

# Health Technical Memorandum 07-03

## Transport management and car- parking

*Environment and sustainability*



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# Health Technical Memorandum 07-03: Transport management and car-parking

*Environment and sustainability*

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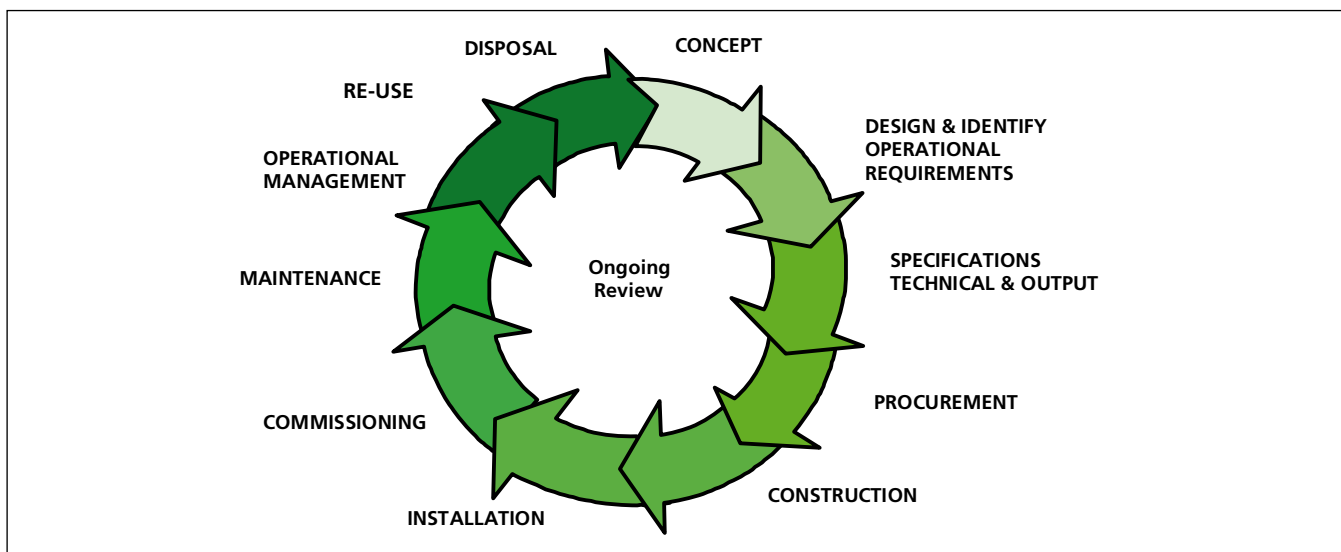
# Preface

## About Health Technical Memoranda

Engineering Health Technical Memoranda (HTMs) give comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare.

The focus of HTM guidance remains on healthcare-specific elements of standards, policies and up-to-date established best practice. They are applicable to new and existing sites, and are for use at various stages during the whole building lifecycle:

Figure 1 Healthcare building life-cycle



Healthcare providers have a duty of care to ensure that appropriate engineering governance arrangements are in place and are managed effectively. The Engineering Health Technical Memorandum series provides best practice engineering standards and policy to enable management of this duty of care.

It is not the intention within this suite of documents to unnecessarily repeat international or European standards, industry standards or UK Government legislation. Where appropriate, these will be referenced.

Healthcare-specific technical engineering guidance is a vital tool in the safe and efficient operation of healthcare facilities. Health Technical Memorandum guidance is the

main source of specific healthcare-related guidance for estates and facilities professionals.

The new core suite of nine subject areas provides access to guidance which:

- is more streamlined and accessible;
- encapsulates the latest standards and best practice in healthcare engineering;
- provides a structured reference for healthcare engineering.

## Structure of the Health Technical Memorandum suite

The new series of engineering-specific guidance contains a suite of nine core subjects:

- Health Technical Memorandum 00  
Policies and principles (applicable to all Health Technical Memoranda in this series)
- Health Technical Memorandum 01  
Disinfection and sterilization
- Health Technical Memorandum 02  
Medical gases

Health Technical Memorandum 03  
Ventilation systems

Health Technical Memorandum 04  
Water systems

Health Technical Memorandum 05  
Fire safety

Health Technical Memorandum 06  
Electrical services

Health Technical Memorandum 07  
Environment and sustainability

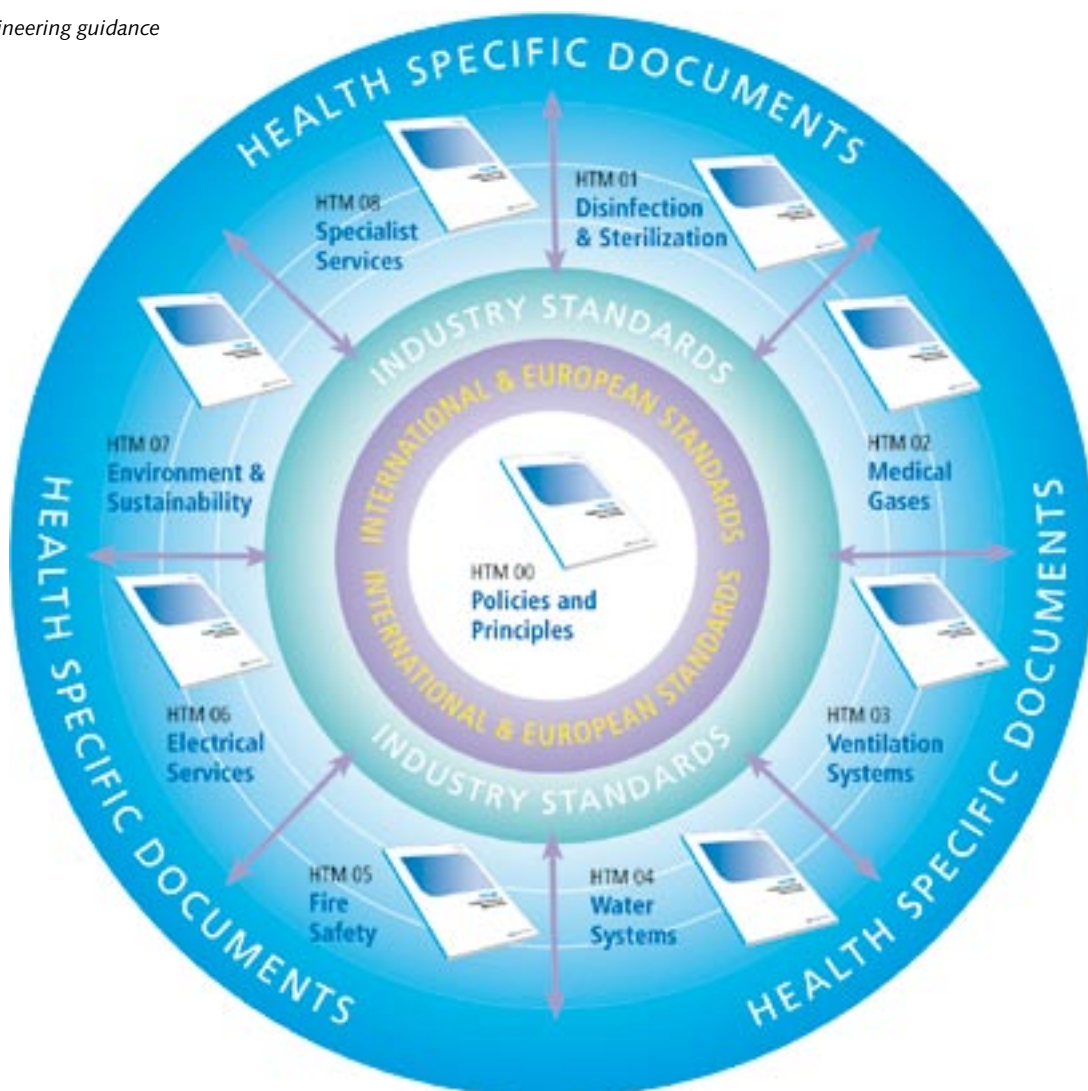
Health Technical Memorandum 08  
Specialist services

Some subject areas may be further developed into topics shown as -01, -02 etc and further referenced into Parts A, B etc.

Example: Health Technical Memorandum 06-02 Part A will represent:

Electrical Services – Safety – Low Voltage

Figure 2 Engineering guidance



In a similar way Health Technical Memorandum 07-02 will simply represent:

Environment and Sustainability – EnCO<sub>2</sub>de.

All Health Technical Memoranda are supported by the initial document Health Technical Memorandum 00 which embraces the management and operational policies from previous documents and explores risk management issues.

Some variation in style and structure is reflected by the topic and approach of the different review working groups.

DH Estates and Facilities Division wishes to acknowledge the contribution made by professional bodies, engineering consultants, healthcare specialists and NHS staff who have contributed to the review.



# Executive summary

The aim of this guidance is to identify best practice in developing travel plans<sup>1</sup> and providing adequate transport and car-parking for NHS trusts in England.

It considers the background to the current concerns surrounding transport by studying the strategic and policy issues leading to the present situation in transport and car-parking and by looking at the national context within the healthcare economy.

It also considers the effect that this background has had upon the NHS and addresses what makes a good and successful travel plan.

The guidance also:

- assesses the Department for Transport's Travel Plan Evaluation Tool against NHS trust travel plans;
- provides a matrix to estimate a base level of car-parking provision (made available on a CD-ROM that accompanies the publication);
- identifies links to other assessment tools, for example NEAT (the NHS Environmental Assessment Tool);
- makes suggestions on how to collect and monitor trust-based data;
- identifies successful partnership working;
- identifies what can encourage and motivate trusts, their staff and public;
- considers external funding opportunities;
- considers environmentally-friendly transport options.

Some case studies of best practice NHS trusts are also provided to identify their steps to success.

These best practice NHS trusts all share a number of factors which demonstrate key activities that will produce a robust travel plan. These form a beneficial guide for others to follow, and should be adopted by other trusts as guiding principles.

The key elements are:

- financial incentives or disincentives;
- car-parking constraints and management;
- a range of alternative modes of transport;
- strong management support and backing;
- progressive, incremental implementation over time;
- clear objectives;
- close partnership with local authority and public transport operators;
- dedicated staff responsible for travel plans;
- designation of a travel plan manager or champion.

This last factor is considered to be very significant, as this designation can provide a focal point for the adoption of successful transport management practices.

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<sup>1</sup> A travel plan is a document produced by a company or organisation which outlines measures to effectively manage transport activity to and from its site and to reduce reliance on the car as a means of getting to work and instead promotes healthier and more environmentally-friendly methods such as cycling or walking

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# Glossary of terms

**Access:** A way or means of approach or entry to a building or site.

**Accessibility:** Accessibility, in this context, is the ability of a person or group to, or the ease with which they can, reach the jobs and key services that they need.

**Geographic information system (GIS):** A computer system for capturing, managing, integrating, manipulating, analysing and displaying data relating to positions on the Earth's surface.

**Local transport plan:** A statutory, five-year local authority strategy which aims to promote sustainable transport and provide a safe and integrated transport network via identified initiatives.

**Modal shift:** The shift in use from one mode of transport to another (for example from private car to public transport).

**Sustainable transport:** Ways and methods of travelling which do not have a significant impact on the environment, or add to problems of congestion.

**Travel plan** (in some literature referred to as “active travel plan”): A document produced by a company or organisation which outlines measures to reduce reliance on the car as a means of getting to work and instead promotes healthier and more environmentally-friendly methods such as cycling or walking.

**Travel survey:** This is an important first step in developing a travel plan. It is an effective way to find out how staff and other stakeholders travel to work and why they choose to travel the way they do, and to assess those elements of a travel plan which are most likely to achieve results.



# 1 Introduction

- 1.1 This guidance has been produced to outline what measures trusts can adopt when developing travel plans and managing transport and car-parking, drawing upon good practice to assist the NHS in a practical way.
- 1.2 The past 20 years have seen a massive increase in the levels of environmental awareness in all aspects of resource management, with transport being particularly affected. There has been a considerable range of policy produced over this time by both wider government and the Department of Health which has had an impact on NHS bodies.
- 1.3 With the road-vehicle traffic forecast set to rise by 17% over the next ten years, employers have a vital role to play in bringing about traffic reduction. Commuter trips add heavily to the volume of vehicles on UK roads; journeys to work make up more than a quarter of all miles driven by car or van.
- 1.4 As a public sector organisation, the NHS can demonstrate its commitment to transport management. It can deal with the concerns arising from transport by trying to ensure that:
  - patients, visitors and staff can safely and easily access the sites; and
  - the effects of their actions with respect to transport do not have an adverse effect upon the environment and, consequently, the health of the population that they serve.
- 1.5 To address these issues effectively, this guidance recommends that trusts adopt robust, practical travel plans. Travel plans are one of a range of tools that can address transport problems from a new direction by managing demand for road space more effectively. These strategies will assist in relieving the burden of traffic on local communities while also reducing carbon emissions, which lead to climate change and which are also detrimental to health.
- 1.6 The rest of this guidance is structured as follows:
  - **Chapter 2** explains the strategic and policy background to transport and transport issues;
  - **Chapter 3** assesses what a travel plan is and can do;
  - **Chapter 4** makes suggestions on how to collect and monitor trust-based data;
  - **Chapter 5** assesses the Department for Transport's Travel Plan Evaluation Tool against NHS trust travel plans;
  - **Chapter 6** (and **Appendix A**) provides case studies of best practice trusts to identify their steps to success;
  - **Chapter 7** defines the range of critical factors for a successful travel plan;
  - **Chapter 8** looks at ways of estimating levels of car- parking provision;
  - **Chapter 9** identifies successful partnership working;
  - **Chapter 10** provides links to other sources of information.



## 2 Background

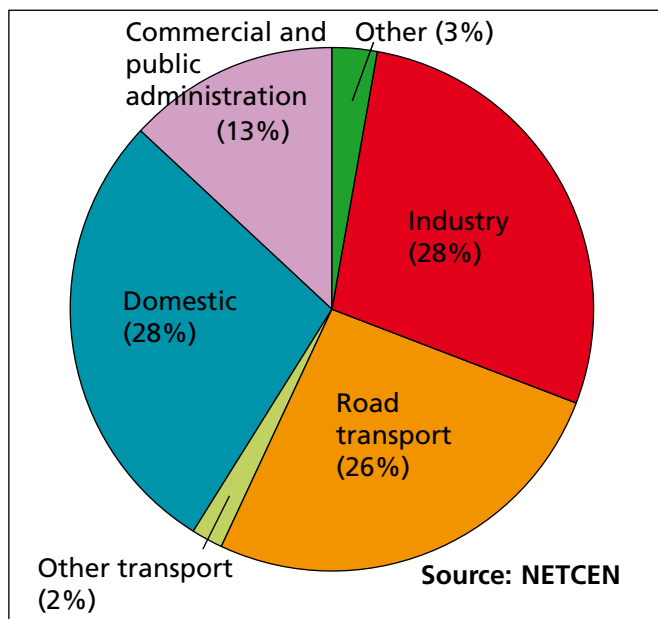
### Introduction

- 2.1 The past 20 years have seen a huge increase in the awareness of, and the requirement for, environmental management of resources at local, national and international level. This has been most manifest in the field of transport because of the effects on the population and human health related to pollution and congestion.
- 2.2 The earth summit in Rio de Janeiro in 1992 introduced the concept of Agenda 21, which sought to ensure that local bodies adopted a sustainability agenda for their communities. In recent years there has been more focus placed on reducing greenhouse gas emissions, which is largely as a result of the Kyoto protocol in 1997 and the subsequent Treaty on Climate Change. Arising from this, member states agreed to take action – the UK’s commitment, agreed in 1998, being to reduce greenhouse gas emissions by 12.5% below 1990 levels by 2010.
- 2.3 However, the UK government set itself a more challenging domestic target of 20% reduction in carbon from 1990 levels by 2010. Exhaust

emissions from transport play a key role in the country’s endeavours to meet this requirement.

- 2.4 It is recognised that one of the major factors contributing to climate change is the burning of fossil fuels, with the consequent emission of carbon dioxide, and that this is significantly increased by the steadily rising levels of road traffic. This has led to a larger focus on traffic, transport flows and transport management.
- 2.5 This chapter looks at the strategic and policy background to transport and transport issues within the NHS. Where appropriate, these policies are considered in more depth elsewhere within the guidance.

### CO<sub>2</sub> emissions by end-user, 2002



### Transport Act 2000

- 2.6 This legislation relates to transport and the environment. A major focus of the Transport Act is to reduce congestion and, through this, reduce emissions.
- 2.7 The Act requires local authorities to prepare and publish local transport plans (LTP), setting out their own policies for promoting safe, integrated and economic transport facilities in their areas, which should also include a “bus strategy”. Authorities are expected to produce and review these plans, working with local transport providers. The LTP is an important document to consider when trusts are developing their own individual travel plans.
- 2.8 The Act also provides the framework for local authorities to tackle congestion through local measures, which might include congestion charging (already introduced in London and Durham) or the workplace parking levy.

### Transport ten-year plan 2000

- 2.9 Produced by the Department for Transport, this plan sets out the Government’s strategy for modernising the transport network and for delivering a quicker, safer, more punctual and



environmentally safer transport system. The Government acknowledges that the plan is ambitious, but realistic. The plan's main goal is to transform the transport system over the next ten years by tackling congestion and thereby reducing pollution by increasing choice and improving standards of transport.

- 2.10 The plan provides for major new investment in transport during the timeframe, being delivered through partnership between the public and private sectors. The majority of this investment and the focus of the plan are on the transport infrastructure, improving railways, road networks and other public transport opportunities.

### Planning Policy Guidance Note 13 (PPG 13): 'Transport'

- 2.11 This key document was published by the Office of the Deputy Prime Minister (2001) as a guide for local authorities to follow. The objectives of the guidance are to integrate planning and transport at national, regional, strategic and local levels to:

- promote more sustainable transport choices;
- promote accessibility to jobs, shopping, leisure and services by public transport, walking and cycling;
- reduce the need to travel, especially by car.

- 2.12 The guidance focuses principally on the links between transport and planning, and sets out a range of policies and objectives that local authorities should include within their development plans.

- 2.13 Primary amongst these are the following:

- managing urban growth to make the best use of public transport, including siting major traffic generators near to transport interchanges;
- ensuring that development offers a realistic choice of access by public transport, walking and cycling;
- using parking policies to promote sustainable choice.

- 2.14 The guidance specifically refers to healthcare facilities (paragraphs 38 and 39), stating that new developments should be sited so as to maximise accessibility by means other than the car, and that intermediate healthcare facilities should be located in town or local centres. A travel plan is one of the ways of addressing these issues.

- 2.15 PPG 13 sets out a considerable amount of guidance on provision of parking, with the clear statement that it should be restricted as much as possible and that development plans should include maximum parking standards. Examples are included within the PPG, although no standards are included for healthcare on the basis that this would encourage flexibility of approach to the diversity of healthcare provision. This issue will be considered in [Chapter 8](#).

- 2.16 The guidance also deals with planning conditions and obligations which might be required as part of any development, and states that travel plans should be submitted for any development likely to have "significant transport implications", which includes healthcare developments.

- 2.17 In paragraph 52 of PPG 13, the Government has set out a clear policy direction in relation to the amount of car-parking associated with new developments:

*"Policies in development plans should set maximum levels of parking for broad classes of development. Maximum standards should be designed to be used as part of a package of measures to promote sustainable transport choices, reduce the land-take of development, enable schemes to fit into central urban sites, promote linked-trips and access to development for those without use of a car, and to tackle congestion. There should be no minimum standards for development, other than parking for disabled people."*

- 2.18 PPG 13 effectively advocates the provision of car-parking on a "needs" basis, that is, based upon an assessment of each individual site. There is evidence to suggest that this is in fact the most appropriate way to determine the level of parking to be provided on each development site.

- 2.19 PPG 13 should be read in conjunction with other associated and supportive guidance including the Health Inequalities Unit's (2004) 'Accessibility planning – an introduction for the NHS' and the Health Development Agency's (2004) 'Improving patient access to health services: a national review and case studies of current approaches'.

- 2.20 These documents are designed to help the NHS understand and contribute to the process of accessibility planning to ensure that people, especially patients from disadvantaged groups and areas, are able to reach key facilities, particularly healthcare services.

2.21 Reading these documents will ensure a travel plan is balanced, helping to take a wider, more holistic view and to understand the issues that affect transport management on NHS sites. This will also help in discussions with local transport authorities when they prepare local transport plans.

## The Future of Transport: a Network for 2030

2.22 This White Paper was published by the Department for Transport in July 2004 and sets out the long-term focus for planning over the next 20 to 30 years. It recognises the demographic changes that are taking place in society and that people are travelling further and more often. It also states that any transport strategy should take this into account.

2.23 The strategy refers to the creation of coherent networks whilst still achieving environmental objectives.

## 'Choosing Health' White Paper

2.24 The 'Choosing health' White Paper aims to inform and encourage people as individuals, and to help shape the environment we live in, so that it is easier to choose a healthy lifestyle. It acknowledges the health benefits associated with increasing physical activity and the importance of incorporating exercise into daily life. Walking and cycling present practical, alternative forms of activity that can be part of the daily routine for most people.

2.25 The problems connected with poor accessibility of services are also addressed in the White Paper. Accessibility will have implications for the NHS in meeting the healthcare needs of communities. The White Paper points to the benefits of producing "active travel plans" as a mechanism to address accessibility planning and the travel and transport needs of patients, staff and visitors needing to access healthcare services.

## Best practice guidance

2.26 Best practice guidance and associated studies have now been produced by Government departments and other organisations. 'Using the planning process to secure travel plans' (Office of the Deputy Prime Minister/ Department for Transport, 2002) and 'Making travel plans work' (Department for Transport, 2002) both draw on case studies from a variety of public and private organisations,

including a number of NHS organisations. These guides will be considered in [Chapter 6](#).

2.27 Other best-practice guidance includes, for example, Transport 2000's (1998) 'The healthy transport toolkit' and TransportEnergy's (2004) 'Travel plan resource pack for employers'. Many local authorities have also produced guidance on transport issues and travel plans.

2.28 Four case studies from the NHS are given in [Appendix A](#) and are discussed in [Chapter 6](#).

## NHS guidance and policy

2.29 The policies which have been produced by the NHS are a result of a number of factors which go to make up the national context surrounding environmental issues within the NHS. These are as follows (in no order of priority):

- climate change programme;
- sustainability;
- National Service Frameworks for public health improvements;
- NHS consumerism agenda;
- accessibility;
- patient environment;
- social aspects of accessibility;
- corporate social responsibility;
- the Department of Health's 'Standards for better healthcare'.

2.30 In addition to these, the NHS has also had to respond to other issues such as parking congestion, street parking, missed appointments, frustration, anger and stress as a consequence of transport difficulties.

2.31 'Sustainable development: environmental strategy for the National Health Service' (NHS Estates) deals with all environmental matters and sets out the aim of improving the health and well-being of people by managing the resources available in the most sustainable manner. The strategy points to the benefits for the NHS in producing a travel plan.

## NEAT (NHS Environmental Assessment Tool)

2.32 The NHS Environmental Assessment Tool (NEAT; developed in conjunction with the DTI by the Building Research Establishment) covers a whole

range of activities on existing sites and the development of new facilities (either new-build or refurbishment) and is intended to enable the NHS to understand, identify and seek to reduce and limit negative effects on the environment.

2.33 The tool includes a section on transport and covers the following:

- car-parking provision;
- cyclists' facilities;

- public transport nodes;
- accessibility to local amenities;
- green travel plan;
- compliance with a risk management focus.

2.34 The NEAT tool can be accessed via the following website: <http://www.efm.nhsestates.gov.uk>

## 3 What is a travel plan?

3.1 TransportEnergy's (2004) 'Travel plan resources pack for employers' states that travel plans are about:

*"promoting more sustainable transport in an organisation by reducing single-occupant car transport. There are loads of benefits, you release space for new buildings; reduce costs. Staff are healthier and have a better quality of life; productivity improves and the local community will love you."*

3.2 A travel plan is therefore a package of practical measures designed to influence transport to an individual site or within an organisation. Such plans aim to lessen the environmental impact of transport arrangements, reduce transport journeys to NHS sites for employee business requirements, manage transport to ease congestion, reduce emissions from exhausts, and relieve car-parking by reducing reliance on single-use car-parking.

### Benefits

3.3 Travel plans are expected to produce real benefits for:

- the individual, through improved health, reduced stress and cost savings;
- the patient, by freeing up accessibility to sites, relieving concern, allowing the ability to keep appointments etc;
- the workplace, through a healthier, more motivated workforce, reduced congestion and improved access to sites for employees, potential recruits, visitors and contractors;
- the community, by organisations demonstrating their commitment to environmental priorities and setting an example to others; reducing congestion, freeing the flow of movement through local routes, reducing incidence of road traffic accidents whilst also addressing issues of nuisance and noise;
- the environment, through improved local air quality, with less noise, dirt and fumes, which

can contribute to other national and global improvements;

- health promotion, by encouraging physical exercise, such as walking and cycling.

### The NHS and travel plans

3.4 An NHS trust's travel plan may address some or all of the following:

- staff transport to and from work;
- staff transport in the course of work;
- patient and visitor travel and access to trust sites;
- public transport availability;
- use and type of fleet vehicles;
- deliveries and contractors;
- peripatetic/community visits;
- travel and subsistence rates to be reimbursed, and rewarding small-engine cars or cycle mileage;
- the needs of disabled people with a physical, mental and/or visual impairment, and the needs of patients, staff or visitors accompanied by young children (see also Health Building Note 40 Volume 2 (2006, forthcoming)).

3.5 Estatecode and NEAT specifically identify the need for NHS trusts to have travel plans in place.

3.6 PPG 13 sets out the policy on travel plans, stating that travel plans should be admitted alongside planning applications that are likely to have a significant impact on the local transport network.

### Aims and objectives

3.7 The overall aim of a travel plan is to move up an environmental hierarchy, as in [Figure 1](#). (Alternative measures to reduce the need to travel might include facilities to encourage telecommuting using remote communications

technology such as teleconferencing, videoconferencing and home-based working.)

3.8 The strategic objectives of a travel plan are given in Figure 2. All the issues illustrated in the figure are interrelated and are dependent upon each other for the success of the travel plan.

### Steps to producing a travel plan

3.9 There are a number of defined steps involved in the production of a travel plan, which are all underpinned by a need for continued awareness raising and marketing. The steps are as below (see also Figure 3):

- **Secure senior management support:** the travel plan process should be driven by management to give it authority; provide an example; provide budgets and staff time; and ensure that changes can take place.
- **Identify roles and responsibilities:** this includes setting up a steering group and designating a travel plan coordinator. Everyone involved should accept and understand their role. This will include consultation with staff representatives and liaising with management.
- **Undertake a site and facilities assessment:** this is recommended in order to ascertain the existing level of provision of issues such as

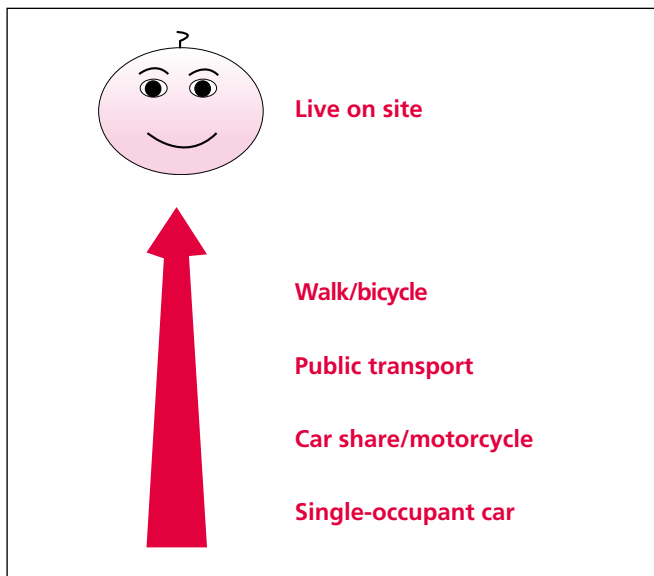


Figure 1 Environmental hierarchy

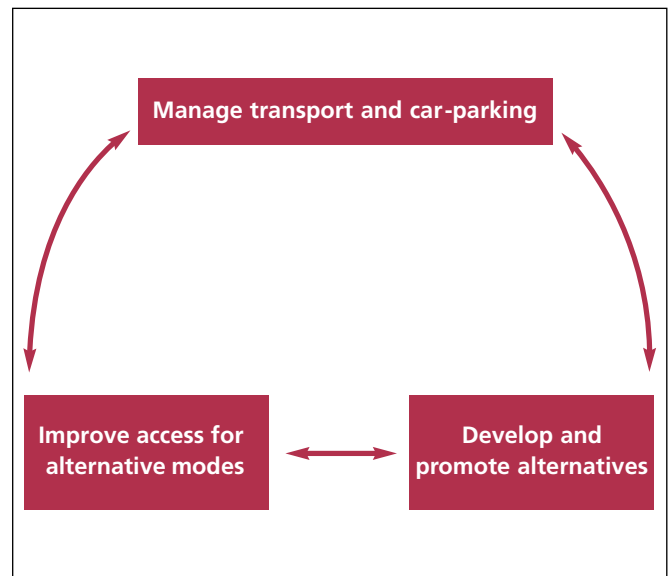


Figure 2 Strategic objectives of a travel plan

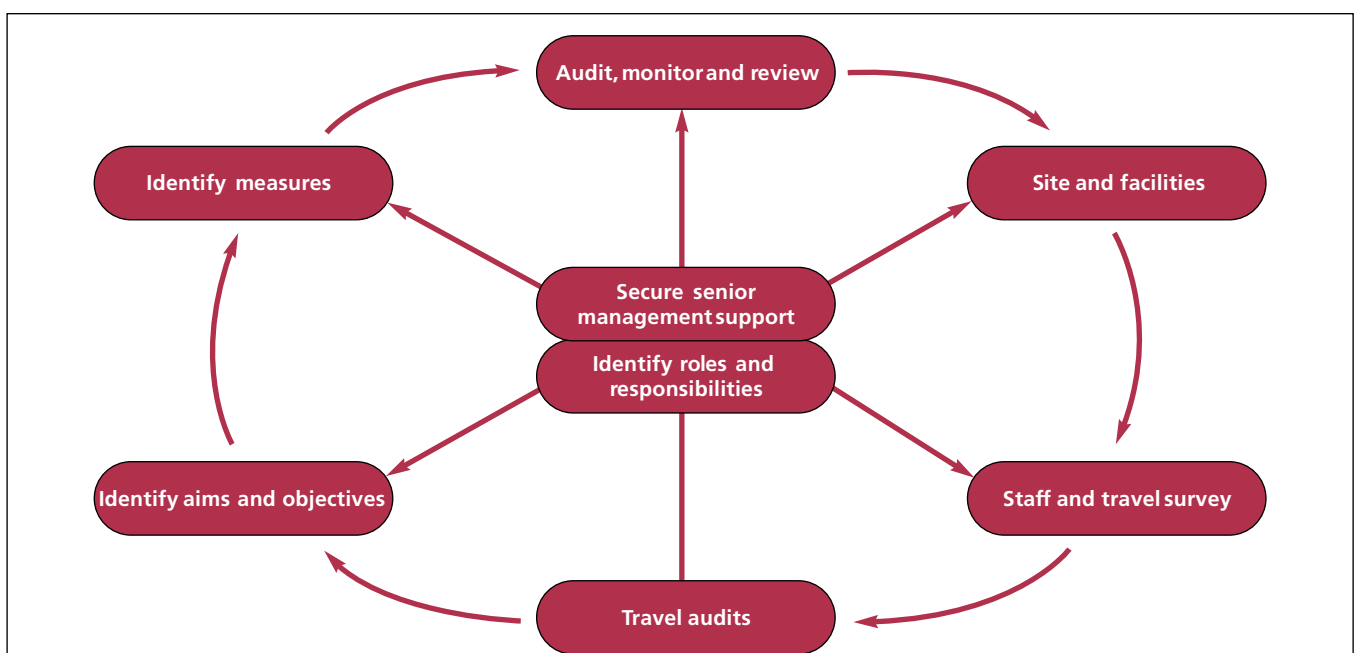


Figure 3 Travel plan "virtuous circle"

public transport, cycling and pedestrian facilities and car-parking. This is considered in more detail in the following section.

- **Undertake a staff transport survey:** this is recommended in order to understand the existing travel patterns of staff including how they travel, where from, and what factors influence their means of transport. Details of an appropriate staff survey are included in [Appendix C](#).
  - **Undertake transport audits:** this is an analysis of patient/visitor transport and traffic counts. This will include the impact of street parking, disturbance and other community issues. This can be achieved through contact with local community groups and liaison committees.
  - **Identify objectives and indicators for improvement:** meaningful but realistic objectives should be considered for the reduction of single-occupancy vehicle trips to sites, and these are included within travel plans so that they can achieve real improvements to traffic, in and around sites.
- **Identify measures:** there is a range of measures which are likely to be incorporated in any successful travel plan, ranging from financial incentives, to choosing an alternative to the private vehicle, to encouraging cycling and walking. These are explored in more detail in [Chapters 6 and 7](#).
  - **Audit, monitor and review:** to assess the effectiveness of travel plans, there is an ongoing need to monitor its effectiveness through continued surveys and traffic counts. This is considered in the following chapter.
  - **Geographic information system (GIS):** consider the benefits of using a software-based GIS to inform and tailor transport to the needs of the individual.
- 3.10 Further information concerning the production of travel plans is available from the Transport Energy Best Practice programme. A Travel Plan Resource Pack for employers is available via their website, <http://www.transportenergy.org.uk>



## 4 Data collection and monitoring

- 4.1 For a travel plan to be successful, it should try to achieve a modal shift from car use. The measures that are adopted will determine the modal shift, and the level of shift will determine how successful the plan is.
- 4.2 It is therefore necessary to predetermine the levels of shift that it is hoped will be achieved, to set a baseline against which future activity will be measured, and to describe the monitoring activities that will take place to capture the data which will be used in calculating the modal shift.
- 4.3 The first stage of data collection is the process of gathering baseline information. This will include details of staff numbers, patient and visitor numbers, number of car-parking spaces, and other physical information which should generally be available, with other supporting information such as site plans indicating points of access and egress to and from sites.
- 4.4 Recommended best practice is as follows:
  - **Public transport provision** – up-to-date, reliable information about public transport can make a significant difference to the way people travel. It should be established what services run near to sites, where the stops/station are, and what actions could be taken to make public transport more attractive.
  - **Pedestrian access** – identify whether footpaths around the site are safe, secure, well lit, maintained and free from obstructions.
  - **Cycle infrastructure and facilities (cycle/equipment loans)** – review and assess whether there are secure and convenient facilities around the site. This should include details of lockers, showers and changing facilities, as well as safe access routes for cyclists which are well lit and well maintained.
  - **Vehicular access** – an assessment of whether there are any congestion/access problems on/around the site should be carried out, complete with appropriately signposted routes.
  - **Car-parking availability and policy** – identify how many spaces are available, who uses the spaces, when and how, and particularly whether there are key times during the day when it is difficult to find a space. An assessment of the costs of alternative parking provision should also be undertaken.
- 4.5 Further information-gathering may need to be commissioned, which will predominantly involve traffic counting to establish the number of vehicles accessing the site at various times of the day and, where time permits, over a number of months, to allow for seasonal fluctuations.
- 4.6 There needs to be a clear focus on managing the demand for parking places at peak periods, such as shift changes, and to question whether it is possible to review the appointment procedure so as to avoid inviting all consultant episodes simultaneously whilst being sensitive to aspects of provision which could be provided off-site at a pharmacy or GPs, for example blood tests and other routine procedures.

### Staff involvement

- 4.7 When developing a travel plan, it is necessary to have the support of senior management and staff representatives. To understand existing travel characteristics, a questionnaire can be produced that should be no more than two sides of A4. This can be distributed to staff to gather information about where people live, how they travel to work, why they use different modes of transport etc. An example form is given in [Appendix C](#). A similar survey of patient and visitor habits should also be undertaken, with an example in [Appendix D](#).

### Audit, monitor and review

- 4.8 It is clear from the Travel Plan Evaluation Tool considered in [Chapter 5](#) that a successful plan should have a robust monitoring system in place to ascertain whether the plan is achieving its aims. Monitoring should take place on a regular basis,

normally annually, and should be by means of further questionnaires as well as traffic surveys counting vehicle movements and cars parking on-site.

4.9 Further indications of modal shift that can be used for audit and monitoring purposes include the uptake of discount transport schemes, the number of parking permits provided, the number of cycle facilities required taking into account seasonal variations, and the number of staff on car-share registers.

- Consider liaison with personnel/HR to ensure that the culture of automatic car-parking rights is broken at the interview stage, prior to appointing staff.

- Demonstrate that you are a forward-thinking, environmentally aware trust and that this approach fits firmly within that policy/procedure framework.
- Consider formal short-, medium- and long-term aims and whether there are opportunities for benchmarking. The matrix on the CD-ROM that accompanies this publication will assist in this.

## 5 Travel plan evaluation tool

- 5.1 The Department for Transport has produced a software package which enables organisations to assess their travel plans and check whether they are going to meet their modal-shift aspirations. The tool has now been adopted by a number of highway and local authorities. An introduction to the software is available on the Department for Transport website, which also includes guidance notes: [http://www.dft.gov.uk/stellent/groups/dft\\_control/documents/contentservertemplate/dft\\_index.hcst?n=9850&l=2](http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.hcst?n=9850&l=2)
- 5.2 The programme has been designed to evaluate the travel plan process, which in turn can help to predict the outcomes. It is comprehensive and covers a wide range of issues, from the format of a travel plan and motivations through to monitoring aspects and benefits of partnership working.
- 5.3 Within each of the above sections there is a series of questions requiring an answer by way of tick boxes, which then calculate an overall score. The tool is user-friendly, although it requires an element of subjective opinion, which has been reduced as much as possible by the format.
- 5.4 As well as a final percentage score, the tool calculates a percentage for expected single-occupancy vehicle reduction, that is, modal shift between 0 and 30%. Whilst the software automatically calculates an overall score for the travel plan, it also gives individual scores for each section so that areas of weakness can be identified and addressed.
- 5.5 The evaluation tool requires a reasonably detailed knowledge of the travel plan that is being assessed to be able to fully answer each of the sections, although it is possible to move between sections, which can be useful when assessing plans produced by external organisations.
- 5.6 The software guidance recommends that plans are updated over time and that they are also re-evaluated to show whether the amendments have improved the overall likelihood of success.
- 5.7 The tool is commended to trusts as a means to assess their travel plans and engage with local authorities as a basis for meaningful dialogue in developing a realistic, viable and acceptable travel plan.



## 6 Benefiting by example (case studies)

### Introduction

- 6.1 There are a number of NHS trusts in England that in some way exemplify best practice in transport management and have achieved some success by encouraging staff to commute to work in a more sustainable manner.
- 6.2 The trusts have introduced travel plans as a reaction to growing parking and congestion problems, or as a result of planning restrictions related to new development.
- 6.3 Typically an acute trust will operate from a small number of main sites (up to five), often within or adjacent to conurbations where there are particular pressures relating to access and congestion and where space and permission for car-parking may be difficult to achieve. Sites will attract large numbers of patients, visitors and staff, often on a 24-hour basis.

### Primary care trusts

- 6.4 Primary care trusts (PCTs), by comparison, will generally operate from a much larger number of smaller sites, with many having sites in both towns and rural locations. PCTs have often been formed as the result of the amalgamation of a number of smaller community health trusts. Because of this, a relatively small number of PCTs have travel plans in place. However, with the advent of local investment finance trusts (LIFT) and the increase in the size of facilities (coupled with a growing policy backing), local planning authorities are increasingly encouraging travel plans to be submitted alongside applications for new developments. [Appendix A](#) provides examples of how two PCT groups have delivered a travel plan in partnership. These are:
  - South West PCT;
  - Greater Nottingham PCT.

### Acute trusts

- 6.5 The best practice acute trusts that have been identified in this guidance are those included within the Department for Transport's (2002) 'Making travel plans work'. Following a scoping exercise, this identified 20 organisations whose travel plans had demonstrated a reduction in car use.
- 6.6 The study identifies four NHS trusts which met their criteria for consideration (other organisations within the study included a mixture of manufacturing and service industries, local authorities and government offices, a university, a business park and a retail park). These trusts were:
  - Addenbrooke's NHS Trust, Cambridge;
  - Nottingham City Hospitals NHS Trust;
  - Oxford Radcliffe Hospitals NHS Trust;
  - Plymouth Hospitals NHS Trust.
- 6.7 From a review of the four best-practice acute trusts above, there are key themes which emerge (a) as drivers for the production of a plan and (b) as the measures which are particularly effective in transport management and in easing congestion on-site by reduced reliance on single-occupancy car use and hence the requirement for additional car-parking.
- 6.8 A travel plan initiative usually stems from the policy drivers outlined in [Chapter 2](#). However, the catalyst for the production or review of plans in the case of the best-practice trusts arose from the need to secure planning consent.
- 6.9 There was a demand for more parking spaces on all of the trust sites; but through the application of coherent travel plans, this demand could be effectively attenuated.
- 6.10 The following measures are all found within best-practice trust travel plans, and can be considered as potentially essential elements of any successful travel plan:

- strong management support;
  - designation of a travel plan manager or “champion”;
  - communication and negotiation with staff representatives;
  - proactive car-park management, including:
    - (i) charging;
    - (ii) introduction of permits;
    - (iii) improved parking controls, for example supervision barrier access etc;
    - (iv) disincentives to use car-parks;
    - (v) reduction in number of staff parking spaces;
  - improvement of cycling facilities;
  - improvement of pedestrian facilities;
  - improved public transport provision and information;
  - encouraging car sharing;
  - park-and-ride schemes;
  - improved inter-site transport;
  - financial incentives through bus subsidies, interest-free loans for cycles, season tickets etc.
- 6.11 The above measures are those which are likely to give the best results and the most robust travel plan. Different sites and situations will mean that it is likely that a combination of measures will be adopted, although there will almost certainly be a core of measures adopted relating to car-parking, public transport and improvement of cycling and pedestrian facilities.
- 6.12 The case studies are provided in [Appendix A](#).

## 7 Steps to success

- 7.1 **Chapter 3** refers to a number of recognised steps to success in developing travel plans. Whilst all of the best-practice trusts identified subsequently have produced their travel plans in slightly different ways, **Appendix A** identifies common themes which have resulted in the successful reduction in the number of car journeys, particularly single-occupancy journeys.
- 7.2 Whilst many of the organisations in the study saw their travel plans as a way of meeting their environmental responsibilities, they also viewed them as an operational necessity that brought a range of benefits for the organisation. Travel planning helped to cut congestion, relieve parking pressure, make sites more accessible, and improve staff travel choice. It enhanced image, reduced commuter stress, and aided staff retention. Travel plans also saved money: whilst the annual cost of maintaining a parking space can be £300 to £500, the cost of running a travel plan was typically £47 a year for each full-time employee.
- 7.3 There are a number of critical factors which are present in all or most of the travel plans produced by the best-practice trusts, and these mirror the Travel Plan Evaluation Tool in terms of being critical factors for successful travel plans. Whilst there is a range of measures that can be adopted by travel planners, there are two key factors which appear to produce the best results:
- availability of parking;
  - financial incentives or disincentives related to transport.

### Availability of parking

- 7.4 Parking restraint is the hallmark of all successful plans. All of the schemes considered introduced parking restrictions via a charging scheme, whether by permit or daily charge or a combination of the two. When introducing permit schemes there needs to be transparency of application. A clear and

comprehensive policy taking account of the service needs of the hospital should be developed.

- 7.5 A key advantage of schemes that introduce parking charges is that any income generated can be ring-fenced to further transport improvement measures. It is important that this use of generated funds is publicised so that staff and the public can begin to appreciate why charging systems have been introduced.
- 7.6 Another important issue for a trust to consider when introducing or amending car-parking charges is its charging policy with regard to relatives of long-term patients. Many trusts have recognised this problem and adopted a policy of refunding parking charges or providing temporary permits.
- 7.7 It is critical that a wider geographical area than the trust site be considered when devising car-park management strategies so that parking is not displaced into surrounding areas, which can lead to neighbouring residents being disadvantaged and aggrieved.
- 7.8 Local authorities are generally recognising this problem, and will often require the introduction of off-site parking measures, normally residents' parking zones, to prevent this happening. This measure can only be adopted in conjunction with the local highway authority, as they are the body responsible for introducing the necessary orders.

### Financial incentives and disincentives

- 7.9 Financial incentives and disincentives are also very important in the case studies considered in **Chapter 6**. These can take the form of:
- incentives paid to those who arrive without a car;
  - compensation for giving up a parking space or permit;
  - reductions on public transport fares through negotiated discounts or provision of free bus passes;



- interest-free loans for cycles;
  - attractive car-parking charges for car sharers;
  - other opportunities including home-working, video/telephone conferences;
  - hidden incentives through planning agreement payments subsidising public transport.
- 7.10 The balance between disincentive and incentive should also be considered, as well as the reliability and regularity of alternative public transport provision, so that the “opportunity cost” of travelling to the site by means other than a car is attractive to individuals. As an example, the balance between bus-pass costs and car-park charges can be critical in influencing change. This exercise needs to be carried out in an open, fair and transparent fashion to engage the confidence and endorsement of staff.
- 7.11 Whilst the main reductions in car use appear to arise from the introduction of car-park management and restriction, often with significant results in modal shift within the first year, these should be introduced when alternatives are available so that staff, patients and visitors have a genuine choice of means of transport.
- 7.12 Whilst car-park management results in the greatest reductions, other measures can also result in modal shift, although the effectiveness appears to vary from trust to trust and site to site.
- 7.15 When developing travel plans, trusts should involve their staff to ascertain what they want, what problems they encounter with existing transport networks, and what can be done to improve access to sites.
- 7.16 This can be done through surveys, workshops or provision of information. Involving staff can help to ensure that new proposals to improve transport access into and around a site will provide what is needed and thus be fully utilised.
- 7.17 Other important issues for a trust to address when introducing or amending car-parking charges is its charging policy with regard to:
- reviewing the need for car-parking charging and being transparent;
  - what the charges will be used for;
  - the availability of free passes or concessionary provisions for:
    - (i) patients with a long-term illness;
    - (ii) relatives/prime visitors of patients with a long-term illness;
    - (iii) patients with a serious condition requiring regular treatment;
    - (iv) disabled parking etc;
  - the availability of financial assistance under the hospital travel cost;
  - the NHS low income scheme;
  - how the trust will better target the information about assistance with car-parking charges to those who need it.

## Alternative modes of transport – the modal shift

### Information and communication

- 7.13 The improvement of public transport and provision of information about availability can be a significant benefit in producing a modal shift towards public transport services, by people who would previously have driven to the site. Liaison between trusts and public transport providers is recommended to ensure that appropriate services are provided. The trusts in the study were all able to introduce bus links through their sites rather than relying on bus stops at the edge of sites.
- 7.14 This will encourage more people to use public transport, particularly where services can be designed so that there are bus stops adjacent to main staff and visitor/patient entrances. This needs to be ongoing and continuous, with access to a travel helpline for problems and enquiries.
- 7.18 Many trusts have recognised this problem and adopted a policy of refunding parking charges or providing temporary permits. To alleviate unnecessary concerns at a difficult time in a patient’s care plan, this information should be made freely and widely available. This can be achieved by the trust adopting a policy of transparency and including this information – in a clear, easily-understood form – with all literature on appointment letters, visitors’ arrangements, information sites, and on websites and other information/communication routes.

### Patients’ appointments

- 7.19 Good practice also suggests that details of public transport, for example bus times and information about car-parking, should be included with

appointment letters that are sent out to patients. For an NHS trust, it will be a key to success to liaise with local transport providers to introduce low floor “kneeling up” buses, on-site bus shelters and, for larger sites, shuttle-bus systems.

- 7.20 When developing travel plans, trusts should ensure that accessibility issues are considered to ensure that measures intended to reduce the use of private cars do not have a secondary effect of inhibiting access to sites by patients and visitors.

### Staff movement

- 7.21 Staff often have to move about a site and between sites where trusts operate from more than one location. Where it is practical, trusts should consider a cycle route (with or without trust-provided cycles) or the use of battery-operated tugs.

### Contractor visits

- 7.22 It is important to manage contractors who may be working on-site, either on a daily basis or as part of a large development scheme. Trusts should consider imposing conditions on contracts for large development schemes, preventing contractors bringing private vehicles onto site, but rather having to rely on bussing staff in from other locations.

### Culture and trends

- 7.23 Not surprisingly, cycling is more of a popular alternative where there is a culture of cycle riding and where the environment encourages it. Addenbrooke’s Hospital, Cambridge, has shown significant increases in cycling after the introduction of safe travel plans. There can also be significant seasonal variations, with more people using cycles in the summer than in winter, and this can often reduce car usage in the summer months. Generally, cycle storage and changing facilities would be expected as part of a package of travel plan measures; although careful analysis of likely demand and use should be undertaken before significant investments are made.

### Change management

- 7.24 Making the change from private car to public transport/cycling/walking etc should be made as smooth, easy and comfortable as possible for staff to ensure that there is a minimum of dissatisfaction. When introducing a scheme, trusts should consider the time of year. For instance, in

winter months are there comfortable, warm, dry waiting areas for buses or trains? Do cyclists have free access to showers/ changing facilities, and are there adequate secure lockers for change of clothes, with towels/laundry facilities for those who wish to shower? Trusts should ensure staff are not penalised for adopting alternative modes of transport.

- 7.25 As a first step, to encourage a part-time approach as a basis for encouraging full-time commitment, staff should be encouraged to car-share or use public transport on a few days a week. This may lead to better rates of success in the longer term, rather than the “big bang” approach of sudden cessation.

### Coping with dissent

- 7.26 A method of dealing with complaints or dissent is necessary to overcome problems that may arise during implementation of travel plans. Challenging the prevailing culture of car reliance can be difficult, and however carefully changes are introduced, there will be some opposition. One message to come through from the travel coordinators in the case studies was, “Don’t let them wreck it!” There will always be some people who see travel initiatives in a negative light, and it is possible for a few dissenters to have an impact. Those with experience in this area recommend a sense of humour, a thick skin and a pragmatic attitude. It is important to have explanations ready and emphasise that you are not asking the impossible. While not everyone will be able to change the way they travel, there are some who can and will.

- 7.27 It is important to make staff aware of parking as a resource with a cost attached. Devolving responsibility for parking costs or maintenance to departments or business units can help to do this.
- 7.28 Perceptions are important – do not make those who use the alternatives such as public transport etc feel like second-class travellers, compared with those who enjoy the perceived privilege of car access to the site. Ensure that the transport they use and the facilities they need are of good quality and well maintained; this could tip the balance between success and a negative response.

### Senior-level commitment

- 7.29 Another critical factor in the success of a travel plan is ensuring that there is high-level management support from the chief executive and directors, as well as trust board backing, to ensure that the travel

plan is put in place with an opportunity to succeed. All of the best-practice trusts demonstrate management backing, with senior staff leading by example.

## Consultation/negotiation

- 7.30 There should be full dialogue with staff and a full consultation about the process. Time should be included within any travel plan programme to allow for staff consultation and workshops to explain the need for, and the benefits arising from, travel plans. Wherever possible, staff and trade union representatives should be included on working parties set up to consider possible travel plan introduction.
- 7.31 Often, problems with car-parking on NHS sites can manifest themselves in on-street parking in surrounding areas, with staff and patients competing for space with residents, which can often lead to conflict with local residents. Full consultation with the local population throughout the development of a travel plan can help to demonstrate that “something is being done” about a problem. It will also allow residents to comment on some operational matters – for example, that 24-hour car-parks be sited in such a way that noise and light pollution to surrounding properties is kept to a minimum.
- 7.32 Finally, all of the best-practice trusts have a dedicated travel plan “champion”, normally in a post specifically set up to devise and implement the plan. This is a further sign of management support and, where car-parking charges are introduced, they can go towards defraying the costs of employment.

## 8 Determining levels of car-parking provision

- 8.1 Many trusts suffer from crowded car-parks, with seemingly inadequate provision of spaces for all of the staff, patients and visitors who want to access the hospital. With the impetus being on better management controls and less car-parking space, it is important to understand what levels of parking are appropriate for NHS facilities, and to reach some consensus on how these levels can be determined across a range of different sites and locations, for example rural and urban.
- 8.2 In setting out a basis for car-parking provision, it is necessary to differentiate between the various types of development and to consider how these are treated by local authority planning guidelines for health developments.
- 8.3 The following methodology has therefore taken as a starting point the different types of development; has then considered how various local authority plans treat the car-parking provision for developments; and has then considered the application of guidelines against specific locations and looked at the problems or successes arising. Consideration of external factors such as presence of a travel plan, transport links etc will all affect the outcome of whether accessibility to car-parking is considered to be sufficient.
- 8.4 NHS trusts are characteristically divided into the following sectors:
- Acute;
  - Primary Care;
  - Mental Health;
  - Ambulance.
- 8.5 Of these sectors, the first two will generally have the most demand for vehicular access and, hence, car-parking, which will arise from five main areas:
- staff;
  - patients;
  - visitors;
  - contractors;
  - deliveries.
- 8.6 All NHS healthcare facilities will have details of the numbers of staff who are employed in order to provide the baseline demand for parking. As this will account for the 24-hours-a-day/365-days-a-year operation of acute hospital sites and the consequent shift patterns, there will be less demand at any one time than the total number of staff. There are other staff factors which can affect the demand for parking, such as security concerns for shift workers, the need for some staff to work between sites, and the problems associated with recruitment and retention of staff.
- 8.7 Patients can be split into different groups who have different needs, as follows:
- out-patients/therapies;
  - in-patients;
  - day cases;
  - overnight stays;
  - Accident & Emergency.
- 8.8 These patient groups can be found at all types of site, although clearly the last two will generally be treated at acute sites. Patient activity information should also be available to trusts for individual sites, again giving an indication of the level of car-parking requirement. The following information relates to an acute trust site. Normally, out-patient visits at primary care sites will be of shorter duration.
- 8.9 Day case and overnight stay patients do not generally require parking as they will be unlikely to drive, although there would be a need for short-stay visitor/escort spaces, particularly to collect discharged patients.
- 8.10 Generally, arrival patterns for patients at acute trusts can be summarised as follows:
- 70% of patients arrive as emergencies between 10.00 and 21.00;

- 30% of patients as elective cases arrive between 09.00 and 18.00;
  - departure is generally between 10.00 and 17.00.
- 8.11 For primary-care sites (generally health centres), peak arrival and departure times are generally from 09.00 to 11.00 and 15.00 to 18.00. Emergency cases tend to run at fairly consistent levels throughout the week, with particular “high spots” at weekends, with sports injuries and evening activities giving rise to increased numbers of patients.
- 8.12 From the number of staff and patients, it is possible to determine the number of visitors who are likely to visit a site (typically an acute site). For example, an average of 1–1.5 visitors/overnight stay might be normal. These visitors will arrive on site throughout the year, with no particular day busier than any other. Typically, the majority of visitors tend to arrive after 19.00, but this can differ from site to site.
- 8.13 From an analysis of activities (that is, staff, patient and visitor numbers) it is possible to begin to identify the latent demand for parking spaces at any particular healthcare site. This can be done by analysing the maximum number of people who may need to park on a site at any one time. Whilst this approach may require significant work and investigation of transport patterns, it will give a detailed picture of the demand, which can then be adjusted depending upon a number of other factors, such as local authority (LA) local development plans.
- 8.14 An assessment of the parking guidelines contained within a number of LA local development plans has been undertaken, and the results assimilated to give a baseline figure for parking provision. A variety of local authorities have been assessed, from metropolitan and other urban authorities through to predominantly rural authorities, plus urban centres.
- 8.15 Where guidelines are included, most are based upon the Town and Country Planning (Use Classes) Order 1987: definitions of uses. This order sets out a variety of related types of use which are used by planning authorities in the consideration of planning issues. Thus, hospitals are included under Class C2 along with other residential institutions such as residential school, college or training centre. Other healthcare facilities, including health centres, will be included under Class D1 (non-residential institutions), which also covers day centres, museums and libraries amongst others.
- 8.16 Different local plans take different approaches to assessing the level of parking requirements, with some allocating a number of spaces per member of staff, patient or bedspace, whilst others will allocate spaces per consulting room. There are some common themes which run through those plans containing guidelines, which can be summarised as follows.
- 8.17 Class C2 in relation to hospitals is generally in the order of:
- one space for every four staff on site;
  - one space for every two beds;
  - three to four spaces for every consulting room;
  - one space for every two residential bed spaces (staff).
- 8.18 These allowances are generally cumulative, and will include patient and visitor spaces as well as staff spaces.
- 8.19 Class D1, in relation to health centres and GP premises, is generally in the order of:
- one space for each doctor or dentist or other consultant;
  - one space for every three non-medical staff;
  - three spaces for each consulting room for patients.
- 8.20 Again, these totals will be cumulative and will include space for staff and patients.
- 8.21 Other local plans will allocate spaces on the basis of floor area, although this is not generally such a common approach. Some plans include a hybrid, for instance allocating a number of spaces per staff member and then a number of spaces for each 10 m<sup>2</sup> of public space.
- 8.22 Each local planning authority is required to produce a local plan which contains all the planning policy and guidelines in relation to developments in the area. A review of these local plan guidelines is useful, because it begins to show some trends in the number of spaces that will be accepted on development sites and begins to indicate where local authorities will allow concentrations of parking or seek to restrict the parking. Copies of local plans are available from local authority offices, and an increasing number are now being made available online.
- 8.23 It is important to remember that health centres and GP surgeries will normally operate on a daytime-only basis, with the majority of staff present at



certain times. Hospitals will be operating on a 24-hour basis, with the majority of staff working shift patterns, resulting in high numbers of staff at shift changeover times, which can lead to particular problems at these times.

## Case study trusts

- 8.24 The four best-practice trusts which are considered in Appendix A have all experienced considerable parking problems, but – through the introduction of travel plans – have managed to reduce the demands for parking spaces to a manageable level.
- 8.25 By dividing the number of staff by the number of parking spaces, a ratio of provision can be determined showing the number of staff at each trust as a ratio of the number of car-parking spaces (see Table 1).

**Table 1 Ratio of number of staff at each trust to the number of car-parking spaces**

Trust	Staff spaces	Local plan allowance	Patient and visitor spaces	Local plan allowance
Addenbrooke's	1:3.75	On merit	1:10.5	On merit
Nottingham City	1:4.33	1:4	1:11.55	1:3
Oxford Radcliffe	1:4.28	1:4	1:15	1 per bed
Plymouth	1:4.25	1:4	1:7.5	1:3

- 8.26 The ratio of staff to staff car-parking spaces varies between 3.75 at Addenbrooke's and 4.33 at the Oxford Radcliffe Hospitals, with a mean being 4.15. Most local plans tend towards a ratio of 1 space for 4 members of staff, and this begins to emerge as an appropriate level of provision. Whilst these trusts have had to work hard to reach their current levels of parking, they are able to operate satisfactorily with the levels of parking allowed.
- 8.27 The ratio of staff to patient and visitor parking varies widely, between 7.5 at Plymouth and 15 at Oxford, with a mean of 11.15. Most local plans do not determine levels of patient and visitor parking, although where it is included, it tends to average around 10 spaces per member of staff.

## Factors affecting demand

- 8.28 There is a range of factors which can affect the demand for parking on sites, ranging from the type of trust and hence the type of healthcare delivered, through to the location of sites and their

accessibility. The demand will best be met on a site-by-site basis, based upon the number of staff and patients at the site and the type of facility, for example residential or day centre.

- 8.29 The different types of trust site have been detailed above, with detailed consideration given to acute trusts and their demands and also primary care trusts, especially health centres. Of the other types of trust mentioned, ambulance trust sites will normally only have a requirement for staff parking, as the sites will not attract many visitors.
- 8.30 These requirements would normally be based upon a maximum of one space for each member of staff, along with one space per operational vehicle where these vehicles will be based upon the site.
- 8.31 Mental health trust sites have similarities with both the acute and the primary care trusts, although numbers of out-patients and visitors will generally be lower.
- 8.32 The location of a healthcare facility will also affect the number of parking spaces that need to be provided. The four best-practice trusts (like the majority of acute sites) are based in or close to large urban areas. Therefore, they are likely to be better served by public transport or be accessible by means of transport other than the car, in contrast to sites in more rural areas.

## Transportation

- 8.33 Clearly, accessibility to a site by means other than the car will affect the level of parking provision. Where a trust has a travel plan in place with the measures outlined in Chapter 3, and where the travel plan is adhered to and is successful, there can be a dramatic reduction in the amount of parking required. Whilst this is more apparent on acute sites, it is also a factor in assessing the amount of parking required for primary care sites. For instance, the Oxford Radcliffe Hospitals are considered as a best practice trust and have a very successful travel plan in place. Many of their staff now travel to work by means of transport other than the car. For health centres, successful travel plans can reduce the amount of demand for parking by up to 50%, although it should be borne in mind that to be truly successful, the alternative modes of transport (principally good public transport links) should be available and user-friendly.
- 8.34 The NEAT tool includes a reliable section relating to transport. Within that section there is reference

to the provision of one car-parking space for every four members of staff as a baseline indicator of what can be achieved with effective transport management measures in place.

## Matrix

8.35 From the above information, a general matrix of parking provision for different types of trust in different situations has been developed. (This matrix is included on the CD-ROM that accompanies this publication.)

8.36 In line with the above, the steps below were followed to develop the matrix:

- consider alternative types of development;
- review local authority planning treatment of car- parking for health development;
- consider how current guidelines work in practice;
- consider factors which may increase/decrease demand for parking;

- evaluate successes/problems for trusts against range of parking provisions.

8.37 A “headline” matrix is provided to give a general level of parking provision for a range of types of development.

8.38 It is still considered that the best way to produce refined guides for parking provision is by looking at individual sites and assessing all the factors outlined in this section to give an individual assessment tailored to a site. It is recognised that this can involve a considerable amount of work, although this will result in a detailed assessment of the level of parking that is likely to be required. It is also the approach advocated in PPG 13.

8.39 The matrix can advise trusts with regard to car-parking provision required on site. Subsequent measures delivered through travel plans can then reduce the demand, so that the finite number of car- parking spaces available will satisfy the demand.

## WHAT TO EXPECT OF THE PLANNING AUTHORITY

Many local authorities take a partnership approach to the achievement of travel plans, providing support and guidance, but as with other planning matters, styles and availability of support will vary; however, the following may be available in an attempt to streamline the process:

- written policies, guidance and technical information;
- pre-application meetings, where written information may require further explanation;
- support in discussions with passenger transport executive or transport operators;
- assistance in the preparation of the travel plan, including support with travel surveys and mapping;
- assistance with subsequent survey and monitoring.

Responses to requests for assistance/collaboration will vary between authorities, and it is therefore important to engage with the authorities at an early stage to build a relationship of trust and common language and mutual understanding.

## LOCAL PLANNING AUTHORITY TARGETS AND SANCTIONS

Targets/outcomes and agreed measures and/or outcomes may be specified, with or without sanctions. If without sanctions, there may be little incentive for implementing an agreed travel plan, and enforcement may be difficult.

Sanctions therefore ensure that failure to deliver agreed outcomes can be remedied, and can take the form of:

- payment in lieu of remedial work to implement previously-agreed measures;
- specified works to remedy the failure to achieve agreed outcomes;
- payment to the local authority to meet the cost of any action to meet the agreed outcomes;
- specified changes to the site configuration to meet those objectives previously agreed.

Sanctions provide an incentive to the applicant to comply with agreed outcomes, whilst encouraging an early dialogue to prevent unnecessary delay to projects and abortive time of the local authority and trust staff/agents.



## 9 Successful partnership working

- 9.1 The creation and delivery of a successful travel plan depends upon a number of factors and a range of individuals and organisations combining to meet the aims of the plan. Generally speaking, the most successful plans, whether in the NHS or in other organisations, are those where the lead organisation developing the plan has combined with others to produce the plan.
- 9.2 Partnership working on a number of levels, both organisationally and individually, and internally and externally, is particularly recommended. All of the best- practice trusts have demonstrated that a close working relationship with the local planning and highway authorities can be extremely beneficial for each party to understand the wishes and requirements of the other. This should lead to a better understanding of the purposes of the travel plan and, hence, a more successful plan.
- 9.3 Most local authorities now have transport-wise coordinators who are employed to help organisations develop travel plans and to provide links into public transport and other measures that may be included in the plan, and they will normally be the first point of contact with the local authority.
- 9.4 Working relationships should also be developed with public transport providers, so that they can appreciate the likely demand for services. Operators may consider alternative routing of services if by doing so it meets future passenger demand.
- 9.5 Trusts should also consider how they can work with other local employers to develop solutions to transport problems. By including other groups of workers, a “critical mass” for success can be more easily achieved. For instance, in Oxford the NHS trusts and the two universities in the city work together to develop transport solutions, and each benefits from increased use of public transport, leading to more certainty that services will be continued.
- 9.6 Consider networking groups as a means of more effective communications towards more innovative partnership solutions. A travel plan has more opportunity for success if undertaken as a community-wide approach, rather than attempting piecemeal measures in isolation.

### External partnerships

- 9.3 Most local authorities now have transport-wise coordinators who are employed to help organisations develop travel plans and to provide links into public transport and other measures that may be included in the plan, and they will normally be the first point of contact with the local authority.
- 9.4 Working relationships should also be developed with public transport providers, so that they can appreciate the likely demand for services. Operators

### Internal partnerships

- 9.7 In addition to external partnership working, internal partnerships should be developed so that different departments and sectors of staff understand each other’s needs. These partnerships are particularly important between management and staff when developing the initial plan.

## 10 Other sources of information

- 10.1 There is information available concerning the development of travel plans and other transport issues. Much of this information is now available free of charge through websites, and there is free consultancy support available from the Government to help organisations overcome transport problems on their sites. The TransportEnergy website contains information about grants for the purchase of LPG vehicles and conversions through its Motorvate programme at <http://www.transportenergy.org.uk/moreefficient/motorvate/>
- 10.2 Advice about more environmentally friendly vehicles can be obtained from the Energy Saving Trust Powershift Programme at <http://www.transportenergy.org.uk/grantsavailable/powershift/>
- 10.3 Other sources of information include:
- the Association for Commuter Transport (ACT) <http://www.Act-uk.com>
  - the Department for Transport (DfT) [http://www.dft.gov.uk/stellent/groups/dft\\_control/documents/homepage/dft\\_home\\_page.hcsp](http://www.dft.gov.uk/stellent/groups/dft_control/documents/homepage/dft_home_page.hcsp)
  - Sustrans Active Travel <http://www.activetravel.org.uk>
  - Transport 2000 <http://www.transport2000.org.uk>

## Appendix A – Case studies

### Addenbrooke's NHS Trust

Addenbrooke's is a major acute trust providing accident and emergency services and regional and national specialties from a 65-acre site approximately two miles from the centre of Cambridge. Because of the location on the edge of the city, there has been a dependence upon car transport by patients, visitors and staff.

The introduction of the travel plan has enabled the Trust to carry out new developments without the requirement for significant new amounts of car-parking, retaining car-parking levels at close to those at the start of the process.

The Trust is responsible for traffic management on the site, although they are not its only occupier, with around 5000 staff out of a total headcount on the site of around 9000 (the difference is made up of research staff, contractors and catering staff). This meant that there was a need to involve other organisations in the travel plan process. The site has residential accommodation for around 600 staff, with 2400 staff parking spaces and 850 for patients and visitors.

After securing planning consent for a new research building in the centre of the site in 1994, the Trust developed a travel plan including the following:

- the level and position of parking for new development;
- the establishment of a maximum number of spaces on-site;
- the investigation and implementation of schemes for non-car staff transport.

The following steps were taken to achieve a successful travel plan:

- improved cycle facilities;
- a car-share matching service with guaranteed ride home;
- improved public transport provision and information;
- car-parking charges;
- improved security on-site;

- park and ride.

The main emphasis of the plan has been on car-park management, with the introduction of "smart" ID cards. These allow access to appropriate car-parks, allied to the introduction of more sophisticated car-park access technology, which has been one of the major costs in implementing the plan. Annual running costs are estimated at £41/employee.

It is considered by the Trust that this improved car-park management has resulted in a focus on all alternatives to single-occupancy car use, leading to a significant shift in modal split.

Of the people accessing the site, 21% now use cycles (the highest level in the DfT study), although because of the predominantly level nature of the environment, and the culture of cycling in the city, this is an attractive option, though total numbers of staff cycling can differ on a seasonal basis.

The Trust indicates that one of the major factors in success is communication with staff, and working to change staff attitudes from the feeling that they have a right to park at work. Regular staff seminars are held, where key issues can be explained and the operating constraints explored. One of the key objectives of the Trust is now to work with local transport operators to increase the modal share for buses. This will be by means of improved information for patients, visitors and staff, and the introduction of discounted bus season tickets.

### Nottingham City Hospital NHS Trust

Nottingham City is a major acute teaching hospital with regional specialties, operating from a 98-acre site on the edge of Nottingham and approximately six miles from the city centre. The Trust employs around 3500 wte posts and has 1200 staff spaces and 450 for patients and visitors.

In 1996, the Trust provided free car-parking and had an unknown number of vehicles entering the site. There was little security on site and, consequently, high levels of car crime. Because of the lack of public transport and other alternatives, the only way to access the site was by car,

which resulted in gridlock at peak times and parking chaos throughout the day.

The Trust has the following objectives in developing its travel plan:

- development of a strategy for the future;
- the ability to tailor proposals to meet service requirements;
- the provision of sustainable alternatives of transportation to and from the hospital;
- ensuring that patients and visitors receive a quality service.

There has always been management support for the travel plan, with the objectives incorporated in the corporate strategy for the Trust. The initial discussions with staff resulted in an undertaking that any money resulting from the introduction of car-parking charges would be ring-fenced for transport improvements. The annual running cost of the scheme is £41/employee excluding revenue from parking.

The benefits of the travel plan are that there is now a range of sustainable transport which is available to access the site, together with informed choice about these options arising from the provision of information. The Trust was particularly concerned that they could provide “carrots before sticks” by the provision of infrastructure.

The Trust feels that one of the most successful aspects of the travel plan has been the increase in bus use and the maintained levels of cycle use. The introduction of bus routes with regular (15-minute) services through the site has been particularly beneficial in increasing bus use.

Car-park management has also resulted in a reduction in people coming to the site by car (all students were banned from driving onto the site in 2001), with only 3.2% of staff being guaranteed a parking space.

The Trust has a very robust communications strategy in place to ensure that staff, patients and visitors are kept fully informed about the travel plan and its benefits. One of the main concerns was that money raised from the introduction of car-parking charges was used for transport management, and a process of continual internal communication is therefore considered important.

## Oxford Radcliffe Hospitals NHS Trust

The Trust operates from four sites, three in Oxford and a smaller district hospital in Banbury. The two main sites are the John Radcliffe and the Churchill Hospitals, both of which are in the Headington area of Oxford, about a

mile apart. The third hospital in Oxford is the Radcliffe Infirmary, near to the city centre, about three to four miles from the others.

All services at the Radcliffe Infirmary are to be transferred to the Headington sites within three years, which will result in significant increases in the number of staff, patients and visitors needing to access the sites.

Headington is a suburb of Oxford which is dominated by hospital development and academic institutions, principally Oxford Brookes University. As well as the two Oxford Radcliffe hospitals, there is the Nuffield Orthopaedic NHS Trust, two sites operated by the mental health trust, the HQ of the ambulance trust, and a PCT and learning disabilities presence.

The Trust is one of the largest in the country, and is a teaching trust with nationally and internationally renowned research and services. About 9000 staff are currently employed on the ORH Headington sites, of which some 6750 wte are trust staff. The remainder is mainly university employees and students.

The Trust currently has 2900 spaces (excluding spaces for staff who are resident on site), of which 2100 are staff spaces and 800 are patient and visitor spaces. At peak times there are some 3000 staff cars parked on site plus 900 visitors' cars. Planning permissions allow 3500 spaces, of which 2300 will be staff spaces and 1200 patients' and visitors'. The move of the Radcliffe Infirmary would require 200 to 300 staff spaces over and above the 2300 permitted spaces, hence the urgent need for a travel plan.

A transport survey conducted in 2001 revealed that around 30% of staff live within 2 km of the sites and over 50% within 5 km (measured on a straight-line basis).

It is estimated that the sites generate 10,000 return journeys in a day, of which around half are by staff. Anything up to 3100 cars will be parked on the sites at peak times, and car-borne transport is the most prevalent.

With the proposed move of services from the Radcliffe Infirmary to the Headington sites, there was an urgent need to introduce a travel plan for the trusts which was done in conjunction with the other major employers in the area. The other participants are the two universities and other NHS organisations.

An important consideration for the Trust was the securing of planning consent for the Radcliffe Infirmary relocation.

There is considerable management support for the travel plan and its aims and objectives, with the directors of both personnel and estates taking a keen interest. The

Trust has also appointed a planning and transportation manager who is now recognised as one of the authorities on hospital travel plans across the country, and demonstrates the importance of a dedicated transport manager to initiate, plan, manage and implement the requirements, if this is to be successful.

One of the key elements of the plan is the issue of a needs-based car-parking permit with a sophisticated assessment of access to public transport, rather than just a straightforward measurement of home-to-work distances, with parking permits based upon the level of bus services that are available within specified distances of the employees' home. Permits are also provided on the basis of need (for example operational needs, clinical commitments, shift work, caring responsibilities and disability) and not status.

Substantial consultation took place with staff before the changes were introduced, and this is ongoing, with the production of a regular newsletter. When the car-parking regime was introduced, there was an increase in the number of staff parking in surrounding roads. Part of a section 106 contribution required as part of the Radcliffe Infirmary relocation has been used by the local authority to introduce residents' parking zones to overcome this problem.

The introduction of the permit system and the restrictions on parking were seen by the Trust as the most significant hurdle. With high levels of opposition from staff – but with support from senior management – the policy has been successfully implemented and is seen as the most important factor leading to a modal shift away from car use.

Assessment of the Oxford Radcliffe Hospitals travel plan against the DfT Transport Plan Evaluation Tool has shown a very good rating, with high scores in all categories. The assessment shows a potential modal shift of between 5 and 10%, which is in line with the proposals in the travel plan.

## Plymouth Hospitals NHS Trust

Derriford Hospital is an acute accident and emergency hospital with regional and sub-regional specialties, which is based on a 20-hectare site on the outskirts of Plymouth, about five miles from the city centre. When the Trust first looked at adopting a travel plan in 1997–98, it had 4193 wte posts, which had risen to 5761 by 2001. In the same time, the number of car-parking spaces had risen from 1091 to 1353, with 770 spaces for patients and visitors. There is little opportunity for free parking in the vicinity.

The catalyst for the Trust developing a travel plan was the desire to provide extra parking spaces on site, with the city council requiring the Trust to look at other ways of reducing demand for car-parking spaces.

As with other trusts, the travel plan was only introduced after long negotiations with staff and their representatives. There has been considerable support from senior management, including the chief executive, and the travel plan is included within the annual report of the Trust and other reports. A transport coordinator was appointed in 1998, although there had been a member of staff working on transport issues prior to that date.

### Travel plan effectiveness

The travel plan specified the following outcomes for achievement by January 2003:

- reduce the number of single-occupancy car journeys by 15% over three years;
- ensure that patients and visitors do not have to search for a space for more than ten minutes at peak times;
- encourage the number of direct bus routes to the site;
- reduce staff parking spaces per employee by 10%.

The plan appears to have been particularly effective, with the number of cars arriving at the site reducing by 24% and the number of buses more than doubling. The Trust estimates that the annual running costs of the travel plan are £36/employee.

Car-park management has been particularly effective in reducing the number of cars accessing the site, with the introduction of a daily parking charge. Certain categories of staff (night and weekend staff, disabled staff, volunteers, car sharers and tenants of residential accommodation) are allowed to park their cars free of charge, and there is also a cash incentive to surrender permits.

### Success factors: key themes

From a review of the four best-practice trusts above, there are key themes which emerge both as drivers for the production of a plan and also as measures which are particularly effective in plans to reduce reliance on single-occupancy car transport, and hence the requirement for additional car-parking (see [Chapter 6](#)).

## Typical costs

To assist in identifying cost implications associated with implementing a travel plan, see the Department for Transport's (2002) 'Making travel plans work', which provides examples of indicative sums spent by different organisations on different measures.

## Primary care trusts

Primary care trusts face specific difficulties in implementing travel plans: split sites with low staff numbers; rural locations; poor access by public transport; and practical problems in car sharing. With financial problems and ongoing staff changes, this sector of the NHS is not as well developed in implementing travel plans.

Two examples are presented here of how two PCT groups have collaborated to deliver a travel plan in partnership. The first looks at the South West PCT "learning set" and the second at a parallel project in Nottingham.

### South West PCT Travel Plan learning set

The Government office for the South West and Sustrans have established a "learning set" with a group of south-west PCTs (Bristol South & West; Cheltenham & Tewkesbury; Exeter; South Wiltshire; and Teignbridge) to identify the specific problems they face and seek solutions.

The learning set used an approach common in benchmarking: members visited each participating PCT in turn, learning from the successes and innovations there and offering solutions to problems.

At each site, the set reviewed the situation, noted good practice and discussed problems. Below are a few notable examples.

**Bristol South & West PCT** shares a headquarters building with Bristol North PCT and other largely NHS tenants; with 400 staff, parking is available, free of charge, for 130 cars and 60 bikes.

The set's suggestions included instituting car-parking charges to release the value of 130 city-centre spaces, and establishing a travel plan steering group to unite all interested teams and facilitate communication.

**Cheltenham and Tewkesbury PCT's** head office is on a trading estate with more than ample car parking. The usual travel plan drivers – parking shortages and the possibility of revenue from existing spaces – do not exist here.

The trust noticed that many objectives of the Improving Working Lives (IWL) agenda can be delivered through travel planning. (The trust is piloting an IWL scheme allowing staff to spend up to 30 minutes a week of working time on physical activity, which could be lunchtime walks, sport, gym or active commuting.)

Many travel plan measures also benefit staff who continue to drive. Showers and changing rooms benefit people who play sport at lunchtime or who just want to freshen up and change after work. Measures suggested at Cheltenham included converting a small car park close to the front door into a staff outdoor area.

**Exeter PCT** is based in a historic, city-centre NHS property which the Trust now owns, shared with tenants from other organisations both within and outside the NHS. 400 people work there, of whom 250 are NHS; there is parking for 230 cars.

As is common in the NHS, staff parking is heavily subsidised; a typical car commuter pays just £100–150 per annum, costing the trust over £800. However, since April 2003, new starters only get a parking permit if they qualify as essential car users; others pay a market rate (currently £6 a day). As the non-essential subsidised users gradually move on, the Trust will increasingly receive the market rate for its parking spaces, either from staff or in the external market.

**South Wiltshire PCT** is spread across a number of sites – most no bigger than 30 staff – serving a largely rural catchment.

The Trust's largest site has 34 car spaces for 50 staff, but suffers from a particularly unappealing environment. Staff have requested environmental improvements, and this is a classic opportunity to take travel plan measures – by recapturing some of the space given over to parking and converting it to a picnic and rest area for staff – which also bring benefits in other areas.

**Teignbridge PCT** is concentrating its travel plan work on the headquarters building in Newton Abbott and a planned new hospital in the town.

The Trust commissioned a travel survey of headquarters staff. While the location (on an edge-of-town industrial estate) creates problems, there is the opportunity for collaboration with both councils to negotiate better bus services to the site.

The Trust is also considering how best to promote and improve conditions for walking and cycling both for commuter trips and during the course of work, and how this might link with its own health promotion function.

The report 'Moving forward with the South West PCT travel plan learning set' (Horne et al, 2004) gives a detailed account of the development of the learning set.

### **Greater Nottingham PCT travel plan coordination group**

The four greater Nottingham PCTs set up their own PCT travel plan coordination group in 2003 to share their expertise and creativity.

Each PCT had its own travel plan, specific to its own circumstances, although linked in format and content to the three others. A travel survey of all 3300 staff in the four PCTs was completed.

Site champions for each site in this initial rollout programme came together at a training session organised by the travel plan coordination group.

Lunchtime open sessions were planned at each site; these sessions aimed to inform staff and provide a forum where problems and opportunities could be discussed.

The results of the travel plan survey and staff discussions were presented – together with an outline of the travel plans – to the PCT Executives in 2004.

### **Recommendations for PCTs**

In their report, Horne et al (2004) made the following recommendations for PCTs wishing to set up their own travel plan:

- all PCTs should recognise the need to tackle travel plan work as set out in the Coronary Heart Disease National Service Framework and NHS environmental strategy;
- to progress this work, PCTs should:
  - (i) nominate a lead at Board level;
  - (ii) set up a travel plan steering group, or use existing structures such as IWL;
  - (iii) include in the group at least: facilities, estates, operations; public health, health promotion; finance; HR; information;
  - (iv) liaise with the local highways authority, which can provide help and sometimes resources;
  - (v) use changed circumstances as an opportunity for implementing travel plan measures;
  - (vi) include a prize if possible for return of the travel survey, to improve response rate;
  - (vii) make appropriate references for travel plans within job descriptions and allocate sufficient time to undertake the work.



ACUTE SERVICES MODEL

NAME OF TRUST:

SITE:

DATE:

VERSION:

**STAGE 1 BASELINE**

No of staff

No of resident staff

Staff parking spaces

No of beds

No of consulting rooms

Visitor parking spaces of which:  
Disabled spaces

NEAT score

USER CALCULATIONS

**STAGE 2 MODE SHARE ANALYSIS**

	% increase	Space reduction
Walking	<input type="text"/>	<input type="text" value="0"/>
Cycling	<input type="text"/>	<input type="text" value="0"/>
Motorcycle	<input type="text"/>	<input type="text" value="0"/>
Public transport	<input type="text"/>	<input type="text" value="0"/>
Parking	<input type="text"/>	<input type="text" value="0"/>
Travel reduction	<input type="text"/>	<input type="text" value="0"/>
Car sharing	<input type="text"/>	<input type="text" value="0"/>

**STAGE 3 DESIRED REDUCTION**

SOV reduction (%)

Reduced staff spaces

Total staff spaces

**STAGE 4 TOTAL SPACE TARGET**

Total spaces

**STAGE 5 LOCATION REDUCTIONS**

Urban (-50%)

Edge of urban area (-20%)

Rural (+20%)

TRAVEL EVALUATION TOOL

**STAGE 2a EVALUATION TOOL MODE SHARE INFLUENCE**

Walking

Cycling

Motorcycle

Public transport

Parking

Travel reduction

Car sharing

**STAGE 3a EVALUATION TOOL REDUCTION**

SOV reduction (%)

Reduced staff spaces

Total staff spaces

**STAGE 4a TOTAL SPACE TARGET**

Total spaces

**STAGE 5a LOCATION REDUCTIONS**

Urban (-50%)

Edge of urban area (-20%)

Rural (+20%)

Appendix B – Car-parking matrix (Screenshot from the car-parking matrix included on the CD-ROM)

# Appendix C – Staff travel survey

## Staff Travel Survey

CONFIDENTIAL

<p><b>1 Full home postcode</b></p> <p>.....</p>	<p><b>10 Which of the following do you occasionally use instead of your usual form of transport?</b></p> <p><input type="radio"/> Bus 01</p> <p><input type="radio"/> Bicycle 02</p> <p><input type="radio"/> Car, on your own 03</p> <p><input type="radio"/> Car, with other(s) 04</p> <p><input type="radio"/> Foot 05</p> <p><input type="radio"/> Motorbike 06</p> <p><input type="radio"/> Train 07</p> <p><input type="radio"/> Other (please specify) 08</p> <p><input type="radio"/> No alternative used 09</p>
<p><b>2 Gender</b></p> <p><input type="radio"/> Male 01</p> <p><input type="radio"/> Female 02</p>	<p><b>11 How far do you travel to work?</b></p> <p><input type="radio"/> Up to 1 mile 01</p> <p><input type="radio"/> Over 1 mile, up to 2 miles 02</p> <p><input type="radio"/> Over 2 miles, up to 5 miles 03</p> <p><input type="radio"/> Over 5 miles, up to 10 miles 04</p> <p><input type="radio"/> Over 10 miles, up to 20 miles 05</p> <p><input type="radio"/> Over 20 miles 06</p>
<p><b>3 Staff group (e.g. nursing, admin/ clerical)</b></p> <p>.....</p>	<p><b>12 How long does it usually take you to get to work, using your normal mode of travel?</b></p> <p><input type="radio"/> Up to 15 minutes 01</p> <p><input type="radio"/> 16–30 minutes 02</p> <p><input type="radio"/> 31–60 minutes 03</p> <p><input type="radio"/> 61–90 minutes 04</p> <p><input type="radio"/> Longer than 90minutes 05</p>
<p><b>4 Usual place of work (which department/ward)</b></p> <p>.....</p>	<p><b>13 Which of the following changes would persuade you to cycle to work? (If you already cycle to work, which would you most like to see?) PLEASE TICK NO MORE THAN 2</b></p> <p><input type="radio"/> Safer, better lit work-site cycle paths 01</p> <p><input type="radio"/> Improved cycle paths on journey to work 02</p> <p><input type="radio"/> Improved cycle parking at workplace 03</p> <p><input type="radio"/> More/Improved workplace showers &amp; changing facilities 04</p> <p><input type="radio"/> More/Improved workplace lockers for cyclists 05</p> <p><input type="radio"/> Arrangements to buy a bicycle at a discount 06</p> <p><input type="radio"/> Other financial incentives 07</p> <p><input type="radio"/> Promotion of associated health benefits 08</p> <p><input type="radio"/> None 09</p> <p><input type="radio"/> Other (please specify) 10</p> <p>.....</p>
<p><b>5 How often do you work at more than one location?</b></p> <p><input type="radio"/> Never 01</p> <p><input type="radio"/> Less than once a week 02</p> <p><input type="radio"/> One to four times a week 03</p> <p><input type="radio"/> Once a day 04</p> <p><input type="radio"/> More than once a day 05</p>	<p><b>14 Which of the following changes would persuade you to use public transport for your journey to work? (If you already use public transport, which would you most like to see?) PLEASE TICK NO MORE THAN 2</b></p> <p><input type="radio"/> More direct bus routes 01</p> <p><input type="radio"/> More frequent bus service 02</p> <p><input type="radio"/> More frequent train service 03</p> <p><input type="radio"/> More reliable bus or train service 04</p> <p><input type="radio"/> Better lighting at bus shelters &amp; workplace paths 05</p> <p><input type="radio"/> Cheaper travel 06</p> <p><input type="radio"/> More convenient drop-off points 07</p> <p><input type="radio"/> Better links to work from the station 08</p> <p><input type="radio"/> Better public transport information 09</p> <p><input type="radio"/> None 10</p> <p><input type="radio"/> Other (please specify) 11</p>
<p><b>6 Age</b></p> <p><input type="radio"/> Under 25 01</p> <p><input type="radio"/> 25–34 02</p> <p><input type="radio"/> 35–44 03</p> <p><input type="radio"/> 45–54 04</p> <p><input type="radio"/> 55 or over 05</p>	
<p><b>7 Do you have a disability which affects your travel arrangements</b></p> <p><input type="radio"/> Yes 01</p> <p><input type="radio"/> No 02</p> <p><i>(If YES, please state type of disability e.g. visual, mobility)</i></p> <p>.....</p>	
<p><b>8 Do you normally work:</b></p> <p><input type="radio"/> Normal working day e.g. 8–4, 9–5, 10–6 01</p> <p><input type="radio"/> Day shifts i.e. mornings/ afternoon 02</p> <p><input type="radio"/> Out of hours e.g. night shifts 03</p> <p><input type="radio"/> Other (please specify) 04</p> <p>.....</p>	
<p><b>9 How do you mostly travel to work?</b></p> <p><input type="radio"/> Bus 01</p> <p><input type="radio"/> Bicycle 02</p> <p><input type="radio"/> Car, on your own 03</p> <p><input type="radio"/> Car, with other(s) 04</p> <p><input type="radio"/> Foot 05</p> <p><input type="radio"/> Motorbike 06</p> <p><input type="radio"/> Train 07</p> <p><input type="radio"/> Other (please specify) 08</p> <p>.....</p>	

# Staff Travel Survey

**CONFIDENTIAL**

**15 Which of the following changes would persuade you to walk to work? (If you already walk to work, which would you most like to see?) PLEASE TICK NO MORE THAN 2**

- Improved layout of workplace footpaths 01
- Improved maintenance of workplace footpaths 02
- Improved lighting on workplace footpaths 03
- More security measures around site 04
- More conveniently placed entrances to site 05
- Road safety improvements in the local area 06
- Better street lighting in the local area 07
- Promotion of associated health benefits 08
- Financial Incentives 09
- None 10
- Other (please specify) 11

.....  
Please complete sections 16–19 if you use a car to get to work.

**16 What are your main reasons for using a car to get to work? PLEASE TICK NO MORE THAN 2**

- Essential to use a car during the working day 01
- Dropping / collecting children 02
- Get a lift 03
- Health reasons 04
- Personal security 05
- Lack of an alternative 06
- Cost 07
- Reliability 08
- Other (please specify) 09

**17 Where do you usually park?**

- On hospital site in a staff parking space 01
- On hospital site in a patient or visitor space 02
- On hospital site in the main barrier controlled car park 03
- On hospital site, but not in a designated parking space 04
- Off site in a nearby street 05
- Off site in a nearby car park 06
- Other (please specify) 07

**18 Would you be prepared to car-share?**

- Yes 01
- No 02
- I already car-share 03

**18 Which of the following would persuade you to car-share? (If you already car-share, which would you most like to see?) PLEASE TICK NO MORE THAN 2**

- Help in finding car-share partners with similar work patterns 01
- Free taxi home if let down by car driver 02
- Reserved parking for car-sharers 03
- Reduced car parking charges for car-sharers 04
- None of these 05
- Other (please specify) 06

**19 Are you aware that Park & Ride is available to get to work?**

- Yes 01
- No 02

**20 Do you use Park & Ride to get to work?**

- Yes 01  
If Yes, which Park and Ride site? .....
- No 02  
If No, what prevents you from using it? .....

**21 Do you have any comments about your travel to work?**

.....  
.....  
.....  
.....  
.....

**Thank you for your co-operation. Please be assured that all your answers remain confidential.**

**Please use the internal post to return this form to The Project Manager no later than**

# Appendix D – Patient/visitor travel survey

## Patient/Visitor Travel Survey

**CONFIDENTIAL**

**1 Are you a patient or a visitor? (please tick)**

- Patient 01
- Visitor 02

**2 Which hospital department are you visiting, or being treated at today?**

.....

**3 At what time did you arrive at the hospital?**

.....

**4 Which day of the week did you arrive at the hospital?**

- Monday 01
- Tuesday 02
- Wednesday 03
- Thursday 04
- Friday 05
- Saturday 06
- Sunday 07

**5 Do you have a disability which affects your travel arrangements?**

- Yes 01
- No 02

*(If YES, please state type of disability e.g. visual, mobility)*

.....

**6 Please could you give your home postcode?**

.....

**7 How did you travel to the hospital?**

- Ambulance 01
- Bus 02
- Train 03
- Bicycle 04
- Car, driving yourself 05
- Car, as a passenger 06
- Foot 07
- Motorbike 08
- Voluntary/Dial-a-ride 09
- Other (please specify) 10

.....

**8 If you did not use public transport, what would have persuaded you to use the bus or the train for your trip? (please rank your three most important reasons)**

- More direct routes ....
- More frequent ....
- More reliable ....
- Faster service ....
- Cheaper fares ....
- Better security ....
- Safer walking route from the station ....
- More public transport information ....
- Better access on and off the bus ....

- Other (please specify) ....

.....

**9 If you came by car, did you have difficulty in finding a place to park on the hospital site?**

- Yes 01
- No 02

**10 Do you have any comments about your journey to the hospital?**

.....  
 .....  
 .....

**THANK YOU FOR COMPLETING OUR SURVEY**

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