



Fresh, local and organic

A successful recipe for improving
Europe's hospital food

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Preface

The idea of producing this report came from discussions of food issues between Health Care Without Harm members and associates. We believe there is value in presenting case studies from different countries around Europe, to describe obstacles to success and how they have been overcome.

Most importantly, we want to inspire hospitals to start similar projects and provide guidance, so they are not forced to re-invent the wheel.

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Health Care Without Harm Europe coordinates European activities for the global Health Care Without Harm coalition. Members of the coalition share a commitment to transforming the healthcare industry so that it is ecologically sustainable and no longer a source of harm to people or the environment – so long as doing so threatens neither patient safety nor care.

Food is one of many issues in this vein which has caught the attention of hospitals. HCWH's 2006 FoodMed Conference, about sustainable food in US healthcare, drew 400 participants. The HCWH coalition is now bringing hospitals together to work on the issue in Europe.

www.noharm.org/europe
www.foodmed.org
www.cleanmed.org

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Executive Summary

The poor quality of food served in many of Europe's hospitals has become a cause for increasing concern as evidence has mounted of the links between an unhealthy diet and serious medical conditions.

A succession of surveys and official reports has highlighted public dissatisfaction with the food on offer and concern among regulators that the health of patients is being undermined.

It is not only public health that is influenced by the meals being served on the wards. The food that hospitals choose to procure and the way it is produced, processed and transported can have a profound effect on the environment. Over 30% of Europe's greenhouse gas emissions come from the food and drink sector.

Happily there is a proven method by which healthcare providers can address both the food quality concerns and the environmental impacts associated with the meals they serve. That method is what has become known as sustainable food procurement – a buying policy that favours minimally processed, locally produced, organic, seasonal and fairly traded foods.

Buying fair-trade products helps to sustain the livelihoods of some of the world's poorest and most disadvantaged food producers. Procuring local food helps to support local economic and social well-being and protect the environment, by potentially reducing transport emissions and ensuring that catering budgets benefit the local economy. Sourcing organic food also has a wide range of benefits, as farming organically reduces pollution and energy use, creates better conditions for wildlife, supports higher levels of employment in rural areas and protects soil fertility.

Sustainable sourcing also has the potential to make hospital food healthier and more appetising. Hospitals embracing sustainable procurement tend to use more fresh fruit and vegetables and fewer mass-produced processed foods. Buying locally grown produce is likely to mean that the food on offer is fresher, tastier and more nutritious. Using organic ingredients enables kitchens to reduce patients' exposure to potentially harmful additives, pesticides and antibiotic residues and increase their intake of vitamins and minerals.

The benefits of sustainable sourcing, documented and scientifically referenced in these pages, include:

Protection for wildlife. Wildlife is 50 per cent more abundant on organic farms and there are 30 per cent more species than on non-organic farms

Reduced air and water pollution. Between 30% and 40% of Europeans are exposed to average concentrations of air pollutants that exceed World Health Organisation guidelines. Buying food locally has the potential to reduce transport emissions, while procuring organic food reduces air and water pollution because pesticide use is highly restricted in organic production.

Reduced food miles and greenhouse gas emissions. Through a switch to local suppliers, one UK hospital trust cut the annual 'food miles' travelled by delivery vehicles by 110,000 miles, or 67%. A study conducted in Germany in 2002 found that organic farming generated only 71 per cent of the greenhouse gas emissions per hectare produced by non-organic agriculture.

Better animal welfare. Animals in free-range and organic systems have more space to move around, spend more time outdoors and have more scope to express natural behaviours.

Lower pesticide and antibiotic residues. Pesticide residues have been found in 47% of the foods analysed in European Union countries, with levels in 5% of samples exceeding national government or EU safety levels. The World Health Organisation has called for a reduction in the use of antibiotics in agriculture to protect human health. Organic food reduces residues of pesticides and antibiotics by severely restricting the use of both.

Higher vitamin, mineral, and essential fatty acid content. A review of 41 comparative studies on crops produced with either organic matter or fertilisers found that organic crops had higher average levels of all 21 nutrients analysed. Research at Liverpool University has shown that organic milk contains higher levels of short-chain omega-3 fatty acids and alpha-linoleic acid than milk from non-organic farms.



A boost to local economic well-being. Buying locally not only benefits local suppliers but also creates a positive ripple effect as those suppliers spend what they have gained with local businesses. Researchers in the UK found that £1 spent with a local organic box scheme ultimately generated £2.59 for the local economy, compared to only £1.40 generated through spending in a local supermarket.

Support for rural employment. By procuring organic food, hospitals can support a system of farming that provides more jobs, helping to boost rural employment and prosperity. Research has established that organic farming in the UK provides 32 per cent more jobs per farm than equivalent non-organic farms.

Making trade fairer. Hospitals in Europe can help to support sustainable livelihoods for a growing number of communities in developing countries by choosing Fairtrade certified products. Seven million small farmers, farm workers and their families now benefit from the Fairtrade market.

The case studies in this report record significant achievement:

- In Austria the 18 hospitals of the Vienna Hospitals Association have delivered a 32% organic menu, with between 80 and 90 per cent of the food coming from Austrian producers
- In Belgium the Hopital de la Citadelle in Liege sources 95% of its food from Belgian producers – 100% in the case of meat
- In Denmark half the food served in a number of hospitals in West Zealand is now organic, a landmark achieved without an increase in the catering budget
- In Italy 70% of food served to children at the New Meyer Hospital in Florence is organically produced
- In Sweden Karolinska University Hospital in Stockholm has increased its organic sourcing from under 1% to 4% in the first year of its pursuit of a 25% target by the end of 2011
- In the United Kingdom the Royal Cornwall Hospitals Trust is spending 41% of its food budget for three hospitals on local produce and cutting food miles by two thirds, while London's Royal Brompton Hospital has a menu that is 18% local and/or organic.

The most formidable and most frequently mentioned challenges that have been faced by pioneering hospitals like these are:

- Tight catering budgets that restrict investment in better-quality ingredients
- Limited kitchen facilities for in-house catering using fresh ingredients
- Limited autonomy for individual hospitals in the arena of food procurement
- Catering staff who lack the skills and experience to develop healthier menus and to work 'from scratch' with fresh, unprocessed food
- A lack of interest in the nutritional importance of hospital food among clinicians who are influential in shaping hospital policy
- A lack of awareness of sustainability issues among senior management and/or a lack of support
- A lack of staff resources within hospitals to embed and manage sustainable sourcing
- A shortage of local and/or organic suppliers with the capacity to deliver the quality and quantity of produce required, as well as a lack of experience among potential suppliers of supplying public-sector catering
- The prohibition in EU law against specifying local producers when inviting tenders.

This report concludes with an expanded list of the following ten golden rules, advising how hospital catering managers can overcome such obstacles and develop successful sustainable food procurement initiatives:

1. Undertake research and make a plan
2. Secure management support
3. Take a step-by-step approach
4. Offset any higher ingredients costs by shortening supply chains and using fresh/seasonal ingredients
5. Make simple menu changes to improve health and sustainability
6. Identify and support potential local and organic suppliers
7. Use tenders and contracts to define your agreed sustainability criteria
8. Invest in kitchen facilities and staff training
9. Join forces with other hospitals and partners
10. Communicate and promote what you are doing.

Introduction

Dietary factors are the most significant single preventable cause of ill health. In 2002 the World Health Organisation (WHO) warned that “the rapidly growing epidemic of non-communicable diseases, already responsible for some 60% of world deaths, is clearly related to changes in global dietary patterns and increased consumption of industrially processed fatty, salty and sugary foods”¹. Another WHO report declared that in 2001 46% of the world’s disease burden was diet-related².

As the focal point for healthcare provision in Europe, hospitals might reasonably be expected to be serving nutritious, tasty meals that support recovery from illness and promote a healthy, balanced diet. Instead a succession of surveys and official reports has highlighted public dissatisfaction with the soggy, unappetising food on offer and concern among regulators that the health of patients is being undermined.

In 2002, for example, a report by the Council of Europe identified that undernutrition was a significant problem in hospitals across Europe, leading to “extended hospital stays, prolonged rehabilitation, diminished quality of life and unnecessary costs to health care”³. In 2006 a survey by Which, one of the UK’s leading consumer organisations, found that the proportions of patients who rated the food served in National Health Service hospitals as appetising and healthy were just 29% and 42% respectively.⁴

It is not only the health of the public, however, that is influenced by the meals being served on the wards. The food that hospitals choose to procure and the way it is produced, processed and transported can have a profound effect on the environment.

Over 30% of Europe’s greenhouse gas emissions come from the food and drink sector, according to a recent European study⁵. Manufacturing chemical fertilisers, operating the machinery used in farming and food processing, and running the vehicle fleets that transport food from field to fork, all demand large quantities of fossil fuels. As major food purchasers, hospitals are significant players in this carbon-hungry industry.

Happily there is a proven method by which healthcare providers can address both the food quality concerns and the environmental impacts associated with the meals they serve. That method is what has become known as sustainable food procurement – a buying policy that favours minimally processed, locally produced, organic, seasonal and fairly traded foods.

Sustainable procurement has become an important priority for a number of governments across Europe. This report highlights the achievements of eight hospital projects that have pioneered the idea in six European countries – Austria, Belgium, Denmark, Italy, Sweden and the UK.

The notion of sustainability that these hospitals are working towards – in different ways and to different levels of accomplishment - has environmental, social and economic dimensions. Sourcing organic food has a wide range of benefits, as farming organically reduces pollution and energy use, creates better conditions for wildlife, supports higher levels of employment in rural areas and protects soil fertility. Buying fair-trade products helps to sustain the livelihoods of some of the world’s poorest and most disadvantaged food producers. Procuring local food helps to support local economic and social well-being and protect the environment, by potentially reducing transport emissions and ensuring that catering budgets benefit the local economy.

As the case studies in this report show, sustainable sourcing also has the potential to make hospital food healthier and more appetising. Hospitals embracing sustainable procurement tend to use more fresh fruit and vegetables in their menus and fewer mass-produced processed foods that are often high in fat, salt and sugar. Buying locally grown produce is likely to mean that the food on offer is fresher, tastier and more nutritious because it is consumed closer to the time and place of harvesting. Using organic ingredients enables kitchens to reduce patients’ exposure to potentially harmful additives, pesticides and antibiotic residues and increase their intake of vitamins and minerals.

The aim of this report is to highlight the many benefits of sustainable food sourcing, to promote examples of good practice and to encourage more hospitals across Europe to follow the lead of those featured in these pages.

1 *World Health Report*. Geneva: World Health Organisation, 2002.

2 *Diet, Nutrition and the Prevention of Chronic Diseases – Report of a Joint WHO/FAO Expert Consultation*. Geneva: World Health Organisation, 2003.

3 *Food and Nutritional Care in Hospitals – How to Prevent Undernutrition*. Strasbourg: Council of Europe Publishing, 2002.

4 ‘Hospital kitchen nightmares’, Which press release, November 2006.

5 Tukker et al. *Environmental Impacts of Products – Analysis of the Life Cycle Environmental Impacts Related to the Final Consumption of the EU-25*. Brussels: European Commission Directorate-General Joint Research Centre, 2006.



The quest for sustainability

To grasp the principles of sustainable food procurement, it helps to understand the concept of sustainable development from which it derives.

The term ‘sustainable development’ has its roots in the work of the World Commission on Environment and Development, an independent body set up by the United Nations in 1983. The commission was established to address the challenge of “accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development”.

In 1987 the commission published *Our Common Future*⁶, a manifesto for sustaining human social and economic progress without bankrupting the planet’s environmental resources. This report argued forcefully that social, economic and environmental well-being are intertwined and interdependent – you can’t neglect one of the three without undermining the others. In this context it articulated the concept of sustainable development, which it defined as “improving people’s life-enabling habits to meet our needs in the present without compromising the ability of future generations to meet their needs”.

Ten years after *Our Common Future* was published, the pursuit of sustainable development was placed right at the heart of European Union policy making by the signing of the Amsterdam Treaty. *Amsterdam made it a formal requirement for environmental protection concerns to be integrated into EU policies, citing the need to promote sustainable development as the reason for doing so*⁷.

It did not take long for the implications of Amsterdam to work their way through into the arena of public procurement – the purchase of goods and services by public authorities such as government departments, the armed forces, schools and hospitals. In 2001 the EU adopted its first sustainable development strategy at a meeting of the European Council in Gothenburg⁸.

This asserted that “*sustainable development should become the central objective of all sectors and policies*” and directed member states to “*make better use of public procurement to favour environmentally friendly products and services*”.

Later the same year the Commission gave the adoption of sustainable public procurement a helping hand by issuing a clarification of Community law in relation to the integration of environmental considerations into public procurement tenders and contracts⁹. This was followed in 2004 by publication of a 40-page EU handbook on sustainable procurement, advising public authorities on how to go about developing sustainable procurement strategies, devising tenders, selecting suppliers and awarding contracts¹⁰.

The handbook points out that Europe’s public authorities have massive buying power, accounting for 16% of the EU’s gross domestic product. It identifies food as an important area of public purchasing, citing the introduction of organic food on canteen menus as one way of making procurement more sustainable.

A number of Europe’s national governments and some regional and municipal authorities now have their own sustainable procurement strategies and targets. The UK government, for example, has an action plan articulating its own vision of sustainable procurement, which it defines as “a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment”¹¹. This plan identifies food as one of ten top priority areas for developing sustainable procurement among 174 areas of government spending.

6 *Our Common Future – Report of the World Commission on Environment and Development*. New York: United Nations, 1987.

7 *A Better Quality of Life – Strategy for Sustainable Development for the United Kingdom*. London: HM Stationery Office, 1999.

8 *A Sustainable Europe for a Better World – A European Union Strategy for Sustainable Development*. COM (2001) 264 final. Brussels: Commission of the European Communities, 2001.

9 ‘Interpretative communication of 4 July 2001 on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement’. COM (2001) 274 final. Brussels: Commission of the European Communities, 2001.

10 *Buying Green! A Handbook on Environmental Public Procurement*. Luxembourg: Office for Official Publications of the European Communities, 2004.

11 *Procuring the Future – Sustainable Procurement Action Plan*. London: Department for Environment, Food and Rural Affairs, 2006.

According to AlimenTerra, a network of organisations committed to developing sustainable food systems, there are sustainable public and institutional food initiatives scattered across almost all the countries of the European Union¹². It has compiled a detailed dossier on 44 such projects in Denmark, France, Italy, Spain, Sweden and the UK.

“Most originate from the actions of local stakeholders whether public, private or third sector, not from large-scale programmes,” AlimenTerra says. “However national or regional policy initiatives, such as the Swedish and Norwegian government targets for the use of organic food in public-sector catering, have become important flagships of policy and practice, now translated into local action¹³.”

Building on the experiences of many of these projects, AlimenTerra and the Sustainable Food Lab promote a broad series of principles in an attempt to encapsulate the most far-reaching vision yet of what sustainable food sourcing could, and should, incorporate. The ten principles are:

1. Be proximate (ie source locally to help reconnect producers and consumers and minimise energy use)
2. Be healthy (ie ensure that food meets the needs of a balanced diet, with “no harmful biological or chemical contaminants”)
3. Encourage knowledge and understanding of food and food culture (ie enable people to make better food choices for themselves as well as putting better food on their plates)
4. Be fair to employees in the food sector in terms of pay and conditions
5. Use products that are environmentally beneficial or benign
6. Be accessible to all people (ie ensure that geographic location and affordability do not prevent some sections of the community from benefiting)
7. Have high animal welfare standards in production and transport
8. Support the food security of communities
9. Encourage the understanding and application of biodiversity
10. Use products from fair, co-operative or ethical trading.

¹² *Dossier of Best Practice in Sustainable Public Food in Europe and the United States*. Vermont: Sustainable Food Lab, 2007.
See <http://www.sustainablefoodlab.org/filemanager/filedownload/phpoeonNT/Public%20Food%20Dossier%20-%20FINAL.pdf>

¹³ *ibid*.



The benefits of sustainable food sourcing

The European Union and a number of its member states have thrown their weight behind sustainable food procurement because they recognise the benefits to society that sustainable food can deliver.

The Scottish government, for example, has a procurement strategy for food and catering that specifically aims not only to procure food of a high nutritional quality but also to promote a long list of sustainability criteria including biodiversity; sustainable agriculture and fisheries; the use of “fresh, seasonal and traditional” produce; “agricultural practices that are less reliant on fossil fuels and agrochemicals”; and high animal welfare standards¹⁴. While acknowledging EU restrictions on favouring local suppliers, the strategy also asserts that “there is evidence that local sourcing can contribute to the development of rural economies - the maintenance of economic growth and employment being a key objective of sustainable development”.

The European Union’s organic action plan, published in 2004, pledges policy support for an expansion of organic farming, stating that “organic land management is known to deliver public goods, primarily environmental, but also rural development benefits and in certain respects may also result in improved animal welfare”¹⁵. It does not set any targets for sourcing organic food in public-sector catering but notes: “A great deal of the food consumed in the EU is prepared in large-scale catering kitchens or catering services, ie in hospitals, schools and staff cafeterias. The operators of such kitchens could be encouraged to offer organically produced food alongside non-organic food.”

The following section of this report summarises key aspects of the evidence base for the benefits of purchasing local, organic and fairly traded foods, as favoured by sustainable procurement policies.

Environmental benefits

Procuring local and organic food helps to deliver a wide range of environmental benefits.

Wildlife and biodiversity

Organic farming has a number of features that are recognised by policy makers as benefiting wildlife. These include the predominance of rotational mixed farming; the greater variety of crops grown; restricted use of chemicals and veterinary medicines; lower stocking densities for livestock; and careful management of natural features such as hedges, ponds and grassland¹⁶.

One review of all the scientific research on the biodiversity benefits of organic farming concluded that wildlife is 50 per cent more abundant on organic farms and there are 30 per cent more species than on non-organic farms¹⁷. A large survey of farms in lowland England found almost twice as many species of plants within organic fields, as well as a third more birds and bats and 16 per cent more spiders on organic farms¹⁸. Organically managed soils usually have more soil organic matter and significantly higher biological activity than non-organic soils¹⁹.

Air and water pollution

Farming methods can contribute significantly to pollution of the air and ground water. In California, which exports produce to European Union countries, livestock waste and pesticides used in agriculture account for nearly a quarter of the state’s smog-producing gases. Dust kicked up from heavy farm machinery operating on the eroded soils of the intensively farmed San Joaquin valley accounts for 54% of the region’s particulate matter pollution²⁰.

Hospitals sourcing food produced in industrial-scale monocultures can only guess at the extent to which they are contributing to soil erosion and to pesticide and particulate pollution. By procuring organic food they could reduce air and water pollution, primarily because pesticide use is so highly restricted in organic production²¹.

14 *Integrating Sustainable Development into Procurement of Food and Catering Services*. Edinburgh: Scottish Executive, 2004.

15 Commission of the European Communities (2004). *European Action Plan for Organic Food and Farming*. COM (2004) 415, 10 June. Brussels: Commission of the European Communities.

16 *Action Plan to Develop Organic Food and Farming in England*. London: Department for Environment, Food and Rural Affairs, 2002.

17 ‘The effects of organic agriculture on biodiversity and abundance: a meta-analysis’. *Journal of Applied Ecology*, 2005.

18 Chamberlain D E, Feber R E, Firbank L G, Fuller R J, Johnson P J, Joys A C, Macdonald D W, Manley W J, Matthews F, Norton L R, Stuart R C, Townsend M C, Wolfe M S. ‘Benefits of organic farming vary among taxa’. *Biology Letters*, 3 August 2005.

19 Dabbert S, Häring A, Stolze M, Piorr A. ‘The environmental impacts of organic farming in Europe’. *Organic Farming in Europe: Economics and Policy*, Volume 6. Stuttgart-Hohenheim: University of Hohenheim, 2000.

20 Cook C. *Diet for a Dead Planet – Big Business and the Coming Food Crisis*. New York: The New Press, 2006.

21 Dabbert S, Häring A, Stolze M, Piorr A. ‘The environmental impacts of organic farming in Europe’. *Organic Farming in Europe: Economics and Policy*, Volume 6. Stuttgart-Hohenheim: University of Hohenheim, 2000.

A recent survey by the French Environmental Institute found that 96% of surface water and 61% of ground water contained residues of at least one pesticide²². It has been estimated that a switch to organic methods across UK farming could save in the region of £1.13 billion a year in environmental costs, including the cost of removing farm chemicals from water courses²³.

Sourcing food locally also has the potential to help reduce air pollution by cutting transport emissions. It is estimated that between 30% and 40% of Europeans are exposed to average concentrations of air pollutants that exceed World Health Organisation guidelines. Exposure to sulphur dioxide, nitrogen dioxide and particulate matter generated by road vehicles can aggravate conditions such as asthma and cardiovascular disease and lead to respiratory illness, chronic bronchitis and lung damage²⁴.

Food miles, energy efficiency and greenhouse gas emissions

Over 30 per cent of Europe's greenhouse gas emissions come from the food and drink sector, according to a recent European study²⁵. A significant aspect of this heavy carbon footprint is the fossil fuels used to transport food across countries and across continents.

It is estimated that transporting food accounts for a quarter of all the miles covered by heavy goods vehicles in the UK each year²⁶. By procuring food from local producers, hospitals can potentially reduce both food miles and transport emissions dramatically. Through a switch to local suppliers, one UK hospital trust featured as a case study in this report cut the annual 'food miles' travelled by delivery vehicles by 110,000 miles, or 67%²⁷.

Procuring organic food also helps reduce emissions. A study conducted in Germany in 2002 found that organic farming generated only 71 per cent of the greenhouse gas emissions per hectare produced by non-organic agriculture²⁸. A key reason why organic farming has a positive impact on agricultural energy demand is that it does not use chemical fertilisers. Greenhouse gas emissions from the manufacturing and transportation of fertiliser have been estimated at 6.7 kg CO₂ equiv-

alent per kg N²⁹. In 2004 fertiliser accounted for 37 per cent of the energy used by UK agriculture³⁰.

Animal welfare

Hospitals running sustainable food procurement initiatives often look to source their meat and livestock products from free-range or organic suppliers. Animals in free-range and organic systems have more space to move around, spend more time outdoors and have more scope to express natural behaviours. Organic standards also stipulate smaller herd and flock sizes.

Compassion in World Farming, a respected international animal welfare group based in the UK, compared organic animal welfare standards with those applied by the UK's main livestock industry farm assurance schemes in the production of beef, pork, lamb, chicken, milk and eggs. Against a list of 15 key determinants of good animal welfare in feeding, breeding, housing and husbandry, organic standards registered an average compliance of 85 per cent compared to only 38 per cent for the farm assurance schemes³¹.

Veterinary and animal welfare researchers comparing the findings from 17 research institutes in 13 European countries concluded that in many countries organic farming has improved animal welfare, mainly by banning some of the most intensive livestock practices³².

Health benefits

Pesticide residues

Herbicides, fungicides and insecticides are widely used in agriculture to protect crops from pests and diseases, and residues of these chemicals are often found in food. European data for 2005 shows that pesticide residues were detected in the food sampled from all but one of the 28 countries whose produce was tested. Residues were found in 47% of the foods analysed, with levels in 5% of samples exceeding national government or EU safety levels³³.

22 'Les pesticides dans les eaux - Données 2003 et 2004'. *Les dossiers IFEN No 5*, Août 2006. Institut Français de l'Environnement, 2006.

23 Pretty JN, Brett D, Gee D, Hine RE, Mason CF, Morison JIL, Raven MD, Rayment MD and van der Bijl G. 'An assessment of the total external costs of UK agriculture'. *Agricultural Systems*, 65, 113-136 (2000).

24 *A Breath of Fresh Air* fact sheet. Brussels: European Federation on Transport and Environment, 2002.

25 Tukker et al. *Environmental Impacts of Products – Analysis of the Life Cycle Environmental Impacts Related to the Final Consumption of the EU-25*. Brussels: European Commission Directorate-General Joint Research Centre, 2006.

26 Watkiss P. *The Validity of Food Miles as an Indicator of Sustainable Development*. Report for the Department for Environment, Food and Rural Affairs. AEA Technology Environment, 2005.

27 *A Fresh Approach to Hospital Food*. Bristol: Soil Association, 2007.

28 Flessa H, Ruser R, Dorsch P, Kamp T, Jimenez MA, Munch JC, Beese F (2002). 'Integrated evaluation of greenhouse gas emissions from two farming systems in southern Germany'. *Agriculture, Ecosystems and Environment* 91, 175-189.

29 Cormack P, Elsayed MA, Home RE and Mortimer ND. *Evaluation of the Comparative Energy, Global Warming and Socio-economic Costs and Benefits of Biodiesel*. London: Defra, 2003.

30 *Agriculture in the UK 2005* (Table 14.5). London: Defra, 2005.

31 Lymbery P. *Farm Assurance Schemes and Animal Welfare: Can We Trust Them?* Petersfield: Compassion in World Farming Trust, 2002.

32 Hovi M. 'Animal health and welfare in organic livestock production'. *State Veterinary Journal*, Vol 13, No 1. London: Defra, 2003.

33 *Monitoring of Pesticide Residues in Products of Plant Origin in the European Union, Norway, Iceland and Liechtenstein*. SEC (2007) 1411. Commission of the European Communities, 2007.



It is generally agreed that consumer exposure to these toxins should be minimised on safety grounds. Many pesticides are known animal and suspected human carcinogens^{34, 35, 36}. American researchers have linked symptoms such as headache, tremor, malaise, lack of energy, muscle weakness, depression, anxiety, poor memory, loss of coordination, dermatitis, convulsions, nausea, vomiting, indigestion and diarrhoea with pesticide levels in patients' bloodstreams³⁷.

But it is not just the health of patients consuming residues in hospital food that is at stake. European hospitals procuring intensively produced, imported food may be inadvertently undermining the health of people in developing countries.

According to the UN's Food and Agriculture Organisation, "high levels of agricultural contaminants in food and water as are found in many developing country situations have serious implications for reproduction and human health"³⁸. In China the use of pesticides in rice production costs \$1.4 billion each year in healthcare costs and adverse effects on biodiversity.

Between one and five million cases of pesticide poisoning are reported each year around the world. Ninety-nine per cent of pesticide-related deaths, which average 200,000 a year, are in developing countries³⁹.

Hospitals can reduce residues in the food they serve by sourcing more produce from integrated pest management (IPM) and organic systems of production. Both IPM producers and organic farmers rely on a combination of natural predators and parasites, biological controls, pest-resistant varieties and techniques such as manual weeding to reduce pesticide use or avoid it entirely.

Organically grown food is usually found to have no detectable pesticide residues. When residues are present, they tend to be at lower levels than in non-organic food^{40, 41}.

Antibiotic residues and resistance

Antibiotics are widely used in livestock farming to prevent disease and promote growth. Animals and poultry are often dosed with antibiotics as a prophylactic, to prevent the spread of bacterial infections in closely confined flocks and herds.

This kind of routine administration of antibiotics has implications for human health because it encourages antibiotic-resistant bacteria to develop and undermines the effectiveness of antibiotics in human medicine. Eighty per cent of meat examined in US supermarkets in 2001 was found to harbour antibiotic-resistant bacteria⁴². In 1997 a meeting of 70 health experts convened by the World Health Organisation (WHO) heard that "resistant strains of four bacteria that cause disease in humans have been transmitted from animals to humans and shown to have consequences for human health...salmonella, campylobacter, enterococci and e coli"⁴³.

34 Ames B. 'Ranking possible carcinogenic hazards'. *Science* 236, p272, 1987.

35 Watts MA. 'Pesticide residues in food'. *Proceedings of the Nutrition Society of New Zealand* 19, 58-63, 1994.

36 Buffin D. 'Licensed to cause cancer'. *Pesticides News* 51, March 2001, 18-19, citing data from the International Agency for Research on Cancer, the US Environmental Protection Agency and the European Union.

37 Laseter J, Rea W. 'Chlorinated hydrocarbon pesticides in environmentally sensitive patients'. *Clinical Ecology* 2 (1), 1983.

38 Ongley E. *Control of Water Pollution from Agriculture*. Rome: UN Food and Agriculture Organisation, 1996.

39 *Child Pesticide Poisoning: Information for Advocacy and Action*. Rome: FAO/UNEP/WHO, 2004.

40 Schupbach MR. 'Spritzmittelrückstände in obst und gemüse'. *Deutsche Lebensmittel-Rundschau* 3, S 76-80, 1986.

41 Reinhardt C and Wolf I. 'Rückstandean Pflanzenschutzmitteln bei alternative und konventionnell angebautem obst u gemüse'. *Bioland* 2, S, 14-17, 1986.

42 *New England Journal of Medicine*, cited in Cook C. *Diet for a Dead Planet*. New York: The New Press, 2006.

43 'Antibiotic use in food-producing animals must be curtailed to prevent increased resistance in humans'. Press release WHO/73. Geneva: World Health Organisation, 1997.

The latest human health concern to emerge surrounds the 'superbug' methicillin-resistant staphylococcus aureus (MRSA), which has become a persistent problem in many hospitals. A new strain of MRSA has developed among intensively farmed pigs, chickens and other livestock, causing health problems for farm workers and their families. In the Netherlands 40% of pigs and 50% of pig farmers carry farm-animal MRSA, and traces of the bacteria have been found in 20% of pork on sale to the public. Dutch patients with farm-animal MRSA have developed skin infections, endocarditis (a heart infection) and osteomyelitis (a bone infection). The same strain of MRSA has caused cases of blood poisoning, pneumonia and other infections in Belgium, Denmark and Germany⁴⁴.

The WHO has called for a reduction in the use of antibiotics in agriculture to protect human health. Better animal husbandry would lessen the need for these drugs, which it says should not be used to prop up inadequate hygiene⁴⁵.

Hospital food procurers can protect their patients by sourcing meat from organic producers, who are banned from the routine use of antibiotics to curb disease or promote growth. In organic farming disease outbreaks are minimised by the avoidance of dense stocking levels and intensive housing and the promotion of positive animal health through good husbandry and free-range conditions. The veterinary use of antibiotics is minimised and strictly controlled, with strict withdrawal periods after administration to prevent detectable residues in meat or milk⁴⁶.

Vitamin and mineral content

The Council of Europe has stated that "all patients should receive hospital food which has been stored, prepared and transported in such a way as to ensure the hygiene, safety, palatability, gastronomy, and nutrient content of the food at a high level"⁴⁷.

Yet decades of intensive agriculture have depleted soil minerals, reducing nutrient levels in fresh fruit and vegetables. UK government data shows that between 1940 and 1991, trace minerals in fruits and vegetables fell by up to 76%⁴⁸.

Organic farmers return a wider variety and a better balance of nutrients to the soil through the application of composts and manures than non-organic farmers do when they apply chemical fertilisers. A review of 41 comparative studies on crops produced with organic matter and fertilisers found that organic crops had higher average levels of all 21 nutrients analysed. The results were statistically significant for vitamin C (27% more), magnesium (29%), iron (21%) and phosphorous (14%)⁴⁹.

There can be differences, too, in the nutrient profile of livestock products derived from animals that have grazed organic pastures. In nine out of ten tests carried out by the Danish Institute of Agricultural Science, organic milk was shown to contain significantly more vitamin E than non-organic milk. The level of carotenoids - another group of vitamins - was two to three times as high in organic milk⁵⁰.

Such findings point to nutritional benefits in procuring organic food for hospital menus.

Fats and essential fatty acids

The ways in which animals are fed and kept can affect the fat content of their meat and milk, influencing the levels both of unhealthy saturates and of beneficial fatty acids in our food.

One UK research study found that organic chicken contained 25% less fat than the non-organic equivalent⁵¹. Another, conducted in Italy, discovered that organic chicken contained higher levels of polyunsaturated fatty acids, including 38% more omega-3, than non-organic chicken. It also found that the free-range behaviour of organic chickens reduced their abdominal fat by 65%⁵².

Beef produced from animals fed a diet high in forage, rather than grain, has reduced saturated fatty acid concentrations and enhanced levels of potentially beneficial omega-3 fatty acids^{53, 54}. Organic standards require that cattle be fed predominantly on forage-based diets. Research at Liverpool University has shown that organic milk contains higher levels of short-chain omega-3 fatty acids and alpha-linolenic acid than milk from non-organic farms⁵⁵.

44 Nunan C and Young R. *MRSA in Farm Animals and Meat - A New Threat to Human Health*. Bristol: Soil Association, 2007.

45 'Antibiotic use in food-producing animals must be curtailed to prevent increased resistance in humans'. Press release WHO/73. Geneva: World Health Organisation, 1997.

46 Heaton S. *Organic Farming, Food Quality and Human Health*. Bristol: Soil Association, 2001.

47 'Resolution ResAP (2003) 3 on food and nutritional care in hospitals'. Council of Europe Committee of Ministers, 2003.

48 McCance and Widdowson. *The Composition of Foods*. Cambridge: Royal Society of Chemistry. Trends based on data in editions 1-5, 1940 to 1991.

49 Worthington, V (2001). 'Nutritional quality of organic versus conventional fruits, vegetables and grains'. *Journal of Alternative and Complementary Medicine*, Vol 7, No. 2, 2001, 161-173.

50 Nielson J *et al.* 'Higher antioxidant content in organic milk due to feeding strategy'. Copenhagen: Danish Institute of Agricultural Science, 2004.

51 Wang YQ, Thomas B, Ghebremeskel K and Crawford MA (2005). *Changes in Protein and Fat Balance in Some Primary Foods: Implications for Obesity?* London: Institute of Brain Chemistry and Human Nutrition, London Metropolitan University.

52 Castellini C, Mugnai C and Dal Bosco A. 'Effect of organic production on broiler carcass and meat quality', *Meat Science*, 60, 219-225, 2002.

53 Warren H, Scollan ND, Hallett K, Enser M, Richardson I, Nute G, and Wood JD. 'The effects of breed and diet on the lipid composition and meat quality of bovine muscle'. *Proceedings of the 48th International Congress of Meat Science and Technology*. Rome, 2002.

54 Hall, R and H (1999). 'The quality of meat from beef cattle: is it influenced by diet?' R & H Hall Technical Bulletin No 4. See www.rhhall.ie/print/issue4_1999.html

55 Ellis KA, Innocent G, Grove-White D, Cripps P, McLean WG, Howard CV, Mihm M. 'Comparing the fatty acid composition of organic and conventional milk'. *Journal of Dairy Science*, No. 89, 1938-1950, 2006.



The levels of some of these fatty acids in our food can have a bearing on the levels in our bodies. A study of lactating women in the Netherlands found that those consuming organic dairy products were producing milk containing higher levels of rumenic acid, which is linked to improved immune function and better resistance to allergies⁵⁶. Another Dutch study found a correlation between increased consumption of organic dairy products and reduced incidence of eczema in young children⁵⁷.

As well as having the potential to improve the balance of essential fatty acid intake, an organic procurement policy can help to restrict ingestion of trans fats, which contribute to the hardening and clogging of arteries and are estimated to be responsible for 30,000 cardiac deaths each year in the United States^{58, 59, 60}. Trans fats are produced by hydrogenation, a food-manufacturing process that improves the shelf life and texture of some foods. Hydrogenation of fats and oils is prohibited by organic food-processing standards.

Food additives

More than 500 additives are permitted for use in food processing but fewer than 50 are allowed in organic food manufacturing. This means that procuring organically certified processed foods is a simple way for catering managers to reduce patients' exposure to potentially harmful additives.

Among the additives and ingredients prohibited by organic standards are a number that have been linked to health problems such as allergic reactions, headaches, asthma, growth retardation, hyperactivity in children, heart disease and osteoporosis⁶¹.

Antioxidants

Antioxidants in our bodies serve to reduce damage to cells from 'free radical' molecules, thereby promoting cardiovascular health, inhibiting production of cancerous cells and slowing the ageing process in the brain and nervous system.

Comparative studies of organic and non-organic produce have found that organic crops contained higher levels of antioxidants in 85% of cases, with average levels in organic produce 30%

higher⁶². A ten-year study comparing organic and non-organic tomatoes found that the organic fruits had 79% more quercetin and 97% more kaempferol – two antioxidant flavonoids that protect the heart⁶³.

Economic, social and cultural benefits

Local economic well-being

If a hospital sources its food mainly from far afield, the funds from its catering budget will leave the local area. If it buys food from local producers, more of what it spends will stay within the local economy.

Local sourcing is good news not just for local economic prosperity but also for the general well-being of the populations that hospitals serve. Boosting the local economy reduces local economic hardship and unemployment, which are well known factors in ill-health. Local food procurement thus has the potential to create a virtuous circle in which the money spent on hospital meals helps bolster the local economy in such a way that communities thrive and there is less pressure on health services.

The impact that hospital procurement policies can make should not be underestimated. In the United Kingdom the National Health Service is the largest single purchaser of food in the country, spending £500 million (€700 million) a year on meals for patients, staff and visitors. It serves over 300 million meals each year in 1,200 hospitals⁶⁴. This kind of buying strength can make a big difference within the local economy.

Buying locally not only benefits local suppliers themselves but also creates a positive ripple effect as those suppliers spend what they have gained with local businesses. Research conducted for Northumberland County Council – a regional authority in the north of England with a £3 million (€4.2 million) annual catering budget for its schools, care homes and civic catering – found that the local food suppliers it used were spending an average of 76% of their contracts with local people and local businesses, compared to only 36% local spending for non-local suppliers⁶⁵.

56 Rist L et al. 'Influence of organic diet on the amount of conjugated linoleic acids in breast milk of lactating women in the Netherlands'. *British Journal of Nutrition* (2007), 97, 735-743.

57 Kummeling I et al. 'Consumption of organic foods and risk of atopic disease during the first two years of life in the Netherlands'. *British Journal of Nutrition*, 29/8/07.

58 Willett WC, Ascherio A. 'Trans fatty acids: are the effects only marginal?'. *American Journal of Public Health* 85 (3): 411-412, 1995.

59 Willett W et al. 'Intake of trans fatty acids and risk of coronary heart disease among women'. *The Lancet* 341 (8845) – 581-585, 1993.

60 Triosi R et al. *American Journal of Clinical Nutrition* 56 – 1010-1024, 1992.

61 Heaton S. *Organic Farming, Food Quality and Human Health*. Bristol: Soil Association, 2001.

62 Rich D. 'Organic fruits and vegetables work harder for their nutrients'. *San Francisco Chronicle*, March 25 2006.

63 Mitchell A, Yun-Jeong Hong, Eunmi Koh, Barrett D, Bryant DE, Denison RF, Kaffka S. 'Ten-year comparison of the influence of organic and conventional crop management practices on the content of flavonoids in tomatoes'. *Journal of Agricultural Food Chemistry* 2007, 55, 6154-6159.

64 Coote A (ed). *Claiming the Health Dividend*. London: Kings Fund, 2002.

65 www.defra.gov.uk/farm/policy/sustain/procurement/casestudies/ncc.htm

The greater the amount of money that goes to locally rooted businesses, the greater the potential multiplier effect. Researchers from the New Economics Foundation in the UK found that £10 (€14) spent with a local organic box scheme ultimately generated £25.90 (€36.26) for the local economy, compared to only £14 (€19.60) generated through spending in a local supermarket⁶⁶.

Rural employment

The industrialisation of food production in Europe and North America has decimated agricultural employment and wiped out many small farms. This has caused considerable economic hardship in some rural communities where so many had relied upon farming for their livelihoods. In the United States nearly 20,000 farmers go under each year, and at one point farm closures were averaging 50 a day⁶⁷.

By procuring organic food, hospitals can support a system of farming that provides more jobs, helping to boost rural employment and prosperity. Research conducted by Essex University and the Soil Association has established that organic farming in the UK provides 32 per cent more jobs per farm than equivalent non-organic farms. If all farms in the UK became organic, over 93,000 new jobs would be created⁶⁸.

Fair trade

Hospitals in Europe can help to support sustainable livelihoods for a growing number of communities in developing countries by choosing Fairtrade certified products when they source imported commodities such as tea, coffee and tropical fruits. The objective of fair trade is to alleviate poverty in developing countries by establishing a system of trade that allows marginalised producers to gain access to markets in richer countries⁶⁹.

Fairtrade standards, monitored through audit and inspection, prevent discriminatory and exploitative labour practices, require that small-scale producers are paid better prices and ensure that plantation workers enjoy decent pay and working conditions. Producers are paid a price that covers the cost of “sustainable production and living” plus an additional ‘premium’ to improve community resources such as sanitation, housing and schools⁷⁰.

Sales of fairly traded products are growing fast, improving the livelihoods of millions of people. Fairtrade Labelling Organisations International reports that consumers worldwide spent almost €1.6 billion on Fairtrade certified products in 2006. This is a 42% increase on the previous year, and means that around seven million people - farmers, workers and their families – are now benefiting from the Fairtrade market⁷¹.

Public education

Offering better food to people in hospital is a welcome step towards better health, but it is only by effecting long-term changes in individual eating habits and food culture that it will be possible to have a significant impact on problems such as obesity and diet-related diseases.

Those involved in hospital catering have the opportunity to use the food they serve as a platform to educate patients and their families about healthy eating. That opportunity goes to waste if the food on offer does not model a healthy, balanced diet or is so unappetising that it deters patients from making their own healthy choices.

Hospitals embracing sustainable procurement, however, are in a good position to pursue a broader educational agenda. In consulting with patients to inform the improvement of menus, they are able to open a positive dialogue about nutrition, food preferences and eating habits. In introducing menu changes, they are able to communicate with patients and their families about the nutritional issues associated with the food and where it comes from. In forming new supplier relationships, they are able to give patients better information about the origin and quality of their food. And in serving up more appetising food, they are making it more likely that sceptical patients will be receptive to healthy eating messages.

A number of the hospitals featured in this report have found it possible to educate patients and their families about healthier eating as a result of their moves into sustainable procurement.

66 Ward B and Lewis J. *Plugging the Leaks – Making the Most of Every Pound that Enters Your Local Economy*. London: New Economics Foundation, 2002.

67 Calculations based on data from 2002 Census of Agriculture, USDA National Agricultural Statistics Service. Cited in Cook C. *Diet for a Dead Planet*. New York: The New Press, 2006.

68 *Organic Works: Providing More Jobs through Organic Farming and Local Food Supply*. Bristol: Soil Association, 2006.

69 *Fair Trade Yearbook – Towards 2000*. Gent: European Fair Trade Association, 1998.

70 http://www.fairtrade.org.uk/about_standards.htm

71 ‘Seven million farming families benefit as global Fairtrade sales increase by 40%’. Fairtrade Foundation press release, July 2007.



Sustainable food initiatives in European hospitals

Sustainable sourcing projects in hospitals range from modest initiatives – such as one-off promotional meals using organic ingredients or the introduction of healthier choices in vending machines – to a complete overhaul of patient menus. The eight case studies featured in this report, from six European countries, were chosen because they represent the more ambitious end of the scale.

Some were established by the independent initiative of individual hospital authorities, while others were born out of the need to respond to government, state or municipal procurement targets. But each illustrates the potential for hospitals to fulfil most, or even all, of the ten principles promoted by AlimenTerra. Each shows how sustainable food procurement can improve the well-being of patients while delivering wider social, environmental and local economic benefits.

Austria

The kitchens supplying food to Austria's schools, hospitals, care homes and company canteens prepare around 1.9 million meals each day. The country's public hospitals have over 40,000 beds, and Vienna's hospital kitchens alone serve around 50,000 meals each day.

For a long time Austria's large-scale catering establishments have had a reputation for poor quality fare, dominated by mass-produced processed food. In some hospitals, however, significant attention is now being paid to improving food quality and sourcing organic foods in the light of surveys revealing how dissatisfied patients are with the meals on offer.

Commitment to sustainable sourcing varies considerably across the country, depending to a large extent on the degree of political will at state level. In the past two years there have been unsuccessful efforts in two states – Salzburg and Carinthia – to secure an increase in catering budgets that would allow more organic food to be used. Three states – Burgenland, Tyrol and Vorarlberg – have expressed a will to see more organic food in schools and hospitals but have not set binding targets that procurement managers are expected to reach.

The four states where most progress is being made are those where binding targets have been set at state level. Lower Austria and Styria are both committed to raising the proportion of organic food in hospital meals to 25%, while for Upper Austria and Vienna the target is 30%.

Case study: Vienna Hospitals Association

Austria's leading initiative for putting healthier and more sustainable food onto hospital menus was developed by the Vienna Hospitals Association (KAV) – a group of 18 public hospitals with 32,000 employees and 14,500 beds⁷².

In 1999 the Vienna municipality declared that organic food should comprise at least 30% of the meals served in the city's nurseries, schools, hospitals and care homes. Within two years this statement of intent had been converted into an environmental action programme aimed at meeting the 30% target by 2006.

KAV was ahead of the game. Having committed to its own 30% organic target in 2000, it reached the 30% threshold in less than two years. Health, social and environmental factors were all influential in spurring the city's hospitals down this route. Organic food was favoured both because of a wish to avoid chemical residues and genetically modified ingredients and to support high animal welfare standards and more sustainable livelihoods for farmers.

The seeds of KAV's success were sown in 1996 when one of its members, Rosenhugel - a neurological hospital - started using organic ingredients in its cooking. In the same year KAV carried out a feasibility study to explore what it would cost to source organic food more widely. At that time it would have been difficult for all 18 hospitals to find the required volume, quality and continuity of supply of organic food at a competitive price, and this was reflected in the findings of the study. It concluded that using 30% organic food would put up ingredients costs by 17%, while a 50% organic policy would mean a 30% cost increase.

By 1999, however, organic production in Austria had expanded further and the KAV hospitals set up a working group to move towards organic sourcing. In the same year the contract for the hospitals' dairy supplies came up for renewal, and new specifications were used to encourage organic producers to tender.

KAV's directors worked closely with Bio-Austria to devise a public tendering process that would deliver the required quality, quantity and price for organic foods. Soon organic milk, cream, butter and yoghurt were being used in hospital kitchens across the city.

By 2007 the food being served in KAV hospitals was 32% organic – 100% in the case of dairy products, bread and other baked goods. Menus are brimming with local food, as between 80 and 90 per cent of supplies now come from Austrian producers - depending on the season. There are plans to increase the organic content of children's meals to 50%, to introduce organic food into the 'meals on wheels' service for the elderly and infirm

⁷² Much of the information for this case study is derived from Health Care Without Harm's information sheet 'Organically grown food for Viennese hospitals' (2005), supplemented by further information supplied by Claus Holler of Bio-Austria and an interview with Bruno Klausbrückner and Herta Meier of KAV conducted by Daniel Lesinsky in May 2007.

in the community, and to ensure that at least 10 per cent of the hospitals' food budget is spent on fair-trade certified products in the future.

What KAV has achieved is testimony to the value of a systematic approach from feasibility study right through to evaluation – itself an ongoing process whose findings are helping to vindicate the initiative and sustain support from senior management.

The wide-ranging activities of the project have included:

- An education programme organised by KAV's environmental group with the support of trade unions. A series of training workshops, meetings and 'Bio Day' events was used to explain the benefits of organic sourcing and gain the trust of cooks and food-procurement staff. Information materials were produced for all staff, who were also shown a video about organic agriculture
- A proactive approach to developing supply partnerships. In 2001, in particular, there was an extensive programme of visits by hospital staff to organic farms and food companies, including producers of herbs, eggs, lamb, dairy products and bread
- A succession of tenders specifying organic products
- A consistent focus on reducing the use of processed ready meals and sourcing more fresh produce instead. Most of KAV's hospitals have their own kitchens, enabling staff to cook from scratch with fresh ingredients.

Lessons learned

Secure the support of senior management: *KAV's hospitals could not have progressed as far as they have without the backing of management at the highest level.* From the outset of the project, KAV directors were open to increasing the ingredients budget from €3.60 to as much as €4.20 per patient per day (the average figure in Vienna is now around €3.90). Those managing the project have taken care to produce regular reports on progress and to lobby for continuing support.

Find new ways to cut costs: KAV has reached 32% organic food with an increase of only 10% in the ingredients budget. It has managed to offset these additional costs through a number of innovative measures. Smaller meat portions are now served, which saves money and complements the health objective of reducing the consumption of red meat. In sourcing more seasonal food the hospitals have been able to take advantage of seasonal offers.

Motivate and train your kitchen staff: Staff training and involvement have been a vital part of the KAV approach, characterised by real attention to detail. Cooks are instructed to use less organic meat, for example, because it tends to have lower water content and therefore to lose less mass during frying.

Belgium

Belgium has its own government minister responsible for sustainable development, Els Van Weert, and publishes a federal sustainable development plan every four years.

The first such plan to be developed, covering the period from 2000 to 2004, directed that "public bodies must...set an example in purchasing products that are environmentally friendly and manufactured under conditions which respect human dignity"⁷³. It instructed that organic products should constitute 4% of all food purchases by public bodies by the end of 2003, with public-sector cafeterias required to offer a meal "based on organic food" on a daily basis.

A similar target was put forward for fair-trade foods, with a stipulation that 4% of public-sector food purchases should come from "socially responsible production" by the end of 2003. Neither of these targets has so far been achieved but some hospitals have made significant progress in increasing sourcing from local producers. This is an important aspect of sustainable procurement in its own right, even though it is not an area in which any Belgian government targets have been set.

Hospital kitchens represent a large part of Belgium's public-sector catering, serving over 40 million meals each year. The Department of Social Affairs and Public Health estimates that between 30% and 40% of patients in Belgian hospitals are undernourished. It is so concerned about this problem that it has initiated a 12-month project in which 20 hospitals are piloting an intensive nutritional regime, including the development of individual nutrition plans for patients and close monitoring of undernourishment and general well-being⁷⁴.

The project is backed by government funding of €10,000 per hospital, with each participating hospital expected to have a senior clinical figure with overall responsibility for patient nutrition plus a multi-disciplinary nutrition team bringing clinical, catering and nutrition specialists together.

Case study: Hopital de la Citadelle, Liege

The Hopital de la Citadelle is one of the leading hospitals in the eastern Belgian city of Liege, spread over three sites with a total of 1,036 beds. In the past two years it has made significant progress in sustainable food procurement while also managing to cut its catering costs overall.

The hospital served over a million meals and spent €1.69 million on its catering in 2006, of which €1.46m went on ingredients and the rest on staffing and ancillary costs. This translates into an average of €3.93 per meal served – nearly 5% less per meal than in 2005 and over 12% less than in 2004. These savings have been achieved by incorporating more fresh, seasonal fruit

⁷³ *Federal Plan for Sustainable Development 2000-2004*. Brussels: Secretary of State for Energy and Sustainable Development, 2000.

⁷⁴ Letter to hospitals from Rudy Demotte, then Minister for Social Affairs and Public Health, June 1 2007. The project runs from October 2007 to end of September 2008.



The hospital's health education activities have included a promotional week for organic products and a healthy heart week, with an information stand promoting the role of a balanced diet that incorporates plenty of fresh fruit and vegetables.

© Hopital de la Citadelle, Liege

and vegetables into hospital menus; by doing more in-house catering and direct procurement instead of using sub-contractors; and by using local suppliers as much as possible.

Gone is the limp lettuce of mass-produced mixed salads, replaced by crisp salads freshly prepared using local ingredients in the hospital's own kitchens. Freshly prepared sauces are being served instead of rehydrated powdered sauce mixes. The kitchens have stopped using stewed apple from cans and started making their own, using fresh fruit from a local producer. New menus have been introduced not only for patients but also in the canteens that serve food to visitors and the hospital's 3,500 staff.

"We try to work with seasonal vegetables and fruit from local suppliers as much as possible," says Frederic Dhondt, Head of Catering Services. "We don't have a percentage target but the spirit of what we're doing is to use the maximum fresh product we can. We prefer to make things ourselves where we can – mashed potatoes prepared from scratch using fresh potatoes, for example."

Ninety-five per cent of the hospitals' food now comes from Belgian producers – 100% in the case of meat. Most of the fruit and vegetables served are locally produced and seasonal, oranges and bananas being the main exceptions.

Even here, however, sustainability criteria have been taken into consideration. The bananas are Fairtrade certified, contributing to sustainable livelihoods among marginalised growers in developing countries. The extra cost involved in using Fairtrade bananas was offset by dropping biscuits from the menu – a snack food that often contains high levels of fat and refined sugar.

All the hospital's new food supply tenders now specify quality and sustainability criteria – fresh provenance, seasonal produce, particular breeds of animal for meat products. Frozen vegetables are only used as a stop-gap for convenience, when staff are over-stretched and preparation time is short.

Only a sprinkling of organic produce has been procured so far because it has proved difficult to identify producers that can supply it consistently in the volumes required within the constraints imposed by a limited budget. Each year, however, the hospitals organise a special Bio Week during which organic food is served and actively promoted. There is also a promotional week for cardiac health when the hospital raises awareness about the relationship between heart disease and diet and serves up a special heart-healthy menu.

The menu changes introduced by Frederic Dhondt and his team have been welcomed by all key stakeholders. Patients recognise the improvement in quality in their meals, while kitchen staff have increased job satisfaction because they are doing more traditional cooking and developing their culinary skills. Nutritionists and doctors support the project because it is improving the nutritional value and balance of hospital food.

Lessons learned

Cut out the middle man: One of the biggest challenges that the Hopital de la Citadelle kitchens have encountered is trying to balance the conflicting demands of cost and quality. Reducing sub-contracting in the supply chain – by preparing more food in-house and developing new partnerships with producers – has helped to improve quality within the limits of a tight budget.

Go out and find the suppliers you need: "It's not easy to find suppliers who have the quality and quantity you need to serve a hospital with more than a thousand beds every week," says Frederic Dhondt. There is no substitute, according to Dhondt, for sheer hard work in identifying and developing a good network of suppliers.

Do it one step at a time: Overseeing sustainable food procurement for a big public-sector kitchen can be quite complex to manage, particularly if you are grappling with a long list of sustainability criteria and trying to cater for a wide range of pathologies that require specialist diets. Dhondt advocates careful planning and a step-by-step approach. "Choose a small amount of product to start with, or work with one product family at a time."



Staff and visitors approve of the new menu in the hospital canteen, which is full of fresh, local food from Belgian producers.

© Hopital de la Citadelle, Liege

Keep everyone informed: “Give good information to everybody – the nurses, the doctors and the kitchen staff,” says Dhondt. “Explain the cost, the choice, the whole process.”

Use quality management tools: To achieve success you need to use tools such as patient surveys, as Hopital de la Citadelle has done, and to take on board, share and learn from both positive and negative feedback.

Case study: Centre Hospitalier du Bois de L'Abbaye et de Hesbaye/AISH, Seraing and Waremme

For nearly all the hospital initiatives featured in case studies in this report, making food procurement more environmentally sustainable was an important motivation from the outset. For the Centre Hospitalier du Bois de L'Abbaye et de Hesbaye, however, serving up a healthier diet of more appetising food was all that mattered initially.

The hospital provides a good example of how making healthier choices for the nutrition of patients can point catering managers in the direction of more environmentally friendly procurement. Looking for the freshest and tastiest ingredients leads to more contracts with local producers, reducing food miles and boosting the local economy. Looking for livestock products

with a better flavour and/or nutritional profile results in switching from factory-farmed meat to the products of less intensive free-range systems.

The Centre Hospitalier du Bois de L'Abbaye et de Hesbaye consists of an association of three healthcare facilities clustered around the city of Liege in eastern Belgium. Together they form the Association Intercommunale de Soins et D'Hospitalisation – AISH.

Two of these sites incorporate an in-patient hospital – one 30km to the west of Liege in the town of Waremme and the other 10km to the south-west in the municipality of Seraing. Between them these two hospitals have 620 beds and serve around 910,000 meals a year to patients, visitors and 1,500 AISH staff.

Each has its own kitchens, located in both cases on the first floor of the main hospital building. In charge of the catering across the two sites is Gerard Filot, Director of Hotel Services, working with a team of dieticians led by Leticia Furnement at Seraing and Ghislaine Gilles at Waremme. The dieticians advise on nutritional aspects of the menus and formulate special diets for paediatric, diabetic and cardiac patients and others with particular nutritional needs.

Filot has only a modest amount of money at his disposal. The €1.3 million AISH catering budget translates into €5.80 per patient per day. But his team have managed to improve the whole experience of eating in hospital through their emphasis on better service, more varied and attractive menus and fresher, tastier ingredients.

The menus include mouth-watering gourmet meals and are developed in close consultation with patients – what good is healthier hospital food if it is so dull that it does not stimulate the jaded appetites of those it is supposed to help and heal? The hospitals' catering staff serve three meals a day on the wards



Making healthier choices for the nutrition of patients pointed catering managers at CHBAH in the direction of more environmentally friendly procurement.

© Centre Hospitalier du Bois de l'Abbaye et de Hesbaye



and an extensive lunchtime menu in the public canteens on both sites. A special gourmet menu is available in the canteens every Thursday.

Health education is an important part of the AISH approach, so patients are given leaflets to help them find healthier choices in the shops. The AISH hospitals will be equipped with new high-tech kitchen facilities in two years, and these will include the facility to transmit television programmes from the kitchens to the wards to inform patients about what's on the menu and the health benefits associated with the foods on offer.

Instead of a menu dominated by mass-manufactured, highly processed food, AISH's patients can now enjoy a lot more fresh fruit and vegetables. Instead of procuring intensively farmed poultry, AISH now serves free-range chicken from a French producer.

The two AISH hospitals have also started using Columbus eggs produced in Belgium. These eggs come from chickens that have been fed on a more natural diet rich in greens, resulting in a more nutritious product. There is no difference between Columbus and standard eggs in their total protein, fat and carbohydrate levels. But the Columbus variety typically have 12% less saturated fatty acid content, 15% lower mono-unsaturated fatty acid levels and 57% higher levels of polyunsaturated fatty acids. There is a healthy 1:1 balance between omega-3 and omega-6 fatty acids in Columbus eggs, compared to a 1:15 ratio in standard eggs.

Research has linked omega-3 fatty acids with improved circulation and reduced risk of coronary heart disease. The body cannot manufacture them by itself, so it needs to obtain them from food – most notably from oily fish. Procuring large quantities of fish is unsustainable because many fish stocks have been severely depleted by overfishing, so procuring other foods containing omega-3 – such as organic milk and Columbus eggs – may help to improve patients' intake without over reliance on fish.

This is a complex area from a sustainability perspective, however. Columbus eggs come from hens with an improved diet but they are reared in the kind of battery cages soon to be outlawed in the European Union because of poultry welfare concerns. It is to be hoped that hospitals such as AISH will look to source from organic producers in the future, as organic eggs have the potential to deliver nutritional benefit from systems that are more benign environmentally and more welfare friendly.

Higher levels of omega-3 and vitamin E have been found in eggs from chickens reared in free-range conditions that permit foraging on pasture⁷⁵. Organic standards are variable between different certification bodies, but the highest standards incorporate free ranging of poultry, extensive access to pasture, much lower stocking densities and more space per bird in henhouses than non-organic free-range production. Organic production has been hailed by policy makers as 'the gold standard' for agricultural sustainability⁷⁶.

Lessons learned

Look for quality and freshness: One of the main lessons of the AISH approach is a simple one that reflects the experience of all the case studies in this report. By using better ingredients, freshly prepared, you are likely to end up with better food and happier patients.

Consult your patients and act on their feedback: The sustained attention paid to the quality of the catering service and the needs and preferences of patients is cited as a key factor in the success of the AISH menus.

Provide food-hygiene training: Hospital-acquired infections have become a major problem in a number of European countries, and it is no good having healthier menus and better ingredients if the basics of health and safety are not observed. AISH has invested in training for all its catering staff to optimise food hygiene and ensure that Hazard Analysis and Critical Control Point (HACCP) procedures are observed.

Be prepared to upgrade your kitchen facilities where necessary: The task of improving the food served at AISH has been hampered by outdated kitchen facilities. Gerard Filot, Director of Hotel Services, is looking forward to the difference that new kitchens will make in two years' time, and anticipates a step up in output as well as quality. The capacity of the kitchens in terms of the numbers of meals they can produce each day is expected to increase three-fold.

Develop a supportive network of suppliers: Using more fresh ingredients usually demands more frequent deliveries of food to hospital kitchens. It is crucial, says Filot, to identify suppliers that are able and willing to make several deliveries a week if necessary.

75 Lopez-Bote CJ, Sanz Arias R, Rey AI, Castano A, Isabel B and Thos J. 'Effect of free-range feeding on omega-3 fatty acids and alpha-tocopherol content and oxidative stability of eggs'. *Animal Feed Science and Technology* 72, 33-40 (1998).

76 *Sustainability Implications of the Little Red Tractor Scheme*. London: Sustainable Development Commission, 2005.

Denmark

Denmark has almost a hundred public hospitals, with around 35,000 beds and a catering spend of about €17 per patient per day.

It was the first country in Europe to produce its own action plan for organic food and farming, published in 1995. The government followed up publication of the plan by allocating around €7 million in funding between 1996 and 2001 to support the procurement of organic food – primarily by schools but also by other public institutions.

In 2001 the Danish Innovation Act for the Food Sector came into force, with organic farming and animal welfare both defined as “key fields of action”. The following year saw publication of the country’s first national sustainable development strategy⁷⁷, which asserted that “production methods that preserve the resource basis of the agricultural and fisheries sectors and secure the environment, nature, animal welfare and good working conditions must be promoted”. This document also argued that “in the long term the use of pesticides must be reduced to the greatest possible extent”.

National government backing for organic public procurement subsided under the first two administrations of Anders Fogh Rasmussen, but the beginning of his third term in office in 2007 has been marked by a pledge that supporting organic food and farming will be a priority this time round.

In Rasmussen’s first two terms it was left to local government to set targets and take concrete action on sustainable food procurement for hospital kitchens. The city of Copenhagen and West Zealand Council - featured in the case study below - have been in the forefront of local initiatives.

Case study: West Zealand Council

The hospitals of West Zealand serve a population of 307,000 people living to the west of the Danish capital, Copenhagen. Organic food now accounts for half the food served in three of these hospitals, thanks to an ambitious initiative launched in 2002⁷⁸.

The roots of the project lie in the 1999-2003 environmental action plan for West Zealand’s county administration, a now defunct branch of local government⁷⁹. This plan stipulated that by 2003 a minimum of 50% of the meals served in public-sector catering should consist of “healthy foods from sustainable production”.

Healthy food was defined as “fresh food, in season, with a high level of natural nutrients, that tastes and smells good, and which has a minimum of additives, pesticides and veterinary residues”. Food from sustainable production meant “food that has been produced with consideration for animal welfare, effective use of resources related to production and transportation, and potential negative environmental impact”.



Staff queue for dessert at a hospital canteen in West Zealand, where new menus featuring 50% organic ingredients are proving popular.

© Region Sjælland



Fresh vegetables and organic meat feature prominently in the catering at West Zealand’s hospitals.

© Region Sjælland

⁷⁷ *A Shared Future, Balanced Development - Denmark’s National Strategy for Sustainable Development*. Copenhagen: Danish Government, 2002.

⁷⁸ Much of the information in this case study is derived from the *Dossier of Best Practice in Sustainable Public Food* published by AlimenTerra in 2007. This has been supplemented by interviews with Annette Berg Carlsen (Healthy Catering Operations Manager for the Zealand region) and Bent Egberg Mikkelsen (Senior Scientist at the National Food Institute, Danish Technical University), conducted on behalf of Health Care Without Harm by Martin Cottingham.

⁷⁹ The administrative county of West Zealand was replaced in 2007 by a new administration governing the wider region of Zealand as a whole.



Organic milk and freshly made soup are among the foods enjoyed by patients in West Zealand.

© Region Sjælland

As a result of this environmental action plan, a feasibility study began in 2001 to examine the costs and benefits of local and organic food procurement for the county's hospitals. This wide-ranging investigation consisted of a series of surveys looking at factors as diverse as procurement contract costs, levels of food waste, eating habits on the wards and the weight of patients on arrival and discharge.

The surveys found that a lot of food was being thrown away – around €470,000 worth each year. Many patients regarded the meals on offer as unappetising. It was concluded that introducing organic ingredients would help to make hospital food more appealing and cut waste, as well as offering health and environmental benefits.

West Zealand Council agreed to commit funding to a two-year programme to introduce sustainable sourcing to six hospitals from 2002 to 2004. The project has since been narrowed down to three hospitals⁸⁰, accounting between them for between 1,100 and 1,200 meals a day and total catering budgets of €3.4 million.

The hospitals' food supply contracts came up for renewal in 2002, and sustainability criteria were introduced into the tendering process at this point. Organic food was encouraged, both to help facilitate a healthy balanced diet with minimal chemical residues and to support more environmentally benign farming methods. There was also encouragement for local producers in the emphasis placed on cutting food miles to improve freshness and minimise energy use. Procurement managers took in-house legal advice to ensure that their new contract conditions were legally sound.

The project has involved not only setting new priorities in food procurement but also working to identify new suppliers, devising new menus and providing training for staff. General briefing

for employees on the benefits of organic food has been complemented by specialist training for procurement and kitchen staff on collaborative working, sustainable sourcing and cooking with fresh primary produce.

Menus have been adapted to incorporate more fresh, seasonal and organic ingredients and to take the preferences of patients on board. Kitchen staff monitor the organic certification of food deliveries, and each kitchen has a facilitator to ensure good communication between patients and kitchen staff.

By the end of 2004 organic food accounted for 50% (by weight) of the food being served in the hospitals involved in the project. As well as the meals on the wards, the scope of the initiative encompasses the food served and sold to staff and visitors in cafeterias and other food outlets on hospital premises. The percentage being achieved is monitored four times a year, with the latest (2007) figures showing seasonal fluctuation between 46% and 51% organic.

There are now policies on sustainable procurement, fair-trade sourcing and quality standards for food suppliers that apply to all of West Zealand's public-sector catering. The hospitals involved in the project have developed their own local nutritional standards.

Patients who were not eating enough to support their recovery now enjoy their food more. Seeing the positive impact of the new meals and menus on patients has won over initially sceptical medical staff. Catering staff are happier too – better trained and more confident, with improved job satisfaction and better working relations between the various kitchens.

All this has been achieved without increasing the amount spent on ingredients. The higher cost of organic produce is offset by savings from using more fresh and fewer processed foods.

The new menus incorporate more fresh vegetables, including locally produced cauliflower and cabbage. Only fresh fish is used, and fresh bread is available with every meal. When waste monitoring found that 20 per cent of bread was being left uneaten, the kitchens switched to organically produced white bread and dark wholegrain *rugbrod* that was less susceptible to drying out en route to the wards. A range of new recipes has been developed to add spice, variety and interest to potatoes, which were previously almost always boiled and often left uneaten.

A local company is contracted to source vegetables from local growers and prepare them for use in the hospitals, while a local butcher does a similar job with meats from local livestock producers. Suppliers have become more adaptable and are open to developing new products - the hospitals have devised their own healthier bread recipes, for example, for their bread supplier to use. There are plans to source more local and seasonal produce in the future.

⁸⁰ Slagelse, Holbaek and Ringsted.

Lessons learned

Listen to your patients: A lot of meals were being wasted in West Zealand because patients did not like the food on offer. By constantly consulting their patients on menus and service delivery, the hospitals have been able to introduce patient choices and reduce waste significantly.

Seek out organic suppliers and support them in meeting your needs: There was a distinct lack of good organic suppliers to buy from when the project started. The authorities in West Zealand worked hard to seek out potential suppliers and to provide guidance on how to meet the needs of the public procurement market.

Principles of impartiality in public tenders mean it can be difficult to develop close and effective partnerships with suppliers, but West Zealand has nonetheless managed to build a strong supplier network. A 'meet the buyers' event was organised for local and organic producers, helping to develop a dialogue that has improved the quantity and quality of organic food available. Larger suppliers have been encouraged to support their smaller counterparts through the procurement process.

Work together: You cannot develop a successful organic procurement project of the magnitude of West Zealand's without a collaborative approach. The greater the involvement of all stakeholders, the greater the chances of success. Political support is needed from those who hold the purse strings of public-sector purchasing. Practical support is needed from the kitchen staff responsible for implementing change. The National Food Institute has also been a valuable partner.

One of the most important aspects of collaboration in West Zealand has been getting those in charge of the various kitchen



Twenty per cent of bread was being left uneaten, so West Zealand's hospitals came up with their own recipe to ensure that loaves do not arrive on wards dry and unappetising.

© Region Sjælland

ens in the participating hospitals to work together effectively. There is now less competition, and better cooperation, between kitchens.

Make yourself visible: Promote what you are doing at conferences and other events and get the media on your side. "You need to be visible and West Zealand has done that very successfully," says Bent Egberg Mikkelsen, senior scientist at the National Food Institute. "It's a good thing to be visible to get political support, because people see what good publicity you can get."

Build staff capacity: "Organic conversion is quite challenging," says Mikkelsen. "It's one thing to make the supply chain work but you also have to invest in in-service training for the people who work in the kitchens. A considerable amount of money went into developing courses for staff in West Zealand."

Italy

Sustainable food sourcing has quite a long history in Italy. As early as 1986 the National Institute for Nutrition advocated a preference for Mediterranean foods in public-sector catering to help prevent cardiovascular disease⁸¹. Finance Law 488, passed in 1999, stipulated that public institutions managing the provision of school and hospital meals should include local and organic food on their menus.

The 1999 legislation has been particularly influential in the education system, where the number of schools serving organic food increased eightfold to 561 in the first four years after the law was passed⁸². But progress has been slower in the health sector. The approach advocated in Finance Law 488 has been little promoted by national government, leaving its adoption by hospitals to the discretion of regional and municipal authorities and the hospitals themselves.

Half the 240 million meals served in Italian hospitals each year are thrown away. There are signs of hope, however, in a new partnership between the health ministry and the Slow Food movement announced in 2007. Health minister Livia Turco formed the partnership because she wants hospitals to offer the best in local and traditional fare, serving food that is not only tastier and healthier but also cheaper because of savings on distribution costs when sourcing locally⁸³.

There are seven Italian hospitals leading the way in the provision of organic food to patients, staff and visitors. These are the regional general hospital in Bolzano; the Cottiglio Hospital in Varese; the university, Umberto I and Lancisi-Senesi hospitals in Ancona; the Oristano Hospital in Sardinia and the New Meyer Hospital in Florence⁸⁴.

81 Morgan K, Sonnino R. 'Empowering consumers: the creative procurement of school meals in Italy and the UK'. *International Journal of Consumer Studies* 31 (1), 19–25, 2007.

82 Liquori T. 'Rome, Italy: A Model in Public Food Procurement. What Can the United States Learn?'. New York: Liquori Associates, 2007.

83 <http://italymag.co.uk/food-wine-italy/2007/general/slow-food-to-make-hospital-meals-fun/>

84 Personal communication from Luigi Guarrera, Mediterranean Agronomic Institute of Bari.



Case study: New Meyer Hospital, Florence

The 200-bed New Meyer Hospital, which opened at the end of 2007, is one of Italy's three leading paediatric units and the country's first 'bio-climatic' hospital. The whole complex has been constructed to respect the environment, support energy saving and reduce pollution, with solar panels providing the main source of power for the heating⁸⁵.

The hospital serves 300 meals a day to children and their families. A nearby central production kitchen has allocated a separate area within its facilities to prepare meals for the New Meyer, which has been built without a main kitchen because of cost and space constraints. Hot meals are delivered to the hospital in insulated containers and served from heated trolleys.

The new facility is continuing the forward-thinking approach of the old Meyer hospital and its Quality in Catering sustainable sourcing initiative, launched in 2002. The principal aim of the initiative is to support children's well-being by ensuring that all patients are offered high-quality, nutritionally balanced meals that are individually tailored to their medical conditions. An important secondary aim is to help children and their families to gain a better understanding of nutritional needs and to make better food choices.

The ambition of the hospital authorities is that all the meals except pasta supplied through the hospital's €8 million catering budget should consist of certified organic food or local products with protected designation of origin (PDO) or protected geographical indication (PGI) status. *At the time of writing of this report 70 per cent of the food being served was organic.*

The hospital's dieticians have worked in consultation with patients and their families to develop menus that are both nutritious and appetising. Each patient has an individual food regime. Supplier tenders and contracts have been amended to specify organic, PDO and PGI ingredients. Most of the food is prepared off the premises, with the exception of a small finishing kitchen within the hospital that produces around 35 meals a day for patients with special diets.

The introduction of organic food was heralded by an awareness-raising campaign to explain the new menus. Children and their families welcomed the changes, expressing appreciation for improvements in taste, quality and variety in their responses to a questionnaire circulated in 2003.

In 2008 the hospital's catering contract comes up for renewal, and the tender documents are being refined to encourage the sourcing of more local products from within the region of Tuscany.

Lessons learned

Use your own kitchen facilities where possible: The hospital's ability to serve food that is as appetising as possible has been limited to some extent by its reliance on external kitchen facilities. The meals on offer are much improved but are still more standardised than hospital managers would like. Having to serve reheated meals inevitably affects the freshness and texture of the food. Staff have argued that the hospital should have its own kitchen for the preparation of food on site, and it is hoped that one may be built in the next phase of development.

Make the case for the health benefits of organic food: Members of the Meyer's management board were sceptical at first about authorising the switch to organic food advocated by Fina Belli, the head of dietetic services. *What persuaded them most was a marshalling of the medical arguments, using findings from Italy's Institute of Nutrition and other sources to make the case that organic produce would contain higher average levels of vitamins and minerals and minimal chemical residues.*

Train your staff: The implementation of Quality in Catering was initially hampered by a lack of understanding of nutritional issues and organic food among some staff. This was overcome with a training programme organised in 2004 for all staff, from doctors to porters.

Communicate individually with patients: It has not been easy to adopt an educational approach that promotes better food choices when parents are understandably preoccupied with the medical treatment of their children. The hospital has succeeded in getting positive messages across, however, through close contact between families and the dieticians responsible for each individual food regime. Information materials have been produced under the Quality in Catering initiative but it is individual contact with dieticians that has proved to be the best channel of communication in helping to improve food habits after a child has left hospital.

Sweden

Organic food procurement is growing fast in Sweden, bolstered by national targets announced by the government in 2006. By 2010, the Social Democrat administration declared, 20% of the country's agricultural land area should be organic and organic food should comprise at least a quarter of the meals served in public-sector catering.

At the end of 2004 only 2.5% of public-sector food was organic, but this had more than doubled to 5.9% by the end of 2006. Over 6% of the ingredients used in Stockholm's public kitchens are now organic, and Sweden's two other major cities are doing

⁸⁵ Much of the information in this case study is derived from the *Dossier of Best Practice in Sustainable Public Food* published by AlimenTerra in 2007. This has been further supplemented by an interview with Fina Belli of Meyer Children's Hospital conducted on behalf of Health Care Without Harm by Luigi Guarrera.

even better. In Gothenburg the figure is 10% and in Malmö 14.2%. Most advanced in the country is the small municipality of Ale, where menus are now 19% organic⁸⁶.

Not long after announcing its organic targets, the Social Democrat administration lost power to the centre-right Alliance for Sweden. The new government is perceived to be less enthusiastic about organic food and farming, but it has not dropped its predecessor's organic sourcing targets and it has made positive noises about supporting Sweden's small-scale farmers.

Kitchens taking up the organic sourcing challenge can get help from Ekocentrum, a not-for-profit organisation that specialises in advising and training procurement and kitchen staff. Ekocentrum runs an education and training programme called Ekokok and also a website offering recipes, model menus and information on organic, environmental and nutritional issues⁸⁷.

Sweden's public-sector kitchens are expected to reach their organic food target without an increase in their budgets. Ekocentrum's website provides ideas on how to achieve this, showing how procurers can deliver cheaper, healthier and more sustainable meals by using more seasonal vegetables, less meat and fewer 'empty calorie' processed foods.

Case study: Karolinska University Hospital, Stockholm

Like all the schools and hospitals in the Swedish capital, Karolinska University Hospital is working towards a new organic food procurement target introduced by Stockholm county council⁸⁸.

The council has followed the lead of national government in stipulating that by 2011, at least 25% of the food served in the city's public-sector catering should be organic. For hospitals the directive applies not only to patient and staff meals but also to vending machines, public cafeterias and the fruit bowls available on the wards between meals. The target is part of a wider food policy for Stockholm county that places particular emphasis on reducing the environmental impact of the food industry by cutting food miles, using less intensively farmed meat and fewer processed foods and sourcing more fresh fruit and vegetables.

When the new target was announced in early 2007, organic food accounted for less than 1% of the food served to Karolinska's staff, patients and visitors. By the end of November 2007 this had risen to 4.5%. Hospital catering and sustainability managers⁸⁹ aim to increase the percentage by a further 5% each year in order to reach the 25% target by the end of 2011.

Karolinska is a 1,600-bed teaching hospital whose facilities are divided between a unit at Solna in the north of the city and a second site at Huddinge, 20km to the south. Each has its own kitchens, Solna's being run by contract caterers and Huddinge's by the hospital's own catering staff.

Karolinska's food sourcing needs are not met by the hospital itself. A county procurement department secures economies of scale by operating on behalf of all public-sector catering in the city and the surrounding area. For progress to be made on organic sourcing there needs to be close dialogue and forward planning between the procurement department, distributors and the catering managers of individual hospitals.

The hospital began its pursuit of the 25% target by switching all its milk and butter purchasing to organic suppliers in March 2007. Since then it has also started sourcing more eggs from organic producers, and all the coffee served in staff canteens and on the wards is now organic. The contracts for food catering will come up for renewal in 2009, and at this point a stipulation that 25% of the food served should be organic in 2011 will be written into the tender documents.

Organic pork is now used in pea soup served to the staff. All the frozen minced beef used by the kitchens to make hamburgers is also organic, while locally produced seasonal fruit has been made available in fruit bowls on the wards for the first time. "We ask our distributor for seasonal fruit and Swedish apples where possible," says Anna Jutevik, Karolinska's environmental controller. "We don't want too many kiwis, oranges



Patients are responding positively to menus using plenty of fresh vegetables and increasing amounts of organic ingredients.

© Medicinsk Bild, Karolinska University Hospital

⁸⁶ *Ekologiska Livsmedel i Offentliga Storhushall*. Sigtuna: Ekocentrum, 2007.

⁸⁷ www.ekomatsedeln.se

⁸⁸ The information in this case study is principally based on a questionnaire completed by Anna Jutevik, supplemented by follow-up telephone interviews conducted by Martin Cottingham with Ms Jutevik and Carin Enfors, Project Leader for Ekocentrum.

⁸⁹ The hospital's food and external services department is the one responsible for meeting the target, supported by the environmental and sustainability department.



and bananas.” One ward within the hospital that treats patients with renal problems has switched to a menu of almost 100% organic food in the hope of minimising patients’ exposure to potentially harmful chemical residues.

Each supply contract with the procurement department tends to run for four to five years. When any contract is put out to tender it presents a new opportunity to add organic suppliers to the approved list issued to hospitals, widening the availability and choice of organic products.

Karolinska’s managers have used the hospital magazine, the intranet and a series of seminars organised by the Stockholm municipality to help gear up their staff to meet the 25% organic sourcing target. The magazine and intranet have provided a platform to share information and promote debate among staff. One of the early consequences of this was that a number of staff asked why organic bread was not available, and this prompted managers to make bread one of their priorities for switching to organic suppliers in 2008.

The municipal council’s seminar programme has brought staff and managers into contact with their counterparts from other hospitals and with food procurers and organic suppliers. This has helped to increase interest in organic food, to spread knowledge of best practice, to encourage collaborative procurement planning and to ease the doubts of kitchen staff resistant to change.

Lessons learned

Get your staff on board: “The most important thing that I have learned is that the kitchen staff have got to be involved,” says Anna Jutevik. “They are the people who have to work on this. It’s in the kitchens where staff have been most involved that we have had the best results.”

Work together, communicate closely and plan ahead: Another learning point has been the importance of communication, collaboration and forward planning, both for hospitals and for central procurers. With some organic products it has been difficult to secure the volume and continuity of supply that the hospital needs. With other products the supply has been there but an organic producer has been dropped from the approved list because of a lack of take-up from hospitals.

By working more closely together and planning ahead, backed by the added impetus of the 25% target, hospital managers and the procurement department are increasingly ensuring a better match between what hospitals need and the organic supplies made available. “The people in essential procurement don’t always know what we want. You’ve got to talk to procurers, distributors, suppliers and other hospitals,” says Anna Jutevik. “Communication is very important.”

Mitigate higher costs with a smarter approach to supplier contracts:

The higher cost of organic food has been an obstacle at times but not an insurmountable one. Procurers are expected to meet Stockholm’s 25% sourcing target without increasing catering budgets, and this may appear a daunting prospect when organic meat costs 30 to 60 per cent more than the non-organic option. But Jutevik provides two examples of where cost savings have been made.

When Stockholm’s meat tenders came up for renewal in 2007, only organic suppliers made it onto the approved list in the frozen and cut beef category. This ‘positive discrimination’ benefited producers because it gave them the kind of contract volume that makes the ‘bits and pieces’ market in public procurement more attractive. It benefited hospitals because bulk contracting meant they were able to get organic beef at a more competitive price.

Karolinska’s switch to organic coffee also allowed a favourable renegotiation of contracts. The number of suppliers was cut down to two, giving those two suppliers a bigger cut of the business and enabling the hospital to secure a better price.

United Kingdom

In 1998-99 a consultation identified better hospital food as one of the public’s top five priorities for the National Health Service (NHS)⁹⁰.

Reports from the government’s Patient Environment Action Team suggest that hospital food has improved dramatically in recent years, with the percentage of hospitals rated as good or excellent rising from 58% in 2004 to 91% in 2006. But this rosy picture is contradicted by the Commission for Patient and Public Involvement in Health, which found in a 2006 survey of 2,200 patients that 37% had left meals because they looked, smelled or tasted unappetising.

The standard of catering in the UK’s 570 NHS hospitals may be a matter of some dispute but it is an acknowledged issue of importance for government ministers. In 2003 Lord Whitty, then Food and Farming Minister, said that “we must be sure that the food being served up in our hospitals, prisons, schools and canteens meets key government objectives...on nutrition and the environment”.

Lord Whitty made his statement at the launch of the government’s Public Sector Food Procurement Initiative. This identifies five key aims that place significant emphasis on sustainability criteria:

90 *The NHS Plan*. London: Stationery Office, 2000.

1. To raise production and processing standards
2. To increase tenders from small and local producers
3. To increase consumption of healthy and nutritious food
4. To reduce the adverse environmental impacts of production and supply
5. To increase the capacity of small and local suppliers to meet demand.

In 2004 the country's Chief Medical Officer threw his weight behind sustainable procurement in his annual report. "Public sector organisations are major employers, purchasers and service providers," he wrote. "Public sector food procurement and provision policies as well as practices could make a real contribution to improving health of our country and to sustainable development."

In the absence of any national or local government targets for sourcing local and organic food, the hospitals leading the way in this sphere are those where an individual catering manager has had a vision and worked closely with campaigning organisations to bring it to fruition.

Case study: Royal Cornwall Hospitals

Since 2001 the National Health Service in Cornwall has pioneered an innovative approach to buying and cooking food at the Royal Cornwall, St Michael's and West of Cornwall hospitals⁹¹.

The Cornwall Food Programme, working in partnership with leading sustainable-food educational charity the Soil Association, has transformed menus by serving increasing amounts of fresh and locally produced food to patients, visitors and staff.

The project's successes include:

- Excellent patient feedback, showing increased satisfaction with the quality and taste of the meals. A locally made fish cake has replaced the nationally procured fish cake used previously, which was "as hard and as tasty as a hockey ball" according to one patient. The new fish cake is made with 40% locally caught fresh fish, whereas its predecessor used frozen fish transported hundreds of miles and had a fish content of only 30%
- Spending 83% of the Royal Cornwall Hospitals Trust's £970,000 (€1.36 million) food budget with companies based in Cornwall in 2006. All the contracts for fruit and vegetables, meat, fresh milk, eggs and dried goods are now with Cornish companies
- Spending £400,000 of this (over €560,000) – 41% of the budget – on Cornish produce. Buying local has resulted in a 67% cut in annual 'food miles' travelled by delivery vehicles in 2006



Burgers freshly made with locally produced organic beef became a popular choice on the children's menu, thanks to the pioneering work of the Cornwall Food Programme. Managers hope to use more organic ingredients in the future.

© RCHT Photography

- Increased turnover and new customers for local producers, for whom NHS contracts have helped to trigger other new market opportunities
- A new farm shop at the Royal Cornwall Hospital. This is enabling patients, staff and visitors to buy fresh, local and organic products two days a week. There are also plans to develop a home-delivery box scheme for produce using NHS courier services.

All this has been achieved without increasing costs, and within the Royal Cornwall Hospital's modest food budget of £2.50 (€3.50) per patient per day.

The project began in 2001, when a patient at the West Cornwall Hospital complained that the sandwiches on offer had come from a national supplier in Oxford instead of being local. This got the catering manager, Mike Pearson, thinking. Why transport food over 250 miles if you can serve up a fresher, tastier and potentially healthier sandwich made locally? Why give the contract to a national caterer if you can use local ingredients and boost the local economy?

A strategic decision was taken to switch to local suppliers, providing patients and visitors with fresh, local food as far as possible. Patient surveys reinforced the instinct to go local, as they clearly showed that patients preferred meals freshly prepared in the hospital kitchens to those from a national supplier.

The Soil Association has been an active partner in the project through its regional arm, Organic South West. Its support, in conjunction with the EU's Objective One programme, enabled the employment of a sustainable food development manager to nurture supply partnerships with small local food businesses and farmers.

⁹¹ The information in this case study comes from *A Fresh Approach to Hospital Food*, a 50-page report all about the Cornwall Food Programme published by the Soil Association early in 2007.



The new production unit opening in 2008 will enable the Royal Cornwall Hospitals Trust to process its own farm-fresh organic vegetables and supply them to public-sector kitchens throughout Cornwall.

© RCHT photography

The Cornwall Food Programme has adopted the Soil Association's Food for Life targets, aiming for its hospital food ingredients to be at least 75% fresh and unprocessed, 50% locally produced and 30% organic. These targets have been successful in enabling schools throughout the UK to move towards more nutritious and sustainable menus.

The hospitals involved in the project are now using more than 75% fresh ingredients, and 41% of the food on their menus is locally produced. It is only in organic sourcing where they have so far failed to make a significant breakthrough because of the challenges of price and availability.

They hope to put that right in 2008 when they open the newly constructed Cornwall Food Production Unit. Having this facility will enable them to buy in organic vegetables and prepare them on site at a total cost that is competitive with what is currently being paid to purchase pre-prepared non-organic produce. The new unit will also make it possible to work with other public-sector kitchens, ordering and preparing organic produce in greater bulk to bring costs down and coordinating sustainable procurement on a bigger scale.

Lessons learned

Secure the support of senior managers: The support of NHS chief executives in Cornwall has been critical to the success of the project. At a very early stage Mike Pearson's team presented their ideas to the boards of all trusts to get them on board. Senior managers have since played a positive role, bringing key figures from across the trusts together with outside stakeholders to form a project board.

Recruit specialist staff: Mike Pearson quickly recognised that his vision of local sourcing was likely to grow beyond his personal capacity to deliver it. He brought in a project manager to develop the concept and a sustainable food procurement manager with a background in catering to identify and work closely with potential suppliers.

If the supply isn't there, help your suppliers develop it: It became clear that many potential local suppliers were small enterprises that would need a lot of support and concerted effort to develop their operations to the point where they could meet the demands of a large public-sector contract. With a post focusing on developing supplier relationships, the Cornwall Food Programme team were able to identify enterprises that were geared up to deal with contract process relatively easily. At the same time they were also earmarking those with the potential to be coached and supported to develop the necessary skills and/or capacity over time.

Publicise what you're doing: The team ensured that they kept their project in the spotlight through regular media releases and by entering relevant competitions. The project has won a number of awards as a result – accolades that have boosted staff confidence and given the team the kind of profile that means they are more likely to be consulted as part of wider strategic discussions about public procurement.

Use criteria of freshness and nutritional quality to get local ingredients: The European Union's rules prohibit procurers from favouring local suppliers explicitly in tenders and contracts. But there is nothing to stop catering managers specifying the nutritional quality they are looking for, and this may give local producers a helping hand as well as making meals healthier. The Cornwall Food Programme's specification document for its fish tender aspired to serve fish that was as fresh as possible, declaring that "offerors will be required to identify the anticipated lead time from landing of the product to delivery to the specified addresses".

Lisa Symons, head of procurement and supplies for the Cornwall Supplies Service, explains: "Any supplier could put our arrangements in place if they so wished, wherever they were based. But the fact that we are specifying fresh fish does mean that the source would have to be reasonably local. And while local companies still have to compete for the business, they do tend to have lower transport costs."

Quality, not quantity: The Cornwall Food Programme switched from 115g pots of yoghurt at 16.5 pence each to 80g pots at 16 pence each. On the face of it this does not appear a very good piece of business - procuring 30 per cent less yoghurt but still paying 97% of the original price. But the old yoghurt was an unappetising long-life product that was often wasted - patients would eat a few spoonfuls and leave the rest. The new product is a fruity, fresh yoghurt made in Cornwall using the creamy milk of Channel Island dairy cattle. Patients are happily eating the smaller pots, with rave reviews and little wastage.

Value, not price: The ice cream served by the Royal Cornwall Hospitals Trust (RCHT) is an example of nutritional quality being a deciding factor in awarding a contract. Ice cream is a food that can help provide weakened patients with concentrated calories. But it can also go to waste if it reaches the wards in an unappetising, watery mess.

The RCHT switched to a local ice-cream supplier because it could offer a very dense, clotted cream-based product that was tastier, higher in calories and more resistant to premature melting. The price per tub was almost double the 5.5 pence that used to be paid for ice cream but the hospitals have ended up saving money because fewer elderly patients now need expensive powdered drink supplements to keep up their calorie intake.

Make menus practical and educational: The Cornwall Food Programme team emphasise the importance of having menus that appeal to patients and are manageable for catering staff. That means choosing meals that work in large-scale catering and listening to the views of patients about what they enjoy. The team were able to use the publication of their new menus to promote their sustainable sourcing approach and what it was trying to achieve for health and the local economy.

Case study: Royal Brompton Hospital, London

Organic fruit, milk and meat are all on the menu regularly at the Royal Brompton Hospital in London, thanks to a pioneering initiative coordinated by Sustain – an alliance of food and farming NGOs⁹².

The Brompton is one of four London hospitals that participated in the London Hospital Food Project, a pilot programme part-funded by a grant from the Department of the Environment, Food and Rural Affairs under its Rural Enterprise Scheme. Over the course of the two-year project (2004 to 2006) three out of the four hospitals succeeded in meeting the key target: sourcing at least 10 per cent of their food from local and organic suppliers in order to improve food quality, reduce food miles and support the local economy.

The Brompton did best of all, achieving 18 per cent local and organic sourcing. Now the hospital is part of Good Food on the Public Plate, a new initiative aimed at widening the Hospital Food Project to incorporate 20 hospitals, five schools and five care homes in the South East of England.

“All our milk is organic and we have meat dishes each week using organic minced or diced beef,” says Mike Duckett, the Brompton’s catering manager. “We have organic sausages, beef burgers and chicken nuggets, organic bouillon for our stock, organic porridge oats and organic yoghurt. All the coffee in our restaurants is organic and fairly traded. The organic fruit depends on what’s available and in season.”

The next step may be the introduction of locally grown organic vegetables. “It’s very difficult because of the budget I’ve got, which is £3.50 (€4.90) per patient per day. What I’m trying to do is start by changing the private patients’ menu to use completely organic vegetables, then build it up from there.”

The London Hospital Food Project served as a form of ‘dating agency’, bringing hospitals and local producers together through a series of events to help forge partnerships. Sustain was assisted by sustainable food lobby group the Soil Association in compiling a list of 100 local and regional farmers and food companies able and willing to supply the NHS. Thirty of 30 of these have subsequently ended up supplying one or more of the four hospitals involved in the pilot phase.

The project has been so successful that sustainable sourcing has now been incorporated into the Royal Brompton and Harefield NHS Trust’s nutrition policy. That policy states that adult patients are to be offered at least two organic dishes per week, while for children something organic – or at least additive free – is available every day. All the milk in the hospital is organic, an alternative to chips is always on offer, and sausages are made locally to the hospital’s own recipe.

“We want to make sure that if we can’t get food that’s both organic and local, at least we get local and seasonal stuff or failing that British produce,” says Mike Duckett. “We talk to farmers all the time, and we are working with a lot of local growers now. For example, all our potatoes are being grown especially for us in Kent because we offered a five-year contract. That’s the kind of partnership and trust you want.”



Trainee chefs Salame Jacbe (left) and Jerry Oduro learn their trade in the Royal Brompton Hospital’s main kitchen, where staff work with plenty of fresh, local and organic ingredients.

© Rachel Hughes/Royal Brompton & Harefield NHS Trust

⁹² Most of the information in this case study comes from an interview with Mike Duckett conducted by Martin Cottingham in the summer of 2007 to feature in the Soil Association’s organic action plan for Greater London. This has been supplemented with additional information from Mike Duckett and from AlimenTerra’s *Dossier of Best Practice in Sustainable Public Food*, published in 2007.



Duckett can tell the story of many ingredients on the Brompton's menus. The burgers, sausages and chicken nuggets come from Pure Organics in Wiltshire, made from Hampshire and Oxfordshire beef, pork and chicken breast. The apple juice comes from an organic orchard in Kent. The milk is supplied by Medina Foodservice in Slough, Berkshire. Medina gets its milk from Windmill Foods - an organic dairy farm near Bedford.

The relationship between Windmill, Medina and the Brompton is a good example of how the Hospital Food Project has brought benefits throughout the supply chain. Medina is the UK's biggest wholesale supplier of sliced bread, and so has been able to deliver significant budget savings on the Brompton's bread needs. This has helped the hospital to offset the higher cost of organic milk and keep within its tight catering budget.

Medina has also helped make the Brompton's food sourcing more fuel-efficient and environmentally friendly. It delivers organic milk and yoghurt to the hospital on the back of a delivery to coffee shops nearby, and collects milk from Windmill Foods using trucks that have just delivered to customers in Bedford.

Supplying the Brompton has helped Medina to develop other NHS contracts, and the company now supplies £3,000 (€4,200) worth of organic dairy products each week to various London hospitals.

Supplying the NHS via Medina has enabled Windmill Foods to expand, taking on new staff and investing in processing facilities. The company has recently acquired its own butter churn and is developing its own range of organic fruit yoghurts.

As well as sourcing increasing quantities of organic and local food for its patient menus, the Brompton has installed a vending machine for healthier drinks on its premises. Through a partnership with Medina and Abbey Well Water, this machine sells still, sparkling and flavoured water; fruit juices and smoothies; and a variety of milk drinks. In the first eight months it sold over £5,500 (€7,700) worth of drinks – 80% more than the sales revenue of a Coca-Cola machine in the hospital in the same period⁹³. Mike Duckett hopes to build on this success by introducing locally and organically grown seasonal fruit into the Brompton's food-vending machines.

Lessons learned

Talk to key stakeholders – communication is vital: The board of the Royal Brompton and Harefield NHS Trust was initially sceptical about this initiative. Mike Duckett speaks of negativity from colleagues in supplies and general management when the project was first put forward. It took a lot of talking to the various stakeholders and consultative meetings to win their support. The project has also placed great emphasis on continuous engagement with staff and patients, in order to provide the best possible service within budgetary constraints. “You have to make changes slowly and communicate with everyone what you are trying to achieve,” says Mike Duckett.

Have a plan and stick to it: “Compile a business plan for your hospital food procurement,” says Duckett. “Keep pursuing your aims and objectives come what may.”

Never take ‘no’ for an answer: “There is always someone who will supply at a reasonable price. With our large procurement capacity it is easy to negotiate with new suppliers at a cheaper cost.”

Invest in staff training: The project benefited from training courses to help kitchen staff cook using more fresh ingredients and to familiarise them with the benefits of local and organic sourcing. It is reported that staff's outlook on food has changed completely.

Shorten your supply chain and form direct partnerships with producers: The price of some locally produced and organic products and ingredients was initially a barrier to progress. The requirement to deliver the project without an increase in the catering budget was one of the biggest challenges faced by Mike Duckett and his team.

They eventually found, however, that reducing waste and sourcing more food directly from farmers helped to overcome financial constraints to some extent. Forming new supply partnerships with producers has also helped to overcome the lack of interest and support that Duckett initially encountered in the established National Health Service supply chain. There are now plans to use more local and organic produce in the future.

93 *Not What the Doctor Ordered – How Junk Food in Hospitals and Sports Centres is Undermining the Drive for Healthier Living*. Bristol: Soil Association, 2007.

What's on the menu?

As the case studies above illustrate, sustainable food procurement can result in a lot of changes to individual dishes and ingredients. But what might an overall menu look like when a hospital has introduced significant changes to make its food more appetising, to improve nutritional value and balance and to address sustainability issues?

The following lunch menu is week one in the three-week cyclical menu for 2007 to 2008 developed by London's Royal Brompton Hospital – one of the foremost hospitals in the UK in terms of sustainable food procurement.

The Brompton's old menu was dominated by processed foods. Main-course items such as burgers, pasties and chicken nuggets tended to be mass produced using low-quality meat, while soups were made from powdered mixes. Little attention was paid to the provenance of fruit and vegetables and the carbon emissions that might have been created by transporting them long distances.

On the new menu 18 per cent of ingredients are local and/or organic. There are fewer processed foods, more fresh and seasonal fruit and vegetables and more foods produced by the

farms of the 'home counties' that surround London. Old favourites often remain on the menu but have been transformed beyond recognition – all soups are now freshly prepared in the hospital kitchens, for example, and the chicken nuggets on the children's menu are made with organic chicken breast. The old menu consisted of a bare list of items but the latest is published in a colourful and informative booklet that includes background information on sustainable sourcing and healthy eating.

The new menu is accompanied by a series of symbols. These include a red heart indicating 'healthier options' that are suitable for diabetics, patients with raised cholesterol or blood lipid levels and those who need to lose weight. A large black star identifies 'higher energy options' that are best for those who are undernourished or have a poor appetite. A purple 'S' distinguishes the 'soft option' – the best choice for patients with eating or chewing difficulties. A white chef's hat in a blue circle flags up dishes that have been specially designed for the National Health Service by a team of leading chefs including Anton Edelmann, Mark Hix and Michael Caines. There are also symbols to denote vegetarian options (a green 'V') and the use of halal meat (a small black star).



The Royal Brompton Hospital menu, which includes dietary advice for patients and information about sustainable sourcing.



Anatomy of the 2007/08 Royal Brompton Hospital Menu

Course	Monday	Tuesday	Wednesday
Starter <i>Starters:</i> All soups are freshly made in the hospital kitchens. Apart from frozen peas and some Dutch tomatoes out of the UK growing season, all the vegetables used are locally grown in Kent, Sussex or Surrey. The basil and coriander are fresh when in season and locally grown. Organic bread rolls are served with the soup three times a week, and an organic vegetarian bouillon is used in all soup recipes.	V Tomato and basil soup	S V Cream of leek and potato soup	V Cream of broccoli soup
Main courses <i>Mains:</i> Amongst the meats only beef (from Brazil) and lamb (from New Zealand) are imported. When the evening menu is taken into account there is an average of two organic meat dishes on the menu every week - sausages, meat loaf, meat balls and chicken nuggets (on the children's menu) are among the other organic meat dishes available.	★ English steak and onion pie <i>Scottish beef, onions from Kent</i> ★ Tuna and pasta salad <i>locally grown salad</i> ★ Organic pork and apple burger <i>Produced in Wiltshire using Hampshire or Oxfordshire pork</i> S V Soya mince bolognese	* Chicken a la King with red pepper sauce <i>UK-produced chicken</i> Salmon and cucumber salad <i>local cucumber</i> * ★ S Shepherd's pie with gravy <i>local potatoes</i> ★ V Cauliflower and Very Cheesy Sauce <i>local cauliflower</i>	S ★ Hungarian beef goulash <i>free-range local turkey</i> ★ V Sliced egg and tomato sandwich <i>local vegetables; mushrooms; cheddar cheese</i> ★ V Potato and mushroom grilled <i>local watercress</i> Kipper and watercress
Vegetables <i>Vegetables:</i> All potatoes except Parmentier and croquette potatoes are locally grown in Kent. All other vegetables except garden peas (from Norfolk), mushy peas (tinned), baked beans (tinned) and cabbage (from Lincolnshire) are locally grown in Kent, Surrey or Sussex. More perishable seasonal vegetables such as broccoli and cabbage are used fresh in season but a portion of the harvest is frozen to allow use out of season too.	S Creamed potatoes Spaghetti Mixed vegetables S Broccoli	S Creamed potatoes ★ Sauté potatoes S Sliced carrots Cabbage	★ Parmentier potatoes S Garlic potato puree ★ Garden peas S Mashed swede
Dessert <i>Desserts:</i> All custard and milk puddings (rice, sago, semolina and tapioca) are freshly made using UK produced organic milk. Tinned or frozen fruits are used to make Black Forest rice pudding, stewed apple, peach flan and raspberry jelly but the fresh fruits on offer at every meal always include locally grown English apples and/or pears when in season. Out of season the menu is supplemented by French apples and Fairtrade bananas.	S ★ Gooseberry crumble and custard Black Forest rice pudding Fresh fruit <i>fresh, seasonal, local gooseberries</i>	★ S Chocolate sponge with chocolate sauce S Sago pudding Fresh fruit	S Stewed apple and custard S Semolina pudding Fresh fruit

♥ Healthier Option

★ Higher Energy Option

S Soft Option

V Vegetarian

🍽️ Leading Chefs Dish

* Halal Meat

	Thursday	Friday	Saturday	Sunday
	V Carrot and coriander soup	V Cream of vegetable soup	V French onion soup	V Minted pea soup
h	🍽️ * ♥ ★ Braised lamb in cider	★ Fried cod in batter and lemon	🍽️ * ★ Chicken and leek pie	🍽️ ★ Roast pork, stuffing and apple sauce
UK range eggs, tomatoes	★ V Cheese and tomato sandwich	* ♥ Chargrilled chicken and lettuce salad	★ Sliced ham and salad sandwich	🍽️ ♥ S Chicken casserole
local tomatoes, English cheddar cheese	★ V Vegetable stroganoff	🍽️ British pork blanquette white sauce	🍽️ ★ S V Macaroni cheese	★ Prawn Marie Rose sandwich
local, seasonal vegetables	🍽️ ♥ ★ S Macaroni, smoked haddock and herbs	🍽️ ★ S V Vegetable lasagne	♥ ★ Jacket potato and tuna mayonnaise	🍽️ ♥ V Nasi Goreng (spicy Indonesian rice with egg)
fresh, local herbs	♥ S Creamed potatoes	♥ S Creamed potatoes	🍽️ ♥ S Olive Oil Mash	★ Roast potatoes
and English cheese	🍽️ Pilau rice	★ Chips	★ Croquette potato	♥ S Creamed potatoes
local	♥ Brussels sprouts	♥ ★ Garden peas	♥ ★ Baked beans	Roast parsnips
local process	♥ S Cauliflower	♥ S Mashed swede	♥ ★ S Mushy peas	♥ S Broccoli
quiche	🍽️ ♥ S Peach flan and custard	★ Apple and toffee roly-poly	S Chocolate mousse	♥ S Rice pudding
	♥ S Rice pudding	♥ S Tapioca pudding	♥ S Fruit yoghurt	🍽️ Raspberry jelly
	♥ Fresh fruit	♥ Fresh fruit	♥ S Fruit cocktail – natural juice	🍽️ Yoghurt
			♥ Fresh fruit	♥ Fresh fruit



Changing the recipe - overcoming the challenge of sustainable food sourcing

The hospitals featured in this report identify a number of obstacles that catering managers commonly face when they are trying to develop sustainable food procurement.

The most formidable and most frequently mentioned challenges are:

- Tight catering budgets that restrict investment in better-quality ingredients, which often cost more
- Limited kitchen facilities for in-house catering using fresh ingredients
- Limited autonomy for individual hospitals in the arena of food procurement
- Catering staff who lack the skills and experience to develop healthier menus and to work 'from scratch' with fresh, unprocessed food
- A lack of interest in the nutritional importance of hospital food among clinicians who are influential in shaping hospital policy. This is sometimes coupled with a lack of understanding and/or acceptance of the health benefits of organic food
- A lack of awareness of sustainability issues among senior management and/or a lack of support
- A lack of resources within hospitals to embed and manage sustainable sourcing
- A shortage of local and/or organic suppliers with the capacity to deliver the quality and quantity of produce required, as well as a lack of experience among potential suppliers of supplying public-sector catering
- The prohibition in EU law against specifying local producers when inviting tenders.

To address as many of these potential barriers as possible and to encourage more hospitals to follow in the footsteps of those featured here, this final section of the report sets out a series of ten practical 'golden rules' for catering managers. This advice is based on the collective wisdom of the hospitals featured, plus insights from the EU's sustainable procurement handbook⁹⁴, the UK food and farming NGO Sustain⁹⁵ and a report on best practice in sustainable procurement produced by the local food consultancy f3 for the NGO Food Links UK⁹⁶.

1. Undertake research and make a plan

- Begin your project planning in good time for any new initiative to be integrated into your hospital's annual business planning and its menus, which can be set several months in advance

- Read the EU's sustainable procurement handbook to familiarise yourself with the practical steps required and the constraints of the legal framework
- Consider the main categories/dimensions of sustainable food described in this report – minimally processed, locally produced, organic, seasonal and fairly traded. Decide what your priorities are and the extent to which each should play a part in your hospital's procurement
- Consider setting percentage targets for fresh, local and organic food. These have proved effective in a number of countries in focusing minds and driving change
- Make sure any targets are realistic and credible in your national and local context
- Research the cost implications of sustainable sourcing thoroughly, and set your initial targets with a pragmatic eye on your budget. A new initiative will stand the best chance of securing senior management support if it is backed by solid research showing that it can deliver real improvements in quality and patient nutrition without increasing costs
- Make sure you consult in detail with staff and patients. Their concerns, preferences and priorities should inform your planning
- Involve your hospital's press office in your plans – your initiative will benefit from well planned and targeted publicity.

2. Secure management support

- The most successful sustainable food initiatives in hospitals have been those where senior managers provide wholehearted support and become advocates for the project
- Use the findings from your initial research and planning plus the benefits of sustainable sourcing catalogued in this report to lobby for the backing and active involvement of senior management.

3. Take a step-by-step approach

- Change can be a slow and difficult process, so don't try to do everything at once
- Consider implementing your plans one category of food or one product at a time. The sequence can be determined by a combination of practical necessity (eg when contracts are due to expire) and strategic priority (eg organic milk is sometimes one of the first organic products to be sourced by hospitals because the evidence of nutritional benefit is particularly compelling)

⁹⁴ *Buying Green! A Handbook on Environmental Public Procurement*. Luxembourg: Office for Official Publications of the European Communities, 2004.

⁹⁵ Hockridge E and Longfield J. *Getting More Sustainable Food into London's Hospitals*. London: Sustain, 2005.

⁹⁶ Michaels S. *Best Practice in Sustainable Public-Sector Food Procurement*. F3/UK Food Links, 2006. Available on the Defra website at <http://www.defra.gov.uk/farm/policy/sustain/procurement/pdf/foodlinks-bestpractice.pdf>

- Involve a wide range of stakeholders in project consultation and planning - including patients, doctors, dieticians, catering staff and procurement managers – so that you take people with you every step of the way

4. Offset any higher ingredients costs by shortening supply chains and using fresh ingredients

- A number of pioneering hospital food initiatives have found that sourcing directly from local producers reduces costs because it cuts out the middleman in the supply chain
- An emphasis on using more fresh ingredients also helps to control costs, as it results in a reduced reliance on more expensive processed foods
- Once the quality of your menus has improved, you can charge high-street cafeteria prices for the food you serve in your hospital canteen, helping to recoup some of the costs of your patient menu

5. Make simple menu changes to improve health and sustainability

- Procure free-range or organic meat, use cheaper cuts and serve smaller meat portions so that the overall cost is similar. Eating less meat than is the norm in a modern western diet is recommended on both health and environmental grounds⁹⁷
- Use more fresh fruit and vegetables. Make sure that fresh fruit is always available on the dessert menu – organic, local and seasonal where possible
- Substitute fresh fish for frozen and oily fish for white. Choose fish certified to Marine Stewardship Council sustainability standards
- Use more herbs and spices to season foods and reduce the use of salt and sugar
- Cut down on frying and grill or steam more foods instead
- Serve simple soups freshly prepared using local ingredients. The alternative is manufactured soups and soup mixes, found in spot checks by London's Royal Brompton Hospital to contain no more than 8% chicken (chicken soup) or 25% vegetables (vegetable soup)
- Don't forget the vending machines on hospital premises – so often a focal point for promoting and selling unhealthy snack foods and fizzy drinks high in fat, salt and sugar. Procure healthier snacks and make bottled water and organic milk drinks available.

6. Identify and support potential local and organic suppliers

- Use an existing trade or NGO directory or database, or ask local economic regeneration partners to produce one
- Undertake well targeted publicity to attract potential suppliers
- Invest time in making telephone contact, arranging visits to farms and factories where possible and appropriate, and organising 'meet the buyer' events
- Explore whether there are any regional producer co-operatives that can supply you, enabling your hospital to source a greater volume and variety of fresh produce through a single contact
- Consider splitting some supply contracts into lots by geographical or commodity units (eg separate ice cream or yoghurt provision from the main dairy contract) to create more opportunities for smaller local suppliers and for high-quality products from specialist companies
- Be prepared to give small producers and other local businesses help with contract paperwork and/or training to meet the demands of public-sector procurement. The EU rules allow this, and hospitals that have invested the time of one of their own catering or procurement staff in developing and nurturing supplier partnerships have been particularly successful in sustainable procurement.

7. Use tenders and contracts to define your agreed sustainability criteria

- EU rules make it illegal to specify that a supplier of goods or services to the public sector should be locally based
- It is possible, however, to specify freshness, seasonality and frequency of delivery – all of which can increase opportunities for small local producers
- Foods produced using recognised methods of production – organic products, for example, or those with PGI or PDO status – can also be specified in tender documents
- Nutritional guidance – such as the maximum fat content required in minced or diced meat, or the explicit exclusion of trans fats, or the minimum meat content of sausages – can be specified too
- You can ask for a wide range of products to be offered and then choose the Fairtrade option, although Fairtrade-labelled products cannot be specified directly
- There is a good example of model specification clauses available on the website of the UK's Department for Environment, Food and Rural Affairs⁹⁸.

⁹⁷ Serving smaller portions of higher-quality meat is an approach taken by half the hospitals featured in this report but a note of caution needs to be added. Portion size should be subject first and foremost to the nutritional needs of individual patients. National Health Service guidelines in the UK instruct that as a general rule an individual portion for a main meal should not be less than two ounces of meat (cooked weight), which is 57 grams.

⁹⁸ <http://www.defra.gov.uk/farm/policy/sustain/procurement/pdf/psfpi-clauses.pdf>



8. Invest in kitchen facilities and staff training

- Good in-house kitchen facilities are crucial if a hospital is to optimise the freshness and texture of the food it serves and ensure maximum flexibility in offering a variety of options to patients with different pathologies
- Staff training is also very important. It is no good sourcing healthier food if those working in the kitchens do not have the skills and experience to work with fresh and organic produce. All the hospitals featured in this report stress how vital it is to involve and motivate staff and give them proper training
- Hospitals instigating change need to be prepared to give their staff additional training and to plan upgrading of kitchen facilities where they are inadequate.

9. Join forces with other hospitals and partners

- Consider partnerships with other hospitals and public sector buyers, as well as private sector caterers, that are procuring food. A hospital could utilise the cheaper forequarter cuts of organic beef from cattle whose prime steaks are being sold to hotels or restaurants, for example
- Joining forces could increase your buying strength and create economies of scale. It could also help reduce duplication, waste and fuel pollution from public food procurement, if planning and delivery can be shared
- Make time to meet with your counterparts from other hospitals in your region, sharing best practice and seeking collaboration
- Identify local food groups and other NGO partners that might be able to help you with identifying suppliers, or auditing the benefits of sustainable procurement, or raising public awareness.

10. Communicate and promote what you are doing

- Use the findings from your patient surveys and other data, such as measures of benefit to the local economy or cuts in food miles, to help publicise what you are trying to achieve
- Get the media and the public on your side with a high-profile launch event involving your chief executive
- Don't make grand claims too soon but invite the media in to report on your progress at an appropriate point
- Use communication with patients and staff about menu changes and the origin of the foods being served as a platform to get healthy-eating messages across
- Use internal and external communications to give credit to those who deserve it among your staff, building motivation and commitment.

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