

Report of the Independent Review of NHS Hospital Food

Chair: Philip Shelley

NHS hospital food review

Chair:

Philip Shelley – Taunton and Somerset NHS Foundation Trust

Independent advisor:

Prue Leith

Review panel:

Andy Burman – British Dietetic Association

Balwinder Dhoot – Department for Environment, Food and Rural Affairs

Craig Smith – Hospital Caterers Association

David Alexander – Food Standards Agency

Emma Brookes – NHS England and NHS Improvement

Gail Walker – Hospital Caterers Association

Helen Beazer – Department of Health and Social Care

Jason Yiannikou – Department of Health and Social Care

Kerry Trunks – Ward Matron, NHS England

Lauren Bowen – British Dietetic Association

Trish Stephenson – NHS Property Services

Maxine Cartz – British Dietetic Association

Michael Bellas – NHS England and NHS Improvement

Rachel Manners – Public Health England

Susannah McWilliam – Soil Association

Tina Potter – Food Standards Agency

Tom Embury – British Dietetic Association

William Vineall – Department of Health and Social Care

© Department of Health and Social Care 2020

This information is licensed under the Open Government Licence v3.0.

To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence/>

Any enquiries regarding this publication should be sent to:

NHS Acute Care and Quality Policy Directorate Department of Health and Social Care Quarry House Leeds LS2 7UE

Contents

A note on COVID-19	5
Foreword by Philip Shelley and Prue Leith	7
Executive Summary	9
Recommendations	17
A checklist for trust catering managers and chief executives	21
Chapter 1. Supporting the food heroes	23
Chapter 2. Food as medicine	29
Chapter 3. Safe and sound	43
Chapter 4. Bricks and mortar	49
Chapter 5. Making it easy	55
Chapter 6. Hospital food and drink standards	59
Chapter 7. Going green	63
Chapter 8. Making it happen	69
Conclusion	71
References	73
Glossary	79
Acknowledgements	83
Annex A: Hospital food site visits – observations and best practice	85
Annex B: Food safety legal obligations	93
Annex C: NHS staff engagement – Talk Health and Care	95

A note on COVID-19

The hospital food review panel completed its research, fieldwork and report between September 2019 and March 2020. Since then, everyday life has become almost unrecognisable, as the country deals with the COVID-19 pandemic.

In March, the Prime Minister announced a national lockdown. The NHS responded immediately and heroically to the biggest challenge it has faced in its 72-year history. This report, which we had planned to publish in March, was rightly postponed until we could be sure that the NHS could act on it.

As we have made the case in this report, hospital food is not always seen as a priority. Some people might say that the NHS has bigger priorities at the moment. The Government is facing an unprecedented economic downturn and is under a huge amount of spending pressure to support struggling sectors to stay afloat and to kickstart the economy. It would be easy for hospital food, yet again, to be deprioritised. That would be a mistake.

The pandemic has shone a light on the importance of good food and proper nutrition, including both the effects of food insecurity and malnutrition and the effects of obesity. We all know that a balanced diet has enormous health and well-being benefits. We know that COVID-19 outcomes are correlated with obesity and diabetes [1]. We also know that diet-related diseases are an equality issue: obesity and diabetes rates are higher in lower socio-economic groups and in some Black, Asian and Minority Ethnic (BAME) communities, the same groups disproportionately affected by the coronavirus [2]. The reasons behind this are complex and beyond the scope of this review, but the implication is clear: if we are serious about improving the nation's health and tackling health inequalities, we must be serious about food.

The government has published a new obesity strategy [3] with the aim of improving the nation's diet and supporting us to lose weight. Improving hospital food must be a part of that, as the NHS must lead by example when it comes to public health. The recently published [National Food Strategy: Part One](#) [4] features a commitment to improve public sector procurement of food and drink. Henry Dimbleby, independent lead for the strategy, has promised to include a comprehensive recommendation in Part Two on what the government can do to ensure that the food the state pays for directly – including in hospitals – is both healthy and sustainable. We hope this review can help inform that.

COVID-19 has also highlighted the importance of good nutrition in recovery and rehabilitation. For patients who may have spent weeks on an acute ward, on a ventilator, nutritious food and support from dietitians, other health professionals and caterers is vital to regaining strength so they can return home. Evidence shows us that patients in ICU need extra support long after they survive the most acute phase [5]. The BDA has produced guidance alongside ICU steps which have highlighted the role of nutrition in COVID-19 recovery [6].

And as we have applauded NHS key workers week after week, we must turn that recognition into positive action to improve the well-being of our staff. Restaurants and charities donated meals to keep our staff going during the hardest of times. The public donated £1.8 million to Meals for the NHS [7], showing that they are willing to 'put their money where their mouth is'. As Meals for the NHS says, "you can't save the nation on an empty stomach". Sadly, we know staff faced these issues before COVID-19. If staff, exhausted after a 12-hour shift, have little other option than a snack from a vending machine, what message does that send about how we care for our workforce? Shift workers are already at risk of poorer health outcomes and we cannot compound the problem with poor nutrition at work [8].

Additionally, while the coronavirus is not known to be transmitted by exposure to food or food packaging [9], the pandemic has, of course, brought an even greater urgency to safety issues and infection control in hospitals.

As long as social distancing measures are in place and COVID-19 remains in circulation in the UK, some of the actions we recommend in this report, such as social dining and mealtime companions, will not be possible. However, we have left these references in the report in the hope that they will become possible again in the longer term. We have made some minor amendments to the report to reflect the new context we are now in, but the report remains relevant and the recommendations remain the right ones.

As we plan food services that are fit for the future we must doubtlessly consider how to pandemic-proof catering services as much as possible. As we move forward into the implementation phase, we will seek the support and advice of infection prevention and control experts to consider these issues.

Foreword by Philip Shelley and Prue Leith

When the members of the panel agreed to take part in this review, there was a degree of cynicism whether it could lead to positive change. Previous efforts to improve the quality of the food for patients in hospitals, usually led by high-profile chefs, started well but as money dried up or government ministers' priorities changed, they ran into the sand.

But we truly believe this time it is different. We have the leadership of the Secretary of State for Health and Social Care, Matt Hancock, the backing of the Prime Minister, and a review body consisting almost entirely of senior people (medical and nursing staff, dietitians, caterers and administrators) working in the NHS. Many of them have already made successful changes in their own hospitals and are enthusiastic about helping others improve. With leadership like that, we have the best chance in many years to see real change.

This report is the result of a great deal of research, investigation, hospital visits and expert advice from within and outside the NHS. We have been impressed with the open and co-operative attitude we have found in most hospitals and the freely-offered help of doctors, dietitians and other experts. The reassuring fact is that both caterers and nursing staff want to serve patients with food that is delicious and appreciated, and many feel ashamed and humiliated if they are unable to do so.

Our recommendations are clear and comprehensive. They cover staff, nutrition and hydration, food safety, facilities, technology, sustainability, enforcing standards, and the way forward.

We are confident that we have identified the main areas of concern, the chief blockers to good practice, and the best solutions. Improving hospital food is not a simple matter of hiring good chefs and producing nutritious menus. Quite apart from staff and visitor catering, which both bring their own demands, on-ward patient catering presents the following difficulties:

- patients are not well and do not want to be there, and they often lack appetite
- their medical conditions, personal or cultural preferences and religious requirements necessitate multiple food options
- many patients need help to eat
- hospitals are busy, noisy places, seldom conducive to pleasurable mealtimes
- NHS kitchens are often a long way from the customer
- kitchens may be in sorry need of refurbishment and wards often lack finishing kitchens or café facilities

- some trusts do not regard food as a priority, with the result that catering is starved of investment and becomes a target for cuts

But it is important to stress that many hospitals do a good job and patients are pleased with the service. We must also emphasise that not all food that comes out of a factory is bad: Tesco's Finest and Waitrose's ready meals are produced in factories. The thing that matters is that food (whether produced on-site, in a central production unit or in a factory) must start with good fresh ingredients, and be prepared by well-trained chefs using traditional processes and minimal additives.

We recognise that hospitals that outsource their catering have, on average, very slightly worse satisfaction ratings in surveys than those who do their own catering; however, this is by no means the rule and the difference is not significant. We have made recommendations for both private contractors and in-house caterers. We have also recommended changes to procurement to put more emphasis on quality, rather than only on cost.

Catering for staff and visitors in some hospitals is not as good as it could be, and we have looked at how it could be improved. Very often, in hospitals with excellent restaurants serving fresh healthy food and good-quality coffee, doctors, nurses and support staff eat there too, as do local families and community groups.

Staff on night shift are perhaps the most ill-served of all the groups we looked at, often eating from vending machines offering nothing healthy and nothing hot. Implementing our recommendations for staff catering should be an urgent priority and an easy win.

It was obvious from the start of the review that we would never be able to recommend a one-size-fits-all solution. The needs of elderly psychiatric patients differ from those of children in a cancer ward. Some hospitals just do not have space for an on-site kitchen, or a dining area for patients able to get out of bed. Trust managers and decision makers will, we hope, examine our recommendations and make the changes that are possible for them. It is amazing how true the old adage "where there's a will there's a way" can be.

Naturally, we on the review panel hope very much that the government accepts our recommendations and provides the support and money needed to see them speedily implemented. The NHS is much beloved by the public, but it needs to constantly deserve that support and affection.

Crisp toast for breakfast, a delicious lunch with a friendly word, a cup of tea willingly served in the middle of the night can do wonders. Food is a form of medicine.



Executive Summary

Introduction

In the summer of 2019, there was an outbreak of listeriosis in which seven patients tragically died after eating hospital sandwiches contaminated with *Listeria monocytogenes*. Following this, the Health Secretary, Matt Hancock, announced a “root and branch” review of food served and sold in hospitals. The scope of the review included the safety, nutrition, quality and production methods of food for patients, staff and visitors in NHS hospitals.

In 2018 to 2019, the NHS spent £634 million on hospital food, representing approximately 6.7% of the total costs of running the NHS estate [10] or 0.6% of the total £114 billion 2018 to 2019 NHS budget [11]. It is the second biggest provider of meals in the UK public sector, serving 141 million inpatient meals [10] last year alone, to about 125,000 patients a day. This compares to 602 million school lunches [12] and 93 million prison meals [13].

There is a poor public perception of hospital food; and frequent critical press coverage of problems with both food that is on offer in hospitals to patients, staff and visitors, as well as wider concerns regarding food service. However, the evidence suggests that patients in NHS hospitals are satisfied, overall, with the quality of hospital food, with 22% of patients surveyed in 2019 rating the food they received as very good, and 36% rating it as good [14]. This contrasts with 39% of NHS staff, who felt that food and catering facilities offered in their workplaces were poor [15].

There is clearly scope for improvement. With a median spend of £4.56 per patient meal (including labour costs and overheads) [10], exceeding the budget of meals offered by other UK public services, the NHS should be demonstrating best practice in safely delivering nutritious, quality food to patients, and ensuring the least possible impact on our environment with best possible outcomes.

Better hospital food requires both national focus and leadership, but it is hard to deliver from the centre when power is devolved to individual trusts. We also need trusts to lead the change.

This report makes eight recommendations for system-level change. In Chapter 8 we propose that these are taken forward by an expert group with representation from across the sector and government. These apply mainly to government, NHS England and NHS Improvement, and national regulators.

However, there are also actions that need to be delivered by trusts themselves. We have included a **checklist for catering managers and chief executives** which contains key principles of providing a good food service. We urge trust executive teams and boards to consider this list and what they can do to take their catering to the next level. We have tried not to be too prescriptive, as trusts are very diverse and what works in one place may not work in another. However, these core principles are applicable to every type of service and should be carefully considered.

Leadership engagement is key – hospital food is something that all boards we've engaged with really care about and are committed to. But commitment is not enough on its own – effective change needs two more things: data that gives insight for improvement, and a plan or strategy for getting the improvement done.

What works

Every model of food delivery can be made to work wonders. The panel has eaten first-rate hospital meals provided by private contractors and in-house caterers. Likewise, there are hospitals of every type serving fantastic food, and without busting the budget: acute and mental health, rural and urban, big and small, new and old.

There are four things, however, that all these successful hospitals have in common:

1. They adopt a 'whole-hospital approach'. This means integrating food into the life of the hospital – treating the restaurant as the hub of the hospital, where staff and visitors eat together; the chef and catering team are as important as other staff members; and food is considered as part of a patient's care and treatment.
2. They have a chief executive who leads the change and understands the value of food and nutrition.
3. They concentrate on the things patients and staff care about; good food, attractive environment, and a belief that the hospital they are in serves nutritious food at the best available quality.
4. They have integrated multi-disciplinary working; bringing together catering, dietetics and nursing to help improve nutritional outcomes for patients, and to ensure that staff well-being is prioritised with nutritious food and drink available on-site at all times.

Concentrating on the needs of patients, staff and visitors may sound obvious, but it is by no means universal practice. In the hospitals we visited that were struggling, the top-down ethos of institutionalised service still prevailed. The job of the catering team was to feed patients, not to entice them to eat. Little thought was given to what food they wanted, let alone the other things that were important to them.

We have included examples of good practice and ideas for change throughout this report and in Annex A.

Food as medicine

Too often, the provision of hospital food has been viewed by the NHS in the same way as it views the provision of shelter and warmth – it's about meeting people's basic human needs while they happen to be undergoing NHS treatment. However, a growing body of

scientific evidence around the role of food in treating patients has led to a shift in mindset to increasingly view food as an integral part of a patient's care plan, viewed by both patients and staff in the same way as they view medication and other therapies. This chimes with evidence of food's importance to human health and its role in both the prevention and treatment of diseases. Offering patients good nutrition and hydration in hospitals has the potential to reduce recovery times, improve patient outcomes and reduce costs to the NHS [16].

Eating well reduces your risk of developing cancer, heart disease, diabetes and stroke – whatever your weight – and eating well when you are in hospital is especially important to effectively support your care. COVID-19 has highlighted the importance of improving the nation's dietary health. A core part of the vision laid out in the NHS Long Term Plan involves acute hospitals becoming more closely integrated with other forms of care [17]. If the health and social care system is to respond to the changing needs of the population, and address the financial challenges it faces, acute hospitals will need to play a fundamentally different role within local health economies. A key part of this includes maintaining good health and recovery through providing good food to patients during their time in hospital.

The panel has been exploring what could happen if we were to start thinking more about the food we serve in hospitals as something to improve recovery time, decrease the risk of surgical complications, and give patients, staff and visitors ideas for how to cook and eat well at home.

But however technically nutritious a plate of food is, there's no benefit to the patient if it goes in the bin. The Patients Association surveyed 240 patients who had spent at least one night in hospital in England in the past six months (full results can be found on the [Patients Association](#) website). Of these patients, 70% said that the presentation of their food impacted whether they were likely to eat it, with over half (52.1%) saying that poor presentation made it less likely that they would eat their food. Some patients complained that meals were served in microwavable plastic trays, and even that they were served food that was still partially frozen. Some patients with additional dietary needs felt they had a lack of choice of meals. Five people said that they were unable to access food in between meals and were left hungry – especially in cases where they had missed a meal due to surgery. Several patients who had access to snacks commented that they improved their experience, particularly fresh fruit and toast.

For food to truly be part of patient's care, it not only needs to be nutritious – it needs to taste and look good too.

Caring for staff and visitors

We have not only considered the food served to patients in wards, but the whole food environment of the hospital, including in onsite shops, restaurants, cafés, canteens and vending machines, and spaces where staff can prepare their own meals. It is essential that these environments reinforce public health messages about healthy eating and make it possible – and easy – for staff and visitors to choose healthy options.

The NHS offers meals to a large proportion of the hospital and community health service workforce, approaching 1.25 million staff [18]. In the 2018 NHS Staff survey, 39% of staff felt that food and catering facilities offered in their workplaces were poor [15]. Just as our staff need the right tools to do their job, we also need to ensure that they have the nutrition and hydration they require to perform their crucial roles. The well-being of our NHS staff is

vital because it affects their mental and physical health as well as the quality of care they deliver for patients. Poor working conditions, including a lack of access to nutritious food and drink, can contribute to feelings of stress and lack of control in the workplace. Studies have found that doctors with high levels of stress or burnout are between 45% and 63% more at risk of making a major medical error, and higher stress levels among nurses are associated with higher patient mortality rates [19]. Proper nutrition and hydration are not only important for clinical staff, but also for facilities and kitchen staff, who play a vital role in ensuring the cleanliness and safety of NHS wards and kitchens.

The COVID-19 pandemic, where healthcare workers have had to work in even more stressful and difficult circumstances than usual, has highlighted these challenges even further. This is despite the best efforts of caterers, volunteers and others to ensure our heroic staff are supported. Even basic things, like drinking enough water, have been made harder by infection control procedures. We must make sure that hospital infrastructure is improved to tackle these issues for future pandemics.

Hospital staff, particularly those working on nights, have highlighted to us the lack of availability of anything hot or healthy, and also the time pressure put upon them; which is eroding the culture for taking time out from shifts to have proper breaks with appropriate food available.

We invited hospital staff to comment on the Talk Health and Care website [20] with their experience of eating at work. A summary can be found in Annex C. Comments included:

“We are concerned that a lack of breaks, lack of facilities and access to healthy food options and water contributes towards nurse fatigue and ill health and welcome the attention on this issue.” – Royal College of Nursing representative

“One member of staff was told by the catering team that veganism is a ‘lifestyle’ choice and not a dietary requirement therefore they are not required to provide food for them.” – NHS hospital manager

“Recommencing restaurant services on weekend would improve staff and visitor experiences. It would also make a significant difference for staff working on weekends and Bank Holidays to obtain good hot food especially during busy times.” – Registered nurse

Safety is key

Ensuring food is safe to eat is crucial; key to this is NHS hospital trusts fully recognising their role and legal obligations as food business operators, particularly as trusts are serving the most vulnerable consumers. After the listeriosis outbreak, it is essential that trusts and suppliers work together to regain public confidence that the food served in hospitals meets the highest standards of food safety.

Our recommendations on food safety are challenging: they require a forensic understanding of every part of the food supply chain and the right controls to be enacted at every stage. Trusts ultimately have responsibility for the safety of the food they give to patients, and must assure themselves that every one of their suppliers and contractors is meeting the highest standards. Communication and excellent contract management is key.

Food safety is seen by too many trusts as something purely in the realm of the catering team – but it's everyone's responsibility. All staff that come into contact with food are required to be instructed and/or trained in food hygiene matters relevant to their work – this includes 'non-catering' staff such as nurses, who may only be making a slice of toast for patients or handing out snacks (for more information on safety regulations please see Annex B).

The right tools

Well-trained hospital chefs need the right tools to be able to do their jobs. We found that there isn't a significant difference in quality between meals prepared on- and off-site – but hospitals need the right facilities for their kind of service, and these need to be modern and fit-for-purpose. The provision of ward-level kitchens particularly is important for food and snacks to be prepared or have finishing touches made flexibly and locally to the patient.

Developing dishes that are high quality and tasty is critical to success, but the biggest challenge can often be in ensuring the food is delivered within a timeframe and at a temperature that meets patient expectations. Many hospital buildings present significant challenges to taking a holistic approach to promoting health and well-being of patients, staff and visitors. However, we have a fantastic opportunity to get this right in terms of prioritising 21st-century design of catering and dining facilities for patients, staff and visitors, as the plans for the 40 new hospital building projects announced by this government start to take shape [21].

Going green

As an industry worth over £600 million [10], the NHS food supply chain must play a role in helping the government to meet its commitment to reduce greenhouse gas emissions to net zero by 2050. Sourcing sustainably-produced ingredients will help reduce emissions from production and transport, and can bring economic benefits to the local community through greater local spend. The NHS is already looking at how it can reduce its environmental impact, including recently pledging to eliminate avoidable single-use plastics from the NHS – starting with those used in catering [22].

Estates Returns Information Collection (ERIC) data, a mandatory data collection for all NHS trusts published annually by NHS Digital [10], shows that 14 million kilograms of unserved meals were thrown away in 2018 to 2019. Currently, plate waste is not measured nationally, so overall food waste from the NHS is likely to be significantly higher. It is reported that the annual cost of hospital food waste is £230 million [23], 39% of the total food budget. However, there is a lack of confidence in the data. With just 52 trusts out of a total of 227 [10] recording their food waste in the most recent data collection, it is important that the NHS begins urgently to take responsibility for its contribution to the nation's food waste problem.

Trolley, plate and production waste from patient catering in the NHS not only represents a significant environmental cost, but also a nutritional cost to patients, as well as a financial cost to the NHS at the expense of other frontline services.

The right funding and leadership

Hospital boards are the key agents for change in terms of ensuring sustainable improvements to hospital food for patients, staff and visitors. We have provided a checklist for trust catering managers and chief executives to measure themselves against and start to turn around their food service – or nudge it from good to great.

It is clear from the hospitals we have visited that the trusts that get food right are the ones who have supportive leaders who understand the value of nutrition and good food. These individuals play their part in the positive promotion of good nutrition and hydration and are proud to eat in the staff restaurant, which typically has the same dishes as are on offer to the patients. They see catering not as a budget to be cut, but an investment in the health of the whole hospital community. The promotion of nutrition and hydration requires a constant drive if there is to be an effective solution; investing in the ‘Power of Three’ approach, which empowers dietitians, caterers and nurses to join up their decision-making for patient care.

Catering usually comes under estates and facilities budgets, alongside cleaning, logistics, car parking and buildings. But nutritional care is a central part of a patient’s care. For some, including food with ‘soft facilities management’ has created a perception problem of its own and has directly impacted on how the service has been managed – it is arguably easier to cut the catering budget when it sits within your area of direct responsibility as director of finance.

To change the perception of hospital food, so that it is seen for its clinical benefit, directors of nursing must have accountability for food services as part of their remit over the nutritional care of patients. Joined-up working between the catering, nursing and dietetics teams is clearly a key success factor and the panel recognises that in some cases there may be benefits from the hospital food operation sitting within the estates and facilities team, as it is aligned with other key logistical contracts. However, in the best examples we have seen, menu planning for patients is a joint responsibility between nursing and estates, with the hospital’s food and drink strategy having representation from nursing, dietetics, catering, speech and language therapists, sustainability and staff health and well-being leads, and patients. This has proved a suitable governance structure in many hospitals and should be implemented across the board.

Some of the proposals in this report do cost money, and it is important that boards properly value nutrition and reflect that in their catering budget. However, it is clearly about more than just money, and some hospitals manage to spend less per patient while achieving better outcomes. There is no straightforward conclusion, and what works at one trust may not work at another. Learning from each other and not working in isolation is critical to success, and this is why we are recommending membership of helpful professional associations, such as the Hospital Caterers Association (HCA) as a basic requirement for all hospital catering teams. However, the focus needs to be on food safety, food quality, patient environment and the ring-fencing of catering spend.

To ensure quality is driven from the top, it is important that **boards and chief executives are regularly eating the same meal as patients**. This could include serving patient meals at board meetings. Even better, boards should make unannounced visits to the wards and eat with the patients. This would help the decision-makers better understand the issues faced at ward level. All staff should be encouraged to actively attend food tastings and food promotion sessions so they are aware of, and positive towards, the patient food and beverage services on offer.

What remains clear is that every hospital is different and every hospital faces diverse problems as it tries to improve its food culture. Getting around those problems requires ingenuity.

The imaginative solutions that we have come across have been a joy to behold, as has the passion, commitment and enthusiasm of our staff.



Recommendations

Appropriate nutrition and hydration are key elements in the care of our patients, and it's just as important for our staff and visitors' welfare. We must ensure that we care for our staff as much as we care for our patients and therefore the recommendations below apply to staff food just as much as to patient food. Indeed, in the best hospitals we've seen, the same food is served to everyone in the hospital.

1. Catering staff support

Attracting and motivating chefs in healthcare is extremely challenging. We would like to enhance our current structures and introduce opportunities to celebrate success.

- a. Develop a national training certificated course for hospital caterers, as part of a public sector training qualification.
- b. Provide an NHS catering apprenticeship scheme.
- c. Agree national professional standards with mandatory continuing, career-long professional development, including appropriate compulsory food hygiene and allergen training.
- d. Improve marketing and recruitment for hospital chefs and other members of the catering team, demonstrating that a career in hospital catering is a rewarding one.
- e. Celebrate success, for example, chef academies and NHS Chef of the Year award.
- f. Recognise excellence in catering teams and boost uptake of accreditations (such as in nutrition, quality and sustainability).
- g. Pay hospital chefs at band 3 as a minimum and support progression through pay bands for hospital chefs.
- h. Fund in-service training for hospital catering teams, especially chefs.
- i. Fund best practice hospitals to be training centres for others, to include mentoring and shadowing opportunities for hospital chefs.

2. Nutrition and hydration

A success story must include the role of clinical colleagues at ward level, who provide direct care to patients. In order to recognise the clinical importance of food in hospitals,

directors of nursing must have accountability for food services as part of their remit over the nutritional care of patients. A food and drink steering group with representation from nursing, dietetics, catering, speech and language therapists, sustainability and staff health and well-being leads, and patients has proved a suitable governance structure in many hospitals and should be implemented across the board.

- a. Ensure there is a named food service dietitian in every trust responsible for overseeing patient, staff and visitor catering, with appropriate funding to support this role outside of clinical responsibilities.
- b. Dietetics and catering to work together towards healthier food for staff, in line with the Government Buying Standards and government dietary advice such as The Eatwell Guide.
- c. Make nutrition and hydration a mandatory part of health and care professionals' training, including existing doctors' continuing professional development.
- d. Ensure food service is a mandatory part of the syllabus for dietitians.
- e. Ensure there is the right level of housekeeping and support staff in every hospital, and that food service is prioritised as part of their role, with appropriate training on food safety.
- f. Ensure constant communication and co-operation between dietitians, caterers, nursing teams and other associated groups, such as speech and language therapists.
- g. Develop an appropriate data-collection method on nutrition and hydration in all hospital settings, to ensure accurate monitoring and comparability.

3. Food safety

The outbreak of listeriosis in 2019 has led to a thorough investigation of what happened and why. To help avoid a repeat episode, purchasers must have an effective mechanism in place to assure food safety within their supplier base and drive improvements where necessary to ensure all businesses supplying high-risk foods meet the highest standards..

- a. There must be open and speedy communication channels for food safety concerns between auditors, local authorities, PHE, FSA, suppliers and trusts, with appropriate governance structures to ensure concerns are acted upon swiftly.
- b. Every trust must have a nominated food safety specialist and a named board member responsible for the food service.
- c. A mandated reporting procedure for food safety concerns for trusts and suppliers must be established, with penalties for not reporting issues.
- d. Raise standards of food safety audits for high-risk food manufacturers, so that they give confidence that the legal and contractual requirements are being met.
- e. Trusts must recognise their legal obligations as food business operators and ensure effective compliance with robust food safety procedures in place at all levels, that must be understood, enacted and verified.

4. Facilities

Although 'one size does not fit all', it is imperative that our current facilities for preparing, cooking and serving food, for patients, staff and visitors, receive suitable funding. Future planning for central production units, main and finishing kitchens, visitor restaurants, and staff kitchens and pantries needs to be planned effectively to enhance our standards.

- a. Provide funding for the upgrade of existing hospital kitchens and for the provision of ward kitchens, so that a 24/7 service can be provided for everyone; from a hot drink and a snack in the middle of the night to 24/7 meals for new mums in a maternity ward, or for patients hungry after a long fast due to surgery.
- b. If 24/7 food service is not available for staff, they must have access to appropriate facilities to safely store, prepare and eat their own meals at any time of the day or night. Facilities to prepare hot drinks must be available to all staff.
- c. All new healthcare builds should prioritise providing health-enhancing, fresh and sustainable food to patients, staff and visitors, while maximising local job opportunities by ensuring 21st-century catering facilities (such as restaurants, central kitchens, patient dining space, ward kitchens and so on) are included in the design phase and considered as part of any capital-funding bid.

5. Technology

In a number of hospitals, digital solutions are helping healthcare teams to collate food choices, manage allergies and diets, and minimise waste.

Every hospital to implement a digital meal ordering system by 2022, leading to:

- a. Safe ordering and mapping to patients' care plans.
- b. Menu offers tailored to patients' dietary needs and personal preferences.
- c. Minimum time between ordering and meal service.
- d. Reduction in waste.

6. Enforcing standards

There is very little evidence to prove that food and drink standards are being monitored closely enough. If we are to drive and improve standards, there needs to be a forum to share exemplary practice with a support process in place.

- a. Ambitious NHS food and drink standards for patients, staff and visitors to be put on a statutory footing and inspected by the CQC, with appropriate resources for the CQC to be able to do so.
- b. Standards to apply to patient, staff and visitor food, food manufacturers, food retailers and vending machines; including requirements for appropriate facilities to support patients and staff to eat well 24/7 when in the hospital environment.

7. Sustainability and waste

There is enormous inconsistency with purchasing high-quality products, understanding the role of sustainability and managing food waste.

- a. Ensure the use of the Department for Environment, Food and Rural Affairs' (Defra) 'A plan for public procurement: food and catering: the balanced scorecard' and the Public Services (Social Value) Act (2012), and that a 40% cost/60% quality split is mandated across the NHS for the procurement of food and all catering services.
- b. NHS trusts to agree a common method of recording and monitoring food waste.
- c. Food waste minimisation plans to be rolled out with a package of supporting materials, in conjunction with a campaign to raise awareness.

8. Going forward

Throughout the site visits and panel meetings, there was a clear signal that following the review, a suitable implementation plan must be managed and supported by a small expert group to demonstrate progress and change over an appropriate period of time.

- a. Set up an expert group of hospital caterers, dietitians and nurses, with input from infection prevention and control, and sustainability and staff health and well-being leads, to oversee hospital performance and progress against these recommendations, with suitable terms of reference.
- b. The expert group to maintain momentum and provide support to hospital caterers, dietitians and nurses.
- c. The expert group to be responsible for propagating the core principles of good food service throughout the NHS.
- d. The expert group to be adequately funded and staffed.
- e. The expert group to be accountable to the Secretary of State for Health and Social Care.
- f. The expert group to publish a post-implementation review.

A checklist for trust catering managers and chief executives

This is a brief guide for hospital catering managers, chief executives and boards, which every hospital can benchmark against with a view to actioning change, and improving the quality of its food for patients, staff and visitors.

- Appropriate person nominated at board level to champion food, including safety and nutrition.
- Food must be a standing item on board agendas and trusts should each have an up-to-date food and drink strategy and action plan.
- The same food served to patients should be regularly offered in staff/visitor restaurants (with any divergence justified by needs).
- Accountability for the entire food service operation from 'farm to fork' in food services should sit within catering teams.
- Patient food should be adaptable and patient focused with consideration of dietary need and patient preference.
- All hospital catering services to phase in the use of attractive ceramic crockery.
- Communal dining, away from a patient's bed, should be encouraged whenever possible.
- Ensuring hydration through access to water 24/7 as well as suitable beverages such as tea, coffee (including decaffeinated) or fruit infusions for all patients, staff and visitors.
- Understand and achieve a buying solution that endorses buying British where possible and where it provides demonstrable local social and economic value and environmental benefits.
- Caterers must aim to reduce their carbon footprint.
- Caterers must measure food waste and strive to reduce it.
- Hospitals and caterers should foster closer links with the community, recognising the hospital's role as an anchor institution in the community, looking for ways in which to donate or repurpose surplus food safely, for example via food banks or working with homeless charities.

- Hospitals should engage with other organisations, such as local catering colleges or their local Sustainable Food City to share best practice and amplify their impact.
- Every hospital must have an active membership of helpful professional associations, for example BDA (in particular the Food Services Specialist Group) and HCA.
- Good catering relies on clarity of budgeting – catering teams’ budgets should be ring-fenced.
- Constant effort will be devoted to engaging all catering staff in a common mission to do a good job.
- Catering staff must be well treated to ensure they enjoy their jobs.
- Good and inspiring training at all levels (from in-service nutrition for doctors, to food safety essentials for all involved in food provision including ward staff and volunteers) should be normal practice.
- Consideration should be given to adapting mealtimes to prevent long gaps between services.
- Out of hours menu 24/7 that includes hot meal and cold snack provision for patients, staff and visitors including special diets and children’s options.
- All hospitals should aspire to achieve 5 stars under the Food Standards Agency Food Hygiene Rating Scheme and maintain a minimum of 4 stars.
- Soup and sandwiches must not be served as the **only** meal choice in inpatient settings due to the inability of this option to meet the requirements of nutritionally vulnerable hospital patients. An alternative hot option must always be available.
- Minimum of two high-quality snacks offered to patients between meals (one in the evening) to support additional nutritional requirements; and must include those for healthier eating, higher energy, vegetarian, easy to chew, vegan, cultural, special and modified texture diets. Healthier snack options for different diets must also be available for staff and visitors.
- Poor-quality products should not be in use in hospital settings, for example whisk-and-serve style non-nutritious soups.

Chapter 1. Supporting the food heroes

Supporting hospital chefs and catering staff

Introduction

There are over 6,000 catering staff working in the NHS, excluding agency staff [24], and between them they fed approximately 125,000 patients per day in 2019 [25] [10]. The logistics of catering in over 963 hospital sites [26] all over England are fantastically complicated. There are many different types of hospital, and many different models of food provision. Kitchens come in all shapes and sizes, budgets vary and so do the people who make up the teams. Those involved in hospital catering include chefs, food service dietitians, catering assistants, nurses, hosts and hostesses, drivers, healthcare support workers, housekeepers, porters and supervisors. In this chapter we will focus on hospital chefs and catering staff, while Chapter 2 will look at dietitians, nurses and other ward staff.



Hospital chefs

Hospital chefs are expected to do something complex; serving patients nourishing and safe meals that taste great every day of the year, on a tight budget and on a short turnaround.

It is a tough assignment. It requires a workforce skilled in cooking, kitchen management, procurement and professional customer services; catering for diners ranging from infants to the frail and elderly. All diners will have varying nutritional requirements as well as physical, clinical and cultural needs. Yet the hospital food workforce is often overlooked within hospitals and is seen by many – and sadly, often sees itself – as the poor relation of the catering trade.

While some caterers and hospitals offer excellent training, this is not the norm. Many hospital chefs learn their kitchen skills on the job. The lucky ones may get to turn their hand to all sorts of things, from buying ingredients and cooking from scratch to butchering their own meat. But in other hospitals, catering staff may find themselves doing little more than arranging the food on the serving trolleys and reheating meals.

Responsibility for training and development has become decentralised with no accepted national standards, therefore formal training for hospital catering is often patchy. The emphasis tends to be on hygiene and safety training, which is required by law, rather than on cooking. Research undertaken to better understand catering staff's perceptions of their jobs, their career paths and future aspirations, found that the healthcare environment constitutes a relatively insular labour market, within which inward and outward mobility is rare [27]. The study found that managers in the sector do not receive enough training for their level of responsibility and are limited in their career aspirations outside the sector. The healthcare sector needs to address this issue of vocational insularity in what is a relatively large labour market to attract talent to the sector and to encourage greater innovation and ideas from other parts of the catering industry, thereby increasing the quality and appeal of hospital food.

The level of skill among hospital chefs varies widely. We've seen examples of hospitals where money has been spent on good catering equipment but where there is a significant skills gap between the chefs, the catering team and what the equipment is capable of doing, resulting in equipment going unused or not achieving its full potential. Conversely, we've seen skilled chefs hampered by outdated equipment.

None of this comes as news to the hospital food sector. It is something that the profession has been attempting to tackle for some time.

We believe that hospital chefs should be seen, and should see themselves as part of the broader catering profession. The core skills that are required of them are the same as if they were cooking in a restaurant or a school (or even greater, due to the complex needs of different patient groups). Ideally, they should be trained in skills that are transferable across their profession, giving them more flexibility – and status – in their careers.

Prue Leith has spoken about how we need to raise the self-esteem and the public standing of hospital chefs, so that more young people will join the profession. But they will never be proud of what they do, until what they do warrants that pride. So the training of chefs is vital. This is an industry-wide problem – even top restaurants struggle to find staff. We are not helped by the disappearance of catering courses at A level. If you are not cooking seriously in your last two years at school, you are unlikely to think of taking up cooking as a career.

Prue Leith also recognises that in a massively complicated business, like catering in the NHS, you are not going to get starry-eyed chefs in the kitchens worrying about micro-leaf

garnish, parmesan crisps and yuzu drizzle. But with the years of assembling pre-made, often pre-wrapped items, real chefs are a thing of the past in many hospitals and will need to be recruited and trained.

As for where chefs should be trained; the reality is that all chefs do most of their learning on the job. There will always be a role for off-site training courses – a change of scene and an inspirational teacher can work wonders – but the priority must be to ensure there is high-calibre training on-site.

There are some problems that are better solved from the bottom up rather than from the top down. The training of hospital chefs is one.

The best hospitals and catering contractors already provide their staff with high-quality training. More will do so if the demand is there. While it is unquestionably the role of catering organisations to ensure that their staff are skilled and motivated, they have a much greater incentive to do so if they can see that the trust chief executive is serious about improving the food service.

Standards are always higher in hospitals where the chefs and catering team have a close relationship with the senior leadership team, and where that team takes an interest in the recruitment and training of the catering staff.

It is up to all of us – patients, staff and visitors – to keep up the pressure from the bottom. Hospitals that demand a lot from their caterers generally receive it; and that means happy well-trained chefs, as well as happy, well-fed patients and staff.

Bring hospital chefs closer to the rest of the catering sector

Hospital chefs seldom meet or socialise with people from other areas of catering, such as restaurant chefs, farmers or food importers. They have little opportunity to make contacts or pick up new ideas from outside their immediate professional sphere. Catering staff are not currently motivated to want to work in the NHS and the status of hospital chefs compared to other industries is markedly low.

We want to bring the hospital food workforce into closer contact with the rest of the industry through continuous professional development, the sharing of good practice using professional networks like the HCA, site visits to find out about the latest ideas that are working well, as well as including them in high-profile trade events attended by other catering professionals.

This will give hospital chefs a chance to network, gain confidence, be inspired and entertained. They will be able to explore beyond the hospital food section and to listen to keynote speakers from across the industry.

Including hospital chefs in such events is one way of giving them the recognition they deserve, boosting both their status and their morale. And because they will be joining existing events, we can avoid the costs of starting a new one and attract others to the NHS part of the catering industry.

We also want to raise the sector's game by reinvigorating the NHS Chef of the Year award to inspire and motivate NHS catering staff, and by introducing chef academies, and making the most of the fantastic annual Salon Culinare awards event hosted by the HCA.

As a minimum, we want to see every trust become an active member of the HCA; this will enable us to hugely improve the communications to catering teams, and we would encourage

all trusts to support their catering teams' attendance at the HCA's Annual Forum and also at local branch activities [28].

Prue Leith has also agreed to find opportunities to include hospital chefs in her media development, to feature them in her journalism and to encourage others to include hospital chefs in various national food awards.

What 'good' looks like:

To inform its menu, one hospital used social media to ask its residents what their favourite meals are. Over 50% of dishes chosen by the public were included in the menu and these are highlighted by a clear logo. High-energy and healthier choice food are also indicated in the menu. The trust has put together its own food standards, which is supported with training, and includes how to plate up food so that what patients see on the electronic menu when ordering is what patients get when they are served. A mealtime quality-observation audit is carried out on each ward which includes pre-service, during meal and after-meal service. This helps with recognising good practice and areas in need of improvement.

Develop a more structured approach to training and qualifications for hospital caterers

The members of the Hospital Food Review Panel recommend setting up an expert group to facilitate closer working with catering colleges to improve public sector training for hospital chefs (see Chapter 8 for more information on this expert group). The panel has been impressed by training centres like Eastwood Park [29] and the Fire Service College [30]; and supports the creation of a training centre for hospital chefs on a national level. The training centre would link with catering colleges and act as a centre of excellence to raise the profile of hospital chefs, offering training and continuous professional development, networking and career progression. It could potentially have the opportunity to, for example, design and deliver national menus and innovative food service improvements.

This expert group will:

- Create a set of commonly accepted professional standards, detailing levels of required competence or responsibility, what skills should be expected of hospital catering staff in different positions (that is, degrees of expertise in food safety, knife work, food presentation, basic nutrition, management, procurement and so on).
- Identify the most useful and effective of the existing training courses available to hospital chefs – covering everything from cooking and management to budgeting.
- Encourage hospital caterers to make more active use of government apprenticeship schemes and work to establish an NHS catering apprenticeship.

- Promote training. We all know that training is important, but there is always a list of reasons why now is not the right time (money, cover, time and so on). This expert group wants to find ways to recognise those employers who invest in the success of their employees. We want to put hospital catering on the map by making the most of catering industry events to drive the future of NHS catering.
- Link hospital chefs together in regions as well as with the experienced chefs in our healthcare industry – it is vital that we learn from each other to drive standards. We must also use the existing expertise in the NHS workforce to develop and train others, for example, using dietitians who are the experts in complex dietary requirements to train and support chefs in nutrition.

We further recommend that nutritional-care education is regularly reviewed and updated for staff with relevant responsibilities, including chefs (this is set out in more detail in Chapter 2). Finally, we recommend that we think again how we advertise for hospital chefs – we currently only advertise on NHS Jobs and we feel that we can and should widen the field in order to secure new talent in an increasingly competitive market.

This must include competitive remuneration for qualified chefs at a minimum level of band 3, with support to progress through pay bands.

It is estimated that there are currently 250 FTE hospital chefs at pay band 2 [24]. The additional cost of paying these chefs at pay band 3 (including additional costs) would be approximately £600,000 per year, based on 2020/21 Agenda for Change pay scales [31].

Key recommendation: catering staff support

To be taken forward by the expert group linking with the Hospital Caterers Association, NHS England and NHS Improvement, the British Dietetic Association, and the Department of Health and Social Care.

Attracting and motivating chefs in healthcare is extremely challenging. We would like to enhance our current structures and introduce opportunities to celebrate success.

- a. Develop a national training certificated course for hospital caterers, as part of a public sector training qualification.
- b. Provide an NHS catering apprenticeship scheme.
- c. Agree national professional standards with mandatory continuing, career-long professional development, including appropriate compulsory food hygiene and allergen training.
- d. Improve marketing and recruitment for hospital chefs and other members of the catering team, demonstrating that a career in hospital catering is a rewarding one.
- e. Celebrate success, for example, supporting chef academies and NHS Chef of the Year award.
- f. Recognise excellence in catering teams and boost uptake of accreditations (such as in nutrition, quality and sustainability).
- g. Pay hospital chefs at band 3 as a minimum and support progression through pay bands for hospital chefs.
- h. Fund in-service training for hospital catering teams, especially chefs.
- i. Fund best practice hospitals to be training centres for others, to include mentoring and shadowing opportunities for hospital chefs.

Chapter 2. Food as medicine

Nutrition, dietitians, food service and ward staff

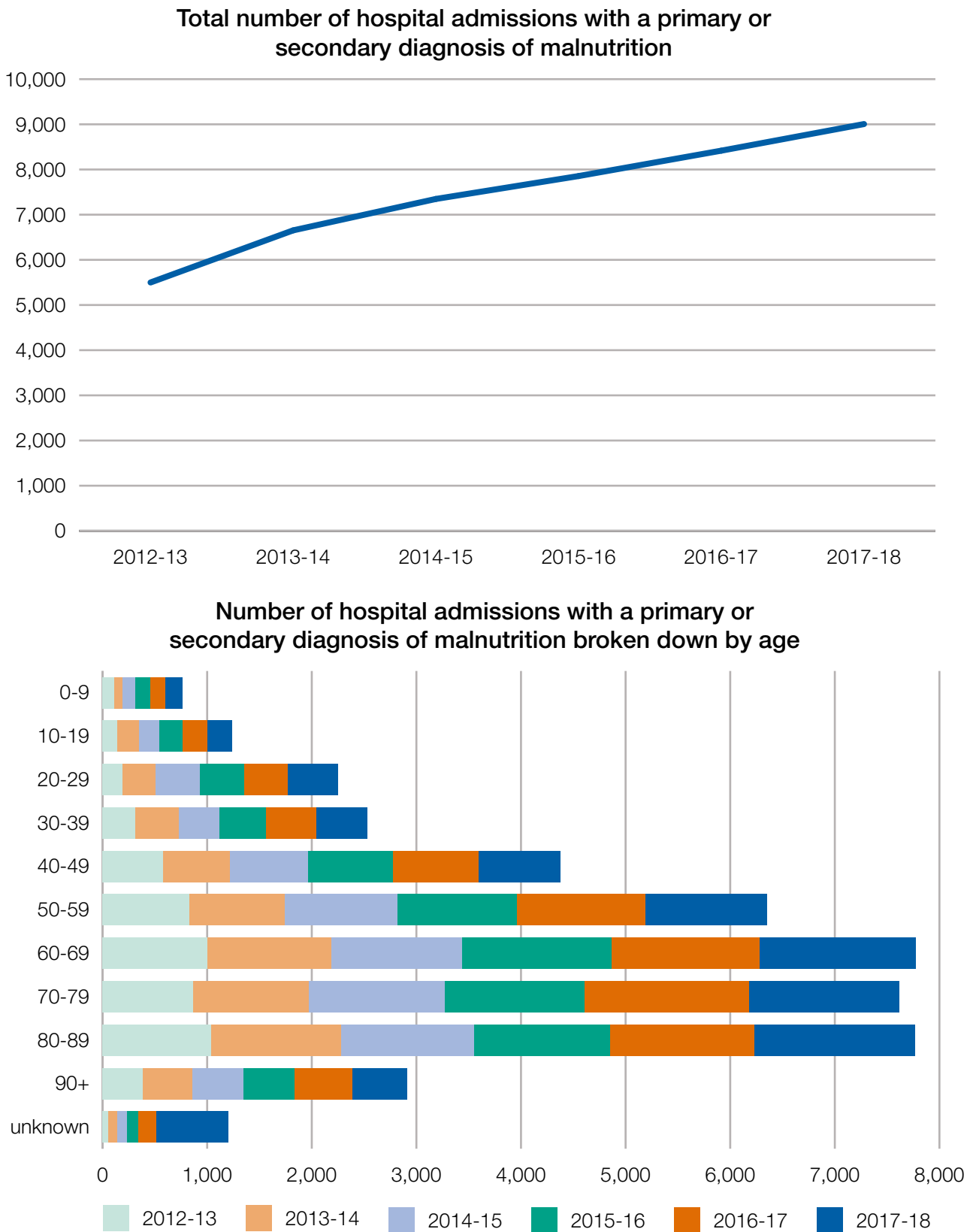
Introduction

It is important to consider that a significant proportion of the patient population are nutritionally vulnerable, very different from the population as a whole. 30% of patients admitted to hospital are at risk of malnutrition [32] and the number of hospital admissions for malnutrition is rising rapidly [33]. In this chapter, we are using the word 'malnutrition' to mean undernutrition, although it can be used to refer to other types of poor diet. The problem can occur among any age group and at any weight, and it is difficult to spot in the early stages.

At the same time, for those that are nutritionally well, eating a healthy diet reduces your chances of developing cancer, heart disease, diabetes, stroke – whatever your weight. Most patients, staff and visitors should aim, where medically appropriate, for a healthy balanced diet in line with The Eatwell Guide [34]. Data from the National Diet and Nutrition Survey [35] shows that, on average, the population consumes too much saturated fat, salt and sugar and not enough fibre. The obesity rate in the UK has risen from 6% of the population in 1980 to 29% today [36]. Even in our NHS, as many as 1 in 4 nursing staff is obese [37] – perhaps unsurprising when we consider the pressures on their time and the difficulties many face to eat healthily at work. The government has set out its plan to tackle the wider public health challenge with a new obesity strategy [3], and hospital food must form part of the solution.

Patients in long-term mental health care have different needs again, requiring an approach that takes account of their physical health alongside mental health. Obesity rates are higher among people with mental health problems, while eating disorders remain the most fatal form of mental illness. Clearly, we need to pay particular attention to how we provide for the nutrition and hydration of this particularly vulnerable patient population.

Figure 1: Hospital admissions for malnutrition [33]



Source: Hospital Episode Statistics (HES), NHS Digital.

The nutritional content of a meal becomes meaningless if patients do not eat it. When we are ill in hospital, we often don't feel like eating much at all, and if what is served to us is unappetising, cold, poorly presented, bland or arrives at a time we would not usually eat,

we will feel even less like eating. Our taste buds can change when we are unwell, further challenging the caterer to provide tasty food. Trying to recover without proper nutrition is much more difficult – indeed, malnourished patients spend 30% longer in hospital than patients who are not malnourished [32].

Too many patients report that their meals are simply unappetising. Although patients' satisfaction with hospital food has improved over the years, with the proportion of those saying that it was "very good" increasing from 19% in 2009 to 22% in 2019 [14], 14% rated it as poor in 2019. We should not be content with 1 in 7 patients having a poor experience of food in hospital when it is so important for care. All food and drink in NHS settings – regardless of whether it is for patients, staff or visitors – needs to be high quality and nutritious. If you would not serve it to your chief executive, you should not serve it to patients.

What 'good' looks like:

Many of the best examples of food we have seen in hospitals are where the same dishes are served to paying customers in their restaurants as are served to patients. This introduces a market incentive for improvement; the better the food, the more staff and visitors will pay to eat it, and the more income for the trust.

The key to improving nutrition for hospital patients, staff and visitors, is through an educated and empowered workforce that will deliver healthier, more appetising food. A strong relationship between the 'Power of Three' (caterers, dietitians and nurses) is vital. In Chapter 1 we detailed the importance of supporting and developing the catering workforce. In this chapter, we will look at the principles that underlie good nutritional care, and the other essential foundations of the 'Power of Three'.

A tailored approach to dietetics

It is vital that hospitals pay close attention to the different needs of patients, staff and visitors. Patients' needs will vary across different settings, different wards and even between individuals. Patients in many mental health facilities are more likely to face obesity-related health problems, partly because some psychiatric medications can cause weight gain. Long-stay patients are likely to get more tired of rotating menus. Some patients in acute settings are more likely to be nutritionally vulnerable and be at risk of malnutrition, therefore requiring higher energy and protein options. Patients with diabetes need easy access to appropriate snacks and drinks throughout their stay to self-manage their condition, where appropriate. We therefore need to ensure that the standards we apply to different settings are appropriate for the different needs of the particular patient group. Dietitians are best placed to help tailor the food offer to these different patient needs, drawing on their clinical and nutrition expertise.

What 'good' looks like:

One trust offers late evening meals to patients from 6pm to 7.30pm and allows patients to choose small, medium or large portion sizes for all meals. The choices are marked to help patients make their selection by highlighting soft, vegetarian, healthier and high-energy options. A member of the catering department can also provide a separate menu on request to satisfy the requirements of diverse cultures and religions, for example, lamb and chicken are sourced from suppliers that are approved by the Halal Food Authority.

If a patient were to miss a meal or had a procedure during meal service times, the nursing staff can contact the catering department for an alternative meal to be sent. Patients can also join their relatives for a meal in one of the hospital restaurants; the catering department provides a voucher equal to the price of their hospital meals.

The nutritional needs of staff and visitors can be quite different from patients. Staff are less at risk of undernutrition, and their needs are best met by making it easier for them to choose nutritious options which are lower in fat, sugar and salt and higher in fibre, to reduce the risk of diet-related disease. Unfortunately, it can be the case that a chocolate bar is the most convenient option for busy hospital staff, especially at night when vending machines may be the only option available. Hospitals should be beacons of good health – places where staff and visitors (as well as patients) can look after their own health and set an example for the community.

We heard through our engagement with hospital staff (see Annex C) that not all hospital restaurants and vending machines provide suitable and healthier hot and chilled options for those with particular dietary needs, such as vegans and people with food allergies. This is not acceptable. It is equally vital that there are suitable options on patient menus for certain special diets, including finger food and textured meals. A range of choices is necessary so patients staying more than one night can have variety.

Meeting the nutritional needs of the general hospital population, and the particular needs of individuals, requires a dedicated dietitian to work with the catering department. We have heard from some dietitians that they struggle to liaise with catering due to caseload pressures, and there is a lack of recognition and value for catering dietitians within trusts who feel that they are valued less than clinical dietitians. Clinical dietitians are sometimes seen as having little to do with the food service.

What 'good' looks like:

A long-stay mental health trust developed tailored sessions for dietitians to teach patients about nutrition. Many of its patients did not have much nutritional knowledge and a high proportion were at risk of obesity-related health problems. Some were also resistant to initiatives by the trust to make the food offering healthier. The lessons helped patients understand the principles of good nutrition and apply them to their own diet.

To generate greater enthusiasm around hospital catering as a specialism, we also want to see a greater focus on food service in the degree courses for dietitians and **we are** recommending, therefore, that food service continues to be a mandatory part of the syllabus for dietitians.

We will also recommend that there is a **named food service dietitian** in every trust, to promote improvement through food and beverage services that are cost-effective, good quality, safe, nutritionally adequate and meet the needs of patients, staff and visitors. The national standard definition [38] of the role (in brief) is that:

- This person will act as the main interface between catering and clinical services.
- This should be a senior post and funded as such, so that the dietitian has sufficient authority and experience to lead developments and initiate resolution of problems.
- This role should be exposed to all areas; food production, ward-level service, supplier procurement, finance and governance.

Each trust must assess how many posts, or what proportion of time spent on food and beverage services is appropriate for the food service dietitian in their hospital. The following minimums are recommended:

- Up to 500 beds – 8 hours (1 day per week).
- 500+ beds – 16 hours (2 days per week).
- 1,000+ beds – 24 hours (3 days per week).
- 2,000+ beds – 40 hours (full-time per week).

It is estimated that the NHS will be required to employ 75 new FTE dietitians to ensure there is a named food service dietitian in every trust at the levels specified above [25]. Assuming these dietitians are employed at band 7, it is estimated that the annual cost in additional salaries (including costs) would be approximately £4 million, based on 2020/21 Agenda for Change pay scales [31].



A 24/7 service

NHS hospitals are a 24/7 service, but due to previous savings, many hospital restaurants are only open for limited hours on weekdays; closing overnight, at weekends and bank holidays. Patient catering services are built around having three meals a day at mealtimes – though with some dinner services starting at 4:30pm, they are not always at times patients would usually eat.

We know that patients, staff and visitors have need for good, nutritious food options outside normal working hours. One in five NHS staff work in shifts, including overnight [39]. Patients may have missed the meal service when they were having surgery, or having a baby, or a scan. Some patients, particularly those who are nutritionally vulnerable, need to eat ‘little and often’. Others may just need a snack to keep them going between meals, or to enable them to self-manage their diabetes.

The very basics go without saying; all patients, staff and visitors must have 24/7 access to drinking water. Water must be as accessible as possible – not all patients can lift heavy water jugs. Staff need to be proactive in making sure patients’ hydration needs are met, including providing a variety of hot drinks (including decaffeinated coffee and herbal teas) and squash as well as water. It is clearly unacceptable that 7% of respondents to the Inpatient Survey said they did not get enough to drink, either through lack of assistance or not being offered enough drinks [14].

As for food, it should not be the case that patients have to order a mid-morning snack the night before. Basics, like toast, yogurt and fruit should always be available on request. This means having facilities on wards to store and prepare food safely.

What ‘good’ looks like:

The Food First approach to the identification and treatment of malnutrition uses NICE nutritional support guidance to help hospitals provide the best possible care to their inpatients, which includes quality basic ingredients (and a dedicated budget to provide these) such as:

- Good-quality tea and coffee (including decaffeinated), hot chocolate and malted drinks.
- Cakes and biscuits, where appropriate.
- Nutritious starter soups.
- High-energy cold food (as the smell of hot food can be off-putting for some), for example, sandwiches, salads, salted crisps, crackers, cheese portions.
- High-energy and protein snacks for all, supporting the needs of a wider range of patient groups, for example, custard pots, yogurts, cheese and crackers, rice puddings, toast, and for some patients, chocolate and crisps.
- Snacks that contribute less nutritionally will still be required as some patients may prefer these at times, for example, if feeling sick, just starting to eat or prefer something refreshing such as ice cream, ice lollies, jelly, fresh and tinned fruit, clear soups.

We have heard that some wards with patients with obesity-related health issues are reluctant to encourage snacking. This can be the case particularly on mental health wards. However, having healthier snacks available, if a patient requests it, will always be better than patients going off-site to stock up on high-sugar and high-fat alternatives. And the availability of snacks is key for patients with diabetes to support them to self-manage their condition, where appropriate.

It is equally essential for staff to have healthier options available at all hours to meet their needs. Shift workers, overall, report poorer health and higher incidences of chronic illnesses like diabetes than non-shift workers [8]. Their sleep cycles and metabolism can be severely disrupted. This means access to healthier options could be even more important for these staff, who make up over a fifth of the NHS workforce [39].

This is about valuing our staff and looking after their well-being. Some hospitals have provided overnight restaurant services for staff. This is ideal, provided that staff have the time to go to the restaurant and eat on their break. Different solutions work for different hospitals and trusts should be responsive to what their staff want; the British Medical Association’s Fatigue and Facilities charter [40] is a useful baseline.

Facilities where staff can store and prepare food, like fridges and microwaves, can make all the difference. Innovative trusts should also look at providing meals from the restaurant that can be reheated overnight, or providing food for staff on patient food trolleys at the end of the day. The important thing is the safety and quality of the food provided, to ensure that night staff are not disadvantaged compared to staff in the daytime.

We spoke to Dr Rupy Aujla, an A&E doctor, about his experience working in hospitals and his view that the hospital restaurant should be “the beacon of how everyone should eat”. We know we need to value and look after our hospital staff – the heroes of the NHS – and healthier meals play a huge role in personal health and well-being. But staff are busy and may not choose healthier options if it is not convenient and good value. Options that could encourage healthier choices are increasing the availability of healthier food and subsidising the cost. Both of these changes should be researched further to measure the effect on staff morale, well-being and absence. In 2018, sickness absence in the health sector was 3.1%, compared to 1.8% in the private sector [41].

We also note that the General Medical Council’s (GMC) recent report ‘Caring for doctors, caring for patients’ calls for minimum standards for basic facilities in healthcare organisations, including access to nutritious food and drink [19]. **We echo this recommendation and it should be taken forward as part of the work on the hospital food standards.**

What ‘good’ looks like:

At one hospital, staff on the busiest wards are offered excess, unserved food from the hospital restaurant at the end of the day, which is a great initiative to reduce waste and provide staff with hot meals.



‘Last Nine Yards’

The same food leaving the same kitchen can be delicious or inedible by the time it arrives at a patient’s bedside. What goes wrong – or right – between the plate leaving the kitchen and being eaten (or discarded) by a patient?

We want to strengthen our focus on this final step, which has been called the ‘Last Nine Yards’, to ensure consistently excellent food service. Central to good service is having the right staff, trained appropriately on the ward. Nurses are accountable for the nutritional care of patients and this has been an explicit responsibility in the Nursing and Midwifery Council’s code since 2015 [42]. However, we have heard that some nurses feel they do not have the necessary expertise in special diets, with increasingly complex requirements around allergens and dysphagia. Some nurses also feel they lack the time and support to carry out an excellent food service with all their other responsibilities.

It is nowhere near good enough that 18% of patients in the 2019 Inpatient Survey say they do not get the help they need to eat [14]. Effort also needs to be invested to ensure high-quality presentation to tempt patients’ appetites, including with high-quality crockery. Choosing crockery which contrasts in colour with the food on it can also encourage some patients, such as those with dementia, to eat more [43].

It is important that the environment and social aspects of the dining experience are considered. Professor Charles Spence has written extensively on the effects of the senses on the eating experience. He notes that hospitals are often very loud environments, and this may not be conducive to eating well; a solution may be to provide ambient music at mealtimes when possible [44].



What 'good' looks like:

- Flexible service times for patient groups, examples include: serving brunch as the first meal of the day in mental health units and a later supper, offering smaller more frequent meals over the day for oncology patients.
- Pre-meal preparation, that is, removing sick bowls, making sure patients are ready, decluttering tables, bringing people to a dining area, washing hands, pain relief or sickness tablets administered and so on.
- At mealtimes, all ward activity is focused on the meal service with extra assistance where required to support physical, social and medical barriers, while retaining dignity in eating, for example, dental issues, swallowing problems, dexterity, physical difficulties, such as opening packaging or using cutlery, the time it takes to eat, confusion.

Many hospitals are encouraging patients to eat away from their beds in a more social setting, as this can help patients to eat more than they would otherwise. Hospitals that operate 'protected mealtimes' policies must be aware of this; while it is beneficial to limit medical interventions during protected mealtimes, it is usually not appropriate to ban visitors during those times. In fact, the presence of friends, family or volunteers can be beneficial to a patient's dining experience. Clearly, social dining initiatives may not be possible at present in the context of the coronavirus pandemic, but when they are possible again, we think it's an important part of the solution, especially for vulnerable patients.

What 'good' looks like:

One hospital we visited runs teams of 'dinnertime companions' who are there to provide social companionship to long-stay patients as well as to support patients who may need a little bit of help with eating.

In another hospital we visited, the trust has been able to change its visiting hours to enable friends and family to join patients at mealtimes; supporting their eating and encouraging them to eat well by making it a more social occasion.

We would like to see hospitals aspire to patients, families and healthcare providers sharing communal mealtimes, as far as possible. Hospitals should help facilitate rather than discourage socialising between patients, although some patients may prefer to eat alone.

When the Patient Association recently asked patients if they would use a shared dining space if they were able to and it was available, 36.6% said they definitely would, 36.2% said that they might, 18.7% said they definitely would not and 8.5% were unsure. Although the sample size for this survey was relatively small, and the demographics may not be representative of all patients, it signals that there is demand for communal dining space in hospitals.

We've seen on our visits that many trusts do not employ ward hosts or hostesses, who traditionally perform a range of tasks, including supporting the food service. We have heard

that people in these roles have not been sufficiently valued for the essential work they do and, over time, more of their responsibilities have moved across to nursing staff who already have more than enough to do.

What 'good' looks like:

Focusing on what was important to patients, one trust created the opportunity of communal dining, allowing patients to interact and making mealtimes the focal point of the day. It also created growing gardens, using the produce in patient meals and providing therapeutic benefits.

Working with its service provider, the trust ensures that the ward host or hostess has nutritional information readily to hand and is trained to discuss the basic principles with the patient at the point of service. Ward kitchens equipped with toasters, ovens and fridges provide the hub for this flexible service.

We've heard that we need more investment in the people serving the food, so that they are trained to understand the importance of food not hanging around before or after being served; more consistency in catering staff rather than clinical staff serving the food; more people available on wards to assist people who need help eating; and better recording of patients' eating patterns. Ward staff, including nurses, hosts and volunteers, need appropriate training on food service, allergens, choking and dysphagia, food safety and nutrition, commensurate with their role, to ensure patients get a consistently high level of service.



What ‘good’ looks like:

We saw one hospital using a ‘traffic light’ tray system to help staff identify patients who need additional help at mealtimes. Everyone gets a coloured tray (which reduces stigma), with patients needing no help getting green trays, patients needing a little help getting yellow trays, and patients needing a lot of help getting red trays.

We know that some food and drink items in hospitals come pre-packaged in difficult-to-open packaging. This is convenient from the manufacturer’s point of view and is sometimes seen as necessary for infection prevention. However, it is much more attractive, for example, to open packaging and cut sandwiches into quarters, adding a garnish before service. Fruit juice is often served in yogurt-pot-style packaging, which is unappetising and institutional and is difficult even for people with full mobility to open; consuming precious staff time and causing unnecessary plastic waste. There are alternative solutions available.



What ‘good’ looks like:

We saw one hospital which is trialling reusable plastic cups for fruit juice. The juice is poured in the kitchen and the cups are lidded to prevent the spread of infection.

The cups are washed and reused afterwards along with the rest of the crockery. The catering manager found this was very simple, safe and cost-effective in the long term.

We must think creatively, work with suppliers to pilot new ideas, and always think about the patient's experience. Engaging infection-control teams early is essential to develop these innovative solutions and ensure safety is prioritised.

The NHS Packaging Taskforce is working with Sheffield Hallam University to get suppliers and manufacturers of individually-portioned, pre-packed, ready-to-consume products to use easy-to-open packaging; ensuring it is compliant with ISO 17480 guidelines. This is particularly important for older patients who typically experience declining strength and dexterity, and can free-up time for nurses and serving staff [45].

Nutritional Care is best served in teams

The panel is keen to drive home the importance of nutrition within healthcare, by ensuring nutrition is a key part of doctors' and nurses' training syllabuses.

Nationally, some doctors and medical students are asking for more nutrition education. Doctors acknowledge the importance of nutrition in the prevention and management of chronic disease, but can feel ill-equipped to translate this into practice, or to know when to refer on to a dietitian. The GMC explicitly states that all graduates should be able to discuss the role of nutrition in health [46].

Medical students report that nutrition does not appear to be a focus for the doctors that they meet on placements [47]. By including food in a clinical history, doctors could better identify nutritionally vulnerable patients and give advice on the role nutrition plays in health.

By supporting doctors to initiate more conversations around food we can improve nutrition care across the NHS and public health. This extends to other allied health professionals, nurses and beyond, from food producers to policy makers. **We want nutrition to become a mandatory part of all health professionals' training, including existing nurses' and doctors' continuing professional development.**

Key recommendation: nutrition and hydration

To be taken forward by the expert group linking with the British Dietetic Association, the Hospital Caterers Association, Higher Education Institutes, NHS England and NHS Improvement, and the Department of Health and Social Care.

A success story must include the role of clinical colleagues at ward level, who provide direct care to patients. In order to recognise the clinical importance of food in hospitals, directors of nursing must have accountability for food services as part of their remit over the nutritional care of patients. A food and drink steering group with representation from nursing, dietetics, catering, speech and language therapists, sustainability and staff health and well-being leads, and patients has proved a suitable governance structure in many hospitals and should be implemented across the board.

- a. Ensure there is a named food service dietitian in every trust responsible for overseeing patient, staff and visitor catering, with appropriate funding to support this role outside of clinical responsibilities.
- b. Dietetics and catering to work together towards healthier food for staff, in line with the Government Buying Standards and government dietary advice such as The Eatwell Guide.
- c. Make nutrition and hydration a mandatory part of health and care professionals' training, including existing doctors' continuing professional development.
- d. Ensure food service is a mandatory part of the syllabus for dietitians.
- e. Ensure there is the right level of housekeeping and support staff in every hospital, and that food service is prioritised as part of their role, with appropriate training on food safety.
- f. Ensure constant communication and co-operation between dietitians, caterers, nursing teams and other associated groups, such as speech and language therapists.
- g. Develop an appropriate data-collection method on nutrition and hydration in all hospital settings, to ensure accurate monitoring and comparability.

Chapter 3. Safe and sound

Food safety

Introduction

In the summer of 2019 there was an outbreak of listeriosis in which seven patients sadly died after eating hospital sandwiches contaminated with *Listeria monocytogenes*.

This was the context in which this review of hospital food was announced. The overall investigation into that particular outbreak was led by Public Health England (PHE), while the food chain investigation has been led by the Food Standards Agency (FSA) and relevant local authorities. This review has considered the broader issues around food safety in hospitals, drawing on the expertise of the FSA, PHE and other bodies.

COVID-19

The recommendations in this chapter were written before the COVID-19 pandemic. In this new context, they remain the right recommendations. The principles of infection control remain largely the same – although there is now an even greater urgency to them – with some additional precautions to prevent the spread of the virus.

Guidance for food businesses, which includes premises serving food such as hospitals, highlights that while it is very unlikely that virus is transmitted through food or food packaging, the usual safety precautions must be followed [71]. This includes staff who handle food washing their hands frequently for at least 20 seconds, and implementing robust food safety management systems based on Hazard Analysis and Critical Control Point (HACCP) principles. COVID-19 is a new risk that must be incorporated into workplace risk assessments and, where there are changes to ways of working, it is important to review your HACCP procedures.

Hospitals cannot contract out their food safety responsibilities. Even when catering services are contracted to a private supplier, hospital trusts must work with the suppliers and assure themselves that food services are safe for patients, staff and visitors, taking into consideration all stages of the supply chain and service.

Food safety in hospitals includes three key areas:

- Foodborne infections, such as listeria.
- Allergens.
- Choking.

This report and the work of the panel has focused on foodborne infections, as a result of the listeria outbreak in 2019. However, allergens and choking are key risks for patients, staff and visitors, and it is vital that trusts follow guidance in relation to these areas and consider them in their food safety management systems.

Foodborne pathogens, including *Listeria monocytogenes*, hereafter referred to as 'listeria' may cause illness to people in the community; foodborne illness is a much more serious issue for more vulnerable or immunocompromised hospital patients. In England there is an average of 166 cases of listeriosis reported annually, mostly in the immunocompromised or elderly [48]. Listeria in sandwiches and salads is the most common factor in outbreaks of foodborne illness acquired in hospitals. The focus of this chapter is on pre-prepared chilled food served to patients; however, the food safety recommendations in this chapter apply to all retailers, restaurants, cafés and vending machines on hospital premises.

There are three broad strategies to control foodborne listeriosis through consumption of pre-prepared sandwiches served in hospitals. Firstly, to minimise or eliminate contamination by listeria at the point of manufacture. Secondly, to prevent further contamination and growth of the bacterium in food by controlling temperature and shelf life in hospitals. Thirdly by restricting exposure by modifying the diet, particularly for vulnerable individuals. We have explored these three areas below.

Point of manufacture

Listeria is widespread in the environment, therefore raw food components, such as salad products, will inevitably be occasionally contaminated by this bacterium. Manufacturers of ready-to-eat foods must be aware of this and take all reasonable steps to control contamination of raw (as well as processed) foods. Where food is cooked, listeria should be readily eradicated since this bacterium is not particularly resistant to heat. However, there are risks of contamination after the cooking process. Listeria persists in harbourage sites in food factories which can lead to contamination of foods. This colonisation can remain for years and be difficult to eliminate.

Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs sets microbiological criteria for *Listeria monocytogenes* in ready-to-eat foods. For food 'unable to support the growth' of listeria, which includes products with a shelf life of less than five days (including most sandwiches), the bacterium should not exceed 100 colony-forming units per gram (cfu/g). In food that is 'able to support the growth' of listeria, the bacterium must either be 'not detected' in a 25g sample at the end of manufacture or must be less than 100 cfu/g at the end of the product's shelf life [49].

Manufacturers should take stringent actions to control colonisation of food production environments and reduce, as much as possible, contamination of foods from these sites. Microbiological testing does not assure food safety but will provide verification of the effectiveness of the food safety management system. Analytical test methods must be used

to detect the presence of *Listeria monocytogenes* in 25g samples and not just above the 100 cfu/g limit.

Although some level of tolerance of the bacterium has to be accepted, rigorous actions must be taken in response to detection of the bacterium, including reviews of: manufacturing practices, factory hygiene, and suppliers. Where persistent contamination is detected, this should be regarded as a failure of the food safety management system in preventing contamination.

Trusts are responsible for assuring themselves their supply chain is safe, and it is the responsibility of trusts (and NHS Supply Chain) to set the standards they expect from suppliers and auditors through their contracts. Guidance is available for hospitals from the FSA [50]. Most NHS trusts use a private company to accredit food suppliers as safe, but they must be aware that third-party accreditation is not a guarantee that a product is safe.

We heard that high street retailers and supermarkets often set their safety standards much higher than the legal minimum and audit much more frequently. This allows a safety 'buffer zone' and retailers will pay a premium for this additional level of assurance.

The NHS should not accept lower levels of safety assurance than the private sector, particularly as it is serving the most vulnerable consumers. Therefore, **we recommend that the NHS raises standards for food safety audits of high-risk food manufacturers so that they give confidence that the legal and contractual requirements are met.**

There is also concern that manufacturers may not be incentivised to actively look for and report listeria, due to concerns about their commercial contracts. There is currently no penalty for not reporting listeria if found. This can clearly lead to undesirable behaviour and does not promote the right culture of openness and transparency. There must be open and speedy communication channels for food safety concerns between auditors, local authorities, PHE, FSA and trusts with appropriate governance structures to ensure concerns are acted upon swiftly. We also recommend mandating a reporting procedure for food safety concerns for trusts and suppliers, with penalties for not reporting issues.

Although previous listeriosis outbreaks have been linked to food produced off-site by commercial manufacturers, **it should not be assumed that safety is higher for food produced on-site.** In fact, sandwiches and salads produced on-site using fresh ingredients may present more theoretical risk factors than those pre-prepared from external suppliers; however, it is not possible to determine which production method is higher risk.

Controls in hospitals

Evidence from the FSA from 16 outbreaks of foodborne illness in hospitals has shown that several NHS trusts have not always recognised their legal obligations as food business operators [51]. It is vital that NHS trusts recognise their legal obligations by registering with their local authority as a food business operator (regardless of whether catering services are contracted out) and effectively implement food safety management systems based on Hazard Analysis and Critical Control Point (HACCP) principles to ensure the safety of patients in their care (see a summary of legal food safety obligations in Annex B). The food safety management system should cover all food provision within the hospital, including the different routes by which food may be brought to patients and the way in which food is handled from central production, or receipt from suppliers, through to service on the ward, with clear



responsibilities along the way. Such systems should also incorporate how food is supplied to patients diagnosed with food allergies and to patients with swallowing difficulties like dysphagia, who are at risk of choking.

Following the FSA guidance for healthcare and social care organisations on reducing the risk of vulnerable groups contracting listeriosis will ensure effective mitigation of risks from listeria, where consistently implemented [50]. To provide additional assurance that this guidance remains fit for purpose, in the light of the most recent listeriosis outbreak in hospitals, the FSA has commissioned two independent experts to assess the guidance. The FSA are also conducting a user survey to explore any barriers which may affect practical implementation of the guidance in healthcare settings.

The evidence shows that premises with high food hygiene ratings are less likely to be associated with cases of foodborne illness [52]. All hospitals must be registered with their local authority and should aim to get a food hygiene rating of 5. Key failings identified in previous outbreaks have included cold chain issues, for example, unclear procedures for checking fridge/chilled trolley temperatures at ward level; inadequate cleaning of food contact surfaces and inadequate shelf life controls. One outbreak showed possible issues with sandwiches being left at room temperature for a long period of time at ward level, if a patient was away being examined [51]. The FSA also found responsibility for food safety at ward level was repeatedly confused and there were not clear HACCP systems in place. The FSA's investigation of the 2019 listeriosis outbreak found one trust was not registered with its local authority, and relationships between central catering and wards, who were serving food to patients, were non-existent. **Food hygiene training is often overlooked for 'non-catering' staff such as nurses, although it is a legal requirement for all staff who may come into contact with food [53].**

Opportunities for contamination of sandwiches on hospital sites are unlikely, as sandwiches are usually pre-packaged up until the point of service. However, controls must be implemented consistently to prevent any bacteria from growing to unsafe levels, including shelf life and temperature controls. The evidence suggests these controls need to be improved, especially at ward level [51]. Trusts must ensure ward staff who come into contact with food, including nurses, assistants or volunteers serving meals and helping patients **to eat, are trained in food hygiene to the appropriate level.** Appropriate HACCP food management systems must be in place. Trusts should also consider the benefits of giving the catering department oversight of food served at ward level, as there can be poor join-up and communication between caterers and ward staff.

Trusts should have a nominated, appropriately qualified, food safety specialist and an individual at board level accountable for food safety. They are responsible for ensuring they recognise their legal obligations as food business operators and ensuring effective compliance with robust food safety procedures that must be understood, enacted and verified.

What ‘good’ looks like:

Where issues have been identified with a supplier or a particular delivery, it is vital that a trust acts quickly to assess and mitigate risk. Staff must be empowered to reject deliveries which do not arrive at the correct temperature or where other risks have been identified. The FSA recommends putting a contingency plan in place so that alternative suppliers, who have been adequately assessed for food safety, can be used at short notice. This will ensure minimal disruption to normal food service if safety concerns are identified with a particular supplier or delivery.

Restricting the diet of vulnerable individuals

One option for preventing listeriosis could be to advise individuals, who may be particularly vulnerable to the infection, to avoid eating high-risk food, or to withdraw these items from patient menus.

The NHS website advises pregnant women to avoid eating certain high-risk foods [54], including:

- Some uncooked soft cheeses – including Brie and Camembert.
- All types of pâté – including vegetable pâté.
- Unpasteurised milk or dairy products.
- Any undercooked food.

These foods are generally not readily available on patient menus. There is no advice specifically for the immunocompromised. However, the FSA 2016 guidance states:

“With appropriate food safety controls and monitoring in place there should be no need to limit or restrict menu choice for vulnerable individuals” [50].

The panel has considered the case for withdrawing high-risk items such as sandwiches and salads from patient menus. These food items are popular choices and may play an important role in patient nutrition, particularly for some nutritionally vulnerable patients who may not want a hot option. There is also a risk that if patient choice on the menu is restricted, visitors may bring in sandwiches or salads from outside the hospital for patients; with or without the ward staff's knowledge. These may be higher risk, especially if stored at incorrect temperatures.

There is currently insufficient evidence that a ban on hospitals serving sandwiches and salads to patients would be an effective means of preventing foodborne infection. The safety of these products should be ensured; primarily through the supply chain, effective procurement practices, and food hygiene controls being consistently implemented within hospitals. At this time, the panel do not recommend a ban, for the reasons outlined above.

Key recommendation: food safety

To be taken forward by the expert group linking with public health experts, the Food Standards Agency, NHS Supply Chain, and NHS England and NHS Improvement.

The outbreak of listeriosis in 2019 has led to a thorough investigation of what happened and why. To help avoid a repeat episode, purchasers must have an effective mechanism in place to assure food safety within their supplier base and drive improvements where necessary to ensure all businesses supplying high-risk foods meet the highest standards.

- a. There must be open and speedy communication channels for food safety concerns between auditors, local authorities, PHE, FSA, suppliers and trusts, with appropriate governance structures to ensure concerns are acted upon swiftly.
- b. Every trust must have a nominated food safety specialist and a named board member responsible for the food service.
- c. A mandated reporting procedure for food safety concerns for trusts and suppliers must be established, with penalties for not reporting issues.
- d. Raise standards of food-safety audits for high-risk food manufacturers, so that they give confidence that the legal and contractual requirements are being met.
- e. Trusts must recognise their legal obligations as food business operators and ensure effective compliance with robust food safety procedures in place at all levels, that must be understood, enacted and verified.

Chapter 4. Bricks and mortar

Hospital catering facilities

Introduction

The decline of hospital kitchens has been widely reported. Sustain, a charitable alliance which champions sustainable farming and food practices, argues that “Increasingly, hospital trusts are deciding to close their kitchens and contract catering out to private companies providing pre-prepared ready meals” [55]. Some patients have a negative perception of frozen and pre-prepared meals, as found in the survey we commissioned from the Patients Association (though it is important to note the relatively small sample size and that this may not be representative). However, PLACE food scores for each hospital site, which are based on a range of factors relating to hospital food quality and provision, were not found to be significantly different for delivered meals and traditional on-site catering [26]. We have not found significant evidence that one form of catering production leads to better food than another.

Many hospitals have given over kitchen space to ward, office and other space over the years. Many have old fashioned kitchen facilities that limit what the hospital is able to prepare on-site, and some have been built to have no kitchens at all. On occasion, cash that should be going on catering facilities is going on other facilities as hospitals struggle to bring the fabric of their buildings up to scratch.

When this review was launched, some people had preconceptions about the importance of fresh, locally-sourced ingredients and cooking from scratch, while others were confident that pre-prepared meals also have a valuable role to play. We have heard arguments that a hospital with its own kitchen to freshly prepare and cook food can be more flexible and responsive to patient and staff needs, reduce waste and give a boost to local employment. We have also heard that the perception of mass-produced frozen food is outdated and that cook-chill or cook-freeze food prepared off-site enables a hospital to cater for every dietary need, is very safe in terms of food hygiene, meets the government’s precise nutritional standards and can be very high quality and tasty. And we have seen the extent to which manufacturers of frozen and chilled hospital meals are also providing employment opportunities to hundreds of local staff.

“Every visit I have made to food producers used by the NHS, I have noticed a strong record of producing ingredients of at least the same standard, if not better, than a fresh cook local operation.” – Craig Smith, Hospital Caterers Association

What we have certainly found through our engagement with trusts up and down the country is that good food is possible using all production methods. What matters is quality, the right workforce skills and employment opportunities. We have tasted good and bad food made from all production methods – whether it's been cooked on-site or provided by an outsourced manufacturing company as chilled or frozen dishes to be regenerated on-site. We have also seen examples of in-house NHS hub kitchens cooking all their own food on-site but then freezing it and providing it to wards in individual containers to be reheated, even within the same building. It's a complex picture, but what we all want to see is safe food that has not been over-processed, which comes from good quality, sustainable ingredients, and is prepared with skill and care and tailored to the needs of patients, staff or visitors who will be eating it.

The different types of catering provision in NHS hospitals

The following are the main types of catering provision in NHS hospitals, as recorded by PLACE data:

- Cook serve – food prepared in an on-site kitchen for immediate service (that is, not subsequently chilled or frozen).
- Delivered meals – food is produced off-site, whether by a commercial or NHS organisation (including another hospital in the same trust) and delivered to the hospital either chilled or frozen for reheating/regeneration. This option applies where protein (meat/fish and so on) is delivered and accompaniments (vegetables) are prepared on-site.
- On-site central production – food is produced on-site but is then either chilled or frozen for reheating/regeneration.
- Fully self-catered – this is where patients buy and cook food themselves (including where staff assist them) and where all patient meals (excluding breakfast) are provided through this method.
- Partly self-catered – this is where patients buy and cook food themselves (including where staff assist them) but this method applies to only one of the main meals, whether that be the midday or evening meal and excluding breakfast.
- Clinical exceptions – this is where all food, for all patients, for their whole stay is on a medically-prescribed basis (for example, tube fed, enterally and parenterally fed).

Current status of food service provision for patients

The tables below show how NHS hospital trusts provide food for patients by the number of sites and percentage of sites.

Food service type	Food service provision					TOTAL
	Contracted out	In-house	Mixed (in-house and contracted out)	Self-catering	None – clinical exceptions*	
Cook serve	176	254	30	0	0	460
Delivered meals	243	210	24	0	0	477
Fully self-catering	0	0	0	38	0	38
On-site central production	29	106	0	0	0	135
Partly self-catering	0	0	0	4	0	4
Clinical exceptions*	0	0	0	0	30	30
TOTAL	448	570	54	42	30	1,144

Table 1: Patient-Led Assessments of the Care Environment (PLACE) data 2019 [26]

Food service type	Food service provision					TOTAL
	Contracted out	In-house	Mixed (in-house and contracted out)	Self-catering	None – clinical exceptions*	
Cook serve	15%	22%	3%	0%	0%	40%
Delivered meals	21%	18%	2%	0%	0%	42%
Fully self-catering	0%	0%	0%	3%	0%	3%
On-site central production	3%	9%	0%	0%	0%	12%
Partly self-catering	0%	0%	0%	0%	0%	0%
Clinical exceptions*	0%	0%	0%	0%	3%	3%
TOTAL	39%	50%	5%	4%	3%	100%

Table 2: Patient-Led Assessments of the Care Environment (PLACE) data 2019 [26]

* clinical exceptions – hospitals and units without inpatient beds and those where patients have very specific dietary requirements.

The case for investment

Throughout the review, the panel has been considering the case for capital investment in catering facilities for NHS hospitals. We have concluded that investment is needed. Through our engagement with patients, staff, visitors and suppliers, we have seen that quality food can be delivered through a variety of production methods, but we have consistently seen that many hospitals are hampered from achieving this quality by inadequate facilities. Without increased investment to support hospitals with ageing or limited catering facilities, we do not see how the quality and presentation of food and drink, both inside and outside of mealtimes, can be improved across the NHS.

Specific capital funding needs to be targeted at transforming NHS healthcare catering, providing opportunities for new builds, major refurbishments, ward level innovations as well as funding of IT projects. This initial injection of new targeted capital funding, should it be approved, will enable healthcare catering to enter the 21st century and, ensure that services are in a fit state for generations to come.”

As we explored in chapter 2, facilities for staff are vital. Staff need clean, safe, well-equipped kitchens to prepare their own meals – especially those working on night shifts – and somewhere comfortable to eat them. They need access to basic facilities such as a kettle or toaster, in order to ensure they are able to look after their health and well-being and perform their best at work.

Hospitals are 24-hour services – but restaurants and shops close at night and at the weekend. Hospitals must offer their staff the ability to access healthy food 24/7. The best way of achieving this can be up to the trust to find what works for them. It could include overnight restaurant services, or chilled meals that can be heated up in microwaves when staff want them. It could be as simple as access to staff kitchens to prepare their own food.

Patients also need 24/7 access to food when they want it – for example, if a new mum wants a meal after giving birth in the middle of the night, it is invaluable if ward staff can make her a slice of toast or even heat up a chilled meal on demand. The ability to offer this flexible service is limited by the availability and facilities of ward-level kitchens.

We therefore see the areas in which capital investment could make the most difference is in the provision and upgrade of ward kitchens, staff facilities, and ensuring our main hospital kitchens are fit for the modern world. The provision of space for patients, staff and visitors to dine comfortably and sociably would also make a huge difference, where infection control measures allow. Even basic provisions such as movable tables and chairs for wards would allow patients to eat away from their bed, potentially increasing their enjoyment of meals and encouraging them to eat more. We believe that when new hospitals are being planned, food and catering services should be prioritised and considered as part of any funding bid.

This capital investment would bring numerous benefits to enable trusts to provide health-enhancing, quality food to patients, staff and visitors. It would enable catering teams to explore innovative food solutions safely and prepare them for the changing requirements of the future, including special diets and an ageing population. It would also ensure they meet the highest standards of food safety and hygiene required by the Food Standards Agency.

This investment could lead to savings from reduced food waste, reduction in length of hospital stays, and fewer staff sick absences. It would help provide better quality care for patients, improve staff satisfaction and boost public perception of the NHS.

What 'good' looks like:

One trust has invested in a new central production unit; upgraded ward kitchens, provided new on-ward meal and beverage trolleys, as well as a sophisticated computerised meal-ordering and production-management system, and a specialist vehicle to transport the food to other trust sites. There is potential to expand production and delivery to other hospitals in the future by operating evening and night shifts. A new menu will be introduced, offering patients 20 different meal choices, and 40 different snack options, every single day.



Key recommendation: facilities

To be taken forward by the expert group linking with the Department for Health and Social Care and NHS England and NHS Improvement.

Although 'one size does not fit all', it is imperative that our current facilities for preparing, cooking and serving food, for patients, staff and visitors, receive suitable funding. Future planning for central production units, main and finishing kitchens, visitor restaurants, and staff kitchens and pantries need to be planned effectively to enhance our standards.

- a. Provide funding for the upgrade of existing hospital kitchens and for the provision of ward kitchens, so that a 24/7 service can be provided for everyone; from a hot drink and a snack in the middle of the night to 24/7 meals for new mums in a maternity ward, or for patients hungry after a long fast due to surgery.
- b. If 24/7 food service is not available for staff, they must have access to appropriate facilities to safely store, prepare and eat their own meals at any time of the day or night. Facilities to prepare hot drinks must be available to all staff.
- c. All new healthcare builds should prioritise providing health-enhancing, fresh and sustainable food to patients, staff and visitors, while maximising local job opportunities by ensuring 21st-century catering facilities (such as restaurants, central kitchens, patient dining space, ward kitchens and so on) are included in the design phase, and considered as part of any capital-funding bid.

Chapter 5. Making it easy

Food service technology

The NHS is undergoing a digital transformation. The NHS Long Term Plan and the health secretary's vision for digital services in healthcare set out the "potential of cutting-edge technologies to support preventative, predictive and personalised care" [56]. Technology also brings significant benefits to productivity, freeing up staff to provide patient care.

An ethnographic study by New Dynamics of Ageing of current practice, regarding food provision for older patients across five hospitals, identified several factors which can contribute to poor nutritional care in this demographic [57]. These included inefficient and inflexible food ordering, where ordering systems are designed for easy processing by catering teams rather than to tempt appetite. They create shortcomings in screening and monitoring, and lack of accountability for nutritional care. Researchers identified a number of possible solutions for these issues, including designing a prototype for a digital nutritional-management and food-provision system. Numerous different systems are currently on the market and provide a range of benefits to patients and trusts.

What 'good' looks like:

We have seen hospitals using electronic menus to tailor offerings to individuals, improve choice, save staff time and reduce plate waste. One hospital in the Netherlands uses technology to record patients' dietary needs on admission to hospital, and then tailors their menus to the individual – only showing patients choices that are appropriate for them.

Technology does not replace staff accountability; rather, it can enhance it by embedding a chain of accountability for nutritional care. Systems can prompt and facilitate staff to complete a patient's nutritional screening on admission and weekly thereafter. They can facilitate the key relationships and communication between ward staff, dietitians and catering teams and can produce a discharge summary to assist information exchange between health and care settings.

Electronic food ordering systems can be linked to electronic patient records, so patients' nutrition becomes an integral part of their overall care. Some hospitals have been reluctant to do this because of the concerns over patient confidentiality between trusts and contractors. Under data protection requirements, the sharing of information that would be used in a patient's care would be justified. Menus can be tailored to individual needs and conditions, so for example, patients at risk of choking would see a menu of suitable pureed food and patients with heart conditions can be offered heart-healthy meals. Smart ordering, supported by technology, minimises the risk that patients with food allergies will be offered food that is unsafe for them.

It can also be used to store ingredient lists, nutritional information and real photos of the meals, to help patients make their choice. Pictures are useful for all patient groups to assist decision-making and appetite, but they are especially important for patients with learning difficulties, difficulty reading including due to dyslexia or sight loss, or patients for whom English is not their first language. This is not a substitute for person-to-person care, and patients will still need support from nurses, healthcare assistants or housekeepers to make their decisions, but it is a valuable tool to aid staff, patients and their families.

Electronic menus and ordering allow patients to choose their meal much closer to the time they will eat it as the data can be immediately sent to the kitchen – so patients are less likely to change their mind about what they want, leading to less food waste. When a patient moves wards or is discharged, the catering team can be alerted immediately, reducing the likelihood of food arriving on a ward that the patient has already left. If a patient has a scheduled operation or procedure, caterers know to send their food up when they get back to their bed.

Some technology can record how much of their plated meal a patient has eaten, making identifying and monitoring nutritionally vulnerable patients easier [58]. It can also record dish-specific feedback, which can be used to improve the overall quality of the catering offer.

Food service digitisation is clearly a useful tool to provide personalised care, while also offering benefits for nutrition and preventative healthcare, safety, reducing waste and freeing up staff time to care for patients. The benefits are potentially great for a relatively small investment and systems are adaptable for almost all types of trusts. Hardware, such as tablets, can be used for the food service application and other digital solutions such as electronic patient records, maximising the efficiency of the investment. The investment should also be weighed against the cost saving of not printing menus, staff time involved for processing and collating menu choices and transporting menu sheets to the kitchen, and reducing food waste. Efficiencies can be made not only at ward level but also for the whole catering process, from menu planning and ingredient purchase to stock management.

In Scotland, approximately £1.27 million was requested from the Scottish Government to roll out a National Catering Information System and Bedside Patient Electronic Meal Ordering Systems across the country throughout 2018 to 2019 and 2019 to 2020. In some cases Health Boards met additional set-up costs, including wi-fi technology and hardware, and they will also be required to meet ongoing system support costs. The net anticipated year-on-year savings are over £650,000 from a reduction in over ordering and production of food.

Key recommendation: technology

To be taken forward by the expert group linking with the Hospital Caterers Association, the British Dietetic Association, and NHS England and NHS Improvement.

In a number of hospitals, digital solutions are helping healthcare teams to collate food choices, manage allergies and diets, and minimise waste.

Every hospital to implement a digital meal ordering system by 2022, leading to:

- a. Safe ordering, mapping to patients' care plans.
- b. Menu offers tailored to patients' dietary needs and personal preferences.
- c. Minimum time between ordering and meal service.
- d. Reduction in waste.

Chapter 6. Hospital food and drink standards

Monitoring and ensuring compliance with hospital food and drink standards

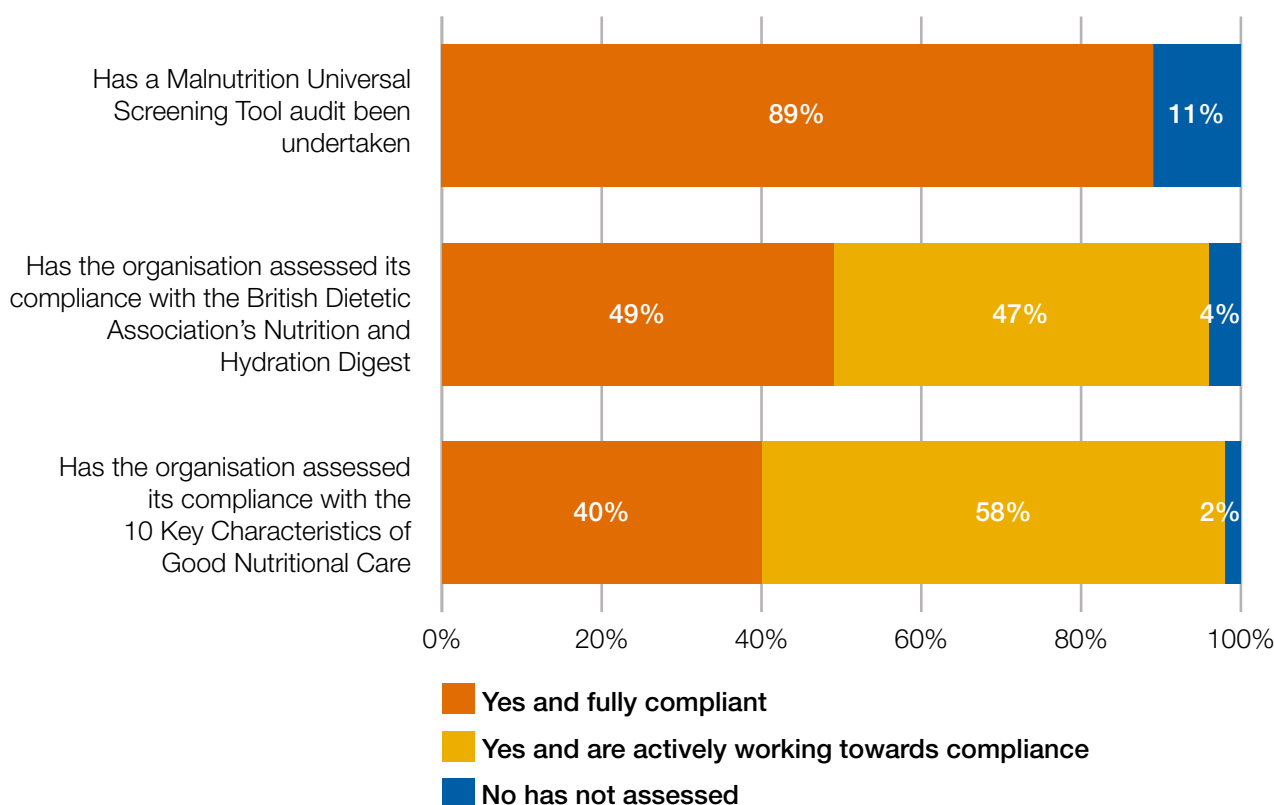
The NHS should be a role model for a healthier lifestyle. The messages we promote through public health campaigns should be clearly demonstrated and reinforced in hospital settings.

All hospitals must have, and maintain, a food and drink strategy and comply with the mandatory hospital food standards [59]. They cover nutrition, hydration, sustainability and procurement of patient, staff and visitor catering services. These are currently under review and will be published later this winter. The existing standards are:

- [The 10 key characteristics of good nutrition and hydration care](#)
- [Nutrition and Hydration Digest](#)
- [Malnutrition Universal Screening Tool](#) or equivalent validated nutrition screening tool
- [Healthier and More Sustainable Catering – Nutrition Principles](#) (this relates specifically to staff and visitor catering)
- [Government Buying Standards for Food and Catering Services](#)

The hospital food standards are included in the NHS standard contract [60] and, as such, they are compulsory for all NHS hospitals. Compliance has increased – by 2019, around 90% of sites were compliant with each of the food standards measured by PLACE data [26]. But there is concern that current monitoring processes have become a ‘tickbox’ process for some trusts and may not accurately reflect reality, and not all the food standards are included in PLACE.

Figure 2: Hospital sites compliant with nutritional guidelines



Source: Data from the 53 Hospital sites, PLACE 2018 [26].

The hospital food standards include the requirement to comply with the Government Buying Standards for Food and Catering Services (GBSF) [61], which include mandatory minimum standards for nutrition. The Department of Health and Social Care recently consulted on strengthening the nutrition standards to bring them in line with the latest scientific dietary advice [62]. The consultation response will outline the final updated nutrition standards, which apply to all food sold on NHS property, including in retailers, vending machines and restaurants. During this review, we heard from staff that they want access to healthier options from retailers and vending machines at work. The updated standards will help to make the healthier option the more convenient option too.

What 'good' looks like:

We know that increasing the availability and prominence of healthier options really works. Evidence from a trial of 17 vending machines in a national teaching hospital shows that increasing the availability and altering the placement of healthier options in vending machines had meaningful effects on purchasing behaviour. These changes suggested that it was possible to support healthier choices without affecting profits. In phase 2 of the trial, the commercial manager of the vending machines was willing to change the product selection of drinks and snacks in all 632 machines they manage across 105 NHS sites [72].

The Scottish Healthcare Retail Standard, which has a similar approach to the GBSF in that it requires all hospital food retail outlets to change the balance of food products stocked and their promotion to comply with nutritional criteria, has had a positive effect on the food retail environment in hospitals, increasing the availability of healthier options and reducing promotions of chocolate [63]. This study also found small but positive changes in the supply chain, such as increased availability of healthier products.

In Scottish hospitals, 97% of outlets were compliant with the Healthcare Retail Standard soon after the deadline of April 2017 and all were compliant by the end of 2017 [64]. This has had a real effect on customer behaviour [65].

The public need to be aware of the changes being made and why, in order to build support and encourage an expectation that the food environment should support people to make healthier choices. We should use the new GBSF to promote a 'health culture' for customers (including patients, staff and visitors) in NHS hospitals.

Shops in Scottish hospitals were audited by the Scottish Grocer's Federation's Healthy Living Programme with unannounced spot checks, and will continue to be audited every six months to ensure continued compliance [65]. The ultimate sanction for a retailer not complying was to have their contract withdrawn. This is where there is a key difference with how the GBSF are applied in English hospitals. It has now been six years since the NHS food standards, including the use of the GBSF, were introduced in the standard contract and the level of non-compliance must be addressed. It is clear that, currently, the incentives and penalties for compliance and non-compliance are not working.

To address this, **we recommend that the hospital food standards are enshrined in law**, like the school food standards are already. We must monitor what is happening in reality in hospitals, rather than relying only on self-reported survey data.

Role of CQC

One thing that the expert panel all agreed on from the start was that the Care Quality Commission (CQC) should in some way include food in its assessment of hospitals. CQC's remit is to make sure health and social care services provide people with safe, effective, compassionate, high-quality care and to encourage health and care services to improve. We might expect, therefore, the CQC to look at whether trusts are developing and maintaining a food strategy, and whether boards are gathering evidence of compliance with legal standards with regard to hospital food; as well as helping to assess the food safety, and potentially the nutrition improvements we are recommending.

We understand that CQC inspectors already consider behaviour and culture in the ward during mealtimes and the way the hospital promotes healthy lifestyles. However, often the focus needs to be on malnutrition, not just healthy diets. **We recommend that they consider revising their guidance for inspectors to instruct them to go further by:**

- Considering how meal service and the dining environment (where appropriate) contributes to the care of the patients.
- Asking trust executive teams for evidence that they are maintaining an up-to-date food and drink strategy and action plan to include the nutrition and hydration needs of patients, healthier eating for the whole hospital community, especially staff, and sustainable procurement of food and catering services.

- Checking that there is a named person on the board responsible for the food service.
- Guaranteeing that every CQC report will include detailed consideration of regulation 14 [66].
- More regularly making use of dietitians and caterers as expert advisors as part of inspections

We expect this to have a significant impact because we know that trust chief executives and their teams often read CQC guidance as a way of maintaining readiness to be inspected. We would like to offer to work with CQC on the final wording of this guidance.

The CQC has responsibility for overseeing nutrition and hydration care as part of its remit, but it needs to be seen as a higher priority for the organisation. **The CQC must have an enhanced role in relation to compliance with these standards. Inspectors should be supported more by dietitians and soft facilities management experts to assess compliance and there must then be plans put in place to support struggling trusts.**

Key recommendation: enforcing standards

To be taken forward by the expert group linking with the Department for Health and Social Care, NHS England and NHS Improvement, and the Care Quality Commission.

There is very little evidence to prove that food and drink standards are being monitored closely enough. If we are to drive and improve standards, there needs to be a forum to share exemplary practice with a support process in place.

- a. Ambitious NHS food and drink standards for patients, staff and visitors to be put on a statutory footing and inspected by the CQC, with appropriate resources for the CQC to be able to do so.
- b. Standards to apply to patient, staff and visitor food, food manufacturers, food retailers and vending machines; including requirements for appropriate facilities to support patients and staff to eat well 24/7 when in the hospital environment.

Chapter 7. Going green

Sustainability and reducing food waste

Introduction

The government has committed to reduce net greenhouse gas emissions to zero by 2050. To achieve this, the public sector and NHS must play a leading role in reducing its own carbon footprint, including through sustainable procurement practices. The NHS Long Term Plan supports wider social goals and recognises the NHS as an ‘anchor institution’ [17]. With an annual budget of £114 billion in 2018 to 2019 [11], and employing 1.4 million people, it is clear that the NHS has a key role in creating social value in local communities.

The government is currently exploring the issue of sustainable food and agriculture in the UK through its development of the first National Food Strategy for 75 years. Part One of the Strategy was published in July 2020, focussing on issues related to COVID-19 and Brexit [4]. Part Two, due to be published in 2021, will explore the role that public sector food procurement might have in restoring and enhancing the natural environment for the next generation in this country; in building a resilient, sustainable and humane agriculture sector; and in being a thriving contributor to our urban and rural economies, delivering well-paid jobs and supporting innovative producers and manufacturers across the country. This overlaps with recent policies to improve the diet of the general population, including the obesity strategy [3]. The new hospital food standards (currently under review) will help to encourage corporate responsibility and the procurement of environmentally sustainable food within NHS trusts. NHS England has also recently pledged to eliminate avoidable single-use plastics from the NHS – starting with those used in catering [22].

Environmental sustainability is a wide-ranging topic, but this review has focused on where we think we can make the biggest difference: on procurement and supply chain sustainability, and on reducing food waste.

More sustainable procurement

The NHS has a huge amount of buying power, particularly when trusts work together, and can therefore significantly influence improvements to farming practices as well as improving environmental outcomes and enhancing social value.

In hospitals, there are many elements that create a sustainable food system. We already have robust tools in place to support environmentally sustainable food in NHS hospitals such as

the Public Services (Social Value) Act [67], and this is an area where Part Two of the National Food Strategy could seek to go further.

The Hospital Food Review Panel has been exploring opportunities for managing food procurement sustainably in hospitals. We are recommending that, as part of the food standards, organisations should use Defra's 'A plan for public procurement: food and catering: the balanced scorecard' [68] to assess their procurement and catering practices.

It is not a new idea to consider that the food served in public institutions, including hospitals, meets key government objectives on the environment; and is procured in a way that enables organisations to consider quality issues that, along with price, must be taken into consideration by buyers when looking for value for money. Public sector procurement has long recognised the need to promote value for society, environment, and the local economy and there have been previous government initiatives to encourage public sector bodies to purchase food in a sustainable way and to help local and small businesses compete for public sector contracts. There is also growing interest in the NHS about its role as an 'anchor institution' with considerable awareness of the economic, environmental, social and health benefits of sustainable food procurement by public bodies.

These intentions have previously proved difficult to translate at local level, which is why we have been exploring opportunities for managing food procurement sustainably and promoting healthy eating across acute, community and mental health hospitals. The new NHS food standards will include recommendations regarding mandatory procurement standards along with the tools to support implementation. Through making food procurement and catering more sustainable and reducing the amount of food wasted by the NHS in hospital settings, we are aiming to support the NHS to be socially responsible and to be a beacon of good health and good citizenship.

The panel notes that there may be a tension between the drive for sustainable and healthy food procured locally to meet the needs of a local population, and the Carter recommendations [69] in relation to food where the objective is a national contract. The panel's view is that recent moves by NHS Supply Chain to single deliveries will inevitably reduce innovation and potentially the quality of hospital food. The expert group will continue to monitor this area with interest and will, in time, want to consider the role of NHS Supply Chain as the nominated supplier of food to the NHS, and the benefits and drawbacks of bulk-buying as compared with more local procurement.

Independent accreditation is a robust way to demonstrate that trusts are meeting strong sustainability criteria and complying with the relevant mandatory standards. Trusts with a Soil Association 'Food for Life Served Here' award [70], for example, can demonstrate their commitment to a wide range of product assurance schemes, including: Red Tractor, Fairtrade, LEAF Marque, Marine Stewardship Council, Freedom Food, and Organic. This will generally guarantee very good or excellent performance by the hospital catering team against Defra's balanced scorecard [68]. We recommend, therefore, that NHS trusts should strongly consider acquiring a suitable accreditation in line with their style of service.

What 'good' looks like

Some trusts have seasonal menus as they have the added benefit of promoting local procurement, along with reducing food miles and air pollution. Local and seasonal food can have substantial environmental benefits, while local procurement and employment provide social and economic benefits. Seasonal foods are also less expensive due to availability of larger quantities which means more scope for savings. Menu design should cover seasonal and local produce with sound provenance, sustainable fish, less and better meat, as well as supporting agroecological farming.

Defra's balanced scorecard

Defra's balanced scorecard is available to trusts for public food procurement [68].

The scorecard describes an evaluation approach where more straightforward criteria, such as cost, are 'balanced' against more complex criteria, such as health and well-being, resource efficiency and quality of service.

By using a balanced scorecard, priority themes such as farm assurance, food waste management, and engagement with small and medium enterprises (SMEs) can be built into procurement decisions, alongside well-established criteria, such as animal welfare, nutrition, and energy management.

However, there are no systems in place to monitor compliance and anecdotal evidence suggests that the trusts who are using Defra's balanced scorecard are the ones who are more likely to be prioritising sustainability with comparatively lower food waste.

Social responsibility

The Public Services (Social Value) Act, 2012 [67] came into force during 2013 and introduced a statutory requirement for all public bodies and all public services to have regard to economic, social and environmental well-being in connection with 'public services contracts' within the meaning of the Public Contracts Regulations, 2006. This is a key piece of legislation that is not being implemented. If it was, the panel considers there would be multiple benefits.

Commissioners and procurers should be taking a more holistic value for money approach in assessing food contracts and not prioritise the lowest cost over quality. The Social Value Act complements this approach. It also enables greater recognition of the contribution of Voluntary, Community and Social Enterprise (VCSE) organisations and local businesses.

The Department of Health and Social Care, NHS England and NHS Improvement, and trusts also need to be specific about new needs and standards and send clear messages to food contractors about their expectations through contract specifications. Food contractors can then work with existing and new suppliers to develop new food products and services that benefit both parties.

To measure the impact of any proposals we need to know what proportion of spend goes on sustainable produce, how many local jobs are sustained and how much social value is created. More national evidence on the proportion of spend on sustainable produce, resource

efficiency and benefits to local job provision is required and the expert group will work with partners, including Defra, to develop this further.

Buying British

Buying British can offer benefits to local farmers and communities and help reconnect consumers with where their food comes from. Choosing British means supporting the economy; everyone from the farmer, to those who work in food processing and the retailers selling the food. British food travels a shorter distance from farm to shop and supports the local food economy. Foods in season contain the nutrients, minerals and trace elements that our bodies need at particular times of the year. British meat is produced to some of the highest welfare standards in the world. If trusts let their patients, staff and visitors know that they are using British products in the meals they offer, it could help change perception and drive more trusts to do the same.

What 'good' looks like:

One trust sought to improve food quality for patients by looking at the proportion of local produce it purchased to see if this could be increased. The initiative resulted in a noteworthy increase in patient satisfaction scores with hospital food and led to contracts being awarded to local suppliers. In changing its practices, the trust received several catering awards.

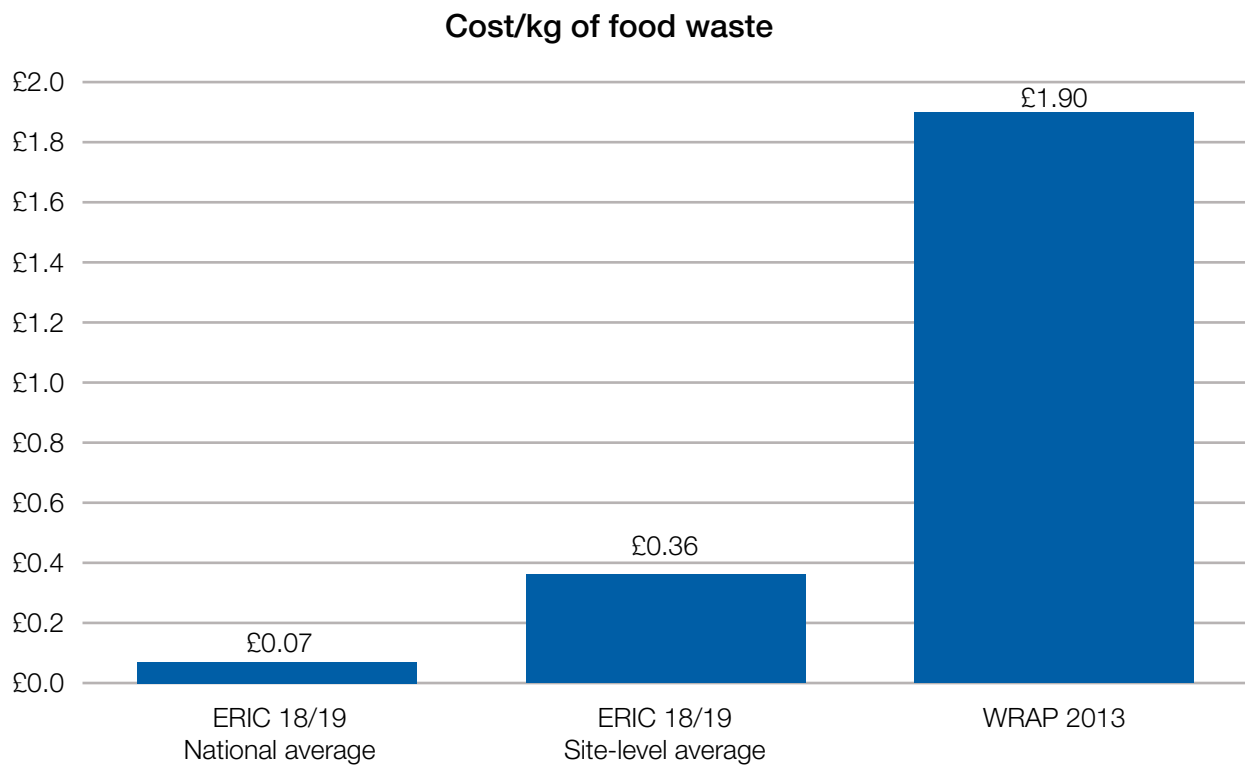
Food waste

WRAP have estimated that food waste represents a cost to the UK healthcare sector of £230 million [23] each year which includes food procurement, labour, utilities and waste management costs. ERIC data [10] shows that 14 million kilograms of unserved meals were thrown away in 2018 to 2019, and a large number of sites do not report this at all, so this is likely to be a significant underestimation. Currently, plate waste in NHS hospitals is not measured nationally.

Plate waste in hospitals refers to the food served that remains uneaten by patients. High levels of plate waste can contribute to malnutrition-related complications and there are also financial and environmental costs. There is currently no mandatory framework to record plate waste and limited accountability mechanisms in place to benchmark and drive improvement. By taking a few steps to waste less and recycle more, the NHS can reap financial as well as environmental benefits.

Food waste data is currently underreported. In 2018 to 2019, 81% of hospital sites that provided food service did not report their food waste data and there is significant regional variation. The graph below shows the disparity between the data reported by trusts [10] and the 2013 WRAP report [23]. Poor reporting of food waste by trusts means that it is hard to confidently identify the scale of the problem and to plan and implement the case for positive change. What we can say is that there is clearly an opportunity cost both in terms of the amount of food waste and its (mis)management which the panel is keen to see trusts tackle.

Figure 3: ERIC food waste data and WRAP 2013 report [2] [19]



Source: NHS Digital, Estates Returns Information Collection England, 2018-19. WRAP, Overview of Waste in the UK Hospitality and Food Service Sector, 2013

What 'good' looks like:

The panel has seen great examples of hospitals passing on excess food to local organisations who can use it for the benefit of others, where appropriate. For example, hospital kitchens providing unopened dry goods to local food banks. There has also been interest in encouraging hospitals to provide excess cooked and chilled foods to, for example, local soup kitchens or hospital staff working night shifts. This can work well, provided hospital kitchens are mindful of the temperature control of leftover foods and that they are controlled in the same way as any other food. It is the trust's responsibility to comply with food law and ensure that the food supplied to any third party is safe.

Key recommendation: sustainability and waste

To be taken forward by the expert group linking with the Department for Environment, Food and Rural Affairs, NHS England and NHS Improvement, WRAP, and the Hospital Caterers Association.

There is enormous inconsistency with purchasing high-quality products, understanding the role of sustainability and managing food waste.

- a. Ensure the use of the Department for Environment, Food and Rural Affairs' (Defra) **'A plan for public procurement: food and catering: the balanced scorecard'** and the **Public Services (Social Value) Act (2012)**, and **that a 40% cost/60% quality split is mandated** across the NHS for the procurement of food and all catering services.
- b. NHS trusts to agree a common method of recording and monitoring food waste.
- c. Food waste minimisation plans to be rolled out with a package of supporting materials, in conjunction with a campaign to raise awareness.

Chapter 8. Making it happen

How we will monitor and measure progress against these recommendations

The recommendations in this report are wide-ranging, with variation both in terms of priority and ease of implementation and we are aware of the burden of existing reporting frameworks on NHS staff. To encourage hospitals to make positive changes to their hospital food and to assess whether the recommendations outlined in previous chapters have been successful, we are keen to establish an expert group to measure both their implementation and uptake.

The forming of a small, committed group of experts who understand the drive and potential of the review, under a formal arrangement, will ensure that the recommendations will be met in a suitable timescale. We have estimated the running costs of the expert panel to be around £500,000 over a three year period

The group will promote the core principles of good food service throughout the NHS and a structured programme will ensure that the recommendations of the food review panel are taken forward and healthcare is prepared for future phases of improvement in healthcare catering.

Key recommendation: going forward

Throughout the site visits and panel meetings, there was a clear signal that following the review, a suitable implementation plan must be managed and supported by a small expert group to demonstrate progress and change over an appropriate period of time.

- a. Set up an expert group of hospital caterers, dietitians, sustainability and staff health and well-being leads, and nurses to oversee hospital performance and progress against these recommendations, with suitable terms of reference.
- b. The expert group to maintain momentum and provide support to hospital caterers, dietitians and nurses.
- c. The expert group to be responsible for propagating the core principles of good food service throughout the NHS.
- d. The expert group to be adequately funded and staffed.
- e. The expert group to be accountable to the Secretary of State for Health and Social Care.
- f. The expert group to publish a post-implementation review.

Conclusion

If we accept that being surrounded by loving family, familiar and safe nutritious food and a caring, integrated healthcare team can result in a better hospital experience, then we must all take responsibility to push for the systemic change in the hospital environment that will make these goals achievable.

COVID-19 has further highlighted the need for good nutrition in hospitals and more widely in society. It has tested our amazing healthcare and catering staff like never before and it will continue to impact on the way we deliver healthcare for years to come. Nonetheless, we strongly believe that the recommendations included within this report need to be taken forward as a matter of urgency.

It's in the interest of government to support everyone to lead healthier lifestyles. This cannot be achieved without making food and diet a priority. The good news is that this government does seem to have woken up to the importance of food to our economy and to our health and happiness. The first sign of this was the establishment of the National Food Strategy, chaired by Henry Dimbleby, Part One of which was published in July 2020 [4]. Part Two, due for publication in 2021, will map the principles that will underlie future policy in farming, food production, food education, government procuring and much else, with an emphasis on quality, health and sustainability. Furthermore, the obesity strategy [3] published in July demonstrates that the government understands the relationship between food and health, especially in the wake of COVID-19, and, more importantly, are committed to doing something about it.

It stands to reason that where government can directly influence the nation's diet, it should do so, starting with where it spends our money. Bad food is likely to lead to future ill health and therefore more cost to the taxpayer. The public sector must lead by example.

Equally, since we urgently need to reduce our carbon footprint and preserve our natural resources; the government should, where possible, prioritise buying sustainably-produced food from UK farmers, rather than foods produced to lower environmental, social, or animal welfare standards, imported from other countries.

The unfortunate circumstances that have driven the pace of the review gives opportunity for a radical change. NHS colleagues, suppliers and fellow professionals are driven to improve our current position, reaching a consistent standard of which we can be proud.

We all know how important good food is, not only to health, but to morale. Eating should be a joy and a sense of occasion. Food should be a pleasure. Serving quality food, whether a sandwich or a banquet, can be the most satisfying of jobs. We are in a great industry, and we should be proud of it. We need to apply our efforts towards being the best, and not ever be satisfied with poor food.

References

- [1] Public Health England, “Excess weight can increase risk of serious illness and death from COVID-19,” 25 July 2020. [Online]. Available: <https://www.gov.uk/government/news/excess-weight-can-increase-risk-of-serious-illness-and-death-from-covid-19>. [Accessed 18 August 2020].
- [2] Public Health England, “COVID-19: review of disparities in risks and outcomes,” 2 June 2020. [Online]. Available: <https://www.gov.uk/government/publications/covid-19-review-of-disparities-in-risks-and-outcomes>. [Accessed 18 August 2020].
- [3] Public Health England, “Major new campaign encourages millions to lose weight and cut COVID-19 risk,” 27 July 2020. [Online]. Available: <https://www.gov.uk/government/news/major-new-campaign-encourages-millions-to-lose-weight-and-cut-covid-19-risk>. [Accessed 18 August 2020].
- [4] H. Dimpleby, “National Food Strategy: Part One,” July 2020. [Online]. Available: <https://www.nationalfoodstrategy.org/partone/>. [Accessed 18 August 2020].
- [5] NHS England and NHS Improvement, “After-care needs of inpatients recovering from COVID-19,” 5 June 2020. [Online]. Available: <https://www.england.nhs.uk/coronavirus/publication/after-care-needs-of-inpatients-recovering-from-covid-19/>. [Accessed 18 August 2020].
- [6] BDA, “Nutrition in hospital after critical illness,” 15 June 2020. [Online]. [Accessed 18 August 2020].
- [7] Meals for the NHS, [Online]. Available: <https://www.mealsforthenhs.com/>. [Accessed 18 August 2020].
- [8] NHS, “Shift workers more likely to report poor health,” 18 December 2014. [Online]. Available: <https://www.nhs.uk/news/lifestyle-and-exercise/shift-workers-more-likely-to-report-poor-health/>. [Accessed 18 August 2020].
- [9] Food Standards Agency, “Qualitative risk assessment on the risk of food or food contact materials as a transmission route for SARS-CoV-2,” 12 June 2020. [Online]. Available: <https://www.food.gov.uk/research/research-projects/qualitative-risk-assessment-on-the-risk-of-food-or-food-contact-materials-as-a-transmission-route-for-sars-cov-2>. [Accessed 18 August 2020].

- [10] NHS Digital, “Estates Returns Information Collection Summary page and dataset for ERIC 2018/19,” 17 October 2019. [Online]. Available: <https://digital.nhs.uk/data-and-information/publications/statistical/estates-returns-information-collection/england-2018-19>. [Accessed 27 February 2020].
- [11] R. Harker, “NHS Funding and Expenditure briefing paper CBP0724,” House of Commons Library, London, 2019.
- [12] H. Dimpleby and J. Vincent, “The School Food Plan,” 2013. [Online]. Available: <http://www.schoolfoodplan.com/plan/>. [Accessed 18 August 2020].
- [13] Ministry of Justice, “Prison population figures: 2019,” 10 January 2020. [Online]. Available: <https://www.gov.uk/government/statistics/prison-population-figures-2019>. [Accessed 27 February 2020].
- [14] Care Quality Commission, “Adult inpatient survey 2019,” July 2020. [Online]. Available: <https://www.cqc.org.uk/publications/surveys/adult-inpatient-survey-2019>. [Accessed 18 August 2020].
- [15] NHS England, “2018 National NHS Staff Survey in England,” 2019.
- [16] K. Tappenden, B. Quatrara, M. Parkhurst, M. A.M., F. G. and Z. T.R., “Critical role of nutrition in improving quality of care: an interdisciplinary call to action to address adult hospital malnutrition,” *Journal of Parenteral and Enteral Nutrition*, vol. 37, pp. 482-97, 2013.
- [17] NHS England, “NHS Long Term Plan,” 2019. [Online]. Available: <https://www.longtermplan.nhs.uk/>. [Accessed 18 August 2020].
- [18] NHS Digital, “NHS Hospital & Community Health Service (HCHS) monthly workforce statistics – Staff in Trusts and CCGs,” 2019.
- [19] M. West and D. Coia, “Caring for doctors Caring for Patients,” November 2019. [Online]. Available: https://www.gmc-uk.org/-/media/documents/caring-for-doctors-caring-for-patients_pdf-80706341.pdf?. [Accessed 18 August 2020].
- [20] Department of Health & Social Care, “Talk Health and Care: Improving food for hospital staff,” 2020. [Online]. Available: <https://talkhealthandcare.crowdicity.com/category/116740>. [Accessed 18 August 2020].
- [21] Department of Health and Social Care, “New hospital building programme announced,” 29 September 2019. [Online]. Available: <https://www.gov.uk/government/news/new-hospital-building-programme-announced>. [Accessed 18 August 2020].
- [22] NHS England, “NHS Single-Use Plastics Reduction Campaign Pledge,” 19 September 2019. [Online]. Available: <https://www.engage.england.nhs.uk/survey/dee161d9/>. [Accessed 18 August 2020].
- [23] WRAP, “Overview of Waste in the UK,” November 2013. [Online]. Available: <http://www.wrap.org.uk/sites/files/wrap/Overview%20of%20Waste%20in%20the%20UK%20Hospitality%20and%20Food%20Service%20Sector%20FINAL.pdf>. [Accessed 18 August 2020].
- [24] NHS Digital, “NHS Workforce Statistics,” [Online]. Available: <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics>. [Accessed 27 February 2020].

- [25] NHS England, “Bed Availability and Occupancy Statistics 2019-20,” [Online]. Available: <https://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/>. [Accessed 27 February 2020].
- [26] “Hospital sites compliant with nutritional guidelines” Data from the 53 Hospital sites, PLACE 2018 [26].
- [27] T. Baum, “Skills, training and development within an insular labour market: the changing role of catering managers in the healthcare environment,” *Journal of Management Development*, 2007.
- [28] Hospital Caterers Association, “Events,” [Online]. Available: <http://www.hospitalcaterers.org/news-events/events/>. [Accessed 27 February 2020].
- [29] “Eastwood Park training,” [Online]. Available: <https://www.eastwoodparktraining.co.uk/>. [Accessed 27 February 2020].
- [30] “Fire Service College,” [Online]. Available: <https://www.fireservicecollege.ac.uk/>. [Accessed 27 February 2020].
- [31] NHS Employers, “Annex 2: Pay bands and pay points on the second pay spine in England,” [Online]. Available: <https://www.nhsemployers.org/tchandbook/annex-1-to-3/annex-2-pay-bands-and-pay-points-on-the-second-pay-spine-in-england>. [Accessed 27 February 2020].
- [32] M. Elia, “The cost of malnutrition in England and potential cost savings from nutritional interventions (full report),” *British Association for Parenteral and Enteral Nutrition*, 2015.
- [33] NHS Digital, “Hospital admissions for scurvy, rickets and malnutrition,” 3 December 2018. [Online]. Available: <https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2018-supplementary-information-files/hospital-admissions-for-scurvy-rickets-and-malnutrition>. [Accessed 27 February 2020].
- [34] NHS, “The Eatwell Guide,” [Online]. Available: <https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/>. [Accessed 27 February 2020].
- [35] Public Health England, “National Diet and Nutrition Survey,” [Online]. Available: <https://www.gov.uk/government/collections/national-diet-and-nutrition-survey>. [Accessed 27 February 2020].
- [36] NHS Digital, “Statistics on Obesity, Physical Activity and Diet, England, 2019,” 8 May 2019. [Online]. Available: <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/statistics-on-obesity-physical-activity-and-diet-england-2019>. [Accessed 27 February 2020].
- [37] R. Kyle, J. Wills, C. Mahoney, L. Hoyle, M. Kelly and I. Atherton, “Obesity prevalence among healthcare professionals in England: a cross-sectional study using the Health Survey for England,” *British Medical Journal*, vol. 7, no. 2, 2017.
- [38] BDA, “The Nutrition and Hydration Digest 2nd edition,” 2017 (updated 2019). [Online]. Available: <https://www.bda.uk.com/uploads/assets/c24296fe-8b4d-4626-aeebb6cf2d92fccb/NutritionHydrationDigest.pdf>. [Accessed 31 July 2020].
- [39] NHS Employers, “Unsocial hours and night working,” [Online]. Available: <https://www.nhsemployers.org/~media/Employers/Publications/Unsocial%20hours%20and%20night%20working.pdf>. [Accessed 27 February 2020].

- [40] British Medical Association, “Fatigue and Facilities charter,” 2018. [Online]. Available: https://www.bma.org.uk/media/1076/bma-fatigue-and-facilities-charter_july2018.pdf. [Accessed 19 August 2020].
- [41] Office for National Statistics, “Sickness absence in the UK labour market (2018),” 6 November 2019. [Online]. Available: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/sicknessabsenceinthelabourmarket>. [Accessed 27 February 2020].
- [42] Nursing and Midwifery Council, “The Code,” [Online]. Available: <https://www.nmc.org.uk/standards/code/>. [Accessed 19 August 2020].
- [43] NHS, “How to make your home dementia friendly,” [Online]. Available: <https://www.nhs.uk/conditions/dementia/home-environment/>. [Accessed 27 February 2020].
- [44] C. Spence, “Hospital food,” *Flavour*, vol. 6, no. 3, 2017.
- [45] Hospital Caterers Association, “Packaging – Accessible design – Ease of opening,” [Online]. Available: <http://www.hospitalcaterers.org/service-excellence/packaging/>. [Accessed 19 August 2020].
- [46] General Medical Council, “Outcomes for graduates,” 2018. [Online]. Available: <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/outcomes-for-graduates>. [Accessed 19 August 2020].
- [47] E. MacAninch, “Food in Medicine: A Dietitians role as a Nutrition Medical Educator,” 3 September 2018. [Online]. Available: <https://www.bda.uk.com/resource/food-in-medicine-a-dietitians-role-as-a-nutrition-medical-educator.html>. [Accessed 19 August 2020].
- [48] Food Standards Agency, “Listeria cases being investigated,” 7 June 2019. [Online]. Available: <https://www.food.gov.uk/news-alerts/news/listeria-cases-being-investigated>. [Accessed 19 August 2020].
- [49] Official Journal of the European Union, “Commission Regulation (EC) No 2073/2005,” 15 November 2005. [Online]. Available: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A02005R2073-20190228&qid=1582035783927&from=EN>. [Accessed 27 February 2020].
- [50] Food Standards Agency, “Reducing the risk of vulnerable groups contracting listeriosis: Guidance for healthcare and social care organisations,” June 2016. [Online]. Available: <https://www.food.gov.uk/sites/default/files/media/document/reducing-the-risk-of-listeriosis-guidance.pdf> [Accessed 27 February 2020].
- [51] Food Standards Agency, “NHS Hospital Food Review: FSA Package of Evidence,” 2020. [Online]. Available: <https://www.food.gov.uk/search/research>.
- [52] J. Fleetwood, S. Rahman, D. Holland, D. Millson, L. Thomson and G. Poppy, “As clean as they look? Food hygiene inspection scores, microbiological contamination, and foodborne illness,” *Food Control*, vol. 96, pp. 76-86, 2019.
- [53] “Regulation (EC) No 852/2004 on the hygiene of foodstuffs,” 29 April 2004. [Online]. Available: <http://data.europa.eu/eli/reg/2004/852/2009-04-20>. [Accessed 19 August 2020].

- [54] NHS, "Foods to avoid in pregnancy," [Online]. Available: <https://www.nhs.uk/conditions/pregnancy-and-baby/foods-to-avoid-pregnant/>. [Accessed 27 February 2020].
- [55] Sustain, "Keep hospitals cooking," 2015.
- [56] Department of Health and Social Care, "The future of healthcare: our vision for digital, data and technology in health and care," 17 October 2018. [Online]. Available: <https://www.gov.uk/government/publications/the-future-of-healthcare-our-vision-for-digital-data-and-technology-in-health-and-care/the-future-of-healthcare-our-vision-for-digital-data-and-technology-in-health-and-care>. [Accessed 19 August 2020].
- [57] P. Moynihan, A. Macdonald, L. Methven, M. Gosney, O. P. and C. May, "Mappmal: a multidisciplinary approach to developing a prototype for food provision and nutritional management of older hospital patients," *New Dynamics of Ageing*, 2014.
- [58] M. A.S., G. Teal, C. Bamford and P. Moynihan, "Hospitalfoodie: an interprofessional case study of the redesign of the nutritional management and monitoring system for vulnerable older hospital patients," *Quality in Primary Care*, vol. 20, pp. 169-77, 2012.
- [59] D. Jeffrey, "The Hospital Food Standards Panel's report on standards for food and drink in NHS hospitals," 29 August 2014. [Online]. Available: <https://www.gov.uk/government/publications/establishing-food-standards-for-nhs-hospitals>. [Accessed 19 August 2020].
- [60] NHS England, "NHS Standard Contract," [Online]. Available: <https://www.england.nhs.uk/nhs-standard-contract/>. [Accessed 27 February 2020].
- [61] Department for Environment, Food & Rural Affairs, "Sustainable procurement: the Government Buying Standards for food and catering services," 1 July 2014. [Online]. Available: <https://www.gov.uk/government/publications/sustainable-procurement-the-gbs-for-food-and-catering-services>. [Accessed 27 August 2020].
- [62] Department of Health and Social Care, "Updating the government buying standards for food and catering services (GBSF)," 21 May 2019. [Online]. Available: <https://www.gov.uk/government/consultations/updating-the-government-buying-standards-for-food-and-catering-services-gbsf>. [Accessed 19 August 2020].
- [63] M. Stead, D. Eadie, J. McKell, L. Sparks, A. MacGregor and A. Anderson, "Making hospital shops healthier: evaluating the implementation of a mandatory standard for limiting food products and promotions in hospital retail outlets," *BMC Public Health*, 2020.
- [64] P. H. Scotland, "Evaluation of the Healthcare Retail Standard – summary report," 14 November 2018. [Online]. Available: <http://www.healthscotland.scot/publications/evaluation-of-the-healthcare-retail-standard-summary-report>. [Accessed 19 August 2020].
- [65] Public Health Scotland, "Evaluation of the Healthcare Retail Standard," 24 January 2019. [Online]. Available: <http://www.healthscotland.scot/publications/evaluation-of-the-healthcare-retail-standard>. [Accessed 19 August 2020].
- [66] Care Quality Commission, "Regulation 14: Meeting nutritional and hydration needs," [Online]. Available: <https://www.cqc.org.uk/guidance-providers/regulations-enforcement/regulation-14-meeting-nutritional-hydration-needs>. [Accessed 19 August 2020].

- [67] Cabinet Office, "Social Value Act: information and resources," 3 May 2016. [Online]. Available: <https://www.gov.uk/government/publications/social-value-act-information-and-resources/social-value-act-information-and-resources>. [Accessed 19 August 2020].
- [68] Department for Environment, Food & Rural Affairs, "A plan for public procurement: food and catering: the balanced scorecard," 21 July 2014. [Online]. Available: <https://www.gov.uk/government/publications/a-plan-for-public-procurement-food-and-catering-the-balanced-scorecard>. [Accessed 19 August 2020].
- [69] Carter, Lord, "Operational productivity and performance in English NHS acute hospitals: Unwarranted variations," February 2016. [Online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499229/Operational_productivity_A.pdf. [Accessed 19 August 2020].
- [70] The Soil Association, "Food for life: Supporting your hospitals," [Online]. Available: <https://www.foodforlife.org.uk/hospitals/supporting-your-hospitals>. [Accessed 19 August 2020].
- [71] Department for Environment, Food & Rural Affairs; Public Health England, "Guidance for food businesses on coronavirus (COVID-19)," 22 July 2020. [Online]. Available: <https://www.gov.uk/government/publications/covid-19-guidance-for-food-businesses/guidance-for-food-businesses-on-coronavirus-covid-19>. [Accessed 19 August 2020].
- [72] Public Health England, "Hospital vending machines: helping people make healthier choices," July 2018. [Online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/726721/Leeds_Vending_v3.4.pdf. [Accessed 19 August 2020].

Glossary

Acute hospital	Hospitals that provide short-term medical and/or surgical treatment and care.
Allergen	Any substance that can cause an allergy. The body believes allergens to be damaging and so produces a special type of antibody (IgE) to attack the invading material. This leads other blood cells to release further chemicals (including histamine) which together cause the symptoms of an allergic reaction.
Allied Health Professionals (AHPs)	Provide treatment and help rehabilitate adults and children who are ill, have disabilities or special needs, to live life as fully as possible. They include dietitians, occupational therapists, physiotherapists and speech and language therapists.
Anchor institution	An anchor institution has a significant and long-term presence in a local community and plays a large role in the local economy.
BAPEN	British Association for Parenteral and Enteral Nutrition.
Balanced scorecard	Defra's balanced scorecard for food and catering services is a public sector procurement tool which balances different criteria to enable effective decisions about which contract delivers the best value for money.
BDA	The British Dietetic Association is the professional body and trade union representing dietitians. It is responsible for the development of the Nutrition and Hydration Digest.
cfu	Colony forming units (unit).
Contamination	The presence or introduction of a biological, physical or chemical hazard in a food or food environment.

Cook-chill	Food is cooked and quickly blast-chilled and stored at a controlled temperature up to five days. It is then reheated (regenerated) ready for service.
Cook-freeze	Food is cooked and quickly blast-frozen and stored until required (up to 12 months). Food at frozen temperatures can be distributed and then reheated (regenerated) ready for service.
Cook-fresh	Food is prepared and cooked on-site in a traditional manner, distributed at the appropriate temperature to the wards, either already plated or in bulk.
CQC	The Care Quality Commission monitors, inspects and regulates health and care services in England. http://www.cqc.org.uk/
Defra	Department for Environment, Food and Rural Affairs is responsible for the environment, food production and standards in the UK. https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs
Dietitian	A UK Health and Care Professions Council (HCPC) registered dietitian suitably qualified to understand catering, nutrition and nutritional issues of an individual and at public health level. http://www.hcpc-uk.co.uk/
Dysphagia	Dysphagia is the medical term for swallowing difficulties. This can be both food and fluids.
Easy to chew diets	Food that is easy to chew and manage. These diets are off the standard menu and are not for those patients with dysphagia.
ERIC	Estates Returns Information Collection. Mandatory annual data collection for NHS trusts regarding estates and facilities.
Estates and facilities	This includes hospital infrastructure such as buildings, the systems that keep them running such as heating and lighting, and services such as cleaning, car parking and catering. 'Soft facilities management' refers to services rather than the physical infrastructure, which is called 'hard facilities management'.
FBO	Food business operator.
FSA	Food Standards Agency is an independent Government department working across England, Wales and Northern Ireland to protect public health and consumers' wider interests in relation to food. https://www.food.gov.uk/

FTE	Full-time equivalent. This unit indicates the equivalent number of full-time employees. 1 FTE is equivalent to one person working full-time, while 0.5 FTE represents an employee working half full-time hours.
GBSF	Government Buying Standards for Food and Catering Services highlights standards of procurement. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/595129/Healthier_and_more_sustainable_GBSF_checklist.pdf
HACCP	Hazard Analysis and Critical Control Point. A system that identifies, evaluates and controls hazards which are significant for food safety.
HCA	Hospital Caterers Association is a national professional organisation representing catering managers in the NHS. http://www.hospitalcaterers.org/
Hospital food standards	The standards for hospital food in the UK part of the NHS Contract. https://www.gov.uk/government/publications/establishing-food-standards-for-nhs-hospitals
IDDSI	International Diet Descriptors Standardisation Initiative (2015). http://iddsi.org/
ISO	International Standards Organisation.
Malnutrition	Malnutrition means bad or poor nourishment. It is the lack of sufficient nutrients to maintain healthy body functions. In this report, we use 'malnutrition' to refer specifically to undernutrition, although it can also be used to refer to overnutrition.
Modified texture diet	A diet that is suitable for a patient with oropharyngeal dysphagia (swallowing difficulties) and who are at risk of choking or aspiration (food or liquid going into their airway). Meals will meet the requirements for the descriptors (3, 4, 5 and 6) under IDDSI (2015) (see above).
MUST	Malnutrition Universal Screening Tool used to screen patients for or at risk of, malnutrition. https://www.bapen.org.uk/pdfs/must/must_full.pdf
NHS	National Health Service.
NHS Long Term Plan	The Long Term Plan sets out the NHS's priorities for healthcare over the next 10 years.
NHS Standard Contract	The NHS Standard Contract is mandated for use by commissioners for all contracts for healthcare services other than primary care.

NHS Supply Chain	Manages the sourcing, delivery and supply of healthcare products, services and food for NHS trusts and healthcare organisations across England and Wales.
Nutrition	Nutrition (also called nourishment or aliment) is the provision, to cells and organisms, of the materials necessary (in the form of food) to support life.
PHE	Public Health England.
PLACE	Patient-Led Assessments of the Care Environment. A system for assessing the quality of the hospital environment focusing on the care environment, not the clinical care provision or staff behaviours. https://improvement.nhs.uk/resources/patient-led-assessments-care-environment-place/
Power of Three	The Power of Three campaign brings together catering (the HCA), dietetics (the BDA) and nursing (the National Nutrition Nurses' Group) to help improve nutritional outcomes for patients.
Protected mealtimes	The Protected Mealtimes Initiative is a national initiative. It aims to allow patients to eat their meals without unnecessary interruption and to focus on providing assistance to those patients unable to eat independently.
RCN	Royal College of Nursing.
Religious/cultural diet	A diet for a specific ethnic minority that has a religious or cultural basis, for example, kosher, halal.
RTE	Ready-to-eat food, for example, salads and sandwiches.
Salon Culinaire	The UK's largest chef competition. The HCA sponsor a category for chefs who work in the healthcare sector.
SLT	Speech and language therapist professionals assess patients for modified diets and fluids.
SME	Small or medium-sized enterprise.
Therapeutic diets	Modifications as a prescribed part of the treatment of a medical condition, for example, renal, liver, modified texture, neutropenic.
Vegan diet	A diet that excludes meat, poultry, fish and dairy products and all animal derived products, for example, honey, lanolin, gelatine.
Vegetarian diet	A diet that excludes meat, poultry and fish products.

Acknowledgements

The panel would like to thank the following people and organisations for their time and support on this review:

Alexia Robinson, Love British Food

Andrew Archer, Dewberry Redpoint

Andy Jones, PSC100

Anita Smith, Consultant Speech and Language Therapist

Anna Edwards, Care Quality Commission

Business Services Association

Carrie Howes, Bidfood

Catherine Farrant, Ossa Organic

Cathy Amos, Brakes Ltd

Charis Gresser, Brunswick Group

Claire Lawson, Care Quality Commission

Dame Dianne Jeffrey, Age UK

David Foad, Dewberry Redpoint

David Kavanagh, Tillery Valley

Declan O'Brien, British Specialist Nutrition Association (BSNA)

Dharinee Hansjee, Royal College of Speech and Language Therapists

Dr Jenny Harries OBE, Deputy Chief Medical Officer

Dr Jim McLauchlin, Public Health England

Dr Penelope Law

Dr Rupy Aujla

Dr Ruwani Abeyratne, Geriatric Consultant

Fran Bailey, PR

Greg Harrison, Steamplicity

Health Facilities Scotland

Henry Dimbleby

Ian White, The University Caterers Organisation (TUCO)

Jago Pearson, Finnebrogue Artisan

Jeanette Orrey MBE

Jim Winship, British Sandwich Association

John Hughes

Julian Fris, Neller Davies

Kate Halliwell, Food and Drink Federation

Kay Shearing, Healthy Food Company

Lee Sheppard, Apetito

Lesley Carter, Malnutrition Task Force (MTF)

Liz Anderson, British Association of Parenteral and Enteral Nutrition (BAPEN)

Louise Borjes, Royal College of Speech and Language Therapists

Lucy Parker, Brunswick Group

Mark Smith, Tillery Valley

Mary Wedge, Anglia Crown

Matthew White, The University Caterers Organisation (TUCO)

Mike Duckett

Neel Radia, National Association of Care Catering (NACC)

Paul Freeston, Apetito

Paul Howell, Anglia Crown

Professor Paula Moynihan

Professor Susan Jebb OBE

Rachel Powers, Patients Association

Ray Lorimer, independent food consultant

Rona Miranda, NHS Supply Chain

Sarah Cunningham, Healthy Food Company Social Enterprise UK

Stephen Forster, LACA

Stuart Wray, Health Estates and Facilities Management Association (HEFMA)

Tarryn Gorre, Kafoodle

Annex A: Hospital food site visits – observations and best practice

- 1. Royal United Hospital Bath, Royal United Hospitals Bath NHS Foundation Trust** **1 October 2019**

There has been a confident change programme with equipment and leadership, and the catering team are able to make strong and positive decisions.

Fresh food is made on-site with an excellent IT system supporting a safe process for the site.

Ward teams are very well led at mealtimes, and the nursing team were fully engaged and took time to sit with patients during the lunch service.
- 2. Frimley Park Hospital, Frimley Health NHS Foundation Trust** **2 October 2019**

The same food cooked is served in the staff/visitor restaurant.

The trust uses volunteer ‘mealtime companions’, though not for high-need patients, who are still assisted by nurses.

Patient lunch is served to the board on occasions throughout the year.
- 3. Southmead Hospital, North Bristol NHS Trust** **8 October 2019**

The roof terrace of the hospital’s Brunel building has been transformed into a culinary, medicinal and therapeutic herb garden planted with over 30 herbs, all of which are used in meals prepared for trust staff and patients.

The hospital has a winter and summer menu and the dietitian is actively involved with the hospital food throughout the year.

The catering team are fully involved with quality control, menu choice as well as the selection of local sustainable food sources.

Bronze Food for Life Served Here award for staff and visitor food, and silver award for patient food.

**4. Kings Mill Hospital, Sherwood Forest Hospital
NHS Foundation Trust** **18 October 2019**

The role of a trust health and wellbeing lead for staff is a significant one and cannot be underestimated.

The trust has a nutrition nurse specialist and nutritionist champions. New staff have nutrition and hydration training on induction. They also have interdisciplinary training, including dietitian/pharmacy; having mandatory sessions every year.

Dementia patients have finger food options, and there is 24-hour food availability. Patients can have three hot meals a day if they have been assessed accordingly by the dietitian. End-of-life patients have an arrangement that staff can get them meals from the restaurant located in the hospital. If a patient requests something that is not on the menu, then it can be made by the chef if the dietitian requests it.

**5. Musgrove Park Hospital, Taunton and Somerset
NHS Foundation Trust** **25 October 2019**

Staff spoke about the importance of having a tailored menu with easy-to-chew, vegetarian, high-energy and healthier options, as well as the option to ask for smaller portions. Although this is a cook-freeze service, it is vital to introduce innovation where appropriate, and seasonal menus have been introduced to promote a fresh choice of plant-based, fish and game products.

The hospital offers seven drinks rounds per day with hot and cold snacks available, which is in addition to three meal rounds.

The catering liaison manager's role links effectively with caterers, nursing and dietetic teams, and has a sole focus on quality for patients with the appropriate nutrition.

6. Golden Jubilee National Hospital, Glasgow **29 October 2019**

Food was cooked on-site by an experienced team of chefs, and the same food was being presented successfully in the staff and visitor restaurant.

There was a confident and structured volunteer support arrangement that linked positively between the catering and ward teams.

The ward hosts were fully engaged with patients, showing a close understanding of patient requirements.

7. New Cross Hospital, Royal Wolverhampton NHS Trust **1 November 2019**

The trust has the complete support of the board, and it was recognised that there is an opportunity to build on achievements with the central production unit (CPU) in providing services to other NHS trusts.

The trust has reconfigured the staff café to use the CPU products cooked on-site; it is popular and the local community has benefited from jobs being created by the CPU.

- 8. West Suffolk Hospital, West Suffolk NHS Foundation Trust 11 November 2019**
- The same food cooked for patients is served in the staff/visitor dining room; the CEO regularly eats in the staff dining room and is very supportive of catering, as is the finance director.
- Overnight staff have access to hot meals from vending machines/microwaves and the trust is in the process of stocking their own meals in the vending machines.
- The trust is an exemplar site for using volunteers, who give a total of 40,000 hours a year and are trained to serve food, feed patients and help with menus.
- Bronze Food for Life Served Here award for patient, staff and visitor food.
- 9. St Thomas' Hospital, Guy's and St Thomas' NHS Foundation Trust 13 November 2019**
- Strong leadership team with estates and facilities management, nursing and dietetic. Guy's and St Thomas' are often one of the leading lights in PLACE, with an excellent understanding of cost controls and nutritional direction.
- Ward level supported the meal services in great numbers and nutrition safety boards were being used.
- Silver Food for Life Served Here award for patient food.
- 10. St Bernard's Hospital, West London NHS Trust 15 November 2019**
- The hospital has run lessons in food hygiene and nutrition (from dietitians for patients). In the child and adolescent unit, they're doing a well-being push, focusing on exercise and education on healthy eating.
- Cook-fresh facilities are available in the forensic wards; this costs slightly more than cook-chill, but patients are there for a long time and there's more need for variety and top quality.
- The menu for the cook-fresh food has pictures; this is helpful as many patients have learning disabilities or can't read.
- 11. Hillingdon Hospital, Hillingdon Hospitals NHS Foundation Trust 21 November 2019**
- The trust does everything in-house, and has a food and drink strategy as well as a nutrition steering group.
- The trust has converted a space outside which is used by staff as a meet-and-eat area. In summer they have barbecues and visitors are also welcome. There is a food-voucher facility available for visitors in the children's ward.
- The trust has received the Health Estates and Facilities Management Association (HEFMA) award for the catering team of the year and also has the Food for Life Bronze award. They are a pilot site for the Good Food Hospital awards.
- The trust uses coloured crockery and the menus have easy-to-choose options which have three ranges of puree meals.

- 12. Freeman Hospital, Newcastle upon Tyne Hospitals
NHS Foundation Trust** **27 November 2019**
- Screening for patients is now electronic; the flourish campaign for staff works well and nutrition is a part of treatment.
- The CEO is keen to have a restaurant that can show off the potential of the catering teams.
- 13. Anglia Crown** **1 December 2019**
- Discussed the idea of ordering set-up meals to support patients upon arriving home. Some sites do prepare care bags/kindness bags with bread and milk.
- Discussed the decline in Meals on Wheels service and the desire to join up budgets for food across health and social care. Food safety benefit, in terms of delivering hot meals to frail and vulnerable people rather than expecting them to prepare the food themselves.
- 14. Broadmoor Hospital, West London NHS Trust** **2 January 2020**
- The facilities manager chairs a catering forum with patients and this has been very productive. They have done a big menu change with input from dietitians and it changes every six months with options available to make it more seasonal. Patients taste new meals at the catering forum and provide feedback.
- There are staff kitchens on each ward with a microwave and toaster. The staff restaurant is very popular and serves mostly the same food as is served to patients, but on a different menu cycle. They have been trying to make staff options healthier, while still giving people choice.
- 15. Tillery Valley** **9 January 2020**
- Tillery Valley has over 35 years' experience working with the NHS; delivery is tailored to ward level with items picked and packed for each ward.
- They have a strong track record of corporate social responsibility and work with Fair Share to provide them with redundant packed products, and have a staff 'shop' for left over products.
- Their dietitian recommends to trusts that they serve finger foods first and pick them up last, to give dementia patients the greatest opportunity to eat well. The finger foods menu has also proved popular on trauma and paediatric wards.
- 16. Charlton Lane Hospital and The Vale Community Hospital,
Gloucestershire Health and Care NHS Foundation Trust** **10 January 2020**
- Fantastic awareness of the patients' requirements; teams worked in harmony to gain confidence in the system.
- Dining rooms are being used to maximise the opportunity and have a sense of occasion during mealtimes.
- Staff understand that small differences in the way that they present food can have a massive effect on quality.

- 17. Trafford General Hospital, Manchester University
NHS Foundation Trust** **15 January 2020**
- Strong team that is led from the local and district board which enables the team to make fundamental decisions in improving their facilities management services.
- Food services at mealtimes are led by the facilities management team and the ward staff fully support this.
- Nutrition is very much a focus for all those at ward level as well as the nutritional and catering teams.
- 18. Rochdale Infirmary and Royal Oldham Hospital,
Northern Care Alliance NHS Group** **20 January 2020**
- Retail and vending areas are working effectively with excellent knowledge and capability within the leadership team.
- There are comfort areas for the elderly, and dementia patient wards were decorated in themes to give a sense of reassurance.
- There is a strong partnership between the lead nurse and the catering leadership which enables consistent decision-making, putting the patient first.
- 19. County Durham and Darlington NHS Foundation Trust** **24 January 2020**
- The CPU is very well set out, providing food for several community sites at an excellent standard.
- Safety standards are high and the standard operating procedures and processes on-site are ingrained into the food safety management system.
- The retail area at Darlington is superb, providing traditional, healthy food with the addition of 'grab and go' options.
- 20. Apetito** **29 January 2020**
- Strong approach to environment and sustainability, linking effectively with the community.
- There is a dedicated approach to innovation, food safety and microbiological testing.
- The leadership team were able to provide confidence in food production and the necessary control measures.
- 21. St Richard's Hospital, Western Sussex Hospitals
NHS Foundation Trust** **30 January 2020**
- Financial investment has created a superb new CPU on the site of St Richard's Hospital, where the team have the experience and skills to provide excellent food.
- The CEO understands the importance of good food and therefore supports positive change within catering. This has initiated a strong relationship within dietetics, nursing and catering.
- Ward level runs smoothly, understanding the importance of nutrition and hydration.

- 22. Nottingham City Hospital, Nottingham University Hospitals
NHS Trust** **4 February 2020**
- There are clearly strong links between teams and this is fundamental to an effective service.
- 'Memory Menus' have been a great success, involving the public in their favourite choices on the menu.
- The on-site CPU is compact but works effectively and safely. Gold Food for Life Served Here award for staff and visitor food.
- 23. Royal Blackburn Teaching Hospital, East Lancashire Hospitals
NHS Trust** **12 February 2020**
- The catering lead is innovative and aims to transform services. They require strong support to drive this change.
- There are strong ideas for retail to ensure that staff can choose a range of food and drink.
- The food being prepared on-site is exceptional and the chefs understand the effect that it can have on the services.
- Bronze Food for Life Served Here award for patient, staff and visitor food.
- 24. Northern General Hospital, Sheffield Teaching Hospitals
NHS Foundation Trust** **13 February 2020**
- Strong and experienced leadership team that understands the key roles for success.
- A superb CPU that has received continued investment, understanding that maintaining quality equipment and processes brings success.
- Capability of menu flexibility, involving colleagues to understand suitable meal choices.
- Bronze Food for Life Served Here award for patient, staff and visitor food.
- 25. Queen Elizabeth Hospital, King's Lynn NHS Foundation Trust** **2 March 2020**
- This site is a cook-fresh service that uses the belt system, with plated meals being transported in ambient trolleys to each ward.
- They have a team of experienced chefs that have the ability to innovate for the restaurant on-site.
- The team work extremely hard to produce quality meals, although there is a requirement to update several pieces of equipment.
- There is suitable collaboration between departments with a real desire to strengthen the quality of service.
- 26. Steamplicity** **3 March 2020**
- Steamplicity supports food safety because they have complete control of the food from end-to-end.
- Micro-steaming leads to higher vitamin retention compared with other cooking techniques.

Food is ordered on the day of consumption.

Flexible system – hot food can be available 24 hours a day.

Inconsistency is the enemy of food safety – HACCP from supplier to patient, with 'field-to-fork' traceability.

Steamplicity achieves between 90% and 95% patient satisfaction (good, very good, excellent). This benchmarks well with high street food retailers.

Annex B: Food safety legal obligations

The following summarise the main legislation related to food safety which trusts must be aware of and implement fully. It is not intended to be an exhaustive list.

General Food Law – Regulation (EC) 178/2002 – Article 14

Sets down that food shall not be placed on the market if it is unsafe. Food is deemed to be unsafe if it is considered to be:

- Injurious to health.
- Unfit for human consumption.

The article indicates what factors need to be taken into account when determining whether food is injurious to health or unfit and sets out that “regard will be made to the particular health sensitivities of a specific category of consumers where food is intended for that category of consumers”.

Hygiene of foodstuffs – Regulation (EC) No 853/2004 – Article 5

Food Business Operators (FBOs) shall put in place, implement and maintain a permanent procedure or procedures based on Hazard Analysis Critical Control Point (HACCP) principles. HACCP principles consist of the following:

- Identifying any hazards that must be prevented, eliminated or reduced to acceptable levels.
- Identifying the critical control points (CCP) at the steps at which control is essential to prevent or eliminate hazards or reduce it to acceptable levels.
- Establishing critical limits at CCPs which separate acceptability from unacceptability for the prevention, elimination or reduction of identifiable hazards.
- Implementing effective monitoring procedures at CCP.
- Establishing corrective actions when a CCP is out of control.
- Establishing verification procedures.
- Establishing documents and records commensurate with the nature and size of the food business.

The system must be reviewed if the product, process or any step is modified.

Training – Regulation (EC) No 852/2004 Annex II Chapter XII

FBOs are to ensure:

- Food handlers are supervised and instructed and/or trained in food hygiene matters commensurate with their work activity.
- Those responsible for the development and maintenance of HACCP procedures have received adequate training in the application of HACCP principles.

The Food Safety and Hygiene (England) Regulations 2013 Schedule 4 sets down national temperature control requirements.

Microbiological criteria for foodstuffs – Regulation (EC) No 2073/2005 sets down microbiological criteria for relevant foodborne bacteria, their toxins and metabolites, including *Listeria monocytogenes* along with rules for sampling and testing regimes as a tool to validate and verify food safety management procedures.

1.1. RTE foods intended for infants/special medical purposes

1.2. RTE foods able to support the growth of *L. monocytogenes*

- Should not exceed 100 cfu/g – products placed on the market during their shelf life (when the manufacturer can demonstrate that *L. monocytogenes* will not exceed 100 cfu/g at the end of shelf life).
- Not detected in 25g – before the food has left the immediate control of the manufacturer (when the manufacturer is unable to demonstrate *L. monocytogenes* will not exceed 100 cfu/g at the end of shelf life).

1.3. RTE foods unable to support the growth of *L. monocytogenes* should not exceed 100 cfu/g in products placed on the market during their shelf life.

FSA guidance for food businesses is available at: <https://www.food.gov.uk/business-guidance>

Annex C: NHS staff engagement – Talk Health and Care

As part of the review, we wanted to offer hospital staff the opportunity to tell us about their experience of food provision for staff in hospitals. We used the Department of Health and Social Care's [Talk Health and Care](#) platform and the Department's Twitter account to ask staff for their views.

We received 21 comments and ideas on the Talk Health and Care platform from NHS staff including nurses, allied health professionals, managers and other hospital staff.

A representative of the Royal College of Nurses (RCN) submitted a response on behalf of RCN members. On Twitter, two polls received 314 votes between them and 14 additional comments.

We asked staff three questions on the Talk Health and Care platform and invited them to submit their ideas in response. The questions were:

- What would improve your experience of and/or access to food at work?
- What facilities are available to you to prepare food at work?
- What options are there available for you to purchase food at work? The main issues that staff raised were:
 - The lack of options for staff working out of hours, at weekends and overnight.
 - Staff wanted access to healthier options.
 - Staff wanted more options in the restaurant, canteen and vendors that were vegan, vegetarian or allergen-free.
 - Not all staff had access to proper facilities such as space to eat and self-catering facilities like microwaves, fridges and toasters.
 - Staff are very busy and sometimes do not have time to take full lunch breaks.

We also heard some encouraging examples of good practice, where staff praised their hospital for providing healthy, tasty meal options, and a community gardening project working with patients and selling produce to hospital staff.

On Twitter, we conducted two polls to engage staff and gather further views. These polls were aimed at NHS hospital staff, but it is not possible to filter out responses from people who are not NHS staff. Four multiple choice options were available in each poll and users could post

additional comments. The results are intended to be indicative and signal areas for further analysis; they are not intended to be exhaustive. The results can be seen below.

Figure 4: <https://twitter.com/DHSCgovuk/status/1216714074957983744> 13 Jan 2020

Poll: “Today we want to hear your thoughts on what you think are the main barriers to eating healthily at work?” (244 votes)

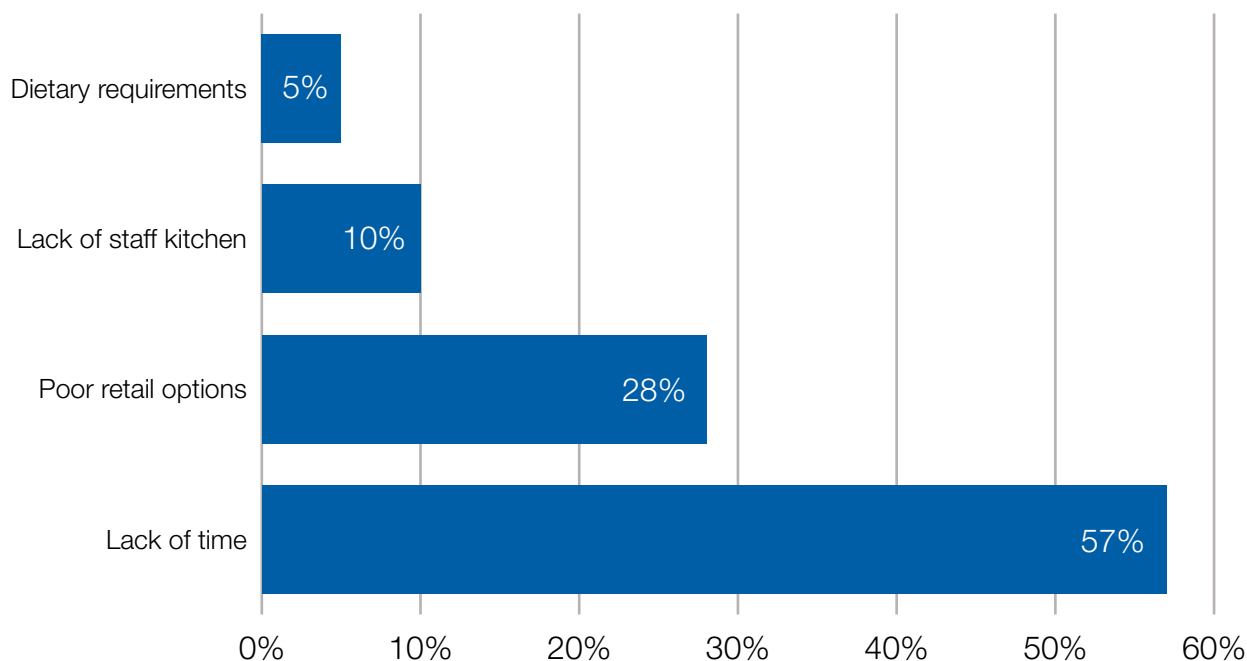


Figure 5: <https://twitter.com/DHSCgovuk/status/1220326480573534208> 23 Jan 2020

Poll: “Today we want to hear from #NHS hospital staff on what you think is the most important aspect of your workplace canteen?” (70 votes)

