.
- 27** Three-quarters (76 per cent) of patients who told us that they needed help to eat their meal, always received this help, from either nursing staff or friends and family. However, a few patients told us that they had to wait too long for help once they had received their meal. A small number of patients also told us that they needed aids for eating, such as adapted cutlery, plate guards and non-slip mats, but these were not always available.
- 28** A red-tray system⁴ is used in most hospitals to quickly identify patients who need extra help at mealtimes because of difficulties with eating or simply because they are not eating enough. The system depends on nursing and catering staff understanding and communicating with each other about what is needed when operating the red-tray system and a few examples were noted of where the system did not work as well as intended because this communication had not happened. On wards where the red-tray system was not in use, nursing staff had often introduced some innovative practices to identify patients needing help. The advantage

³ Protected mealtimes are periods when all non-urgent clinical activity stops on hospital wards to allow patients to eat their meals without unnecessary interruptions, and when nursing staff are able to provide assistance and support to people needing help with eating.

⁴ The red tray draws the attention of ward staff to patients needing help, ensuring that meals are not taken away from patients prematurely and that food intake is monitored and recorded.

of some of these alternative systems was that they remained at the patients' bedside permanently (rather than just being used at mealtimes) and made other staff, like doctors, aware of nutrition problems without the need to refer to patients' notes.

A clearer management focus on the costs of catering services is needed to better understand the variations that exist across NHS organisations and to reduce food wastage, which remains unacceptably high on many wards

Financial information on catering services is typically poor and where it exists it shows significant variations in costs within and between NHS organisations

- 29 The 2002 report by the Audit Commission in Wales highlighted the need to improve the quality and availability of financial information on catering services. However, there is little evidence to indicate that improvements have been made.
- 30 In 2002, the Assembly Government introduced the Estates and Facilities Performance Management System (EFPMS) as a means of providing comparative information to the service on a range of NHS estate and facilities data. Welsh Health Estates, who manage the EFPMS, have had longstanding concerns regarding the accuracy, consistency and reliability of some of the data submitted to them.

- 31 Given these concerns, we collected our own data on catering costs. Whilst most NHS bodies were ultimately able to provide the financial data required, it was not a straightforward process and most NHS organisations needed to re-submit their financial data at least once to correct inaccuracies. The cost of catering services across the hospitals we visited varied widely with the cost of patient catering services per patient day ranging from £5.99 to £17.54. The differences in catering costs are not easily explained by different service models, although costs are higher where hospitals deploy ward-based catering assistants. We also noted significant differences in provision costs between hospitals, which may be associated with menu content and production methods, although more work needs to be done to understand these differences. Interestingly we found there was no clear relationship between the amount spent on patient food and patient satisfaction scores.

Non-patient catering services are being subsidised, in most cases unknowingly

- 32 Hospitals generally provide catering services for staff and visitors and the income generated from these non-patient catering services, together with that from hospitality and vending machines, is generally used to offset overall catering costs. No NHS body in Wales had developed a policy on subsidies for non-patient catering services, nor did NHS bodies have an agreed approach to the contribution of income in offsetting catering costs at each hospital, or collectively across the organisation.



33 Our data show that the cost of non-patient catering services at acute hospitals in Wales was £12 million in 2009-10. However, the total income generated by these hospitals was enough to recover only 80 per cent of these costs. This equates to a subsidy of around £2.5 million – the equivalent of spending an extra £0.92 per patient per day on patient catering services. Whether non-patient catering services should be subsidised is a decision for individual NHS organisations to take. Although in the current financial climate it could be reasonably expected that non-patient services should at least break even.

Levels of food waste remain unacceptably high on many wards

34 Reducing the food waste is important in controlling the costs of hospital catering services. Data collected by WHE suggest that eight per cent of all patient meals produced were unserved. However, on the wards we visited we found that waste levels from unserved meals were much higher at around 15 per cent, with big variations between wards and hospitals. It is not clear why there should be such a difference in waste rates between our findings and those submitted to WHE, although local definitions of what constitutes an unserved meal are likely to play a part.

35 The cost of unserved meals on the wards we visited was approximately £1.5 million. If these wards reduced unserved meal wastage to the best performing wards in our sample, savings of over £758,000 could be achieved. We also observed significant levels of plate waste. Although difficult to quantify, reducing plate waste from food left uneaten

on patients' plates has the potential to generate further substantial savings. While it is not practical to reduce food waste to zero, appropriately challenging targets should be set as a means of focusing management attention on the problem.

More work is needed to develop clearer national and local frameworks for planning and delivering catering services, and ensuring that these are informed by the views of patients

The Assembly Government has developed a number of policy initiatives aimed at improving hospital catering and patient nutrition

36 The Assembly Government has clearly recognised the importance of catering and nutrition as an essential part of the care patients receive in hospital. Over the last decade, there have been several policy initiatives aimed at improving hospital catering and patient nutrition.

37 Most recently, *Doing Well, Doing Better – Standards for Health Services in Wales* were published. The new standard for hospital food now brings together the nutritional care pathway and the hospital nutrition and catering framework. However, the framework, published in 2002, has not been revisited and needs to be brought up to date to fully reflect recent NHS policy initiatives, the new structures in Wales and the Council of Europe Resolution on Food and Nutritional Care in Hospitals.

Some policy initiatives to improve patient nutrition are starting to make a difference and more benefits could be realised if they were brought together under a single framework

- 38** While the Assembly Government's various policy initiatives are not contradictory, they do represent a rather disconnected set of initiatives that would benefit from being brought together into single coherent framework for hospital catering and nutrition. The original framework developed in 2002 provides the basis for this.
- 39** An encouraging finding from our work was the evidence that policy initiatives were having a positive effect. The *Free to Lead, Free to Care* initiative has prompted many ward sisters/charge nurses to take greater responsibility for patient nutrition and there were many examples of nurses taking steps to promote the importance of nutritional care.

Most NHS organisations are still developing their strategies for catering services and patient nutrition

- 40** The current picture in relation to the strategic planning of hospital catering services is mixed. In some NHS organisations, there are established strategies, policies and procedures that are well understood, whilst other organisations are still in the process of developing these.
- 41** Following NHS re-organisation, we found that many of the new health boards had not yet harmonised the strategic and operational planning arrangements of their predecessor NHS trusts regarding catering services and patient nutrition. This means that for some health boards there are currently different

models of service and different strategic and operational plans in place for catering. This was a contributory factor in some of the variations in practices that auditors observed.

- 42** More positively, auditors found that in recent years a broader range of staff are becoming involved in the local planning of catering services and patient nutrition. All NHS organisations had a multidisciplinary nutrition and catering group in place, overseeing nutritional policy and catering service development.

Executive accountabilities for catering and nutrition could be clearer in some health bodies

- 43** We found that some NHS bodies had identified a single board level director with responsibility for catering, nutrition and hygiene, with the Executive Director for Nursing taking on the role. However, in other health boards executive director accountabilities for catering and patient nutrition were split. Having more than one executive director with accountability for catering and nutrition is not necessarily a problem, as long as there are sound arrangements in place for co-ordinated oversight of issues relating to these services. In general, where executive accountabilities for catering and nutrition were split, we felt that NHS bodies needed to do more to avoid the risk of disjointed approaches to planning and management of these services, and to clarify lines of accountability.



NHS boards only receive limited information on the delivery and performance of catering services and issues relating to patient nutrition

- 44** Our work showed that there was scope to improve the information that board members received on the performance of catering and nutrition services. Most NHS boards at the best only received an annual report on their catering services and patient nutrition. These reports do not include information on important areas such as progress with implementing the all-Wales nutritional care pathway, the subsidy position and the extent of food waste. The reports also failed to identify key risks that may affect the catering service such as backlog maintenance issues and harmonising the different food production systems.
- 45** Typically, NHS organisations do not make appropriate use of the data generated by the WHE through the EFPMS system. Notwithstanding the data quality issues, the EFPMS data contain a number of useful measures of performance that would give board members an oversight into their organisation's catering service.

A more comprehensive and co-ordinated approach needs to be developed to seek the views of patients and their families and to use them to help plan and develop catering services

- 46** Patients and their families are probably the most important source of information about the quality of catering and nutrition services. NHS bodies should regularly ask patients for their views. There are a number of mechanisms in place to capture patients' views on hospital food and catering arrangements. However, nursing staff and catering departments typically have separate mechanisms to gather views which are not shared. Opportunities are being missed to bring together information on the patient experience into one place to inform future planning and development.
- 47** Community Health Council (CHC) members were commonly represented on health boards' catering and nutrition planning groups. This is a positive development and allows CHCs to share information collected through their routine monitoring of the patient environment. Patient representatives were also included on several catering and nutrition operational planning groups although this was not typical.

Recommendations

Ensuring patients' nutritional needs are met

- 1 Whilst there is evidence that many hospitals have improved arrangements to ensure that patients' nutritional needs are met, some of the key requirements of the Assembly Government's Nutritional Care Pathway are not being delivered. Screening needs to improve as important information about patients' nutritional status is often missing. Care plans are not always in place for patients identified with, or at risk of, nutritional problems, and a more comprehensive and consistent approach to monitoring patients' food and beverage intake is needed. **To ensure that hospital patients' nutritional needs are being met we recommend that:**
 - a the Assembly Government develop and issue standard all-Wales nursing documentation to promote consistent nutritional screening and care planning, and to help ensure that important areas, such as oral health, are properly considered;
 - b NHS bodies use the results presented in our local audit reports as a basis for ensuring that they are effectively implementing the all-Wales Nutritional Care Pathway; in particular, they must ensure that nutritional screening effectively identifies all patients who have nutritional problems, or who are at risk of developing them, and that appropriate care plans and monitoring activities are instigated;
 - c NHS bodies regularly audit compliance with all aspects of the nutritional care pathway across all their hospital sites and share the results of these monitoring exercises with all the relevant staff groups involved in catering and patient nutrition services;
 - d where poor compliance with nutritional care pathway requirements is identified, NHS bodies should establish the reasons for this, and implement clear plans of action to address the problem; this should include provision of the necessary training to staff; and
 - e NHS bodies have arrangements in place to ensure that patients have access to food 24 hours a day; provision of snacks should be part of these arrangements and patients should be made aware of what snacks are available to them, and when.
- 2 Whilst dietitians are typically involved in the overall design of menus, not all menus are nutritionally assessed. **To ensure all menus promote good patient nutrition, we recommend that:**
 - a NHS bodies take steps to ensure that all menus in use across their hospital sites have been nutritionally assessed by dietitians; and
 - b the Assembly Government review the feasibility of introducing a national database of standard, nutritionally assessed menus as a means of avoiding duplication of effort across NHS organisations and making the best use of limited dietetic resources.



Improving patients' mealtime experience

- 3** Whilst our audit work has shown that many patients are satisfied with hospital catering arrangements, this was not a universal finding and most NHS organisations could do more to ensure that the patient mealtime experience on all their wards is positive. **To secure continued improvements in this important area we recommend that NHS bodies:**
- a** ensure that their menus provide an appropriate choice of food and that the arrangements for ordering and serving food support adequate patient choice;
 - b** review their practices at ward level to make sure that patients are helped to get comfortable in readiness for their meals, and are given the opportunity to wash their hands before the meal is served; and
 - c** continue to roll out the protected mealtime policy to as wide a range of wards as possible, communicating its importance to all the relevant staff groups working in the hospital, and regularly reviewing compliance with the policy.

Controlling the costs of the catering service

- 4** Some eight years after the Audit Commission in Wales identified the need to improve financial information in relation to catering services, there are still significant limitations with these data. This is affecting the ability of NHS organisations to properly plan and monitor the delivery of their catering services. **To improve the quality of financial information on catering we recommend that:**

- a** the Assembly Government, through WHE, develop a clear model for costing patient and non-patient catering services that is consistently applied across all NHS organisations to allow meaningful comparisons of hospital catering costs across Wales to be made; and
- b** NHS bodies introduce computerised catering information systems, supported by clear cost benefit analysis in comparison to existing manual based information systems.

- 5** Whilst there was evidence that all NHS bodies were adopting measures to control the costs of catering services, there is much variation in practice and scope for more consistent use of recognised good practice. **We recommend that NHS bodies review their current cost control mechanisms to ensure that they are making full use of:**
- a** standard costed recipes;
 - b** daily food and beverage allowances for patients; and
 - c** standardised local catering contracts for the same or similar products across all their hospital sites.

- 6** Levels of food waste on many hospital wards in Wales are unacceptably high and reducing avoidable wastage should be seen as a key mechanism to help control catering costs. **To improve performance in respect of hospital food wastage, we recommend that:**
- a** local and national targets are set for food wastage; as a guide NHS organisations should aim to ensure that wastage from unserved meals does not exceed 10 per cent;

- b NHS bodies routinely monitor food wastage according to clear guidelines of what constitutes an unserved meal, and that this information is used to generate meaningful comparisons locally and nationally;**
 - c monitoring of food waste should include identification of the reasons for the wastage that is observed, and this information should be used to identify priorities for improvements in systems and processes that are causing the waste; and**
 - d NHS bodies emphasise to their staff that controlling food waste is a collective responsibility and that catering and ward-based staff should work together to tackle the problem.**
- 7** Few hospitals in Wales generate enough income to recover all the costs of providing non-patient catering services but few NHS bodies have an agreed policy on subsidy. **We recommend that NHS bodies should:**
- a set pricing policies and income generation targets that aim to ensure that non-patient catering services at least break even, or, if they do not, it is the result of a deliberate subsidy policy that is based on a detailed analysis of costs; and**
 - b regularly monitor income and expenditure of non-patient catering services to ensure that the financial performance of these services is as expected and that unacceptable deficits are not being incurred.**

Effective service planning and monitoring

- 8** The Assembly Government has introduced numerous policy initiatives in relation to hospital catering and patient nutrition over the last eight years. Locally, the existence of up-to-date strategies and plans to give effect to these national policies is patchy and in several NHS bodies arrangements need to be harmonised following NHS re-organisation. **To strengthen delivery of catering services and to reinforce the implementation of recognised good practice we recommend that:**
- a the Assembly Government bring together all the relevant policy guidance in respect of hospital catering and patient nutrition into an updated national framework; the production of an updated national framework should be developed by a multidisciplinary policy group for catering and nutrition, which brings together staff from the various branches of the Assembly Government that have responsibilities for these services;**
 - b NHS bodies ensure that they have up-to-date plans and procedures that set out the local arrangements for implementing national policy requirements and to ensure that as far as possible, catering and nutritional services are standardised across NHS organisations, particularly where NHS re-organisation has brought together a number of different service models under one organisation; and**



- c NHS bodies ensure that executive director accountabilities for catering and nutrition are clearly defined, and where two or more executive directors are involved, there are well defined arrangements for the co-ordinated planning and monitoring of services.**
- 9** Welsh Health Estates (WHE) maintains a database of performance information on hospital catering services across Wales within its EFPMS. However, neither the Assembly Government nor NHS bodies make sufficient use of this data to review the cost effectiveness and quality of catering services. This may in part be due to concerns about the quality of some of the data that is submitted to WHE by NHS bodies. **We recommend that:**

 - a the Assembly Government promote the importance of the EFPMS data as a tool for monitoring service delivery and ensure that sufficient guidance and training on data definitions are available to staff in NHS bodies who submit information;**
 - b Assembly Government staff involved in catering and nutrition should make more collective use of EFPMS data, alongside data collected from the annual Fundamentals of Care audits, as a mechanism for providing information on local implementation of national policy objectives; and**
 - c NHS bodies should ensure that they make full use of EFPMS data as a tool in managing and monitoring their catering and nutritional services.**
- 10** Boards of NHS bodies and their supporting sub-committees receive limited information about the performance of catering and nutrition services in their organisation. Where information is provided, it is not always brought together effectively and as such the ability of board members to see the whole picture in relation to catering and nutrition is limited. **In order to strengthen the arrangements for reporting information on catering and patient nutrition to board members, we recommend that NHS bodies should:**

 - a develop a more comprehensive approach to reporting performance on catering services and patient nutrition to the Board, which brings together information on implementation of the nutritional care pathway with performance data on the costs of patient and non-patient services, food wastage and patient and relative feedback; this information should be presented to the Board at least annually and should make appropriate use of the EFPMS data; and**
 - b systematically collate the information from nutritional screening on the number of patients identified with, or at risk of, nutritional problems to understand the scale of the problem and the likely impact on catering, and nutrition services to meet these patients' needs.**

- 11** Within individual NHS bodies there are likely to be a number of different mechanisms for collecting patients' views on the catering and nutrition services they receive.
- This information needs to be brought together more effectively to inform service planning and we recommend that NHS bodies should:**
- a** ensure that there are effective arrangements in place for sharing information on patients' views about catering services between ward sisters/charge nurses and the catering service;
 - b** demonstrate how they have taken patients' views into account when developing their catering and nutrition services; and
 - c** establish mechanisms to involve patients in activities that assess the quality of catering and nutrition services.

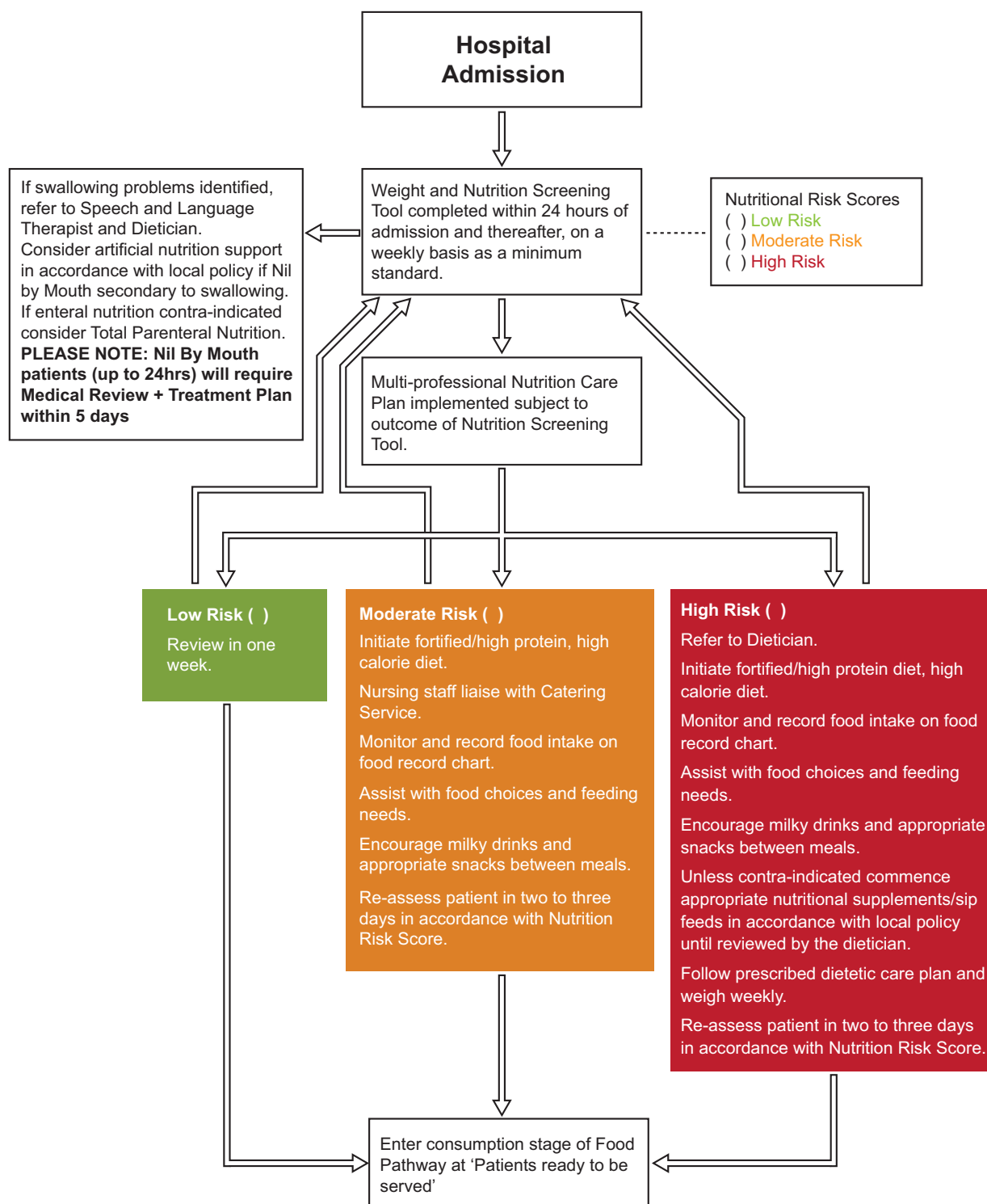


Part 1 – Patients are typically screened for nutritional problems but the quality of nutritional screening can be improved

- 1.1** Good nutritional screening is important given that research has indicated that ‘malnutrition’ can affect almost one in three adults who are admitted to hospital⁵. Nutritional screening is a quick and simple procedure for identifying patients with significant nutritional problems, or those at significant risk of such problems. Screening should be carried out within the first 24 hours of admission using a validated nutritional screening tool. As part of the screening process, healthcare staff, usually nurses, should weigh patients and assess them for any recent weight loss, as well as their ability to eat and drink safely. A clear plan of action should be implemented for patients identified with, or at risk of, nutritional problems.
- 1.2** In November 2007, the National Assembly’s Minister for Health and Social Services established a Task and Finish Group to make recommendations for empowering ward sisters/charge nurses with the necessary authority, knowledge and skills to improve the ward environment and patient experience, including patient nutrition. The Task and Finish Group’s recommendations built on those of an earlier Food and Drink in Hospital Group, which amongst other things, had recommended the development of an all-Wales nutritional care pathway. The pathway was introduced in Summer 2009 and set out the sequence of actions required when screening patients for nutritional problems (Figure 3).

⁵ C. A. Russell and M. Elia, *Nutrition Screening Survey in the UK in 2008*, British Association for Parental and Enteral Nutrition, 2009

Figure 3 – All-Wales nutritional care pathway



Source: Welsh Assembly Government



Nutritional screening has improved but important information is often missing

- 1.3** In 2002, the Audit Commission in Wales found that four out of five Welsh hospitals had developed tools for nutritional screening but only one in four hospitals screened patients for nutritional risk. Since then, nutritional screening has been implemented in all hospitals and although this is a welcome improvement, there is scope for further improvements.
- 1.4** On each of the 59 wards we visited, we reviewed, on average, five case notes to assess the quality of the nutritional screening process. We looked specifically to see if information had been recorded on weight, height, body mass index (height/weight ratio), recent unintentional weight loss, current appetite, 'normal' dietary intake, special dietary requirements, the ability to eat independently, difficulties eating or drinking and problems with oral health and hygiene, including dentition.
- 1.5** Although the case notes we examined indicated that all patients received some form of nutritional screening, in one in ten of these cases the screening tool was not used and as a result a risk score was not calculated. The Assembly Government recommends using the Malnutrition Universal Screening Tool (MUST)⁶ although three NHS organisations use a different validated screening tool.^{7,8,9} Failure to make use of a recognised screening tool can contribute to poor quality

nutritional assessments and we found that important measurements and information like weight and height, recent weight loss and appetite, were often missing. **Figure 4** lists the elements of nutritional screening that auditors checked for and shows that the completeness of screening varied across the NHS organisations we visited. Patients' height was frequently not recorded, meaning that calculations of body mass index were also frequently missing, despite this being prompted for in many nutritional screening tools. There were also notable gaps in relation to the assessment of oral health, despite its importance in relation to eating and drinking. Our findings on nutritional assessment and care planning echo observations made by Healthcare Inspectorate Wales as part of their recent dignity and respect spot checks¹⁰.

- 1.6** The audit identified a number of reasons for the variation in completing the nutritional screening process or the assessment documentation:
- a** some wards did not have access to the appropriate equipment, such as weighing scales or stadiometers (to measure height), and in many cases weight and height were self reported by the patient;
 - b** in some instances, a patient's condition precluded measuring weight and height; and
 - c** in some hospitals there were no regular training programmes or refresher training for ward staff to maintain awareness on using the nutritional screening tools and assessment documentation.

6 The Malnutrition Universal Screening Tool (MUST) was designed by the Malnutrition Advisory Group of the British Association for Parenteral and Enteral Nutrition, as an effective way of identifying adults (particularly the elderly) who are malnourished, at risk of malnutrition, or obese. The tool also includes guidelines for introducing an effective and suitable treatment plan.

7 The Weight Appetite Ability to Eat – Stress Fractures and Pressure Sores (WAASP) – nutritional screening tool was developed and validated by the former Cardiff and Vale NHS Trust. Cardiff and Vale University Health Board and Abertawe Bro Morgannwg University Health Board continue to use this screening tool.

8 The Moreland nutritional screening tool was developed specifically for oncology patients by Velindre NHS Trust in the mid 1990s and has been validated by the dietetic department.

9 Hywel Dda Health Board has developed its own nutritional screening tool, which is currently subject to validation.

10 Further information can be found at www.hiw.org.uk.

Figure 4 – Nursing records relating to nutritional screening are more fully completed at some NHS bodies than at others

Assessment items	Percentage of assessment items recorded as part of the nutritional screening process								
	Abertawe Bro Morgannwg University Health Board	Aneurin Bevan Health Board	Betsi Cadwaladr University Health Board	Cardiff and Vale University Health Board	Cwm Taf Health Board	Hywel Dda Health Board	Powys Teaching Health Board	Velindre NHS Trust	Wales
Screening tool used to identify patients at risk of malnutrition or dehydration	98	73	82	100	86	93	95	100	90
Weight on admission	68	97	42	95	94	76	100	69	75
Height on admission	12	93	47	0	57	3	89	62	37
Body Mass Index calculated	17	60	45	0	97	25	84	0	41
Unintentional weight loss	92	83	75	100	77	93	42	85	83
State of oral health	15	70	36	0	86	53	79	92	47
Usual or normal dietary intake	82	77	0	100	94	63	58	92	64
Specific dietary needs	67	90	78	100	80	56	74	92	75
Current appetite	92	90	82	100	97	93	79	100	91
Ability to eat unaided	97	83	69	100	100	88	84	100	88
Ability to swallow without difficulty	67	83	71	100	86	59	89	100	75

Source: Wales Audit Office review of case notes



- 1.7** Even where information was captured about patients' nutritional health, the level of detail recorded was not always comprehensive. For example, when describing a patient's appetite, it was not uncommon to simply record 'normal diet' without any regard to what was normal for the individual patient in terms of the type and volume of food consumed or whether the patient's appetite had changed recently. Nursing documentation at some hospitals prompted staff to ask a series of questions, such as whether a patient needed help with eating and drinking, and to circle yes or no in response. However, there were often no prompts to help identify the problem and the help needed, when a patient said yes.
- 1.8** When reviewing the case notes, it was not unusual to find the information we were seeking in relation to the nutritional screening process, or the dietetic assessment, recorded in a number of separate documents, like nursing notes, medical notes or on risk assessment forms located at the end of a patient's bed, rather than collated in one place. This fragmentation of information does not allow for a quick overview of a patient's nutritional problems nor does it lend itself to reviewing patients' nutritional status easily. Further, the lack of standardised nursing documentation for recording key assessment information about activities of daily living, such as eating and drinking, may be contributing to the variation in quality of the nursing records.
- 1.9** The findings from our case note review are reflected in the response from patients we surveyed as part of the audit. Two-thirds (67 per cent) of patients responding to our survey recalled being weighed during their hospital stay while only two-fifths (41 per cent) recalled talking to nurses about their dietary needs.
- 1.10** We found evidence that some NHS bodies monitor the compliance with nutritional screening on a regular basis (Box 1). However, none of the NHS organisations used the information gleaned from nutritional screening to fully appreciate the number of patients identified with nutritional problems on admission, the effectiveness of the nutritional care pathway in improving patients' nutritional health or the likely impact on catering and nutrition services.

Box 1 – Monitoring compliance with nutritional screening

Abertawe Bro Morgannwg University Health Board

The Health Board collects a number of ward-level performance indicators to monitor the standard of nursing care each month, including the percentage of patients screened for nutritional problems on admission and the percentage of patients re-screened within the required timescales.

Velindre NHS Trust

Following the *Fundamentals of Care*¹¹ baseline audit in 2009, one ward manager implemented a weekly check/audit to ensure the appropriate screening procedures, including nutritional screening, are carried out when patients are admitted. Gaps in the nutritional screening process are quickly identified and the reasons for non-compliance explored and rectified.

¹¹ *Fundamentals of Care, Improving the Quality of Fundamental Aspects of Health and Social Care for Adults* was published in 2003. It sets out the 12 fundamental aspects of health and social care, including eating and drinking. A baseline audit was undertaken across hospitals in Wales during 2009.

Too many patients identified with nutritional problems do not have a care plan in place and are not referred for further dietetic assessment

- 1.11** Nutritional screening should result in a plan of care to ensure that patients receive the nutritional care they need. We found that just over half (52 per cent) of the patients identified with, or at risk of, nutritional problems did not have a care plan in place. For those that did have a care plan, these included simple actions like monitoring food and beverage intake, helping patients with eating, or providing nutritional snacks between meals. Patients identified with, or at high risk of, nutritional problems should be referred for a dietetic assessment. However, we found that fewer than half these high risk patients (47 per cent) were referred to the dietician.
- 1.12** Patients identified at low risk of nutritional problems on admission should be weighed and re-screened weekly to ensure that their nutritional status has not changed. However, we found that this did not always occur and when re-screening did occur, the information recorded was often of insufficient detail to enable changes in nutritional risk to be properly assessed. We did, however, note that some of the wards we visited had introduced 'weigh days' to improve the weekly screening process.

- 1.15** There are examples of good practice in respect of nutritional care planning which need to be replicated more widely. For instance at Cwm Taf Health Board nursing staff implement nutritional care plans for all patients, even those identified at low risk of nutritional problems. The nutritional care plan sets out a number of prescribed actions depending upon the MUST risk score. It ensures that patients identified at low risk are weighed and re-screened weekly. Details of the nutritional care plan used at Cwm Taff Health Board are set out in [Appendix 4](#).
- 1.16** Dietetic staff that we met raised concerns about the reliability of nutritional risk screening carried out on some wards, in particular differences in nutritional risk scores when screening is undertaken by dietetic and nursing staff. Dieticians were concerned that assessments by ward staff may understate nutritional risk and important actions would not be triggered, such as referral to a dietician or closer monitoring of food intake. This indicates that NHS organisations need to use their dietetic expertise more effectively to provide training and guidance on effective nutritional screening for ward-based staff.



Recording food intake for at risk patients is not always carried out

1.17 It is important to monitor and to record the food and beverage intake of patients with nutritional problems. The Assembly Government rolled out the all-Wales food charts at the same time as it introduced the Nutritional Care Pathway. Wherever patients are hospitalised, nursing staff should record all the food and beverages consumed by patients throughout the day in a systematic and consistent way. A photographic guide was developed to act as a visual standard for recording the portion size and the quantity/volume of food and beverages consumed. The photographic guide was displayed as a poster on most wards we visited. Nursing staff should also record a description of the food and beverages consumed, as well any reasons for not eating meals, for example, the patient being off the ward during the mealtime. Registered nurses should sign and countersign the food charts twice a day.

1.18 Although nursing staff actively monitored what patients ate, we found on some wards that food and beverage intake was not always recorded nor were charts signed and countersigned by a registered nurse. In some cases, charts were signed by night staff who were not present during any of the main mealtimes. Other issues that arose during our audit visits included:

- a** nursing staff relying on patients to remember what they had eaten in order to complete the food charts;
- b** nursing staff who were unsure how to complete the food charts correctly, and consequently did not record the types of food and beverages patients ate; and
- c** a lack of clarity about when it was appropriate to discontinue recording food and beverage intake if a patient had a low nutritional risk score.

1.19 As well as being of clinical importance, food (and beverage) charts can have other benefits. On some wards that we visited, the food chart was displayed clearly at the bedside so that family and friends could see at a glance the type and amount of food patients had eaten at mealtimes and whether or not the patients' nutritional needs were being met.

Part 2 – Most hospitals provide an appropriate choice of meals and patients are generally satisfied with the food they receive, but the nutritional assessment of menus and patients’ mealtime experiences need to improve

2.1 Once patients’ nutritional needs and preferences have been identified, they should receive good quality, nutritious meals, which meet their dietary and cultural needs. Patients should also expect to have a reasonable choice of meals and to be able to eat their meals without interruptions. Patients who need help with eating should be identified and the appropriate support provided. This section of the report looks at menu planning, the arrangements for ordering patient meals, patients’ mealtime experiences and patients’ overall satisfaction with the food they received.

Most hospitals provide patients with an appropriate choice of meals but not all menus have been nutritionally assessed

2.2 Menu planning involves reviewing the range of meal options available to meet patients’ dietary needs and preferences, as well as the balance of the meal content, the number of courses for each meal, portion sizes and the timing of the main meal. The menu should be designed using standard, nutritionally assessed recipes to ensure meals have the appropriate nutritional content. In 2002, the Audit Commission in Wales found that most hospitals involved dieticians in menu planning. Now, dieticians are actively engaged in menu planning at all hospitals. We also found that in some NHS bodies speech and language

therapists are becoming involved in menu planning to meet the needs of patients with swallowing difficulties.

2.3 Despite the involvement of dieticians in menu planning, not all hospital menus have been nutritionally assessed. The 2002 Nutrition and Catering Framework recommended that menus should be designed using standard nutritionally assessed recipes. We found 15 out of 23 hospitals had nutritionally assessed their menus or individual recipes. In the main, nutritional assessment of menus was better where cook-freeze or cook-chill food production methods were employed. Our local audits showed that health boards recognised the need to nutritionally assess patient menus urgently and some were doing so as part of their arrangements for harmonising catering services across hospital sites following NHS re-organisation.

2.4 Only three health boards, Aneurin Bevan, Cardiff and Vale, and Powys, use a standard menu across all their hospitals, whereby patients receive the same food and menu choice wherever they are admitted. The remaining health boards still use the different menus and recipes inherited from their predecessor NHS Trusts. Standardising the menu should make it easier to procure food at the most competitive price and to cost recipes. It can also improve the efficiency of assessing the nutritional content and help to ensure patients receive the same quality of food, irrespective of which hospital they are staying in.



- 2.5** An important part of any menu is choice and most hospitals visited provided a good range of menu options for their patients. Typically, for their main meal of the day, patients can choose from three main course items including a vegetarian option. Menus generally rotate through either a two or three week cycle to provide variety. Where flexible, ward-based catering arrangements are in place, hospitals have scope to provide even greater choice. An example of how this is being taken forward is at the Cardiff and Vale University Health Board where the new standard menu will provide a choice of up to 47 different main meals in one week.
- 2.6** The majority (73 per cent) of patients responding to our survey told us that the menu always provided enough choice or did so most of the time, while a higher proportion (80 per cent) felt the menu changed often enough. Although the majority of patients responding to our survey told us that they were given meals suitable for their needs, a small number of patients commented that menus were repetitive and lacked clarity around choices for those with special dietary needs, like diabetic or gluten-free diets. One health board did not routinely provide ethnic meals on the grounds that there was no demand. However, no work had been done to substantiate this perception or whether patients, in the absence of such a choice, were making their own arrangements to have food brought in.

There is scope to improve meal ordering systems at a number of hospitals

- 2.7** Health boards use a range of meal production methods and different models of service delivery to the wards, which they have inherited from their predecessor bodies. (See [Appendix 5](#) for details of the different models and their strengths and weaknesses.) Each of these systems tends to influence the way in which patient meals are ordered but all systems rely on good communication between wards and the catering department if patients' nutritional needs are to be met.
- 2.8** Patients should be able to choose their meal as close to the mealtime as possible and certainly no longer than 24 hours in advance. We found that practices for ordering food can vary significantly between hospitals. In most hospitals, patients ordered their meals up to 24 hours in advance using traditional menu forms, while in those hospitals with ward-based catering services, patients could order their meals a couple of hours in advance of them being served.
- 2.9** In all health boards, the process for recording patients' meal choices was paper based. In hospitals where conventional cooking methods are used, menus are manually collated into kitchen production schedules. This process is resource intensive and in some cases administrative staff can take between two and four hours each day to complete these schedules. Only the Aneurin Bevan Health Board was making any progress in computerising the system and a pilot scheme was being introduced using hand-held devices to improve efficiency and to allow ordering to take place nearer to the actual mealtime.

2.10 Ward-based catering staff taking patients' meal orders rely upon nursing staff to compile a 'bed plan', which identifies the number of patients on the ward who require meals and also highlights those patients with special dietary needs. However, nursing staff did not always compile 'bed plans', and where they were in place they were not always updated to reflect the needs of new patients or changes in dietary requirements. The absence of a bed plan can have implications for patients' clinical care. On one ward visited ward-based catering staff were not aware of the need to take extra safety precautions when preparing and serving food for a patient at a higher than normal risk of infection. We also observed some patients being offered or served meals when they were 'nil by mouth' and awaiting surgery or diagnostic tests.

2.11 Not all patients have the chance to order what they eat. In several hospitals, patients do not complete a menu order form and they are not asked what they want to eat. Instead, nursing staff order meals on behalf of patients and request a number of meals equivalent to the number of patients on the ward. It was not uncommon for nursing staff to tell us that they often had little knowledge of the day's menu before providing patient meal numbers. Consequently, we saw some patients given meals that were unsuitable for their needs or preferences. Where patients were unable to order their meals in advance, they often had a limited choice of meals at the point of service because meal options had 'run out' by the time the food trolley had reached their bedside. In hospitals where patients need to order their food 24 hours or more in advance, we saw examples of patients receiving the meal ordered by the previous bed occupant.

2.12 It was also common practice for nursing staff to serve meals sequentially, always starting at the same bed. By failing to rotate the starting point of the meal service some patients rarely had a choice of meals by the time the food trolley reached their bedside.

2.13 Addressing some of the problems highlighted above will require some fundamental changes in practices in relation to ordering processes. However, in many instances better communication between nursing and catering staff can result in simple solutions to provide patients with a better choice of food.

The majority of patients are satisfied with the food they receive but many patients indicated that snacks were unavailable between meals

2.14 Our survey showed that patients are generally satisfied with the food they receive in hospital. More than half (55 per cent) of the patients we surveyed told us that the food they received was good or excellent and a further 27 per cent said the food was acceptable. These levels of satisfaction are broadly the same as those reported by the Audit Commission in Wales in 2002.

2.15 More than half (54 per cent) of the patients told us that the taste of their food was good or excellent and just over a quarter (28 per cent) felt it was acceptable. However, a small number of patients had a different experience, commenting on the poor presentation and the tastelessness of many meals.



- 2.16** The timing of meals meets most patients' needs; 59 per cent were always happy with the time meals were served. However, many patients find that the gap between the evening meal, usually served around 5 pm, and breakfast the following morning is too long. On some wards this has resulted in ward sisters/charge nurses introducing a later drink and snack round. Although, we were told that this can be difficult to implement if the ward is particularly busy.
- 2.17** Most hospitals have arrangements in place to provide snacks and several have implemented snack menus. However, we found that procedures for ordering snacks can vary between hospitals within the same health board. In some hospitals dietetic staff 'prescribe' snacks before they are made available while in others nursing staff order snacks for their patients.
- 2.18** The Healthcare Standards for Wales have set out patients' need to have access to food 24 hours a day. This is important for patients, such as those with diabetes, who have special dietary needs and also those who may have missed a meal because of the time they arrived on the ward. Most ward sisters/charge nurses were confident that the arrangements met the needs of patients and we found that snacks were usually available for patients with specific dietary needs.
- 2.19** However, responses from our patient survey highlighted a less positive picture. Three-fifths of respondents told us that snacks were never or rarely available. This suggests that the present arrangements are not working well, either in terms of provision of snacks, or patients' awareness of their availability.
- 2.20** With many hospitals discouraging patients and their relatives from bringing their own food onto the ward on the grounds of food hygiene, it becomes even more important for ward staff to ensure that patients do not go hungry, either as a result of missing a meal or because of the length of time between the routine meal services.
- 2.21** Our observation on wards and responses to our patient survey showed that replacement meals were available for most, but not all, patients who were not on the ward at mealtimes. Similarly, the majority (87 per cent) of patients responding to our survey indicated that they were given enough, or sometimes too much to eat. However, a small but significant minority of patients would have liked more food, and this highlights a need to review practices on some wards to ensure that patients' nutritional needs are being met. This is reinforced by the fact that a small number of nursing staff also told us that they will overstate the nutritional risk score to ensure patients get snacks.
- 2.22** In addition to responses from our patient survey, auditors gathered further information on food quality through food tasting panels conducted at most hospitals. These panels involved various health board staff, patient representatives and Wales Audit Office auditors. The panel tasted a typical patient meal and rated the food for various aspects of quality. Whilst the data provided from these panels had an element of subjectivity, it did highlight some important issues. For many hospital sites, the tasting panel scored the food highly and many ward staff found the food quality to be much better than they expected. The tasting panels also highlighted issues that individual organisations needed to address, such as the need to improve the

texture of some food to make it easier for patients to swallow, to review factors affecting taste such as seasoning, or change cooking methods to improve the appearance of the food. A few hospitals, like Singleton in Swansea, do regularly assess the quality of patients' meals (Box 2).

Box 2 – Monitoring the quality of patient meals at Singleton Hospital

Catering staff at Singleton Hospital use a rolling schedule of taste testing sessions to ensure that every item on the menu is sampled regularly, including special meals like purée diets. Meals are scored from zero ('really bad') to 10 ('excellent') against taste, appearance, suitability, portion size and texture. The findings are used to improve the quality of the food, such as retraining ward-based catering assistants in regenerating meals or discussions with chefs to amend recipes or menus. At the time of our audit, the hospital did not involve patients and nursing staff in these taste-testing sessions but it did involve dieticians and speech and language therapists.

2.23 In 2002, the Audit Commission in Wales found many instances where transporting meals in poor-quality trolleys had caused the food to deteriorate by the time it reached the ward. Since then NHS organisations have invested in appropriate equipment to the extent that this is no longer a problem for most hospitals. Auditors noted that meals left the kitchen in a good state, and food quality was maintained during transport to the ward where in most instances it was served quickly to patients.

The environment in which patients eat their meals has improved substantially

2.24 Even before food arrives on the ward, it is important that staff prepare the ward environment so that it encourages patients to eat their meals. Wherever possible, patients should be able to choose where they eat their meals. Two-thirds (68 per cent) of patients responding to our survey ate their meals sitting at the side of their bed while one in three (28 per cent) ate their meals in bed.

2.25 A small number of patients (three per cent) used communal dining areas, although most wards in acute hospitals no longer have facilities where patients can eat together. On several wards that we visited, ward sisters/charge nurses were attempting to improve the social aspects of mealtimes, for example:

- a** An elderly care ward at Llandough Hospital introduced a dining club on Thursdays and Sundays. The aim is to get patients used to normal daily social activities before being discharged from hospital. Staff are also encouraged to dine with patients at least once a week.
- b** One ward at Velindre Hospital created a patient dining area to promote the social aspects of eating and improve food intake.

2.26 In the work that led to the 2002 Audit Commission in Wales report, auditors observed many patients eating their meals surrounded by waste such as unemptied bed pans and other clutter on bedside tables. This was not only unpleasant for the individual patient but often affected other patients nearby. These arrangements have improved



substantially with most wards we visited taking active steps to prepare patient areas to receive meals. Nearly all patients (95 per cent) told us that the area where they ate their meals was always clean and tidy or clean and tidy most of the time. However, on a number of wards, we found mealtime preparations taking place at the point of service. In such instances, items were often cleared away with one hand while the food tray was carried in the other. Ideally, preparing the ward should take place in advance of the food arriving, in part to signal the importance of the forthcoming meal.

The principle of protected mealtimes is becoming increasingly embedded but more could be done on some wards

- 2.27** Protected mealtimes are an important part of creating a ward environment that encourages patients to eat and enjoy their meals. Protected mealtimes are periods when all non-urgent clinical activity stops on hospital wards to allow patients to eat their meals without unnecessary interruptions, and when nursing staff are able to provide assistance and support to people at mealtimes.
- 2.28** All NHS organisations in Wales have established protected mealtime policies and we observed a high level of commitment to protected mealtimes amongst most ward staff, who were not afraid to challenge doctors, ambulance crews, visitors and others if they entered the bedside areas or interrupted patients unnecessarily during mealtimes. Many wards tried different ways of reinforcing the importance of protected mealtimes (Box 3).

Box 3 – Hospital wards have tried different ways of reinforcing the importance of protected mealtimes by:

- avoiding non-urgent procedures and diagnostic tests during mealtimes;
- encouraging non ward-based staff to take their meal breaks during the protected mealtime period;
- promoting protected mealtimes during induction programmes for new medical staff;
- promoting protected mealtimes in patient information booklets or open evenings for patients;
- closing ward doors and adjusting lighting in ward corridors to discourage unwanted intrusions during mealtimes;
- changing visiting times so these do not overlap with protected mealtimes; and
- displaying signage about protected mealtimes, although we observed variation in the size and visibility of signage.

- 2.29** However, our ward visits showed that compliance with protected mealtime policies can be quite variable. Whilst not every hospital ward can operate protected mealtimes all of the time because of the nature of treatment and care needed by some patients, we noted numerous occasions when mealtimes coincided with domestic staff continuing to clean, nursing staff undertaking medicine rounds, physiotherapists treating patients and pharmacists reviewing patients' drug charts. We also observed patients being taken for diagnostic tests during mealtimes. We were told that 'these patients were 'nil by mouth' and the protected mealtime policy did not apply to them', despite the disruption for other patients and diverting staff attention from the meal service.

2.30 Our ward observations were largely reflective of the response we obtained from our survey of patients. Half the patients told us that their meals were always free from disturbance while 38 per cent told us that mealtimes were free from disturbance most of the time. Collectively these results are encouraging and indicate that whilst more needs to be done on some wards, the principle of protected mealtimes appears to be increasingly embedded in practice.

Not all patients get the help they need at mealtimes

2.31 While we saw examples of ward staff helping patients to sit up or to get out of bed before mealtimes, fewer than half the patients who told us that they needed help to get comfortable before eating received the help they needed. These findings align with observational audits conducted by speech and language therapists at one health board which found that patients with swallowing difficulties were not always positioned correctly prior to meals nor were these patients adequately supervised during mealtimes.

2.32 As part of the audit, we asked patients whether they had the chance to wash their hands before eating their meals. The response was broadly positive with two-thirds (65 per cent) reporting they always had the chance to wash their hands before eating their meals, and one-fifth (19 per cent) saying they had the chance most of the time. Some of the nurses we met viewed hand washing as an important practice in preventing the spread of infection and made a concerted effort to persuade patients to use the bedside gels before eating their meals. However, on some wards we visited, there was little

evidence of staff encouraging patients to clean their hands before eating. Where hand wipes were available, these were not always used, often because they were not handed out or staff thought the costs were too high. At Velindre NHS Trust, ward-based catering staff provided individually wrapped hand wipes to patients as part of the meal service. Cardiff and Vale Health Board piloted a similar scheme but ultimately decided to use less costly alternatives.

2.33 Three-quarters (76 per cent) of patients who told us that they needed help to eat their meal said they always received help, with nursing staff and friends and family providing assistance. However, a few patients told us that they had to wait too long for help once they received their meal. A small number of patients also told us that they needed aids for eating, such as adapted cutlery, plate guards and non-slip mats, but they did not always receive them.

2.34 The response from patients largely reflected the practices we observed during ward mealtimes. We observed some excellent examples of initiatives to provide patients with the help they needed to eat, such as the use of dietetic assistants or simply the way in which mealtimes were organised (**Box 4**). However, we also observed several patients waiting more than 20 minutes for help in opening food packaging, cutting up food or assistance with eating.



Box 4 – Organising mealtimes to improve support for patients who need help

A Dietetic Assistant (DA) role has been created to support a medical acute rehabilitation ward at the University Hospital of Wales. The DA support is available seven days a week at lunch and supper times to support patients who require help with meals. This includes helping patients to choose the correct meal and then helping them eat it. The DA works closely with nursing staff to make sure that all patients who require help to eat their food receive it. Working closely with the dietician, the DA also helps to ensure food and drink intake is monitored and prescribed snacks and nutritional supplements are available, eaten and monitored.

On the stroke care ward at the Princess of Wales Hospital, nursing staff are responsible for meal services and all nursing staff – registered and un-registered – work as a team during mealtimes. One member of the team is designated to answer call bells, help patients to the toilet, answer the phone, etc, and takes no part in serving meals, or helping patients with eating. Nursing staff serve each food course in turn, so as not to overwhelm patients with too much food at one time. This has the advantage that food always stays at the appropriate temperature until the point of service. Individual nurses will step back from serving meals, when they reach those patients needing help with eating. They stop to help these patients as the rest of the team carries on with the meal service.

2.35 A red-tray system is used in most hospitals to quickly identify patients who need extra help at mealtimes because of difficulties with eating or simply because they are not eating enough. The red tray draws the attention of ward staff to patients needing help, ensuring that meals are not taken away from patients prematurely and that food intake is monitored and recorded. The system depends on nursing and catering staff understanding and communicating with each other about which patients need help. In many hospitals, dietetic teams have provided training to ward-based catering staff on good nutrition management, which included the importance of systems for identifying patients with nutritional needs.

Where this type of training has been rolled out, dietetic staff told us that the quality of the meal service has improved.

- 2.36** Auditors did, however, come across several examples of where the red-tray system was not working as intended because temporary catering or nursing staff were not always aware that a ward had changed the way the red-tray system worked to meet the specific needs of some patients, for example using the system only for patients requiring assistance with eating.
- 2.37** Some ward sisters/charge nurses also told us that they believe the red-tray system can have a negative impact on patient dignity because it signalled out these patients as different. On wards where the red-tray system was not in use, we found a number of alternative and often innovative ways to identify patients who needed help. These included using red serviettes, red anti-slip mats and bedside signage, such as red stars, red signs and traffic-light notices. The advantage of some of these systems was that they remained at the patient's bedside permanently (rather than just being used at mealtimes) and made other staff, like doctors, aware of nutrition problems without the need to refer to patients' notes.

Part 3 – A clearer management focus on the costs of catering services is needed to better understand the variations that exist across NHS organisations and to reduce food wastage, which remains unacceptably high on many wards

3.1 Last year NHS Wales spent around £60 million on its hospital catering services providing meals to patients, staff and visitors. In the current economic climate, NHS organisations need to maintain quality, and ensure value for money and good cost controls. This section looks at the overall costs of hospital catering services.

Financial information on catering services is typically poor and where it exists it shows significant variations in costs within and between NHS organisations

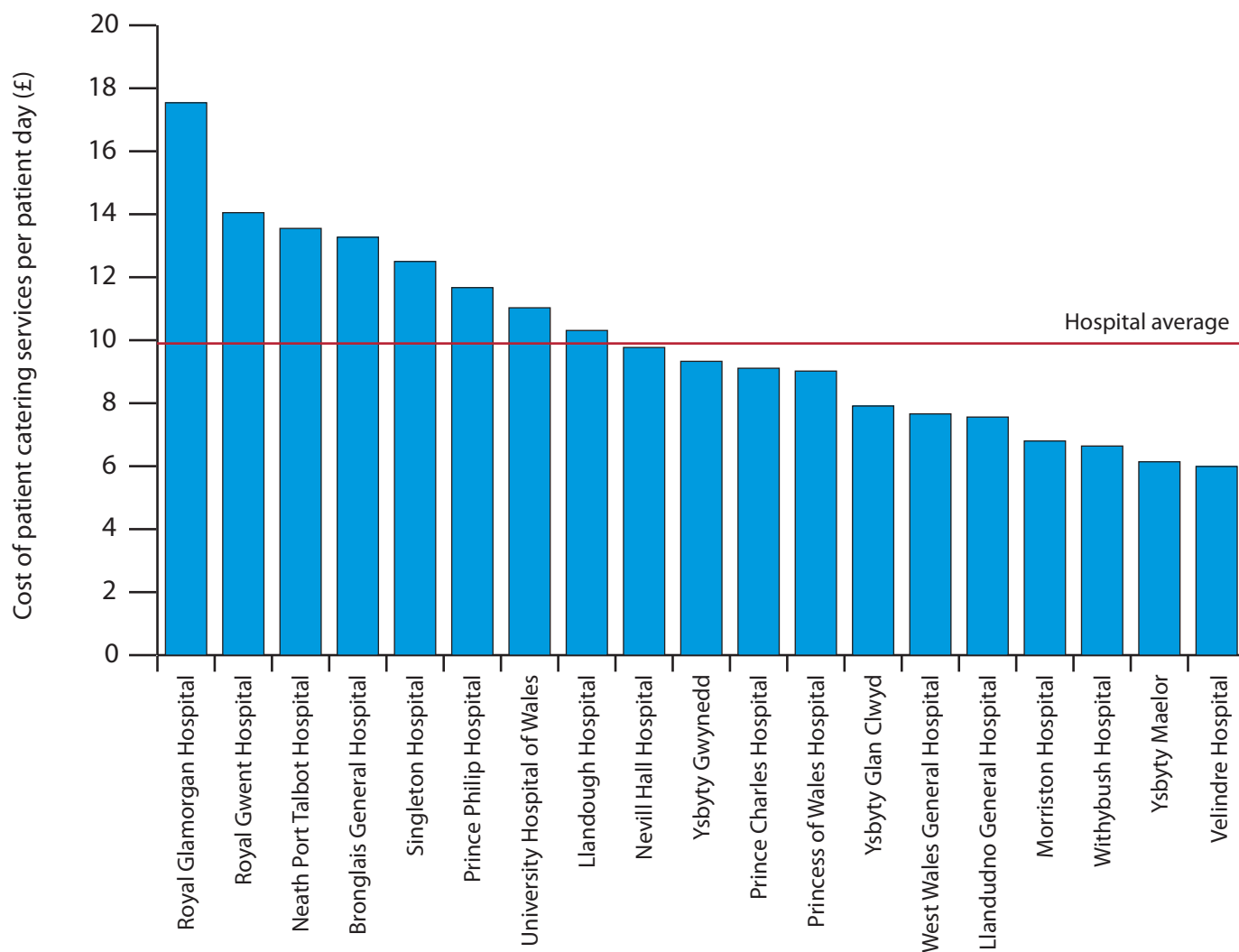
3.2 The 2002 report by the Audit Commission in Wales highlighted the need to improve the quality and availability of financial information on catering services. However, there is little evidence to indicate that improvements have been made. Comprehensive information is needed to enable better planning, service delivery and performance monitoring. Little progress has been made in computerising hospital catering systems and most of the current catering information management systems rely on manual paper processes. These manual systems are resource intensive, introduce data quality risks and limit the speed at which information is available to inform business and delivery decisions.

3.3 In 2002, the Assembly Government introduced the Estates and Facilities Performance Management System (EFPMS) as a means of providing comparative information to the service on a range of NHS estate and facilities data, including hospital catering. Data returns from NHS bodies are summarised by WHE in an annual Facilities Performance Report. However, despite responsibility for verifying the data resting with NHS bodies, WHE, who manage the EFPMS, have had longstanding concerns regarding the accuracy, consistency and reliability of some of the data submitted to them. The EFPMS returns from some health boards are based on estimated costs and the approach taken for apportioning costs for provisions and other consumables is not always consistent. Consequently, the robustness of comparative data is questionable and it is not widely used by catering managers either for day-to-day management of their services or to benchmark services more widely.



- 3.4** Given these concerns, we collected our own data on catering costs based on clear definitions of what needed to be included in the financial returns. Whilst most NHS bodies were ultimately able to provide the financial data required, it was not a straightforward process and most NHS organisations needed to re-submit their financial data at least once to correct inaccuracies. We were not able to collect data for every major hospital site in Wales as some NHS organisations' financial systems did not allow them to disaggregate the costs of patient and non-patient catering services, highlighting the extent to which financial information systems were underdeveloped in these organisations.
- 3.5** It is important that NHS organisations are able to benchmark their catering services for quality and value for money and the EFPMS database should provide this opportunity. The accuracy of information will only improve if it is used by NHS bodies, catering managers and the Assembly Government to raise questions about service delivery. Our work has found little evidence of this information being used constructively to improve catering services at any level.
- 3.6** Our analysis, which was limited to services at acute hospital sites, found that patient catering services at these sites cost £26.2 million in 2009-10. Staff costs comprised nearly two-thirds (64 per cent) of the expenditure.
- 3.7** However, there were wide variations in the costs of patient catering services across Welsh hospitals and within health boards. The average cost of patient catering services per patient day was £9.85, ranging from £5.99 per patient day at Velindre Hospital to £17.54 per patient day at the Royal Glamorgan Hospital (Figure 5). The differences in catering costs per patient day are not easily explained by the different service models, but costs are clearly higher at most of the hospitals deploying ward-based catering assistants (Figure 6). Appendix 6 provides further information on the types of catering systems used across Welsh hospitals.

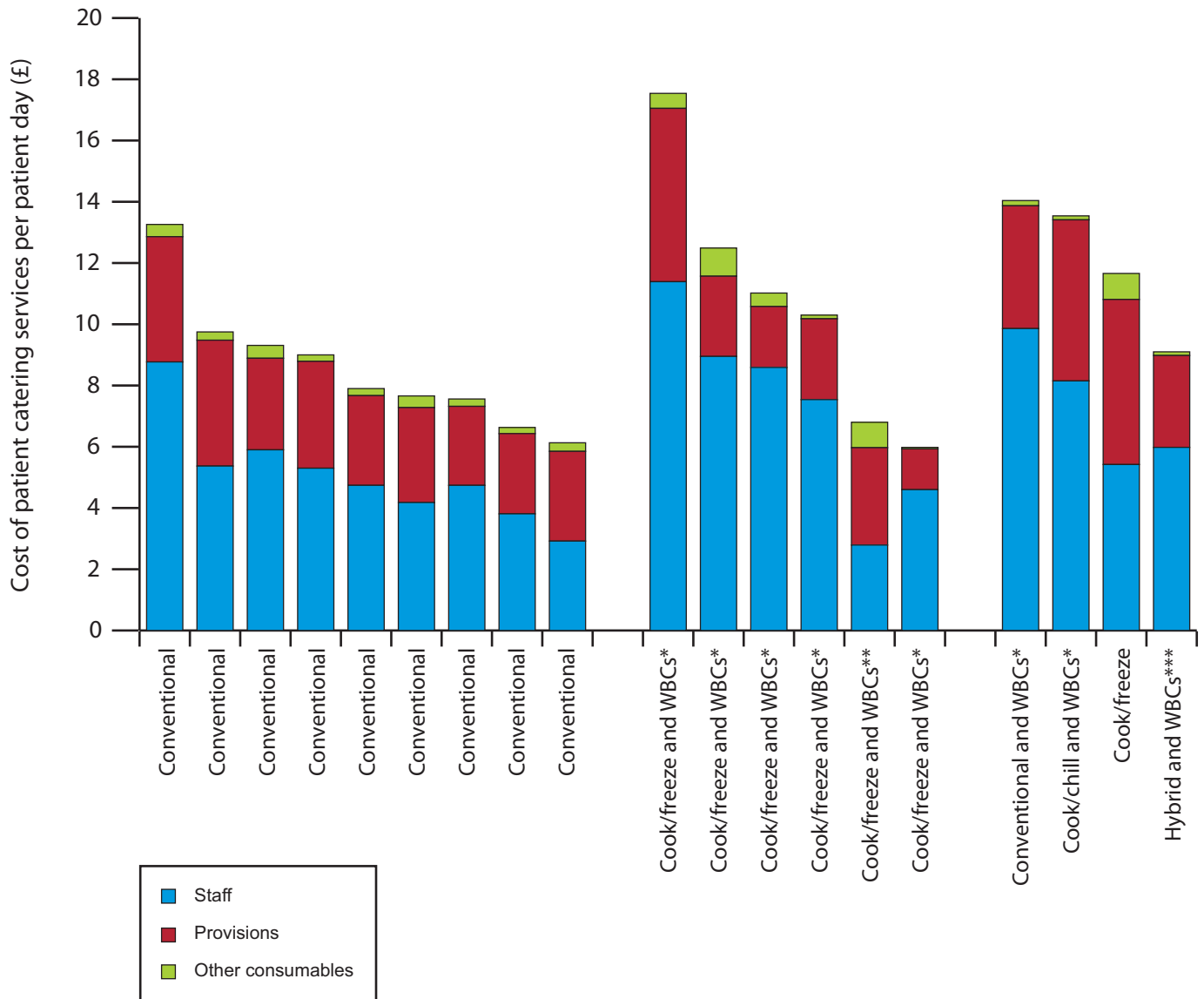
Figure 5 – Costs of patient catering services varied three-fold between hospitals in 2009-10



Source: Wales Audit Office analysis of financial and activity data provided by health boards and Velindre NHS Trust



Figure 6 – Variations in catering costs per patient day are not easily explained by different service models



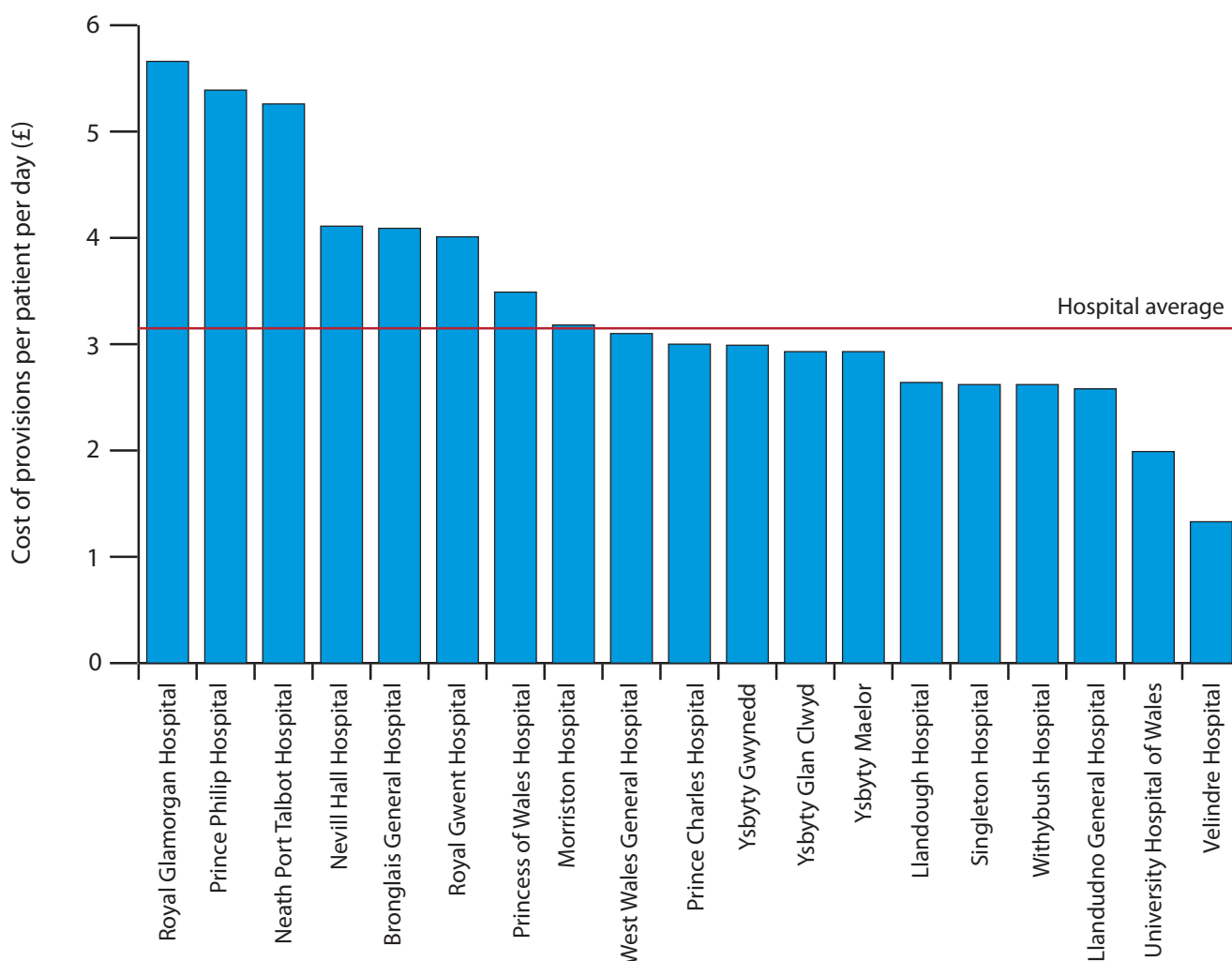
- * WBC - ward based catering staff responsible for serving meals; some of whom are helped by nursing staff.
- ** 3.84 wte WBCs deployed to cover only a few wards, accounting for 13 per cent of patient catering staff costs.
- *** Both conventional and cook-freeze - 1.91 wte WBCs deployed to cover only a few wards, accounting for 5 per cent of patient catering staff costs.

Source: Wales Audit Office analysis of financial and activity data provided by health boards and Velindre NHS Trust

3.8 Although standard contracts are widely used to procure food and beverages, there are still some big differences in provision costs between hospitals. On average, hospitals spend £3.16 on food and beverages per patient per day. Again, costs varied between and within NHS bodies (Figure 7). More work is needed to understand the underlying reasons for these variations which might be

associated with the menu content or production methods. Although most catering managers discussed a notional daily allowance for patients' meals, only one health board (Box 5) used an agreed allowance for planning and monitoring purposes and was clear about the particular benefits of this approach.

Figure 7 – Provision costs varied fourfold between hospitals in 2009-10



Source: Wales Audit Office analysis of financial and activity data provided by health boards and Velindre NHS Trust

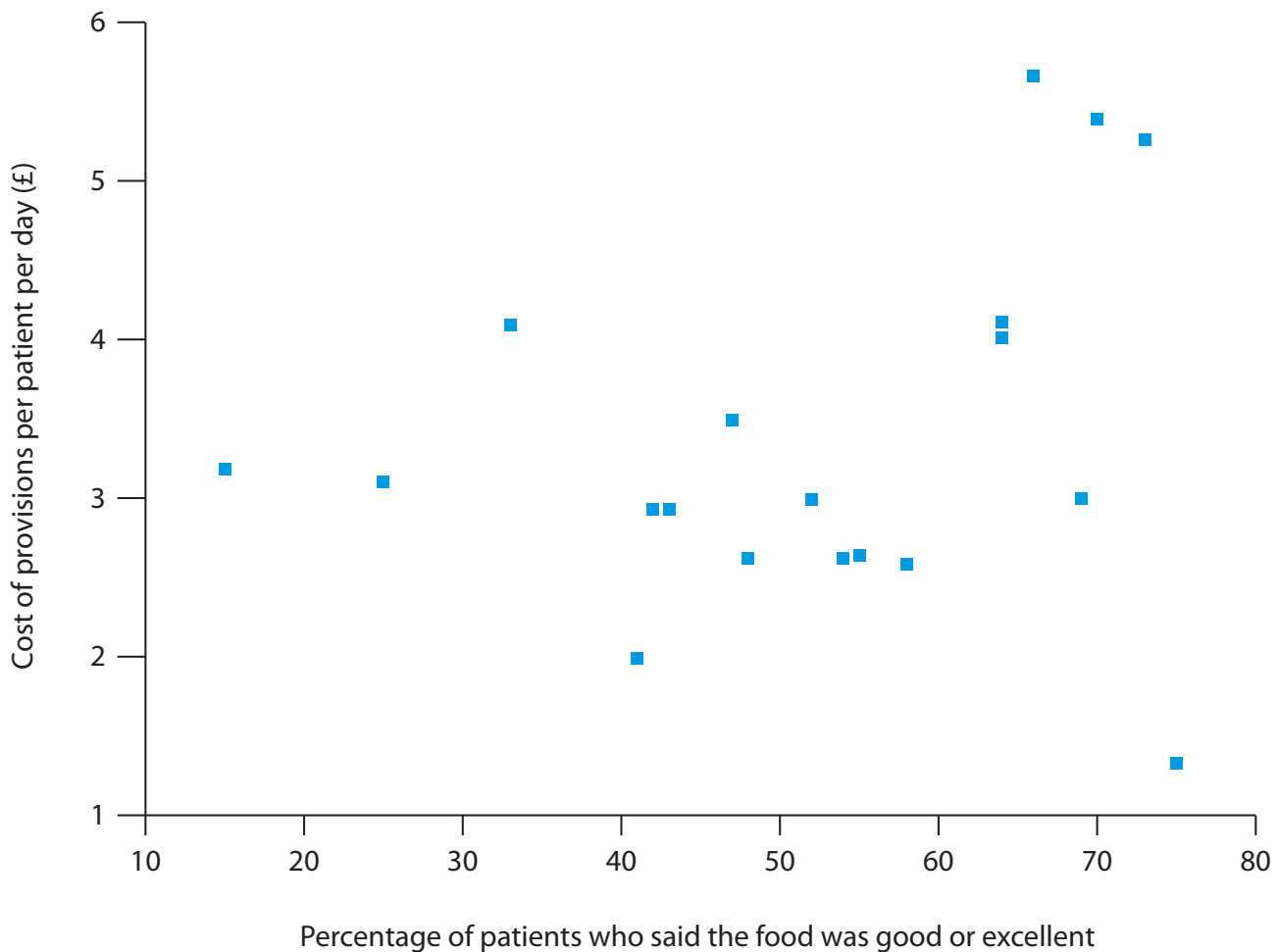


Box 5 – Setting daily food costs

The Aneurin Bevan Health Board has set a patient daily food allowance of £3.85, which is separate to staffing costs for running the service. The daily food allowance is based on the catering department's own analysis of what is required to meet the Health Board's catering and nutrition framework based on costed menus, procurement forecasts and previous demand. The Health Board's catering managers feel that establishing an agreed daily food allowance has provided an incentive to deliver a cost-effective and high-quality service focused on meeting ward and patient needs.

3.9 We examined whether the amount spent on patient food had any correlation with the satisfaction scores reported through our patient survey. **Figure 8** shows that there was no clear relationship. Furthermore, the NHS body with the lowest provision costs had one of the highest patient satisfaction scores. Similarly, there was no clear correlation between the results of our tasting panels and the spending on patient food provisions.

Figure 8 – There is no clear relationship between patient satisfaction scores and expenditure on patient food



Source: Wales Audit Office analysis of financial data provided by health boards and Velindre NHS Trust and patient satisfaction ratings

Non-patient catering services are being subsidised, in most cases unknowingly

- 3.10** In addition to providing food for patients, hospitals will also provide catering services for staff and visitors and the income generated from these non-patient catering services, together with that from hospitality and vending machines is generally used to offset overall catering costs.
- 3.11** Non-patient catering service costs (provisions, other consumables and staff) at acute hospitals in Wales totalled £12 million in 2009-10. However, the total income generated by the hospitals we visited was enough to recover only 80 per cent of these costs. This means that collectively across these hospitals non-patient catering services were being subsidised by £2.5 million. This is the equivalent of spending, on average, an extra £0.92 per patient per day on patient catering services.
- 3.12** Aneurin Bevan Health Board was the only organisation to generate enough income in 2009-10 to recover all non-patient catering costs and make a surplus at both the Royal Gwent and Nevill Hall hospitals (Figure 9). The Health Board has taken a holistic approach to managing non-patient catering services, by setting a single price structure for non-patient meals that is affordable for customers but also ensures that costs, and income, are brokered across the Health Board (Box 6).

- 3.13** Most NHS organisations need to increase income from non-patient catering services between 14 per cent and 45 per cent in order to break even in future. This is likely to get harder in the current economic climate. Our analysis shows a mixed picture with overall income down by two per cent between 2008-09 and 2009-10, with a 29 per cent reduction in income from vending machine sales. Only six of the 19 hospitals we visited increased levels of income compared with the previous year.

Box 6 – Non-patient catering services at Aneurin Bevan Health Board

The Health Board through the catering department's Food Services Specification established a business standard and financial management model for its non-patient food services. The primary objective was to ensure funds allocated to patient catering services were not used to subsidise non-patient meals. The model is built on standardised menus and consistent pricing across the Health Board. Once the need for a particular service in the hospital has been identified, the cost of providing the service is based on realising the maximum income at each sales outlet.

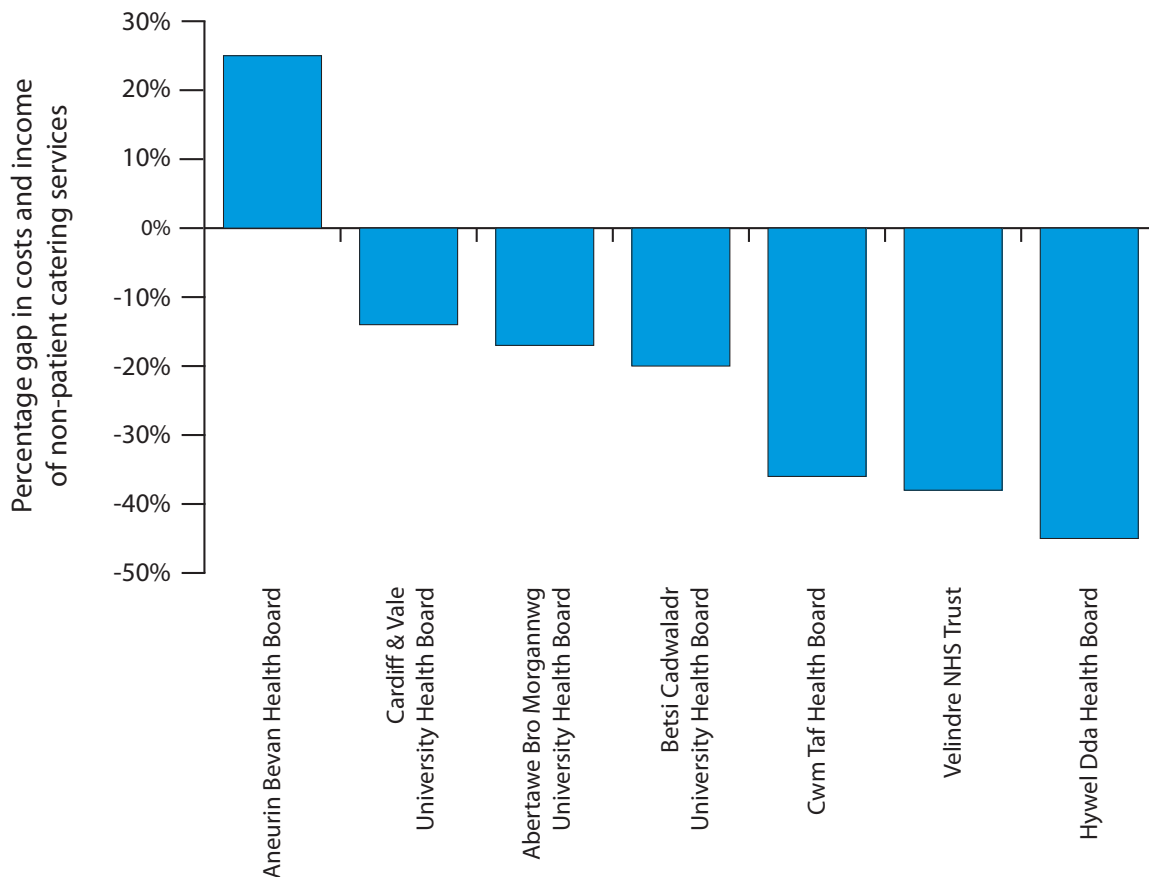
Individual meal prices are calculated using a process that compares the market with production costs but also what customers are prepared to pay and an analysis of what the catering service can produce within the income envelope.

There is a dual pricing policy. The higher visitor price is on main display at Nevill Hall Hospital and the Royal Gwent Hospital but the staff discounted prices are also published for those who like to know what they have to pay. Staff receive a discount provided they produce their identity badge.

The Health Board has invested in an electronic point of sale management system, which allows prices charged at the till to be controlled centrally, responding quickly to price changes. It has also improved the availability of information about the commerciability of some products.



Figure 9 – Only one NHS organisation generated enough income in 2009-10 to recover the costs of providing non-patient catering services and make a surplus



Source: Wales Audit Office analysis of financial data provided by health boards and Velindre NHS Trust

3.14 Whether non-patient catering services should be subsidised, break even or make a profit to offset patient catering costs, is a decision for individual NHS organisations to take, although in the current financial climate it could be reasonably expected that non-patient services should at least break even and NHS bodies should not unknowingly subsidise non-patient services.

3.15 While the Assembly Government's 2002 Nutrition and Catering Framework recommended that nutrition and catering policies should include 'an up-to-date

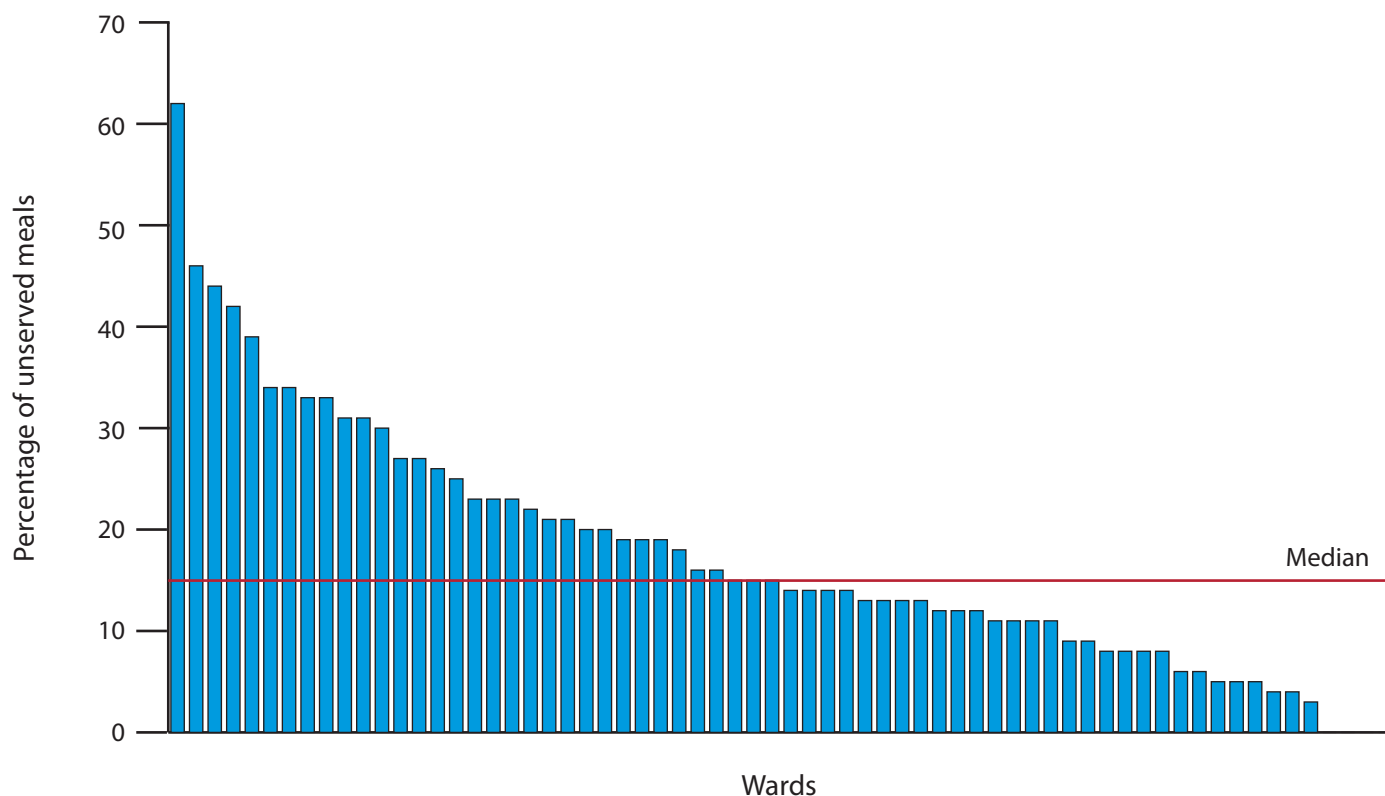
statement on the application of subsidies for staff and visitors', we found that no NHS body had developed a policy on subsidies for non-patient catering services. Furthermore, NHS bodies did not have an agreed approach to the contribution of income in offsetting catering costs at each hospital or collectively. Most catering departments were expected to generate levels of income that matched or exceeded the previous year's income with only three NHS organisations explicit about the need to break even, one of which was actively working to eliminate its subsidy.

Levels of food waste remain unacceptably high on many wards

3.16 Food wastage can occur at various stages in the catering pathway – at the production stage, from plated but unserved meals, and from food left on patients’ plates after they have eaten. Reducing food waste is important in controlling the costs of hospital catering services. These controls are best effected when targets for food waste are set and routine processes implemented to monitor wastage against these targets.

3.17 Data collected by WHE suggest that eight per cent of all patient meals produced in 2009-10 were left untouched¹². However, our observations using the same methodology found un-served meal waste was higher at around 15 per cent with big variations across wards and hospitals, ranging from zero per cent on some wards to 62 per cent on another (Figure 10).

Figure 10 – On average, one in six patient meals is wasted



Source: Wales Audit Office analysis of data collected during ward observations

¹² Welsh Health Estates, Facilities Performance Report 2009/10, 2010



- 3.18** It is not clear why there should be such a difference between our food waste figures and those submitted to WHE. Local definitions of what constitutes a wasted meal are likely to play a part. Catering staff at one hospital we visited told us that meals that are ‘served’ to the ward are not counted as waste, irrespective of whether there is a patient to receive the meal.
- 3.19** Our audit work highlighted a number of reasons that contribute to wastage from un-served meals:
- a** ward staff ordering too many meals on behalf of their patients because individual menu forms are not used to provide an accurate indication of the numbers of meals required;
 - b** distribution of meals to wards in trays of a set size, for example a tray with 12 meals may be issued when only six meals or less are needed; and
 - c** when meals are ordered a day in advance, there was insufficient communication between the ward and catering department to inform the kitchen that fewer meals were required as a result of patients being discharged.
- 3.20** The audit also collected information on waste left after patients had finished their meals. There are obvious practical difficulties for hospitals in trying to measure this type of wastage, and as a result this information is not routinely collected. However, we found high levels of plate waste with, on average, approximately 22 per cent of the food served to patients uneaten. A number of reasons contribute to plate waste:
- a** a patient’s medical condition will influence their appetite, taste and the volume of food that can be eaten at any one mealtime;
 - b** portion sizes that are too big for patients to eat;
 - c** patients who need assistance in eating their meals do not receive the necessary help;
 - d** the ward environment is not conducive to the enjoyment of food (for example because of smells, noise or other disturbances);
 - e** food that is presented in an unappetising way and/or does not taste good; and
 - f** a lack of choice on the menu.
- 3.21** What is important is that ward and catering staff understand the reasons why patients do not eat their meals so that appropriate action can be taken to address the problem, reduce wastage and improve nutrition.
- 3.22** All catering departments monitor and record the number of un-served meals sometime during the year but the frequency of recording depends upon the food production methods or the arrangements for serving patient meals. Ward-based catering staff, who regenerate cook-freeze or cook-chill products, generally record the number of un-served food portions after each meal (**Box 7**). These monitoring forms tend to be reviewed daily by the catering managers to identify whether too much food is being prepared.

3.23 In hospitals where catering staff prepare food from scratch each day, or where nursing staff are responsible for serving patients their meals, catering staff randomly audit the number of un-served meals returned to the kitchen at the end of the meal service. However, our observations suggest there are possible weaknesses in the random audit method at some hospitals. It was not uncommon for nursing staff to 'throw away' un-served meals before the meal trolley was ever returned to the kitchen making it difficult to assess the true waste.

Box 7 – Monitoring un-served food waste at Velindre NHS Trust

Catering staff record the number of un-served portions at the end of every meal service. One day each month, the cost per day of every un-served portion at lunch and supper is calculated. Monthly wastage fluctuates between 11 per cent and 21 per cent and the cost per day of this waste ranges from £9.66 to £19.40. Average waste in 2009-10 was 14 per cent with an average cost of £14.81 per day. In provision terms, this equates to £5,800 per annum or nine per cent of provision costs. In addition to monitoring trends in the annual wastage rate and its cost, the Trust uses the information to understand the factors contributing to the waste in order to improve services.

3.24 Managing food waste is seen as the preserve of the catering department, particularly as food costs are funded from the catering budget. In addition, catering departments very rarely provide ward sisters/charge nurses with information on levels of waste for their respective wards. Consequently, staff outside the catering department do not 'own' the problem, making it difficult to address the underlying cause of waste. If health boards are to secure savings from reducing food waste then they need to develop a culture and working arrangements where all the relevant staff groups are engaged in service improvement. On some wards we visited, there was evidence that ward staff and catering staff were actively tackling the problem but this was not a typical finding.

3.25 Whilst it is not practical to reduce food wastage to zero, appropriately challenging targets should be set locally and nationally to help create a greater focus on reducing food waste. The cost of unserved meals on the wards we visited was approximately £1.5 million per annum. If these wards could reduce their unserved meal wastage to that of the best performing quartile in our sample (which equates to nine per cent of waste) savings of over £758,000 could be achieved. These savings only relate to a sample of 62 wards. The figure would rise significantly when all acute and community hospital wards across Wales are considered.

3.26 Further savings would be secured by taking action to reduce wastage from food left uneaten on patients' plates. Quantifying the cost and potential savings associated with plate waste is difficult as it will depend on which parts of the meal are wasted. Nonetheless, the plate waste figures collected during the audit indicate that both the cost to the NHS and the potential savings will be significant.



Part 4 – More work is needed to develop clearer national and local frameworks for planning and delivering catering services, and ensuring that these are informed by the views of patients

4.1 Improvements in hospital catering and patient nutrition will be easier to achieve if there is clear national policy guidance and there are service standards that reflect recognised good practice. Individual NHS organisations then need to have the necessary plans, procedures and monitoring mechanisms in place to implement this guidance and to review how well services are being delivered on the ground. Both nationally and locally, this will involve staff from different disciplines working together to ensure that catering and nutrition services have the necessary profile and that all the key elements of catering and nutritional pathways are working as they should. This section of the report looks at the progress that has been made in developing clear national and local frameworks for planning and delivering catering services.

The Assembly Government has developed a number of policy initiatives aimed at improving hospital catering and patient nutrition

4.2 The Assembly Government has clearly recognised the importance of catering and nutrition as an essential part of the care patients receive in hospital. Over the last decade, there have been numerous policy initiatives relating to hospital catering and patient nutrition starting with *Improving Health*

in Wales – A Plan for the NHS and Its Partners, which was published in 2001. This document set out the Assembly Government's vision for healthcare services in Wales, including components such as hospital catering services. This document described what patients should expect in relation to catering, such as dietetically sound and nutritious meals, while NHS trusts were tasked with a number of actions, like developing service specifications for catering.

4.3 In 2002, the Assembly Government published more detailed guidance in the *Nutrition and Catering Framework*, which included broad ranging standards for food safety, menu planning and nutritional content, nutritional assessments, operational plans and policies and management responsibilities. The framework underpinned the revisions to Welsh Risk Management Standard 23 for nutrition and catering, and compliance with this standard was assessed by the Welsh Risk Pool¹³.

4.4 In 2005, the *Healthcare Standards for Wales* were introduced. Standard 9 required healthcare organisations providing food to have systems in place to prepare nutritionally balanced meals that were prepared safely and met the needs or preferences of patients. Healthcare Standard 9 effectively replaced Risk Management Standard 23 but did not necessarily result in the envisaged service improvements. Catering managers reported

¹³ The Welsh Risk Pool was established as a mutual pooling system to reimburse losses to NHS organisations in Wales. In addition, it supports healthcare organisations in establishing systems and processes to manage risk. It maintains and assesses compliance against the Welsh Risk Management Standards.

that the Healthcare Standard approach resulted in less of a focus on a number of key elements of a high quality catering service which had been comprehensively covered in the 2002 framework and the associated risk management standard.

4.5 *Free to Lead Free to Care* was published in 2008. It sets out the recommendations of the Empowering Ward Sisters/Charge Nurses Task and Finish Group which was established in 2007 by the National Assembly's Minister for Health and Social Services for improving the environment of care and patient experience. A small number of the recommendations are pertinent to patient nutrition, particularly the need for an all-Wales nutritional care pathway and an all-Wales food chart. The group also recommended the development of an all-Wales audit tool to measure compliance with the 2003 Fundamentals of Care standards, which were introduced to improve the quality of particular aspects of health and social care. One of the Fundamentals of Care standards relates specifically to eating and drinking, such as assessing patients' nutritional needs, ensuring an environment that is conducive to eating and helping those patients who need it.

4.6 *Doing Well, Doing Better – Standards for Health Services in Wales* was published in 2010. These revised healthcare standards now bring together the Nutritional Care Pathway and the 2002 Nutrition and Catering Framework. However, the latter has not been revisited since it was first published and needs to be brought up to date to fully reflect recent policy initiatives and guidance, the new NHS structures in Wales and the Council of Europe resolution on food and nutritional care in hospitals.

Some policy initiatives to improve patient nutrition are starting to make a difference and more benefits could be realised if they were brought together under a single framework

4.7 Whilst none of the policy developments and publications set out above are contradictory, they do represent a rather disconnected set of initiatives that would benefit from being brought together into a single coherent framework for hospital catering and nutrition. The framework developed in 2002 provides the basis for this but needs to be connected to guidance on the nutritional care pathway, and the practices set out in *Fundamentals of Care* and *Free to Lead, Free to Care*. Internet resources can also be used as a mechanism for bringing all the relevant guidance together in one place, and further developed by use of good practice studies from Wales and other countries.

4.8 Bringing together the various elements of guidance on catering and patient nutrition will require different branches of the Assembly Government to work together more closely than they have in the past. A framework covering the whole catering and nutrition pathway will have relevance to officials with responsibility for facilities, food and physical activity, and nursing services. A co-ordinated and coherent approach from the centre will assist local NHS bodies in implementing the required measures.



- 4.9** An encouraging finding from our work was the evidence that policy initiatives such as *Free to Lead, Free to Care* were having a positive effect by prompting ward sisters/charge nurses to take greater responsibility for patient nutrition. Although it was not a consistent finding, we found numerous examples of senior nurses taking steps to promote the importance of nutritional care on their wards to ensure the nutritional care pathway was being delivered. Several ward sisters/charge nurses had introduced supporting initiatives such as implementing a system of link nurses to champion good nutritional care, and the introduction of a nutritional assistant role whereby an unqualified nurse had received specific training in nutrition to support the ward team.
- 4.10** An important contributor to progress is the creation of an appropriate forum where ward sisters/charge nurses can exchange good practice and learn from the experience of others. Such a forum has been developed in the Royal Gwent Hospital in Newport, with nurses critically reviewing their current approach¹⁴, addressing problems collectively and identifying approaches that can strengthen service delivery.
- 4.11** Training will be a key factor in implementing the required practices at a ward level. In 2009, the Royal College of Nursing in partnership with the Assembly Government rolled out its training programme '*Nutrition Now*' to help raise the standards of nutritional care and hydration. This training programme was well received and in many locations involved all those responsible for providing meals and nutritional care. Some health boards have built on this programme (**Box 8**).

Box 8 – Nutrition Matters

In 2009, the Aneurin Bevan Health Board produced and launched an information and resource pack for ward staff. The Dietetic Department produced a 'Nutrition Matters' resource for nursing staff to support better nutritional management of patients. This resource outlines the 10 key messages for better nutritional management and provides practical support and information on meeting the Hospital Nutritional Pathway. These resources include using the MUST screening tool and BMI calculation charts, a poor appetite flow chart, the red-tray system and the Health Board's nutrition traffic-light system, food and beverage chart guides and providing food between mealtimes. Building on this resource, the Health Board has established a Nutrition Matters webpage on its intranet where ward sisters/charge nurses can tailor the resource to meet their specific needs and good practice can be shared more widely. During the course of our audit work, nursing staff highlighted how useful Nutrition Matters had been in improving the nutritional management of patients and that it was a well-used resource.

Most NHS organisations are still developing their strategies for catering services and patient nutrition

- 4.12** NHS organisations should have strategies, plans and policies in place which support the delivery of hospital catering services and improve patient nutrition in line with recognised good practice and the requirements identified by the Assembly Government. These strategic and operational plans should be developed with input from all professional groups involved in catering and patient nutrition and should identify appropriate mechanisms for measuring progress and delivery, including capturing the views of patients and their families.

¹⁴ Mould J, 'Nurses must take control of the nutritional needs of patients', *British Journal of Nursing* 2009 Vol 18 No 17

- 4.13** The current picture in relation to the strategic planning of hospital catering services is mixed. In some NHS organisations, there are well-established strategies, policies and procedures that are well understood while other organisations are still in the process of developing them or have made very little progress.
- 4.14** Following NHS re-organisation, we found that many of the new health boards had not yet harmonised the strategic and operational planning arrangements of their predecessor NHS trusts regarding catering and nutrition. This means that for some health boards there are currently different models of service and different strategic and operational plans in place for catering. This was a contributory factor to some of the variations in practice we observed within individual organisations. Whilst some health boards have recognised the need to harmonise their arrangements and were making arrangements to do so, this was not the case everywhere.
- 4.15** More positively, we found that in recent years a broader range of staff have become involved in the local planning of catering and nutrition services. All NHS organisations had a multidisciplinary nutrition and catering group in place, overseeing nutritional policy and catering service development. All of the groups had a wide and inclusive membership, with dietetic staff in particular now playing a more prominent role. However, one of these teams has said whilst they are making good progress in building a strategic approach making change happen was proving a much more difficult task because of competing pressures in the organisation and the need to secure executive and board member support for the change.

Executive accountabilities for catering and nutrition could be clearer in some health bodies

- 4.16** Even where there are well-developed multi disciplinary planning arrangements for catering services, problems can arise if there is insufficient or clear sponsorship for change at the board level.
- 4.17** When the Assembly Government published its Nutrition and Catering Framework in 2002, it stated that NHS organisations should have a single board level director with lead responsibility for catering, nutrition and food hygiene. We found that some NHS bodies had adopted these arrangements with the Executive Director for Nursing taking on the role. However in three health boards executive director accountabilities were split, with the Nursing Director's remit covering only patient nutrition and another executive director leading on catering as part of the wider facilities portfolio.
- 4.18** Having more than one executive director with accountability for catering and nutrition is not necessarily a problem as long as there are sound arrangements in place for co-ordinated oversight of issues relating to these services. Where there were split accountabilities, we felt that there was scope for NHS bodies to do more to ensure that the arrangements were not leading to disjointed approaches to planning and management, and confusion over lines of accountability.



NHS boards only receive limited information on the delivery and performance of catering services and issues relating to patient nutrition

- 4.19** If board members are to provide effective leadership and take appropriate decisions they must be well informed, and provided with timely, accurate and appropriately detailed information about the services that their organisation provides. This applies as much to catering services and patient nutrition as to other aspects of the business.
- 4.20** We found that most NHS boards, at best, received an annual report on their catering services and patient nutrition. In the majority of instances, these reports contained very high level information summarising patient satisfaction, bottom-line expenditure and income levels. The reports do not include information on important areas, such as progress with implementing the all-Wales nutritional care pathway, the position on the subsidy for non-patient meals, and the extent of food waste. The reports also failed to identify key risks that may affect the catering service, such as backlog maintenance issues and harmonising the different food production systems.
- 4.21** Typically, NHS organisations did not make appropriate use of the benchmarking data on catering services that are generated by WHE through the EFPMS system. Notwithstanding some of the data quality issues mentioned earlier in this report, the EFPMS data contain a number of useful measures of performance in terms of cost and quality that would give board members an insight into their

organisation's catering service. It would also be a basis to prompt challenge and debate where the figures gave cause for concern. Board members usually received a summary of the results from the annual Fundamentals of Care audit, which includes aspects of nutrition. However, these data are typically considered in isolation of other information on catering services.

A more comprehensive and co-ordinated approach needs to be developed to seek the views of patients and their families and to use them to help plan and develop catering services

- 4.22** Patients and their families are probably the most important source of information about the quality of catering services and patient nutrition. NHS bodies should regularly ask patients for their views on the quality and choice of the food they receive and more broadly about the environment in which they eat, the assistance they were given to eat and the way in which their dietary needs were managed.
- 4.23** In 2002, the Audit Commission in Wales recommended that a national patient survey should be introduced to measure satisfaction with hospital food. This has not happened and at present there are a number of different mechanisms in place to capture patients' views on hospital food and catering arrangements, which include:
- a** patient satisfaction surveys conducted by catering departments (although the frequency of surveys varied across hospitals);

- b** capturing views from patients on their nutritional care as part of the annual Fundamentals of Care audit undertaken by ward nurses; and
 - c** ward visits by catering managers or supervisors to seek feedback from nursing staff and patients on the quality of food served.
- 4.24** Views gathered from patients using the above methods will often be supplemented by feedback from ward-based catering staff on the quality of the food services, and from ward visits by catering supervisors or chefs during mealtimes to observe ward-based catering staff at work and to assess the quality of service and presentation.
- 4.25** Our work has shown that nursing staff and catering departments will typically have separate mechanisms for gathering patient views, which are not shared. Opportunities are therefore being missed to bring together information on the patient experience in one place to inform future service planning and development.
- 4.26** As well as asking patients for their opinions, NHS bodies should seek to involve patients and their representatives in service planning and quality reviews. We found that Community Health Council (CHC) members were commonly represented on health boards' catering and nutrition planning groups. This is a positive development and allows CHCs to share information collected through their routine monitoring of the patient environment. We also found examples of NHS bodies including patient representatives on catering and nutrition operational planning groups, although this was not a typical finding.
- 4.27** Only three health boards said that they have regularly carried out food-tasting panels involving patients. This means that many NHS bodies are missing an opportunity to obtain useful feedback about specific issues that are important to patients in relation to the taste, texture and presentation of food.
- 4.28** In general, whilst we found evidence of a number of initiatives to capture the views of patients on catering services, the overall progress on this important aspect of service planning and delivery has been disappointing.



Appendix 1 – Assembly Government initiatives and documents related to hospital food and patient nutrition

Year	Initiative/document
2001	<p data-bbox="371 696 1177 725"><i>Improving Health in Wales, A Plan for the NHS and Its Partners</i></p> <p data-bbox="371 775 1485 857">This document set out the policy agenda for developing the NHS in Wales over the course of five to ten years. One area for improvement was hospital food. The Plan sets out the vision for hospital food, namely:</p> <ul data-bbox="411 869 1428 994" style="list-style-type: none"><li data-bbox="411 869 1098 898">• it should be well-presented, dietetically sound and nutritious;<li data-bbox="411 904 1414 965">• there should be a reasonable choice of menu and flexibility of mealtimes and meal choice according to patients' condition and appetite; and<li data-bbox="411 972 1428 994">• patients needing help to eat their meals should be identified and given appropriate support. <p data-bbox="371 1032 970 1061">Targets were also introduced for Trusts, which included:</p> <ul data-bbox="411 1072 1465 1328" style="list-style-type: none"><li data-bbox="411 1072 1382 1102">• establishing specifications for catering services that were monitored on a regular basis;<li data-bbox="411 1108 1453 1169">• including questions on hospital food within patient satisfaction surveys to allow NHS Trusts to regularly evaluate the quality and standard of delivery of their catering services;<li data-bbox="411 1176 1465 1236">• including information on hospital catering services within the Trust's prospectus, along with the results of the annual catering review;<li data-bbox="411 1243 1458 1303">• ensuring hospital nutrition teams reported on the adequacy of patient meals and the quality of services to a named member of the Board; and<li data-bbox="411 1310 1114 1328">• establishing a Nutritional Study to develop policy and practice.

Year	Initiative/document
2002	<p data-bbox="336 472 775 501"><i>Nutrition and Catering Framework</i></p> <p data-bbox="336 546 1430 602">The framework set out the standards for providing food and nutritional care to patients. The standards included:</p> <ul data-bbox="373 613 1453 1727" style="list-style-type: none"> • Responsibility for catering services, nutrition policy and food hygiene is clearly defined and there is a clear line of management accountability throughout the organisation up to Board level. • Food premises are registered with the local authority. • All food preparation, processing, manufacturing, distribution and transportation are carried out in hygienic conditions. • All food ingredients and prepared foods are purchased in accordance with standard purchasing specifications that are used by all suppliers and catering staff. • All food handlers maintain a high standard of personal hygiene. • All food deliveries are received in accordance with legislative requirements, and stored in appropriate conditions and protected from contamination and deterioration, including protection against pests. • All foods, including raw materials, ingredients, intermediate products and finished products, are kept at temperatures that comply with the Food Safety (Temperature Control) Regulations 1995. • Food safety assessments are carried out with the aim of identifying the critical steps within the process of providing food in the organisation and taking appropriate control measures to reduce any associated risks. • A policy exists which effectively ensures the availability of correct nutrition for all patients by co-ordinating the activities of clinicians, dieticians, catering and other support services staff. • On admission and at intervals according with best practice, every patient is screened and where necessary their nutritional status assessed to identify patients who are malnourished or at risk of becoming malnourished. Any patient identified as such is assessed regularly and appropriate action taken. • The dietary needs of all patients taking oral nutrition are met, taking account of the patients' preferences, through meals which meet their nutritional requirements and these are offered as a choice of dishes on a written menu. • The environment and other factors are conducive to enabling individual patients/clients to eat. • All personnel involved in the handling and provision of food are given supervision, instruction and/or training in accordance with their level of work activity and responsibility. • Key indicators capable of showing improvements in catering services and food hygiene, and the management of associated risk are used at all levels of the organisation, including the Board. • The system in place for food safety is monitored and reviewed by management and the Board in order to make improvements to the system. • The Internal Audit function, in conjunction with a nutrition/catering/food hygiene specialist(s), carries out periodic audits to provide assurances to the Board that a system providing for nutrition, catering and food hygiene is in place that conforms to the requirements of this standard.



Year	Initiative/document
2003	<p data-bbox="375 465 1455 528"><i>Fundamentals of Care, Improving the Quality of Fundamental Aspects of Health and Social Care for Adults</i></p> <p data-bbox="375 577 1497 719">This document provided guidance for improving the quality of 12 fundamental aspects of health and social care. One of these 12 aspects relate specifically to food and drink: 'People must be offered a choice of food and drink that meets their nutritional and personal requirements and provided with any assistance that they need to eat and drink.' There are seven practice indicators to support this aspect of care, which are:</p> <ul data-bbox="411 725 1503 1234" style="list-style-type: none"> • People's nutritional needs and physical ability to eat and drink are regularly assessed. If necessary, they are provided with specialist advice and support. • People are encouraged to eat nutritious, varied, balanced meals, hygienically prepared and served at regular times. • Food and drink are served in an acceptable setting. They are at the right temperature and attractively presented. • If a meal is missed, alternative food is offered and/or snacks and drinks can be accessed at any time. • Fresh drinking water is available at all times, except when restrictions are required as part of treatment. • People are provided with special diets in accordance with their medical needs. This also includes modified food. • If eating and/or drinking cause people difficulties, they receive prompt assistance, encouragement and appropriate aids or support. People with swallowing difficulties are assessed by a speech and language therapist and, where necessary, training in assisting people to swallow food or drink safely is given.
2005	<p data-bbox="375 1272 783 1303"><i>Healthcare Standards for Wales</i></p> <p data-bbox="375 1350 1337 1382">Standard 9 stated that 'Where food is provided, there are systems in place to ensure that:</p> <ul data-bbox="411 1388 1471 1538" style="list-style-type: none"> • patients and service users are provided with a choice of food which is prepared safely and provides a balanced diet; and • patients' and service users' individual nutritional, personal, cultural and clinical dietary requirements are met, including any necessary help with feeding and having access to food 24 hours a day.' <p data-bbox="375 1583 868 1615">Health boards should be able to demonstrate:</p> <ul data-bbox="411 1621 1503 1944" style="list-style-type: none"> • systems are in place to ensure patients are provided with 24-hour access to food, choice and a balanced diet; • examples of patient feedback relating to food and nutrition issues and changes that have been made as a result of the feedback; • food storage handling and preparation are carried out to statutory requirements; • the different nutritional, cultural and clinical dietary requirements of all patients are met in line with national guidance; • systems and processes are in place at a local level to determine, assess and meet the different nutritional requirements of patients; and • adequate resources and arrangements to enable help with feeding are provided and monitored.

Year	Initiative/document
2007	<p data-bbox="336 472 983 501"><i>Food and Drink in Hospital Task and Finish Group</i></p> <p data-bbox="336 548 1465 658">In December 2006, the Food and Drink in Hospital Task and Finish Group was established. Its aim was to produce a report on the provision of food and drink in hospitals for patients, staff and visitors. The final report was published and presented to the Minister for Health and Social Services in August 2007. Three priority actions were identified:</p> <ul data-bbox="373 672 1107 768" style="list-style-type: none"> <li data-bbox="373 672 943 701">• the development of the Nutritional Care Pathway; <li data-bbox="373 707 983 736">• the development of a Welsh Nutrition Campaign; and <li data-bbox="373 743 1107 772">• leadership to strengthen the role of the ward sister/charge nurse.
2008	<p data-bbox="336 801 1054 831"><i>Free to Lead Free to Care Task and Finish Group report</i></p> <p data-bbox="336 878 1437 965">In November 2007, the Minister for Health and Social Services established a Task and Finish Group to make recommendations to ensure that ward sisters/charge nurses are empowered with the authority, knowledge and skills to improve the environment of care and patient experience.</p> <p data-bbox="336 972 1453 1081">The report was published in June 2008 and it set out 35 proposals aimed at improving patients' experience of hospitals, hospital cleanliness, and hospital food and nutrition. By giving greater authority to ward sisters and charge nurses, it would enable them to run their wards more effectively and improve the patient experience. There were four recommendations pertinent to patient nutrition. These are:</p> <ul data-bbox="373 1095 1461 1431" style="list-style-type: none"> <li data-bbox="373 1095 1461 1182">• All ward sisters/charge nurses should have access to an All Wales Audit Tool which should be developed to measure standards against the Fundamentals of Care. Reports arising from use of this Audit Tool should be distributed to the NHS Trust Board and the Chief Nursing Officer, Wales. <li data-bbox="373 1189 1430 1240">• All ward sisters/charge nurses should have access to an All Wales Nutritional Care Pathway to promote best professional practice in nutritional care throughout the NHS. <li data-bbox="373 1247 1461 1357">• Ward sisters/charge nurses should play a substantive part in designing an All Wales standard fluid chart to be used across all NHS Trusts in Wales. All ward sisters/charge nurses should ensure that their ward staff are familiar with the national intake/output chart and incorporate it into their induction programmes. <li data-bbox="373 1364 1342 1431">• All NHS Trusts should ensure that nutritional supplements, where prescribed, and their administration, are recorded on drug charts.
2009	<p data-bbox="336 1473 1246 1503"><i>The all-Wales food chart and nutritional care pathway were introduced.</i></p>



Year	Initiative/document
2010	<p data-bbox="371 465 1214 533"><i>Doing Well Doing Better – Standards for Health Services in Wales</i> Standard 14 – Nutrition</p> <p data-bbox="371 584 1477 640">NHS and Social Services care sector organisations will comply with legislation and guidance to ensure that:</p> <ul data-bbox="411 651 1485 1077" style="list-style-type: none"><li data-bbox="411 651 1485 707">• a patient's and service user's individual nutritional and fluid needs are assessed, recorded and addressed;<li data-bbox="411 712 1485 745">• any necessary support with eating, drinking or feeding and swallowing is identified and provided;<li data-bbox="411 750 906 784">• breast feeding is promoted and supported;<li data-bbox="411 788 1485 913">• where food and drink are provided:<ul data-bbox="448 822 1457 913" style="list-style-type: none"><li data-bbox="448 822 1457 878">- a choice of food is offered, which is prepared safely and meets the nutritional, therapeutic, religious and cultural needs of all; and<li data-bbox="448 882 802 913">- is accessible 24 hours a day;<li data-bbox="411 925 1222 958">• hospitals should implement the Nutrition and Catering Framework 2002;<li data-bbox="411 963 1469 1019">• hospitals should ensure that the All Wales Nutritional Care Pathway is effectively and efficiently implemented; and<li data-bbox="411 1023 1457 1077">• organisations and services should take account of the supporting tools available in the clinical areas.

Appendix 2 – Audit approach

- 1 Our audit sought to answer the question: 'Are Welsh hospitals providing efficient catering services that meet recognised good practice', in particular:
- Are strategic planning arrangements for catering services effective?
 - Are procurement arrangements effective and do these ensure food is sourced from safe suppliers?
 - Is food production well controlled?
 - Are the arrangements to deliver the food to wards and patients efficient?
 - Do the arrangements at ward level help meet patients' nutritional needs and support their recovery?
 - Are there effective arrangements in place to consult patients about the catering service they receive?

- 2 We carried out the audit between April and July 2010 and upon completion we reported the detailed findings to each NHS organisation. The detailed audit was undertaken at the following hospitals.

Health Boards/NHS Trust	Hospitals
Abertawe Bro Morgannwg University Health Board	<ul style="list-style-type: none"> • Morriston • Neath Port Talbot • Princess of Wales • Singleton
Aneurin Bevan Health Board	<ul style="list-style-type: none"> • Nevill Hall • Royal Gwent
Betsi Cadwaladr University Health Board	<ul style="list-style-type: none"> • Llandudno • Ysbyty Glan Clwyd • Ysbyty Gwynedd • Ysbyty Maelor
Cardiff and Vale University Health Board	<ul style="list-style-type: none"> • Llandough • University Hospital of Wales
Cwm Taf Health Board	<ul style="list-style-type: none"> • Prince Charles • Royal Glamorgan
Hywel Dda Health Board	<ul style="list-style-type: none"> • Bronglais • Prince Philip • West Wales General • Withybush
Powys Teaching Health Board	<ul style="list-style-type: none"> • Llandrindod Wells County War Memorial Hospital • Llanidloes War Memorial Hospital • Victoria Memorial Hospital, Welshpool • Ystradgynlais Community Hospital
Velindre NHS Trust	<ul style="list-style-type: none"> • Velindre



3 The audit methodology included the following activities:

- observing the food production process from patient meal orders to the delivery of food to the patient;
- observing meal services on a sample of wards at each hospital;
- reviewing a sample of case notes on a sample of wards at each hospital;
- analysing financial, workforce and activity information in relation to catering services;
- conducting a patient survey;
- reviewing documents, such as nutrition and catering policies; and
- conducting semi-structured interviews with key hospital staff, including catering managers, executive directors responsible for catering and nutrition, dieticians, speech and language therapists, ward sisters/charge nurses, finance managers and patient representatives.

4 A more detailed breakdown of some of these activities is given below.

Process walk through

Before undertaking the ward-based audit activities, we followed the meal production process from patient meal orders to the delivery of food to the patient, in particular:

- meal ordering – eg, computerised systems, patient choice, advance ordering, menu cards;
- procurement – eg, checking how orders are aligned to menu production schedules;

- receipt of goods – eg, how goods are checked against requisition orders, checking use by/best before dates;
- goods storage – eg, securing stock, stock control/rotation, monitoring of refrigerator and freezer temperatures;
- food preparation and cooking – eg, wearing protective clothing, restricting access to food production areas, cleanliness of the environment, personal hygiene practices, use of standard recipes, monitoring temperatures of foods during preparation, quality assurance processes; and
- transportation of food to wards – eg, loading food trolleys, delivery schedules and what happens to the meals upon arrival on the ward.

Case note review

Auditors reviewed a random sample of up to five case notes on each ward taking part in the ward observation activities. The purpose of the review was to assess whether nutritional screening was undertaken when patients were admitted to hospital and if a validated screening tool was used. In addition, auditors compared the detail captured during the screening process against a checklist of items derived from guidelines on recommended practice, including the measurement of weight, height, body mass index (height/weight ratio), recent unintentional weight loss, current appetite, 'normal' dietary intake, special dietary requirements, the ability to eat independently, difficulties eating or drinking, oral/dental problems, and other risk factors. Auditors also assessed whether care plans were in place for those patients identified with, or at risk, of nutritional problems and whether the high-risk patients were referred for a dietetic assessment. We reviewed 291 case notes.

Ward observations

Auditors observed meal services, either lunchtime or suppertime, on a sample of wards, usually three, at each hospital. The purpose of the observations was to assess whether:

- patients and the ward environment were prepared for mealtimes;
- ward staff complied with food hygiene and safety practices;
- patients received the right meal;
- protected mealtimes were complied with; and
- patients were helped with eating if necessary.

We also assessed the levels of un-served waste (meals prepared but not served to patients) and plate waste (meals served to patients but not eaten). Un-served waste was simply the number of food portions not served to patients. Plate waste was measured by reversing the nutritional assessment documentation guidance contained in the *All-Wales Food Record Chart Guide* so a meal recorded as 75 per cent eaten for nutritional monitoring equated to 25 per cent plate waste.

We also convened a small panel of staff, at each hospital to taste test a number of leftover meals not served to patients. Panel members varied across each hospital but included catering managers, ward-based catering assistants, nurses, dieticians and patient representatives. The purpose of the taste test was to assess the appearance and smell of the meal ie, was it appetising, the texture, taste and temperature.

We observed one mealtime on 62 different wards.

Financial survey

We asked each health board and Velindre NHS Trust to complete a pro forma for each of the hospitals listed above. The pro forma sought information on the following:

- financial data for patient and non-patient catering services for 2008-09 and 2009-10, such as the cost of staff, provisions, consumables, rental costs for vending machines and net income;
- data on the numbers of catering staff in 2008-09 and 2009-10;
- patient activity data for 2008-09 and 2009-10; and
- information about the types of production methods and the arrangements for sending meals to hospital wards.

Patient survey

We conducted a questionnaire survey to gather patients' views about the food they received during their stay in hospital, as well as the menu choice, meeting their dietary needs, the environment in which they ate their meals, and the help they received at mealtimes. There were approximately 1,300 patients on the wards where we observed the mealtime service. It was not appropriate to ask all of these patients to take part in the survey because of their illness or care needs. We relied upon ward staff to identify those patients well enough to take part, and to give them a copy of the questionnaire survey and a reply-paid envelope for return to the Wales Audit Office.

At the time of our audit, we also publicised the survey in the local press, inviting anyone who had been a patient in the last 12 months, or had cared for someone who had been in hospital, to answer the same questions, via our on-line survey, which was open during March 2010 and April 2010.

We received 694 responses, of which 200 questionnaires were returned via the online survey. Deatiled responses are set out in [Appendix 3](#).



Appendix 3 – Responses to our patient survey

A detailed breakdown of the 694 responses to our patient questionnaire survey is presented in the tables below. The questions are grouped thematically and the results shown for all response categories.

Question on length of stay	Response categories				
	Less than one day	2 to 3 days	4 to 7 days	8 to 14 days	More than two weeks
Percentage of respondents whose length of stay in hospital was	2	15	28	24	32

Questions on nutritional needs	Response categories		
	Yes	No	Not sure
Percentage of respondents who were weighed during their stay in hospital	67	30	3
Percentage of respondents whose height was measured during their stay in hospital	32	59	9
Percentage of respondents where a member of the hospital staff talked to them about their dietary needs	41	54	5

Question on how meals were ordered	Response categories					
	Filling in a form	Telling staff	Choosing from a trolley	Family chose for me	Other	There was no choice
Percentage of respondents ordering meals by ...	43	35	15	2	2	4

Question on when meals were ordered	Response categories			
	The day before a meal	From the trolley	On the day of the meal	There was no choice
Percentage of respondents ordering meals ...	49	17	30	4

Questions on menu choice	Response categories			
	Yes, always	Yes, most of the time	Rarely	Never
Percentage of respondents who could understand the menu	76	19	1	3
Percentage of respondents who recognised the food options on the menu	74	21	3	2
Percentage of respondents who thought there was enough menu choice	46	27	18	9
Percentage of respondents who were able to choose the portion size	46	19	8	27
Percentage of respondents who thought the menu changed often enough <i>(note that 15 per cent of respondents were not in hospital long enough to tell so their responses are excluded from the data presented here)</i>	34	46	14	6
Percentage of respondents given food that was suitable for their dietary needs <i>(note that the responses presented are for the 48 per cent of patients who needed special diets)</i>	51	27	10	12
Percentage of respondents who had enough menu choice to suit their religious beliefs <i>(note that the responses presented are for the 36 per cent of patients who needed special diets because of their religious beliefs)</i>	70	18	3	8
Percentage of vegetarian or vegan respondents who had enough choice to meet their needs <i>(note that the responses presented are for the 19 per cent of patients who needed a vegetarian or vegan diet)</i>	31	31	18	20
Percentage of respondents with a food allergy who had enough choice to meet their needs <i>(note that the responses presented are for the 19 per cent of patients who needed special diets because of food allergies)</i>	45	31	10	13



Questions on preparing for meals	Response categories			
	Yes, always	Yes, most of the time	Rarely	Never
Percentage of respondents given the chance to wash their hands before they ate their food	65	19	8	8
Percentage of respondents who thought the area where they ate their food was clean and tidy	70	25	5	1
Percentage of respondents who needed help to get comfortable before eating and received it <i>(note that the responses presented are for the 64 per cent of patients who needed help to get comfortable)</i>	44	31	10	15

Questions on help with eating	Response categories			
	Yes, always	Yes, most of the time	Rarely	Never
Percentage of respondents who needed eating aids and were given them <i>(note that the responses presented are for the 17 per cent of patients who needed eating aids)</i>	38	29	7	27
Percentage of respondents who needed help with eating and received it <i>(note that the responses presented are for the 18 per cent of patients who needed help with eating)</i>	49	27	11	13
Percentage of respondents needing help to eat, receiving it soon enough after their food arrived <i>(note that the responses presented are for the 18 per cent of patients who needed help with eating)</i>	47	35	14	5

Question on the location where meals were mainly eaten	Response categories			
	In a chair near the bed	In a communal dining area	In bed	Other
Percentage of patients who ate their meals	68	3	28	1

Questions on the mealtime experience	Response categories			
	Yes, always	Yes, most of the time	Rarely	Never
Percentage of respondents getting the meal they ordered	56	34	5	4
Percentage of respondents who had food served at the temperature they would have expected	53	30	10	7
Percentage of respondents whose meal was free from disturbance by nurses or doctors treating or assessing them	50	38	9	3
Percentage of respondents who were happy with the time when meals were served	59	34	4	2
Percentage of respondents given enough time to finish their meal	76	21	3	0

Question on whether patients were given enough food to eat	Response categories		
	Yes	Yes, too much	No, not enough
Percentage of respondents who had enough food to eat	73	14	13

Questions on the availability of food and beverages	Response categories			
	Yes, always	Yes, most of the time	Rarely	Never
Percentage of respondents who missed a meal and were given a replacement one	55	25	11	9
Percentage of respondents who had fresh fruit available	51	22	16	11
Percentage of respondents where drinks were available between meal times	69	21	7	3
Percentage of respondents where snacks were available between meal times	23	15	26	35
Percentage of respondents where fresh water was available throughout the day	85	13	2	1



Questions on levels of satisfaction with the food received	Response categories				
	Excellent	Good	Acceptable	Poor	Very poor
Percentage of respondents who rated the taste of the food they were given as	17	37	28	11	6
Percentage of respondents who rated the appearance of the food they were given as ...	17	39	28	9	7
Percentage of respondents who rated the healthiness of the food they were given as ...	18	39	30	9	5
Percentage of respondents who rated their overall satisfaction with the food they received as ...	19	36	27	10	8

Appendix 4 – Cwm Taf Local Health Board – Prescribed Nursing Action Plan – Risk of Malnutrition

Date: Identified Patient Problem: is at risk of malnutrition due to..... LOW RISK <i>IMPLEMENT ACTION 1 – 9</i> ROUTINE CARE MEDIUM RISK <i>IMPLEMENT ACTION 1 – 12</i> OBSERVE AND MONITOR HIGH RISK <i>IMPLEMENT ACTION 1 – 15</i> TREAT		
Desired Outcome: To monitor patients' nutritional status, address identified risk and prevent further deterioration		
Prescribed Nursing Action	Progress/Evaluation	Signature
1 .Record MUST risk assessment data on Monitoring Sheet		
2.Treat underlying condition and manage symptoms		
3. Record patient likes/dislikes and provide help and advice on menu choices		
4. Identify and address any problems which may affect nutritional intake eg, swallowing, oral health problems, dentures, etc.		
5. Provide assistance and encouragement with eating and drinking when necessary		
6. Ensure patient is positioned appropriately for eating/drinking		
7. Identify any need for special equipment eg, adapted cutlery and crockery and ensure they are provided as necessary		
8. Provide access to snacks as required following local procedure		
9. Re-screen weekly or sooner if condition changes		
10. Complete food record chart for three days		
11. Review actions required 1 to 9		
12. Re-weigh and re-screen patient after three days of monitoring intake		
13. Communicate results to all members of the healthcare team		
14. Refer to dietician giving MUST score and reason for referral		
15. Review total care plan and reassess actions required 1 to 10		
Patient's Name: Hospital No:..... Ward:.....		



Appendix 5 – Meal production methods and meal delivery methods

There are three main meal production systems in place across hospitals in Wales.

- Conventional cooking methods – fresh ingredients are cooked daily in hospital kitchens in preparation for mealtimes.
- Cook-chill/freeze methods where meals are cooked in advance, chilled or frozen and then prepared in hospital or ward kitchens before serving. These meals are produced in Central Production Units (CPUs) or bought in from commercial suppliers.
- Hybrid is a combination of the methods outlined above either at the same hospital site or within the same health board.

The strengths and weaknesses of each system are set out in the table below.

Strengths and weaknesses of different meal production systems

Cooking method	Strengths	Weaknesses
Fresh cook	<p>Increased production flexibility to meet ad hoc special dietary needs.</p> <p>Often seen as more acceptable and a premium service for staff in the restaurant setting.</p>	<p>Kitchen staff often have higher skill levels increasing costs.</p> <p>The kitchen shift system can be difficult to manage throughout an extended working day with overlaps reducing productivity and increasing cost.</p> <p>Most equipment is only used for short periods.</p>
Cook chill	<p>Prepared dishes are chilled rapidly and then stored for up to five days, including the day of preparation.</p> <p>The working day can be reduced to 9 am to 5 pm with staff and equipment used more efficiently.</p> <p>Food items bulk purchased centrally lowering food costs.</p>	<p>Capital set up costs can be higher.</p> <p>Reheating can be complex increasing food safety risks and lowering nutritional content.</p>
Cook freeze	<p>Longer storage times typically up to one year.</p> <p>Working day can be reduced to 9 am to 5 pm with staff and equipment used more efficiently.</p> <p>Food items bulk purchased centrally lowering food costs.</p>	<p>Capital set up costs can be higher.</p> <p>A more involved reheating process which can cause food to lose texture and affect appearance.</p>

There are two main methods for transporting patients' meals to the wards. These are plated and bulk systems:

- Plated system – patients choose a meal which is prepared and plated up in the hospital kitchen. The meal is then delivered to the ward in a trolley and served by a member of staff.
- Bulk system – food items are prepared and portioned into food containers and delivered to the ward in a temperature-controlled trolley where meals are then plated before being served to the patient.

The strengths and weaknesses of each system are set out in the table below.

Strengths and weaknesses of plated and bulk systems

Delivery system	Strengths	Weaknesses
Plated systems	<p>Central control means meals are often better presented and look more appetising.</p> <p>Lower production wastage (un-served meals).</p> <p>Distribution costs can be lower because trolleys are less sophisticated.</p>	<p>More difficult to control portion size and plate wastage is higher.</p> <p>More difficult to keep food warm.</p> <p>More difficult to cater for a change in a patient's appetite.</p>
Bulk systems	<p>Higher levels of patient satisfaction because:</p> <ul style="list-style-type: none"> • they can see the food as it is served or before choosing; and • the meal size can be chosen at the point of service. <p>Food is easier to keep at the right temperature.</p> <p>Less plate wastage.</p>	<p>Capital costs can be higher.</p> <p>Less easy to control food presentation.</p> <p>Training and supervision costs can be higher.</p> <p>Production wastage is higher.</p>



Appendix 6 – Catering service models

Health Board	Hospital	Food production method	Location of food regeneration for cook freeze and cook chill	Service delivery	Serving patients
Abertawe Bro Morgannwg University Health Board	Morrison Hospital	Cook freeze prepared on site	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Ward staff plate meals and serve patients
	Neath Port Talbot Hospital	Cook chill externally sourced from commercial organisation	On the ward		Ward-based catering assistants plate and serve meals
	Princess of Wales Hospital	Fresh cook		Bulk delivery to wards for plating up	Ward staff plate meals and serve patients
	Singleton Hospital	Cook freeze prepared on site	On the ward		Ward-based catering assistants plate meals and then served by nursing staff
Aneurin Bevan Health Board	Nevill Hall Hospital	Fresh cook		Meals plated up in hospital kitchen	Meals served by housekeeping staff
	Royal Gwent Hospital	Fresh cook		Bulk delivery to wards for plating up	Ward-based catering assistants plate meals and then served by nursing staff

Health Board	Hospital	Food production method	Location of food regeneration for cook freeze and cook chill	Service delivery	Serving patients
Betsi Cadwaladr University Health Board	Llandudno General Hospital	Fresh cook		Bulk delivery to wards for plating up	Meals served by nursing staff
	Ysbyty Glan Clwyd	Fresh cook		Meals mainly plated up in hospital kitchen	Meals served by nursing staff
	Ysbyty Gwynedd	Fresh cook		Meals plated up in hospital kitchen	Meals served by nursing staff
	Ysbyty Maelor	Fresh cook		Meals mainly plated up in hospital kitchen	Meals served by nursing staff
		Cook chill prepared on site	Centrally in hospital kitchen	Meals plated up in hospital kitchen	Meals served by nursing staff
Cardiff & Vale University Health Board	Llandough Hospital	Cook freeze, (prepared at UHW)	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Ward-based catering assistants plate and serve meals
	University Hospital of Wales	Cook freeze, prepared on site	On the ward		Ward-based catering assistants plate and serve meals
Cwm Taf Health Board	Prince Charles Hospital	Fresh cook		Meals plated up in hospital kitchen	Meals served by nursing staff
		Cook freeze, prepared off-site	On the ward		Ward-based catering assistants plate and serve meals
	Royal Glamorgan Hospital	Cook freeze, prepared off-site	On the ward		Ward-based catering assistants plate and serve meals



Health Board	Hospital	Food production method	Location of food regeneration for cook freeze and cook chill	Service delivery	Serving patients
Hywel Dda Health Board	Bronglais General Hospital	Fresh cook		Meals plated in hospital kitchen	Meals served by health care assistants
	Prince Philip Hospital	Cook freeze prepared off-site	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Meals served by housekeeping staff
	West Wales General Hospital	Fresh cook		Bulk delivery to wards for plating up	Ward-based catering assistants plate meals and health care assistants serve meals
	Withybush Hospital	Fresh cook and cook freeze in some units	Centrally in hospital kitchen for cook-freeze products	Meals plated in hospital kitchen	Meals served by housekeeping and nursing staff
Powys Teaching Health Board	Llandrindod Wells County War Memorial Hospital	Hybrid – commercially purchased cook-freeze main meals and other items mainly fresh cook	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Health care assistants plate and serve meals
	Llanidloes War Memorial Hospital	Hybrid – commercially purchased cook-freeze main meals and other items mainly fresh cook	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Health care assistants plate and serve meals
	Victoria Memorial Hospital, Welshpool	Hybrid – commercially purchased cook-freeze main meals and other items mainly fresh cook	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Health care assistants plate and serve meals
	Ystradgynlais Community Hospital	Hybrid – commercially purchased cook-freeze main meals and other items mainly fresh cook	Centrally in hospital kitchen	Bulk delivery to wards for plating up	Health care assistants plate and serve meals
Velindre NHS Trust	Velindre Hospital	Cook freeze externally sourced	On the ward		Ward-based catering assistants plate and serve meals