Capacity, Culture and Leadership: lessons from experience of improving access to hospital services

Final Report from the Evaluation of the National Booked Admissions Programme First Wave Pilots

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July 2002

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Preface

This is the final report of the evaluation of the National Booked Admissions Programme first wave pilots. It brings together the findings from the third and final stage of the evaluation with the aim of assisting those involved in implementing booking systems.

The first interim evaluation report (Meredith, Ham and Kipping, 1999) was published in October 1999 and the second interim report (Kipping, Meredith, McLeod and Ham) was published in November 2000. Both reports are available at www.bham.ac.uk/hsmc under ‘research’. The evaluation was commissioned by the Department of Health. The views expressed are those of the authors, not necessarily of the Department of Health.

The audience for this report includes all those involved in the first wave pilots, officials in the Department of Health, and others involved in booking systems. It is also intended to be read by those participating in the subsequent waves of the programme, by health authority, trust and PCG/T boards, and by NHS staff outside the programme who wish to learn more about booking systems. The report is particularly relevant in a context in which the NHS Plan has set out a commitment that by the end of 2005 waiting lists for hospital appointments will be replaced with booking systems.

We would like to thank all those who gave freely of their time and information in enabling us to gather data for the evaluation. We are also grateful for the support of our colleagues at HSMC, particularly Sue Alleyne, Jackie Francis and Anne van der Salm in organising the fieldwork and preparing this report, Shirley McIver for her assistance with the patient study, and for the contribution of two other members of the research team, James Raftery and John Yates. We would also like to acknowledge the advice and comments of Louise Locock of HSMC and staff of the Department of Health (especially Alan Glanz) and the NHS Modernisation Agency who helped in steering the development of the evaluation. We have also benefited from the comments of two anonymous referees on an earlier draft of this report.

We alone are responsible for this report.
Executive Summary

This report summarises the results of a two and a half year evaluation of the national booked admissions programme. The focus of the evaluation was the 24 pilots that comprised the first wave of the programme. These pilots tested out a range of approaches to booking hospital appointments from general practice and within hospitals. Outpatient appointments, day surgery and investigations, and inpatient treatment were included within the first wave.

The pilots made rapid progress in the first year of booking. This was followed by some slipping back in the second year, although overall the performance of the pilots was better at the end of the period under review than at the beginning.

There was wide variation between the pilots in what was achieved. Three pilots achieved a high level of booking across a large proportion of day case work. By comparison, only one pilot achieved a high level of booking in relation to inpatients. Direct booking from general practice was limited to a small number of pilots and relatively few patients experienced this service.

There was also variation between specialties in what was achieved. In relation to day cases, oral surgery and gynaecology had the highest proportion of patients waiting with a date, and general surgery, ophthalmology and urology the lowest proportion. In relation to inpatients, ophthalmology and gynaecology had the highest proportion of patients waiting with a date, and orthopaedics and general surgery the lowest proportion.

For both day cases and inpatients, the pilots continued to perform better than the non-pilots in relation to the proportion of patients waiting with a date.

The majority of consultants surveyed were enthusiastic or supportive of booking. Only about a quarter were sceptical or not convinced if its value. Consultants regarded the greatest challenges to extending booking as capacity constraints and long waiting times. For GPs, the main challenges were the time involved in making a booking, waiting times, funding, and the availability of a reliable appointments’ system.

Patients valued the opportunity to book their appointments. The majority of patients who were booked felt that having a date made it easier to plan and that the date was convenient. However, when presented with the choice in future of attending sooner without a booked date or later with a booked date, most expressed a preference for an earlier, unbooked appointment.

One of the effects of the programme was to stimulate NHS trusts and GPs to redesign services from the patient’s point of view as well as to increase capacity to enable booked dates to be honoured. Redesign included the development of one stop clinics for day surgery, direct access by GPs to hospital appointments, and measures to use inpatient services more appropriately.

A variety of factors help to explain the outcomes of the first wave. Pilots with a receptive context (especially a history of booking), effective leadership by a chief
executive and senior clinicians, a dedicated project manager and team, and a
flexibility of approach to clinicians were at an advantage compared with pilots
without these characteristics. Of particular importance were the availability of
sufficient capacity (beds, staff and theatres) and waiting times under six months.
Other contributory factors included the flexible use of theatres and staff and the
avoidance of complex information and communications technology (ICT) approaches.

The support provided by the National Patients Access Team was a distinctive and
highly valued feature of the programme. This included the emphasis placed on
training, quality improvement methodologies, programme management, dedicated
project management, ring fenced funding and measurement of progress. Through the
programme there emerged an approach to service improvement that resembled the
collaborative way of working used in later redesign work.

The evaluation identified a number of lessons for the NHS as booking moves from
being a pilot programme into the mainstream. These lessons relate to the context of
booking, the mechanisms used, and its sustainability:

**Context**

- booking will not work unless consultants and GPs can be persuaded to take part
- starting with enthusiastic doctors and extending booking to others is one way of
  making progress
- surgeons must be able to see how they will benefit from booking if the scepticism
  of some is to be tackled
- a range of incentives is available to encourage doctors to book patients
- medical concerns can be overcome by giving priority to organisation development
- national leadership is important in creating the context for local innovation

**Mechanisms**

- the particular method of booking used is less important in the early stages of
  booking than allowing flexibility to accommodate different preferences (and
  avoiding complex technologies)
- ICT based booking must be well planned and properly resourced to overcome the
difficulties encountered in the first wave
- priority should be given to staff training and development for all staff and
  communications to support booking
- staff need to be given the time and space to get off the treadmill and to redesign
  services
- day case booking is most developed and has been facilitated by short waiting
times and ring fenced facilities
- there is a need to use existing capacity more efficiently to extend booking and to
  increase capacity
- inpatient booking poses a particular challenge with current capacity constraints
  and requires a focus on using existing resources differently and the development
  of partial booking
- booking from general practice is least developed and will require rapid roll out to
  enable the NHS Plan targets to be achieved
• effective trust leadership (from chief executives and senior clinicians) and project management is needed to make booking work
• the involvement of strategic health authorities and primary care trusts will become more important as booking moves into the mainstream
• NPAT/NHS Modernisation Agency has provided valuable support for booking

Sustainability

• programmes like booked admissions will only succeed if the same effort is put into their sustainability as their launch
• booking needs to accommodate patient preferences

The evaluation has highlighted the inherent challenges involved in achieving change in professional bureaucracies. What appears to be a relatively incremental step – offering patients the choice of dates for appointment, instead of placing them on a waiting list – in practice entails a complex and interlocking series of actions. Most fundamentally, it demonstrates the need to secure the support and commitment of professionals to new ways of working. Providing the capacity to enable booking to happen and persuading clinicians to work differently calls for sustained effort at all levels of the NHS, with a particular emphasis on leadership and cultural change.

As this happens, booking has to move from being a relatively minor side show into the mainstream if it is to become firmly embedded in the NHS. This requires the emphasis to shift from a project focus to an organisation wide change programme. To exaggerate only a little, booking will continue to be concentrated in pockets of innovation unless a concerted effort is made in the Department of Health, strategic health authorities, NHS trusts and primary care trusts to this way of working. Particularly within NHS trusts and primary care trusts, the strategic, cultural, technical and structural dimensions of change all need to be in place if the lessons of the first wave pilots are to be translated into action.

This evaluation has shown that there are no magic bullet solutions to the challenge of booking. The main source of change and service improvement has to come from within each and every NHS organisation. Renewed effort now needs to be put into developing the staff and organisations that can embrace the kind of cultural change foreshadowed by the NHS Plan. No amount of guidance, support, hectoring or cajoling can substitute for the lack of capability and understanding among the staff delivering care to patients of the need to reshape the provision of services. It is this, together with the government’s plans to increase capacity, that will unlock the potential demonstrated by the first wave pilots.
1. Introduction

This chapter sets out the policy context in which the national booked admissions programme developed. It then goes on to describe the work of the National Patients’ Access Team and previous experience of booking initiatives in the UK and elsewhere. This is followed by a profile of the first wave booking pilots and a summary of how this evaluation was conducted. The chapter provides the background for the presentation of the results of the evaluation in the rest of this report.

1.1 Policy context

A key aim of the government is to modernise the NHS through measures designed to raise standards and to improve access and convenience. Raising standards is being pursued through the establishment of the National Institute of Clinical Excellence, the Commission for Health Improvement, the development of explicit policies and standards (in the form of national service frameworks) for major service areas, and the introduction of clinical governance throughout the NHS. Improving access and convenience is being pursued through measures to tackle waiting for treatment and to offer increased choice. These measures are intended to make the NHS more patient centred and ensure that people’s experience of health care is in line with what happens in other services and sectors.

In the case of primary care, the policies pursued on access include NHS Direct (a nurse led telephone helpline) and walk-in primary care centres. As far as hospitals are concerned, the National Patients’ Access Team (NPAT) was established in 1998 to support trusts and health authorities achieve reductions in waiting lists and times and to help redesign healthcare. This includes overseeing the introduction of the national booked admissions programme to pilot a range of approaches to enable patients to choose the date and time of their appointment or treatment. These initiatives contributed to the vision set out in The NHS Plan (Secretary of State for Health, 2000) of a health service designed around patients. In turn, they played a part in the
development of policies to ensure that patient choice was a driving force for improvement in the NHS, announced in 2001.

The booked admissions programme was launched by Ministers in July 1998 and was heralded as an attempt to make booking a hospital appointment as easy as booking an airline ticket. Apart from the anticipated benefits for patients, booking systems were expected to result in the more efficient use of hospital resources, for example by reducing the number of patients not attending and cancellations. Announcing the initiative, the then Minister for Health, Baroness Jay, said:

‘The aim of the pilot programme is to develop a number of ‘flagships of excellence’ providing redesigned elective care incorporating booked admissions so that patients can be certain about the date of their treatment. The particular focus will be on increasing the number of booked admissions for day case treatment, but pilot sites may also wish to tackle other areas. The pilot sites can be expected to start from different positions in the extent to which they already operated booking systems – but all will be expected to deliver step improvements in the way care is provided. I hope that they will point the way towards removing the stress and uncertainty associated with waiting for treatment.’

(Minister for Health, 1998)

The Minister added that there would be three pilots in each region and that £5 million was being set aside to support their development.

Guidance issued by the NHS Executive following the Minister’s statement indicated that pilots should expect to receive between £100,000 and £300,000 each for the period October 1998 – March 1999 and that similar funding would be available for the following year, subject to satisfactory progress. This guidance also elaborated the objectives of the programme. These objectives focused on the benefits for patients of having ‘a more dependable elective service’, and the benefits for the NHS in achieving ‘more cost effective use of resources’. Applicants for pilot status were requested to demonstrate how the pilot would:

- increase the percentage of patients who receive a booked admission
- reduce ‘did not attends’ (DNAs) and cancellations
- improve communication with patients and GPs
be integrated with other hospital systems and support systems
use resources in an innovative way including process redesign
help to reduce the number of patients waiting and the time they have been waiting.

In the event around 70 applications were received and from these applications regional selection panels chose 24 to go forward in the first wave of the programme (see below for more detail on the 24 pilots). In announcing the pilots, the then Secretary of State for Health reiterated that the programme would use new technology to cut waiting and reduce anxiety, at the same time resulting in fewer cancelled operations and patients failing to turn up for their appointment. As he stated at the time:

‘Patients will be able to agree dates which suit them, and take into account their family and work responsibilities. It will do away with those long, stressful days waiting for the letter about the hospital appointment. The new system will also cut bureaucracy. It should mean both fewer cancelled operations and fewer instances of patients not turning up for their appointment.’

(Secretary of State for Health, 1998)

Subsequently, in April 1999, the government invited bids for the extension of the programme in what was to become the second wave of booked admissions. The guidance accompanying the announcement (Department of Health, 1999) indicated that there were three strands to the extension of the programme:

1. The continuous improvement of services at some of the existing pilots (the Continuous Improvement of Booked Admissions (CIBA) programme)

2. The introduction of booking systems for cancer services as part of a wider redesign of services in around eight pilot schemes – what became known as the Cancer Services Collaborative

3. Rapid replication of the experience gained in the first wave pilots to increase the number of pilots by at least 50.

An additional £20 million was allocated to support this work and to fund the second year of the first wave of pilots. The announcement of the extension of the programme came within days of a speech by the Prime Minister in which he set out a vision in which:
‘I want to see people being treated quickly and conveniently – not just because that is what people want but because it’s good for their health. Swift diagnosis and treatment aids recovery and reduces anxiety. In the NHS of the future we should expect immediate access to dependable health advice, same-day testing and diagnosis wherever practicable, prompt and convenient access to care and treatment and all operations booked in advance to suit the patient.’
(Prime Minister, 1999a)

The Prime Minister’s endorsement of the programme was reiterated in September 1999 in a speech given at the opening of the new ambulatory care and diagnostic centre at the Central Middlesex Hospital. As he stated in the speech:

‘Why is it that patients have not been able to choose when they want to go into hospital? It’s because the needs of the system have come before those of the patient. The result has been that it has been the hospital who decides when they can fit you in rather than the other way round. That is no longer good enough. People have busy lives juggling work and family. In today’s world we book things to suit ourselves. I want that same principle to be at the heart of our new NHS... I have no doubt that in time booked appointments will prove to be as much of a revolution for the NHS as the literacy hour and numeracy hour have been for primary schools. It will change the whole way the NHS organises care and over time will change radically people’s relationship with the NHS’.
(Prime Minister, 1999b)

The Prime Minister’s speech included an announcement that 60 pilots would be funded as part of the rapid replication strand of the second wave of the programme.

The momentum behind booked admissions gathered pace with the announcement of £40 million in April 2000 (Department of Health, 2000a), to spread booking through a third wave, expand the continuous improvement of booked admissions (CIBA) and launch the Coronary Heart Disease Partnership Collaborative. The announcement stated that the government’s aim was to ensure that by the end of March 2001 every acute trust in England would be booking in at least two specialties.
When the third wave was launched the Secretary of State demonstrated his confidence in the booking programme:

‘Introducing booked admissions encourages hospitals to re-organise the way they work and in particular bring down waiting times. In turn, operating theatres and staff can be used more efficiently and the number of patients missing their appointments usually falls sharply when booked admissions are introduced.’
(Department of Health, 2000b)

Four months later, in July 2000, The NHS Plan, was published with a commitment that by the end of 2005 waiting lists for hospital appointments and admissions would be abolished and replaced with booking systems giving all patients a choice of a convenient time within a guaranteed maximum waiting time (Secretary of State for Health, 2000). The NHS Plan also announced that the NHS Modernisation Agency would be set up to build on the work of NPAT and other national teams to improve the performance of services and to help the NHS deliver care that was accessible and convenient.

As part of the strategy to assist the NHS to meet the ambitious targets in The NHS Plan, a fourth wave of the booked admissions programme, Moving to Mainstream, started in September 2001. It includes all health communities in booking, through giving financial assistance, support and guidance from staff who are experienced in redesigning care and booked admissions (Department of Health, 2001). The fourth wave is similar to the third wave in being comprehensive rather than selective, but it goes a step beyond including all acute trusts in the programme, to including all health communities. The specific goals of the programme are to:

- work towards 100% booking of day cases by March 2003
- significantly increase booking from and within general practice
- significantly increase booking for inpatient elective admissions
- roll out booked admissions changes widely within the NHS
- move from project status to mainstream processes
The fourth wave of booking incorporates change methodologies from the ‘collaboratives’ and other initiatives taken by NPAT as part of its work on service redesign beyond the booked admissions programme (see below). Figure 1 summarises the main features of each of the four waves of the booked admissions programme. In view of the increasing scale of this work, and the links with booking, we now review the development of the range of initiatives taken by NPAT and continued by its successor, the NHS Modernisation Agency.

Figure 1: Funding and scope of four waves of National Booked Admissions Programme

<table>
<thead>
<tr>
<th>Wave</th>
<th>Year</th>
<th>Funding (£ million)</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>1998</td>
<td>£5 million</td>
<td>24 pilots</td>
</tr>
<tr>
<td>Wave 2</td>
<td>1998</td>
<td>£20 million</td>
<td>Continuous improvement of booked admissions; Cancer Services Collaborative; 60 pilots for rapid replication</td>
</tr>
<tr>
<td>Wave 3</td>
<td>1998</td>
<td>£40 million</td>
<td>All acute Trusts booking at least two day case specialties or two high-volume procedures; Continuous Improvement of Booked Admissions; CHD Partnership programme</td>
</tr>
<tr>
<td>Wave 4</td>
<td>1998</td>
<td>£50 million</td>
<td>All health communities involved in extending booked admissions towards meeting the NHS Plan targets for booking</td>
</tr>
</tbody>
</table>

1.2 NPAT’s programmes

The way in which NPAT’s work developed and expanded can be described both chronologically and methodologically. Beginning with the booked admissions programme in 1998, NPAT led a series of programmes aimed at improving the patient’s experience of health services and the use of NHS capacity. Two of these programmes - the Cancer Services Collaborative and the Coronary Heart Disease
Partnership Collaborative - were associated with the second and third waves of booking respectively. Both were intended to enable providers of these services to work in a collaborative way to improve access in two areas of high priority for the NHS.

NPAT also became involved in work to improve the performance of outpatient services, including the development of partial booking systems for outpatients (Department of Health and NPAT, 1999 and 2000). In addition, it took on responsibility in 1999 for the Action on Cataracts programme with the aim of streamlining the patient’s journey in order to reduce the number of visits to health professionals and cut waiting times. This led to the establishment in the following year of sister programmes for ENT, dermatology and orthopaedics - all specialties characterised by long waits. In parallel, NPAT led work on emergency services, the use of operating theatres, critical care and a number of other high profile service areas (see Box 1).

Box 1: Chronology of NPAT programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving waiting list performance (Visit Programme)</td>
<td>1998</td>
</tr>
<tr>
<td>National Booked Admissions Programme wave 1</td>
<td>1998</td>
</tr>
<tr>
<td>Endoscopy Review</td>
<td>1999</td>
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<tr>
<td>Action on Cataracts</td>
<td>1999</td>
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<tr>
<td>Pre-operative Assessment Project</td>
<td>1999</td>
</tr>
<tr>
<td>National Booked Admissions Programme wave 2</td>
<td>1999</td>
</tr>
<tr>
<td>Continuous Improvement of Booked Admissions</td>
<td>1999</td>
</tr>
<tr>
<td>Cancer Services Collaborative</td>
<td>1999</td>
</tr>
<tr>
<td>Demand Management</td>
<td>1999</td>
</tr>
<tr>
<td>Action on ENT, Dermatology and Orthopaedics</td>
<td>2000</td>
</tr>
<tr>
<td>National Booked Admissions Programme wave 3</td>
<td>2000</td>
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<tr>
<td>Coronary Heart Disease Collaborative</td>
<td>2000</td>
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<tr>
<td>Emergency Services Project</td>
<td>2000</td>
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<tr>
<td>Critical Care Project</td>
<td>2000</td>
</tr>
<tr>
<td>National Booked Admissions Programme wave 4</td>
<td>2001</td>
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<tr>
<td>Theatre Project</td>
<td>2001</td>
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<tr>
<td>IDEA Project</td>
<td>2001</td>
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<tr>
<td>Paediatric Project</td>
<td>2001</td>
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<tr>
<td>Modernising Dentistry</td>
<td>2001</td>
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<tr>
<td>Mental Health Project</td>
<td>2001</td>
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<tr>
<td>Commissioning Project</td>
<td>2001</td>
</tr>
<tr>
<td>Local Modernisation Review &amp; Beacons</td>
<td>2001</td>
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</table>
NPAT’s programmes were brought together with those of the National Primary Care Development Team and the Clinical Governance Support Team when all three teams were incorporated into the NHS Modernisation Agency following publication of The NHS Plan in 2000. This facilitated greater integration of the work of these teams, as for example in the programme on improving access in primary care led by the National Primary Care Development Team and the parallel programme on improving access in secondary care led by NPAT. The establishment of the NHS Modernisation Agency meant that there was a single focus for this work for the first time and a greater opportunity to share methods, experiences and learning. It also signalled the continuing commitment in government to give priority to the kind of work NPAT had been leading since 1998.

As the work of NPAT expanded, it became possible to identify three main methods in its programmes. The first entailed redesign work with the most capable organisations with the aim of creating world class standards of care. Often this entailed using the collaborative methodology developed by the Institute for Healthcare Improvement (IHI) in the United States and applied with the assistance of the IHI to the NHS. It was this collaborative approach that also informed the programmes on access in primary care led by the National Primary Care Development Team.

The second method involved advanced programmes such as the ‘Action On’ initiatives. The aim with these programmes was to use the experience gained in the field sites to develop good practice guidance and standards intended to be applied throughout the NHS.

The third method centred on performance improvement programmes aimed at helping NHS organisations with performance challenges to ‘get the basics right’. Examples included work on outpatient improvement and emergency access. In using this method, NPAT helped these challenged organisations through a visit programme and the use of learning sets.

Box 2 describes in more detail the characteristics of each method.
Box 2: Characteristics of NPAT’s programme

Characteristics of work with performance challenged organisations

- tight focus on a specific performance area (for example, outpatient waiting times, waiting time for emergency medical admissions)
- the aim is to support local NHS organisations to:
  - improve performance so that required targets are met
  - put systems in place so that the high level of performance is maintained
- small number of NHS organisations with the greatest performance challenges participate
- no (or minimal) additional funding for organisations to participate in the initiative
- focus on implementing tried and tested improvement principles: minimal testing of new ideas
- typically narrow focus on improving the fundamental systems within the organisation rather than more ambitious, cross-agency changes.

Characteristics of advanced programmes

- tight focus on a specific specialty, condition, or service enhancement
- the aim is to:
  - identify and share existing good practice
  - demonstrate standards of performance that challenge current NHS thinking about acceptable access times, systems for providing care, etc.
  - provide an intensive focus to significantly improve performance in this area across the whole NHS
- small number of pilot sites to test the improvement principles (not necessarily the existing best performers)
- small amount of funding for exemplar sites
- less local testing of the improvement principles because the knowledge about their applicability already exists
- speedy local, regional and national rollout of good practice
- every NHS organisation should be capable of implementing the ‘action on’ guidance

Characteristics of collaborative programme

- broad focus on transforming the entire patient pathway of care
- the aim is to:
  - innovate and test new models of care delivery
  - dramatically improve performance for the patient group
  - create learning for the whole NHS
- most capable/best performing organisations selected to participate
- higher funding for participating organisations
- much local testing of improvement principles to create new knowledge about what works best
- intensive collaborative programme involving a predefined improvement methodology

(Source: NPAT)
Among the programmes led by NPAT, the booked admissions programme was relatively unusual in embracing more than one method. At the outset, in the first wave, the programme’s focus was on redesign work with high performing organisations who were seen to be most capable of making booking systems work, for example because they had short waiting times for treatment. By the third wave the programme had shifted away from innovation and towards replication in every acute trust. In the future, it is likely that the programme will need to embrace an element of performance improvement to assist some organisations to get the basics of booking right, particularly as the focus moves to health communities.

Underpinning NPAT’s programmes is an approach to service design that is informed both by experience and by evidence. Initially, the experience of NPAT derived mainly from the involvement of senior members of the team in a major ‘re-engineering’ project undertaken at the Leicester Royal Infirmary in the 1990s. This project illustrated both the potential and the limitations of a ‘top down’ approach to service improvement making use of methods first applied outside the health sector. It was partly as a consequence of this that the approach taken in the booked admission programme took a different tack by seeking to build commitment ‘bottom up’ and by developing an approach to change that was sensitive to the particular characteristics of health services.

NPAT refined its approach in the light of experience gained and by drawing on other research and evidence about service redesign. At one level, this meant using the results of evaluations of the re-engineering project at Leicester (Bowns and McNulty, 1999) and the early reports on the study reported here (see chapter 9) to inform the roll out of booked admissions and other programmes. At another level, it entailed making use of evidence from other settings both in the UK and further afield. Of particular importance in this context was the work of the IHI, referred to earlier, which influenced the development of the collaboratives specifically (for example, through NPAT hiring IHI consultants to guide the collaboratives), and the emerging strategy and philosophy of NPAT generally (for example, through the regular advice of the IHI President, Don Berwick, to NPAT).
The work of the IHI, as Locock (2001a) has pointed out, is firmly grounded in the tradition of total quality management and continuous quality improvement. As such, IHI approaches issues of service change from a different perspective than re-engineering, placing more emphasis on achieving incremental change led by the staff (especially clinicians) delivering services. The theoretical and practical underpinnings of the improvement methods used by IHI emphasise not only the contribution of total quality management and continuous quality improvement (Langley et al, 1996) but also systems theory (Berwick and Nolan, 1998). At the same time, there is a strong emphasis on making change practical through the use of Plan-Do-Study-Act cycles and measurement of change (Berwick, 1998). In this respect, there are many similarities with the philosophy developed by the NPAT team in the light of their experience of re-engineering at Leicester. A distinctive feature of IHI’s work is the attempt to achieve breakthroughs in performance by securing continuous incremental improvements led by clinical staff. This was drawn on in a number of the programmes that were implemented by NPAT following on from booked admissions.

Given the vulnerability of the health care sector to fads and fashions in management consulting and organisational change that often deliver less than they promise, it is worth emphasising at the outset what was distinctive about the work of NPAT in the booked admissions programme and subsequent initiatives. To begin with, NPAT itself was a source of advice, consultancy and support that was part of the NHS rather than external to it. More accurately, perhaps, NPAT occupied a position midway between NHS staff delivering services to patients and the external consultants who are often brought in to help on service improvement issues. This, together with the background of NPAT’s staff in the NHS, meant that the team’s work was different from previous initiatives of a similar ilk.

The other main difference, already alluded to, is that in occupying this ‘hybrid’ role, NPAT made a conscious attempt to ensure that its approach combined evidence as well as experience. The ‘reflective practitioners’ (Schon, 1983) who made up NPAT’s staff were in this sense going beyond previous change management programmes in health care in consciously seeking to make use of research in practice. The story of this evaluation is therefore in part the story of how far they succeeded in this
endeavour. Here we may note that the early work of NPAT in areas such as booked admissions, the cancer services collaborative, and outpatient services made a sufficiently strong impression on the government that the team’s staff and resources grew rapidly to enable NPAT to take on the additional responsibilities directed its way.

1.3 Previous experience of booking
In reviewing the development of booking systems, it is important to recognise that experience of booking is neither unique to the United Kingdom nor entirely new to the NHS. The New Zealand government has shown a particular interest in replacing waiting lists with booking systems for reasons that are similar to those invoked in the UK. Starting in 1995, booking has been progressively extended to New Zealand’s hospitals making use of priority scoring criteria alongside the certainty of a booked date for admission. Studies of the New Zealand experience have noted the delays in fully implementing booked admissions and the debates that have accompanied their development (Gauld and Derrett, 2000). Notwithstanding the difficulties encountered, those involved in leading the development of booking report that considerable progress has been made (Hefford and Holmes, 1999). One of the lessons from New Zealand is the importance of piloting the introduction of new systems in advance of widespread implementation:

‘Many of the problems which have beleaguered New Zealand’s booking system since its introduction in 1998 could have been averted if the multiple facets of the system had been explored in controlled experimental settings’. (Gauld and Derrett, 2000, p. 271)

In the UK, reports of booking systems in the NHS go back thirty years. An example from the 1980s is of two consultant general surgeons, who each ran a booking system and a waiting system for admitting similar groups of patients to explore the impact on patients not attending (Houghton and Brodribb, 1989, pp. 1139-40). In this study, it was found that 6% of patients with booked admissions and 15% of those called from the waiting list failed to attend for operation. As the authors commented:
The main reason for the differences in non-attendance seem to be that a booking system takes into consideration the commitments of the patients when arranging their admission, and operations for children can be scheduled for school holidays; similarly, patients can make arrangements for their families and at work in advance of their admission’ (p. 1140).

The study noted that booking was popular with patients and for the surgeon provided an efficient service. However, to work well it was argued that:

‘The diary of admissions must be strictly controlled by the consultant, who must match workload to theatre resources accurately while allowing for some emergency operations’ (p. 1140).

As the study concluded, booking became unworkable when lists were cancelled at short notice or recurrent bed crises prevented elective operations.

Another study (Southam and Talbot, 1980) ran a planned admission system, in that patients were sent a date within a week of the decision to admit, but were not given a choice of date. This study reported that booking was of benefit to patients, but ‘not a single patient has expressed any appreciation of the system’ (p.809). The benefit to the hospital was that staff knew in advance exactly the number of patients being admitted and the authors reported:

‘There is no extra cost in running the system, no extra secretarial help is needed, and it requires no more time than the more traditional methods used for admitting patients…it ensures the best use of available beds and theatre time with an increased throughput of patients. The waiting time for operations was not significantly reduced but it has at least been contained at a time when waiting lists throughout the country have grown considerably.’ (Southam and Talbot, 1980, p. 809)

A further study examined the views of surgeons in the south west of England on booked admissions. This found that while generally supportive of booking, most surgeons felt that it was incompatible with the then organisation of hospital practice. The main constraint was the absence of protected facilities for elective surgery and the risk that available beds and theatres would be used for urgent and emergency cases. The authors noted that waiting lists tended to result in the efficient use of resources and moving towards a booking system might reduce efficiency while increasing convenience for patients. They also speculated that ‘uncertainty may be
more important to patients than the length of time they wait’ (Frankel et al, 1991, p. 1257).

The findings of these and other studies were summarised in a review carried out by the NHS Executive (Bensley et al, 1997). This involved a literature review, a series of site visits to hospitals involved in booking patients for treatment, and simulation modelling. On the literature review, the study noted:

- booking systems often appeared to be introduced by individual surgeons within a specialty and there were few examples of more broadly based initiatives
- booking systems had been introduced only to be affected by increases in demand or a withdrawal of resources
- waiting lists of more than six months caused booking systems to break down
- the introduction of booking systems was often motivated by a desire to reduce the rate of cancelled admissions
- the literature suggested that more beds and theatres needed to be available if all elective admission in a hospital were to be booked

The following general conclusions were drawn from the study:

- elective admissions would have to wait less than six months and outpatient waiting times would have to reduce, to make booking viable
- sufficient capacity would be needed to ring fence elective admissions and allow emergency admissions to be dealt with separately to reduce the chance of cancellations to zero
- operating theatres would have to have extended running times with greater staff flexibility and increased staff cover to enable hospitals to cope with peaks of demand
- the introduction of a totally booked admission system would require a major organisational and cultural change programme.

It was for these reasons that the booked admissions programme was introduced on a pilot basis with the emphasis being placed on day case treatment. This was because booking systems were seen to be more likely to succeed in relation to day case treatment where resources were ring fenced in many hospitals. In addition, prior experience of booking was more common in relation to day cases than inpatients. A further consideration was that the number of patients waiting for day case surgery had
increased much more rapidly than the numbers for inpatient treatment. Waiting times for treatment also tended to be shorter for day cases than for inpatients and the pilots were selected on the basis that they had waiting times under six months or were approaching this figure. The decision to pilot booked admissions reflected the conclusions of the NHS Executive study that a move towards booking did not have to be ‘all or nothing’ and might best be introduced incrementally with lessons being learned and disseminated in the process.

The cautionary tone of the NHS Executive study was underlined by Yates (1997) who, in a review of many of the same studies, noted that there had been a number of previous attempts to develop NHS booking systems. As Yates pointed out, in themselves booking systems had not in the past increased capacity or reduced waiting times which appeared to be the main hindrances to the development of booking. It followed that it was unreasonable to expect booking in themselves to improve access and convenience without other changes in the use of NHS resources.

1.4 Profile of the pilots

In the first wave, three pilot sites were selected from each NHS region. The boundaries of the eight regions changed after the pilots started; whilst the majority of regions continued to have three pilots, the eastern region had one pilot and the south east and London regions each had four pilots. The location and names of the first wave pilots are shown in Figure 2.

The pilots reflected the diversity of the NHS and included trusts situated in both urban and rural areas. The majority of the sites were district general hospitals, but seven were large teaching hospitals and two were specialist hospitals (e.g. women and children). Three pilots included at least one community trust.

Several of the trusts had recently merged with a neighbouring trust, or this was anticipated. Two of the pilots included two trusts and two other pilots (Buckinghamshire and Dorset) incorporated several trusts in the health authority area.
Four of the single trust pilots had hospitals on different sites. A number of pilots were booking patients at outpatient clinics based in community hospitals.

The pilots aimed to provide booking which covered different stages of the patient journey (Box 3), including bookings from primary care and within acute and community trusts. Twenty-three of the 24 pilots planned to book day case patients, and 20 planned to book inpatients. Eight (33%) of the pilots aimed to include booking from general practice to endoscopy, nine (38%) included booking to outpatient clinics and ten (42%) included booking for day surgery.
Figure 2: The location of the first wave booked admissions pilots

<table>
<thead>
<tr>
<th>Name of pilot</th>
<th>Number</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Norfolk &amp; Waveney</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chelsea and Westminster Hospital</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>West/Central Middlesex Hospitals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Homerton Hospital</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Central Manchester</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Royal Liverpool Children</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Tameside and Glossop</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>South Durham Healthcare</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Pinderfields and Pontefract</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Hartlepool/North Tees</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Buckinghamshire Partnership</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Heatherwood and Wrexham Park</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Frimley Park</td>
<td>13</td>
<td></td>
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<tr>
<td>Queen Mary's Hospital, Sidcup</td>
<td>14</td>
<td></td>
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<tr>
<td>East Kent Hospitals</td>
<td>15</td>
<td></td>
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<tr>
<td>Dorset Health Authority and Trust</td>
<td>16</td>
<td></td>
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<tr>
<td>Royal Devon and Exeter Trust and North Devon Health Authority</td>
<td>17</td>
<td></td>
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<tr>
<td>Royal United Hospital Bath</td>
<td>18</td>
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<td>Leicester General Hospital</td>
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<td>Northern General Hospital</td>
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<td>Rotherham General Hospital</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Birmingham Heartlands</td>
<td>22</td>
<td></td>
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<tr>
<td>City Hospital, Birmingham</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Royal Shrewsbury/Princess Royal</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>
Box 3: Methods of booking

<table>
<thead>
<tr>
<th>GPs or practice staff book patients for:</th>
<th>Hospital consultants, nurses or booking clerks / co-ordinators book patients for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Outpatient appointments</td>
<td>• Diagnostic procedures</td>
</tr>
<tr>
<td>• Diagnostic procedures</td>
<td>• Day case surgery or procedures</td>
</tr>
<tr>
<td>• Day case surgery</td>
<td>• Inpatient admissions</td>
</tr>
</tbody>
</table>

It was common for trusts to have had some experience of booking prior to the establishment of the pilot, even if only one consultant was using a booking system in the past. Eighteen (75%) of the pilots had experience of giving booked dates for either day case or inpatient admission before the pilot commenced. Only six (25%) of the pilots already had some form of booking from general practice to trust services.

The range of previous experience, compared with the plans to book patients, as reported by the pilots in 1999, is shown in Figure 3 (‘no’ booking refers to no systematic booking system being present, although urgent patients may have been given ‘booked’ dates). At one end of the spectrum there were pilots which planned to book a limited number of day case procedures; at the other were sites which aimed to book all day case and inpatient admissions in the trust, or in all trusts in a health authority area. Whilst there was a great range in the scale of ambition, the pilots also started from different points in their previous level of booking as Box 4 shows.

Figure 3: Previous and planned booking (as reported by the pilots in 1999)
Box 4: Examples of scales of booking

- **Whole Health Authority – Dorset**
The pilot includes the 5 trusts in Dorset and all GPs. From the outset, the pilot aimed to ensure that by 31 March 2005 all day case and elective inpatients treated at Dorset NHS hospitals will receive a booked admission. In addition, any individual referred by a GP to a selected ‘appropriate’ outpatient clinic will receive a booked appointment.

- **Trust-based – Heatherwood & Wexham Park NHS Trust**
The pilot has 6 stages, which allow a gradual expansion of booking from all day cases (in the day surgery units), to a limited number of elective procedures and specialties, through to the complete booking of all elective patients on one of the 2 hospital sites. The aim is ultimately to book all day cases on both sites and all elective patients at Heatherwood.

- **Discrete number of specialties – Queen Mary’s Sidcup NHS Trust**
The pilot includes booking by 3 consultants: general surgery, paediatric and endoscopy day case patients are booked for 1 consultant. Gynaecology day and inpatients are booked for 1 consultant. Hysteroscopy patients (day case) only for another consultant.

The most common specialties included in the programme were gynaecology, general surgery, urology, orthopaedics and ophthalmology. The most common individual procedure was endoscopy, and this was also the most common procedure booked directly by GPs (see Figure 4). Figure 4 shows planned booking activity for each pilot across day cases, inpatients and outpatients.
Figure 4: Planned booking activity for the first wave pilots across day cases, inpatients or outpatients by specialty or procedure

<table>
<thead>
<tr>
<th>Pilot Name</th>
<th>Gynaecology</th>
<th>General Surgery</th>
<th>Orthopaedics</th>
<th>Endoscopy</th>
<th>Urology</th>
<th>Ophthalmology</th>
<th>ENT</th>
<th>Oral</th>
<th>Paediatrics</th>
<th>Dermatology</th>
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<td>East Norfolk &amp; Waveney</td>
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<td>Royal Liverpool Children</td>
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(Where a specialty is included in the project the majority of procedures, but not necessarily all procedures, will be booked. Likewise, the proportion of consultants in each specialty who are booking patients varies).
Figure 4 (continued): Planning activity for the first wave pilots across day cases, inpatients or outpatients by specialty or procedure

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<tr>
<th>Pilot Name</th>
<th>Obstetrics</th>
<th>Plastic</th>
<th>Lung Cancer</th>
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<th>Thoracic Surgery</th>
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*(Where a specialty is included in the project the majority of procedures, but not necessarily all procedures, will be booked. Likewise, the proportion of consultants in each specialty who are booking patients varies.)*
The number of consultants and GPs booking patients varied greatly between sites and generally reflected the range in the scale of booking. The majority of pilots planned to test the system with a small number of consultants booking patients with the aim of increasing this number and the specialties they were drawn from. Likewise, where GPs were offered the opportunity to book from general practice, the intention was to steadily extend booking to other GPs.

The Department of Health provided funding over 18 months, from October 1998 until March 2000, to support the first wave of the programme. The amount provided ranged from £165,000 to £756,000 per pilot with the average being £413,655 (see Figure 5). The resources were used for a variety of purposes including employing a project manager, additional administrative staff and pre-operative assessment nurses, clinical sessions, training and new information and communications technology software or hardware. The ongoing costs, beyond the pilot stage, are substantially less than the set-up costs (see chapter 7). Where there are ongoing costs, these need to be met by the trust within current resources, or funded through additional money from primary care groups or health authorities.

Figure 5: Department of Health funding of pilots
1.5 The evaluation

The Department of Health commissioned the Health Services Management Centre at the University of Birmingham to undertake an independent evaluation of the programme in February 1999. The evaluation was deliberately framed as a formative study, intended less to assess the merits of booking systems than to help improve their functioning in practice. As a consequence, the evaluation team provided regular feedback on the experience of the first wave pilots in an effort to ensure that the work undertaken could be used in ‘real time’. More information on how this was done is given in chapter 9.

The focus of the evaluation followed from the objectives set out in ministerial policy statements and guidance from the NHS Executive. In broad outline, the aim was to assess the success of the pilots in respect of their twin aims of improving access and convenience for patients on the one hand, and making better use of hospital resources on the other. The evaluation also sought to identify factors that influence the sustainability of booking. A mixture of research methods was used by the evaluation team to address these questions. Box 5 summarises the main purposes of the evaluation identified in the research brief prepared by the Department of Health and the questions to be answered by the evaluators.

Qualitative methods used in the evaluation included two telephone interviews with project managers and two visits to all 24 pilots to interview managers, clinicians and others involved in booking. In parallel, four of the pilots were selected for in depth analysis (see Box 6). These four pilots served as case studies in the evaluation to enable particular themes to be investigated in greater detail than was possible from the monitoring of progress in the programme as a whole. Methods used in the case studies included documentary analysis, observation of meetings, and interviews. The analysis of the case studies is presented in chapter 4.
Box 5: The research brief and questions

The main purposes of the research were:

- to evaluate the outcomes, benefits, costs (including unintended consequences) and change management processes of the first wave of the National Booked Admissions programme; and
- to identify factors leading to long term success or failure of booking systems and develop a strategy for disseminating these findings throughout the NHS.

The following questions were to be answered:

- What are the main features of the various booking systems and how do the initial circumstances in which a system is established influence its implementation?
- What are the obstacles to implementation of booking systems and what strategies for overcoming these are effective?
- How do the pilot projects vary in terms of speed of introduction and rate of expansion? What are the underlying reasons for good progress or lack of progress?
- What are the main benefits and drawbacks of booking systems that are perceived by key stakeholders?
- How do different booking systems compare in terms of costs?
- What are the key features of successful and sustainable booked admissions systems? Which of these are generalisable and which are context dependent?
- What local approaches to change management were most successful? What were the drivers, inhibitors and sustainers of successful change?
- What contribution has the Programme Management Strategy made to delivering the programme’s aims and objectives?

This report draws from interviews with key individuals, documentary analysis and observation of meetings, including further interviews with all the project managers during November 2000 to January 2001. Over the two years a total of 257 interviews were completed, with 152 managers, 44 hospital consultants, 21 nurses, 16 administrative and clerical staff, 12 GPs and two CHC or patient representatives. In addition, five NPAT staff, three regional office booked admissions leads and two civil servants were interviewed. The interviews were usually conducted by one member of the evaluation team (Chris Ham, Ruth Kipping and Phil Meredith). The interviews were conducted either face to face or by telephone. Interviews lasted from 20 minutes to one hour, during which notes were taken and summaries written afterwards which were circulated to the other members of the research team. Findings were identified by categorising emergent themes generated from interview data.
Box 6:  Description of four case studies

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<tr>
<th>Pilot Name</th>
<th>Description of Pilot</th>
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<tr>
<td>Dorset Whole Systems</td>
<td>A whole system approach to booking all patients in the Health Authority area</td>
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<td>Homerton Hospital NHS Trust</td>
<td>A district general hospital with favourable characteristics and context for establishing and sustaining a booking system</td>
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<tr>
<td>Royal United Hospital Bath NHS Trust</td>
<td>A district general hospital with a challenging environment for establishing a booking system</td>
</tr>
<tr>
<td>Pinderfields and Pontefract Hospitals NHS Trust</td>
<td>A pilot with electronic booking from general practice</td>
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Quantitative methods involved the collection and analysis of data on the performance of the first wave pilots. These data enabled the progress of the pilots to be assessed in relation to their baseline position in the first quarter of 1999 using some of the outcome measures determined by NPAT (see Box 7). In line with the stated objectives of the programme, the main outcomes used were the proportion of patients waiting with a date, waiting times and numbers, the proportion of patients not attending, and cancellations. The source of these data was the pilots themselves who supplied information requested by the evaluation team for the first quarters of 1999, 2000 and 2001. Data quality was promoted via the use of a standardised questionnaire, which adopted the definitions and reporting periods of the national statistical returns. Data that appeared anomalous were checked with the pilots who were also invited to comment on our analysis of their performance. Beyond this, the evaluation team had no opportunity to assess data validity.

Box 7:  NPAT outcome measures

1. Ensure that all patients in services covered by the scope of the pilot receive a booked admission
2. Increase patient satisfaction
3. Reduce the number of patients waiting
4. Reduce the time patients wait
5. Reduce DNAs
6. Reduce patient initiated cancellations
7. Reduce hospital initiated cancellations
8. Improve communications with patients and GPs
9. Be integrated with other systems
10. Use resources in an innovative way
Performance on these measures was reviewed both at the end of the pilot phase (the first quarter of 2000) to establish how far the original objectives had been achieved, and again in the first quarter of 2001 to enable the sustainability of booking to be assessed. Context for the findings is provided by comparison with non-pilot activity using five measures for the most common specialties within the booked admissions programme. The source of the non-pilot data was the national statistical returns collected by the Department of Health.

These qualitative and quantitative methods were supplemented by:

- a study of patient experiences of booked admissions involving a survey of over 1000 patients in 15 of the 24 pilots (see chapter 6)
- surveys of the views of consultants and GPs in the four sites selected as case studies (see chapter 5)
- a survey of the views of project managers to explore the reasons behind the trends in outcome measures identified in the quantitative analysis (see chapters 2 and 3)

A particular feature of this evaluation is therefore the use of a range of methods and the opportunity this has created to draw on evidence from different sources to describe and explain the experience of the first wave pilots. This is reflected in the rest of this report which links the analysis of the quantitative data to the results of the survey of project managers to provide an account of what happened during the period under review. Similarly, the surveys of consultants and GPs we have conducted add depth and detail to the assessments offered in our first two reports, based on interviews with staff, of the views of doctors on booking.

In gathering and analysing data, the research team drew on a range of literature. This included previous studies of booking and research into organisational and service innovation and quality improvements in health care (see below). In practice, this meant using the existing literature to help frame the data gathering, and then returning to the literature in the course of writing up the results and making sense of the evidence from the evaluation.
1.6 Previous reports

Before going on to present our final results, it is worth summarising the main findings and conclusions of our earlier reports. The first interim report of the evaluation, published in October 1999 (Meredith, Ham and Kipping, 1999), concentrated on describing the structure of the booked admissions pilots and the processes underpinning booking. Particular attention was paid to the management arrangements that had been put in place and the implications for key groups of staff such as consultants, nurses and administrative and clerical staff. In view of the limited experience in most sites at the time the fieldwork was conducted, the report identified a number of emerging lessons from this experience, emphasising in particular the challenges involved in moving from a culture of waiting to a culture of booking.

As the report noted:

‘If booking is to become the accepted way of providing care in the NHS, in line with the aspirations expressed by the Prime Minister, then major changes will be required in how consultants, nurses, managers and others treat patients. In a service like the NHS, in which professionals enjoy considerable freedom in organising their work, these changes will have to be introduced with the full involvement of doctors and nurses and in a manner sensitive to the needs of patients. This will require skillful leadership as well as the provision of resources to ease the process of modernising hospital services. The experience of first wave pilots demonstrates that change is already happening as enthusiastic NHS staff seize the opportunities that have been created to tackle long standing problems in service delivery. The challenge now is to build on this experience, extend it more widely, and sustain the commitment to improve access and convenience in the face of competing pressures. This includes maintaining waiting times in the specialties undertaking booking at six months or below both through the commitment of health authorities and PCGs to fund elective activity adequately and by the more imaginative use of hospital resources in order to protect resources for this purpose.’

(Meredith, Ham and Kipping, 1999)

The second interim report, published in November 2000, provided an initial analysis of the outcomes measures, alongside the main findings from the qualitative research undertaken by the evaluation team, and offered the following assessment:

‘In summary, the programme has shown that booking systems can be implemented in the NHS. Real progress has been made in booking day cases and a start has been made in booking inpatients. Booking from general practice is least
developed, although its potential has been demonstrated. Compared with specialties and trusts not involved in the programme, the pilots have shown that it is possible to increase access and convenience for patients and make better use of NHS resources. The challenge now is to extend these benefits and to tackle the difficulties that have been encountered in relation to inpatients and booking from general practice. The proposals in the NHS Plan to invest in beds, staff and equipment should enable the provision of the infrastructure required to implement booking across the NHS. This will allow effort to be concentrated on the outstanding cultural challenges involved in delivering the targets set out in the Plan.’

(Kipping et al, 2001, p.3)

The unanswered questions at the time the second report was published was whether these cultural challenges could be overcome and whether the progress made between 1999 and 2000 could be sustained. It is these questions that we have focused on in this final report with a view to both summarising overall progress in the first wave pilots and drawing out the lessons for the NHS as whole, now that booked admissions have moved into the mainstream of health policy. In so doing, we have given more attention than in previous reports to variations in performance between the pilots and have sought to explain these variations in relation to the context in which booking developed and the mechanisms used.

The evaluation framework for this study is therefore in the ‘realistic evaluation’ tradition advocated by Pawson and Tilley (1997) and applied to innovations in health policy by, among others, Mays et al (2001), and Judge (2000). There is an overlap between this tradition and research on organisational and service innovation (Pettigrew et al, 1992), not least in the focus on receptive contexts of change in accounting for the impact of innovation. In turn, there is a link between the organisational analysis literature and research on the management of change (Iles and Sutherland, 2001). We have drawn on these various strands of work, together with research into quality improvements in health care (Shortell et al, 1995), both in organising data gathering and in trying to make sense of what the evidence we have gathered is telling us about the evolution of booked admissions.

In doing so, we have sought to take seriously the argument put forward by Pettigrew and colleagues (1992) that research into change in health care organisations should be processual, comparative, pluralistic and historical. Adopting a processual focus
means looking at actions and behaviours and not just the organisational structures involved. The comparative perspective entails assessing experience across a range of organisations. Drawing on the views of different actors like doctors, managers and patients enables the pluralistic criterion to be met. And the historical focus requires that attention is given to previous experience in booking and related areas. In chapter 8, we return to this literature to analyse the outcomes of the programme in more detail.

1.7 Summary

From small beginnings, the booked admissions programme has become a central part of the government’s policy of improving access and convenience within the NHS. As the first of the national initiatives led by NPAT, the programme led the way in what became a sustained and systematic attempt to redesign services from the patient’s point of view. The first wave pilots that are the focus of this study were therefore trailblazers not only for the subsequent roll out of booked admissions but also for the development of the work of NPAT and eventually the NHS Modernisation Agency as a whole. Indeed, it is only a slight exaggeration to suggest that the vision behind The NHS Plan of a service designed around the patient, and the focus in the Plan on reform as well as investment as the means of implementing the vision, owed not a little to the work of NPAT in its first two years, including the development of booked admissions.

The study reported here is therefore of relevance both to those involved in the development of booked admissions and to readers interested in the attempt to achieve reform in a large and complex organisation like the NHS through the application of redesign methods. NPAT’s emergent strategy, forged in the furnace of NHS service improvement, came to encompass a mix of approaches, with the booked admissions programme being at the forefront if only because it was the first of the national programmes for which NPAT was responsible. Yet if the progress NPAT was able to demonstrate was sufficient to persuade the government to invest heavily in redesign in support of NHS reform, it remained an open question as to whether its early successes could be sustained and extended.
To address this question in the case of booked admissions, we have monitored the evolution of the first wave pilots over a period of two and a half years. In so doing, we have used a range of qualitative and quantitative methods. This has included examining the views of patients, GPs and consultants, and comparing the outcomes achieved in relation to the proportion of patients waiting with a date, numbers waiting and admitted, patients not attending, and cancellations. We have also undertaken a number of case studies in order to explore in greater depth than was possible by tracking developments in the programme as a whole the dynamics of booking within the pilots. This final report summarises our findings and draws out the lessons of the evaluation for policy and practice.
2. Booking Day Cases

This chapter reviews the experience of booking day cases, beginning with a summary of experience in all 20 of the first wave pilots for which data are available. This is followed by an assessment of variations between the pilots, a comparison between the pilots and non-pilots, and an analysis of variations between specialties in both the pilots and non-pilots. More detailed information on each pilot’s performance is included in appendix 2.

Key Findings

- The proportion of patients waiting with a booked or to come in (TCI) date in the pilots increased between 1999 and 2001, although not all of the increase experienced in the first year was sustained. Similarly, did not attends (DNAs) fell over the two years, but the early progress was not sustained. Hospital initiated cancellations returned to the initial rate having increased in 2000. Patient initiated cancellations fell along with the number of patients waiting and to a lesser extent the number of patients admitted. The proportion of patients waiting six months or over increased.

- There were wide variations between the pilots as measured by the proportion of patients waiting with a date, DNAs, hospital initiated cancellations and patient initiated cancellations in the first quarter of 2001. Three pilots stand out as having achieved a high level of booking across a large proportion of total day case work.

- The pilots continued to perform better than the non-pilots in relation to the proportion of patients waiting with a date. On the other available measures, DNA rates in the pilots fell but still remained marginally higher than in the non-pilots, the proportion of patients waiting six months or over remained smaller in the pilots, although the difference with the non-pilots narrowed, the pilots made faster progress than the non-pilots in reducing the number of patients waiting for admission, and there was little difference between the pilots and the non-pilots in relation to changes in the number of patients admitted.

- Comparison between specialties shows that in the pilots oral surgery had the highest proportion of patients waiting with a date by the end of March 2001 followed by gynaecology. General surgery, ophthalmology and urology had the lowest proportion of patients waiting with a date. Oral surgery had the highest DNA rate and ophthalmology the lowest DNA rate in both 1999 and 2001. At the end of March 2001 the highest proportion of patients waiting six months or over was in ophthalmology and the lowest proportion was in gynaecology in both the pilots and the non-pilots.

- The scope of the pilots ranged from 1% to 94% of all day cases. Pilots that included the majority of day cases within their scope found it more difficult to increase booking activity beyond the level achieved in the first quarter of 2000 than pilots with more limited scope.
2.1 Data and method

NPAT used a number of measures to monitor progress during the first wave. We focused our interim analysis (Kipping et al, 2000) on these measures using data supplied by the pilots. In so doing, we analysed trends in admissions as well as in the measures specified by NPAT. We used the first quarter of 1999 as the ‘baseline’ period and the first quarter of 2000 as the ‘outcome’ period for our comparative analysis.

In order to quantify the impact of booking, we measured the change in the proportion of patients waiting with a booked or ‘to come in’ (TCI) date between the end of March 1999 and the end of March 2000. In addition, we assessed changes in DNAs, hospital and patient initiated cancellations, the proportion of patients waiting six months or over, the number of patients waiting for treatment, and the number of admissions. This chapter analyses data supplied by the pilots for the first quarter of 2001 in order to assess progress made in the first wave in each of the three years for which we have data. The data include all activity for those consultants who were active in the programme during the quarter ending March 2000.

The method used to analyse the data is unchanged from the interim report. Box 8 contains an explanatory note about the analysis and further details about the methodology are provided in appendix 1. Statistical significance at the 5% level is indicated in the tables or in the text where data are presented in figures.

In interpreting the data on the proportion of booked patients, it should be noted that we have used the proportion of patients waiting with a date as a proxy measure for ‘booking’. Patients waiting with a date include those who have been given a ‘to come in’ (TCI) date by the hospital as well as patients who have been booked. This helps to explain why the non-pilots reported around one quarter of patients were waiting with a date.

---

1 In addition to the new data for the first quarter of 2001, some pilots have supplied more detailed cancellation data for the first quarter of 2000. Also, two pilots have replaced or withdrawn some data previously supplied and used in our interim report. Furthermore, a number of trusts have reclassified some day case procedures for several specialties as outpatient activity. For this reason, some day case activity has been excluded from the current analysis. These changes to the data have not altered the overall findings of our interim report, but in order to avoid confusion the presentation of findings that follows is based on the current dataset only.
A further complication is that the non-pilots included patients who were booked outside the first wave, and there is no means of assessing for the non-pilots the proportion of patients waiting with a date who were booked and the proportion who had received a TCI date. With the resources available to the staff in the pilots involved in data collection, it was not possible to distinguish more precisely between patients waiting with a date. The extent of booking under the booked admissions programme needs to be assessed with this caveat in mind.

**Box 8: Quantitative analysis: explanatory note**

- The activity for the pilots includes all the activity for those consultants who were active in the programme during the quarter ending March 2000. The launch of booking across the pilots and specialties was staggered and some pilots had not achieved the full impact of booking by March 2000 (the formal end of the first wave). The comparisons reported here focus on activity during three periods: the quarters ending March 1999, March 2000 and March 2001. The analysis amounts to comparisons of three ‘snap shot’ pictures of the booked admissions programme in these three periods. Appendix 1 contains more detailed information on each pilot and exclusions from the analysis because of missing data.

- For comparative purposes, we have used data from consultants and specialties not involved in the first wave in sections 2.5 and 2.6 to enable the performance of the pilots to be put in context. Data from these ‘non-pilots’ is drawn from all consultants in England who were not included in the first wave and comprises two groups: consultants from the NHS trusts participating in the pilots in specialties outside the first wave, and consultants in NHS trusts that had no involvement in the first wave. Consultants in the non-pilots may have been involved in some booking and therefore the comparison reported here is between consultants involved in the first wave and those outside, rather than between booking and non-booking. The comparisons between pilots and non-pilots are limited to the most common specialties included in the pilots.

- Dates were collected from the pilots using a questionnaire (see appendix 1). Data reported in the KH07 and KH06 central returns were used for the non-pilots. The adoption of the definitions used in the relevant central returns in our data collection questionnaire was intended to promote data that would be comparable between pilots, and with the data for non-pilot trusts available from central returns.

### 2.2 Booking methods

In a traditional waiting list management system, three visits to the hospital are usually involved and patients may experience anxiety and uncertainty because it is not known when each stage will occur (see example one in Figure 6). These systems can lead to inefficient use of hospital resources if the patient does not attend for treatment.
Booking systems are designed to give patients certainty and choice in agreeing a date when the decision is made that treatment is needed (see example two in Figure 6).

**Figure 6: Examples of access for day case treatment**

**Example 1: Traditional non-booking referral system**

<table>
<thead>
<tr>
<th>GP refers patient to hospital consultant</th>
<th>Consultant sees patient in hospital outpatient clinic</th>
<th>Consultant decides treatment/surgery is needed</th>
<th>Secretary puts patient on the waiting list</th>
<th>Patient sent a letter with date for surgery</th>
<th>Patient attends pre-op assessment</th>
<th>Patient admitted to hospital</th>
</tr>
</thead>
</table>

**Example 2: Typical hospital booking system**

<table>
<thead>
<tr>
<th>GP refers patient to hospital consultant</th>
<th>Consultant sees patient in hospital outpatient clinic</th>
<th>Consultant decides treatment/surgery is needed</th>
<th>Patient agrees admission date</th>
<th>Patient pre-op assessed at the clinic</th>
<th>Patient admitted to hospital</th>
</tr>
</thead>
</table>

The pilots created various methods for giving day case patients booked dates, with the responsibility for agreeing dates being held by clinicians, nurses or administrative staff. For example, in the main hospital:

- the doctor agrees a booked date with the patient in clinic using a manual diary, or
- the doctor agrees a booked date with the patient in clinic using an electronic scheduler on the desktop computer, or
- the doctor gives the patient a card indicating the category of urgent, soon or routine. The patient takes the card to a designated member of staff in the outpatient clinic, day surgery unit or centralised booking office. The member of staff (booking clerk or nurse) uses a manual diary or electronic scheduler to give the patient a date.

In peripheral clinics:

- the doctor agrees a booked date with the patient in clinic using a manual diary, or
• the doctor agrees a booked date with the patient in the clinic using the electronic scheduler on the desktop computer or laptop, through an ISDN line or internet connection to the main hospital PAS and scheduling system, or

• the doctor agrees a booked date in clinic using a ‘palm top’ electronic diary, or

• the doctor posts or faxes a card indicating the category of urgent, soon or routine to the day surgery unit. The patient is given the telephone number of the day surgery unit or central booking office to arrange the admission date.

The diversity of booking methodologies used by the pilots suggests that there is not a gold standard for how to book day cases. In the words of one project manager, ‘you must be flexible with the way you book – there is no single system which should be imposed’. While in some cases booking takes place at specialty level, the majority of pilots have a ‘central’ booking office, which is often situated in the day surgery unit, with booking clerks or co-ordinators agreeing dates with patients. Where hospitals have a centralised booking office for both day cases and inpatients, the doctors may agree dates in clinic and the patient goes to the booking office to formally book the date and receive a letter of confirmation.

The rest of this chapter presents the findings of our analysis:

• section 2.3 analyses data for the first quarters of 1999, 2000 and 2001 for those consultants who were active in the programme during the quarter ending March 2000

• section 2.4 describes variations between pilots in the first quarters of 1999, 2000 and 2001

• section 2.5 compares performance in the pilots with non-pilots in the first quarters of 1999, 2000 and 2001 in the seven most common specialties

• section 2.6 analyses the data at specialty level for both pilots and non-pilots in the first quarters of 1999, 2000 and 2001

• section 2.7 examines the performance of the pilots in booking patients in relation to their scope i.e. the proportion of all day case admissions included in the first wave

• section 2.8 reviews the progress made at trust level by pilots and non-pilots towards The NHS Plan targets
2.3 Booking day cases

Table 1 summarises the analysis for the 20 pilots for which comparable data are available (see appendix 1 for information on the pilots, sites, specialties/procedures). The data include all day case activity for those consultants booking patients within the first wave booked admissions programme during the quarter ending March 2000. Table 1 shows that:

- **the proportion of patients waiting with a booked or TCI date** increased from 51.1% (of 31,117 patients) to 72.7% (of 29,063 patients) between the end of March 1999 and the end of March 2000 and then fell to 66.2% (of 26,088 patients) by the end of March 2001

- **the proportion of patients failing to attend (DNAs)** fell from 5.7% to 3.1% between the first quarter of 1999 and the first quarter of 2000 and then increased to 4% in the first quarter of 2001

- **the proportion of hospital initiated cancellations** increased from 9% to 12.2% between the first quarter of 1999 and the first quarter of 2000 and then returned to 9% in the first quarter of 2001

- **the proportion of patient initiated cancellations** fell from 13.3% to 13.2% between the first quarter of 1999 and the first quarter of 2000 and fell again to 9.3% in the first quarter of 2001. Some of the pilots were able to provide information on the causes of cancellations and these are discussed below.

- **the proportion of patients waiting six months or over** fell from 10.9% to 10.5% between the end of March 1999 and the end of March 2000 and then increased to 11.9% by the end of March 2001
Table 1:  Day case activity for consultants active in the first wave NBAP pilots\(^1\), 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>Change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^2)</td>
<td>51.1</td>
<td>72.7</td>
</tr>
<tr>
<td>% of DNAs(^3)</td>
<td>5.7</td>
<td>3.1</td>
</tr>
<tr>
<td>% of hospital cancellations(^4)</td>
<td>9.0</td>
<td>12.2</td>
</tr>
<tr>
<td>% of patient cancellations(^4)</td>
<td>13.3</td>
<td>13.2</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^5)</td>
<td>10.9</td>
<td>10.5</td>
</tr>
<tr>
<td>Number of patients waiting(^2,5,6)</td>
<td>31117</td>
<td>29063</td>
</tr>
<tr>
<td>Number of admissions(^5,7)</td>
<td>37754</td>
<td>40421</td>
</tr>
</tbody>
</table>

\(^* p<0.05\) see appendix 1 for information about the statistical significance tests applied.

\(^1\) The pilots varied greatly in size and scope: the four largest pilots accounted for 52% of day case admissions during the quarter ending March 2001 (see table 2). Data supplied by pilots (see appendix 1). Details of specialties/procedures included in the analysis for each pilot are shown in Figure 47 in appendix 1. Comparable activity data were not available for three of the 23 pilots which booked day cases. 2 At end of quarter. 3 Data for 17 pilots. 4 Data for 14 pilots. 5 Percentage change between periods. 6 No statistical significance test has been applied to this measure here. 7 Data for 19 pilots.

- **the number of patients waiting for admission** fell by 6.6% between the end of March 1999 and the end of March 2000 (from 31,117 to 29,063) and this was followed by a further reduction of 10.2% between the end of March 2000 and the end of March 2001 (to 26,088)

- **the number of patients admitted** increased by 7.1% between the first quarter of 1999 and the first quarter of 2000 (from 37,754 to 40,421) and this was followed by a reduction of 9.5% between the first quarter of 2000 and the first quarter of 2001 (to 36,591).

These aggregate figures mask variations between pilots in what was achieved. We now go on to describe these variations.

2.4 Variations between pilots

Table 2 and Figures 7, 8 and 10 illustrate changes between each of the three quarters in relation to four of the outcome measures summarised in Table 1. The table and figures show for each of the pilots for which data are available, the percentage of patients waiting with a date, the DNA rate, and the hospital and patient initiated
cancellation rates. The table and figures also display the range of performance between the pilots in each period.

Table 2 shows the proportion of all day case admissions under consultants participating in each first wave pilot. This measure of the scope of the pilots is used to rank the pilots in Figures 7, 8 and 10 on an ascending scale from left to right. The scope of the pilots is addressed in section 2.7. Summary tables for each pilot’s day case activity covering all the outcome measures are presented in appendix 2.

This section includes a summary of the responses to a survey which requested commentary on each pilot’s experience from the project managers, or their successors, using a postal questionnaire (see appendix 1). For each outcome measure, the managers were asked to comment on the key factors influencing their pilot’s experience in the first quarter of 2001, and the change in the value of the measure between the first quarters of 2000 and 2001. Eighteen managers from 15 pilots completed the questionnaire, two pilots provided some information by telephone, and four pilots did not provide feedback.

**Day case patients waiting with a date**

Table 2 shows that at pilot level the proportion of patients waiting with a date varied from 40% to 100% by the end of March 2001. Analysis of the data illustrates that:

- seventeen of the 20 pilots experienced a statistically significant increase in the proportion of patients waiting with a date between the end of March 1999 and the end of March 2000, while two pilots experienced a statistically significant reduction.

- six of the pilots experienced a statistically significant increase in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001, while seven pilots experienced a statistically significant reduction.

Table 2 also shows that the four largest pilots, in terms of the number of patients admitted during the quarter ending March 2001, experienced a statistically significant
reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001. These four pilots accounted for 52% of the admissions during the quarter ending March 2001.

Table 2: Variations in day case pilot size and the percentage of patients with a date at pilot level, 1999, 2000 and 2001 (n=20)

<table>
<thead>
<tr>
<th>Pilot</th>
<th>Number admitted during quarter ending March 2001</th>
<th>Number waiting at end of March 2001</th>
<th>Pilot scope: % of all admissions in pilot</th>
<th>% waiting with a date at end of March 1999</th>
<th>2000</th>
<th>2001</th>
<th>Change in % between 1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 East Kent</td>
<td>6441</td>
<td>6642</td>
<td></td>
<td></td>
<td>37.5</td>
<td>48.6</td>
<td>39.7</td>
<td>-11.0*</td>
<td>-8.8 *</td>
</tr>
<tr>
<td>16 Dorset</td>
<td>5196</td>
<td>2841</td>
<td></td>
<td></td>
<td>76.1</td>
<td>87.4</td>
<td>84.6</td>
<td>-11.2*</td>
<td>-2.8 *</td>
</tr>
<tr>
<td>22 Birmingham Heartlands</td>
<td>4189</td>
<td>3160</td>
<td></td>
<td></td>
<td>45.7</td>
<td>78.1</td>
<td>64.0</td>
<td>-32.4*</td>
<td>-14.0 *</td>
</tr>
<tr>
<td>14 Frimley Park</td>
<td>3476</td>
<td>2313</td>
<td></td>
<td></td>
<td>28.3</td>
<td>90.2</td>
<td>65.6</td>
<td>-61.9*</td>
<td>-24.6 *</td>
</tr>
<tr>
<td>10 Hartlepool</td>
<td>2527</td>
<td>1524</td>
<td></td>
<td></td>
<td>53.3</td>
<td>63.0</td>
<td>67.1</td>
<td>9.7 *</td>
<td>4.1 *</td>
</tr>
<tr>
<td>12 Heatherwood &amp; Wexham Pk</td>
<td>2199</td>
<td>1064</td>
<td></td>
<td></td>
<td>72.0</td>
<td>100.0</td>
<td>96.3</td>
<td>28.0 *</td>
<td>-3.7 *</td>
</tr>
<tr>
<td>21 Rotherham General</td>
<td>1929</td>
<td>1002</td>
<td></td>
<td></td>
<td>41.1</td>
<td>63.4</td>
<td>63.6</td>
<td>22.3 *</td>
<td>0.2 *</td>
</tr>
<tr>
<td>19 Leicester General</td>
<td>1878</td>
<td>428</td>
<td></td>
<td></td>
<td>82.9</td>
<td>91.6</td>
<td>97.0</td>
<td>8.6 *</td>
<td>5.4 *</td>
</tr>
<tr>
<td>3 West/Central Middlesex</td>
<td>1820</td>
<td>1243</td>
<td></td>
<td></td>
<td>47.3</td>
<td>89.9</td>
<td>76.3</td>
<td>42.6 *</td>
<td>-13.6 *</td>
</tr>
<tr>
<td>7 Tameside &amp; Glossop</td>
<td>1226</td>
<td>630</td>
<td></td>
<td></td>
<td>29.1</td>
<td>62.8</td>
<td>60.8</td>
<td>33.7 *</td>
<td>-2.1 *</td>
</tr>
<tr>
<td>17 Royal Devon &amp; Exeter</td>
<td>1142</td>
<td>1110</td>
<td></td>
<td></td>
<td>75.1</td>
<td>91.0</td>
<td>84.2</td>
<td>15.9 *</td>
<td>-6.8 *</td>
</tr>
<tr>
<td>4 Homerton</td>
<td>1095</td>
<td>476</td>
<td></td>
<td></td>
<td>94.3</td>
<td>96.2</td>
<td>99.6</td>
<td>1.9</td>
<td>3.4 *</td>
</tr>
<tr>
<td>24 Princess Royal</td>
<td>871</td>
<td>893</td>
<td></td>
<td></td>
<td>33.1</td>
<td>55.8</td>
<td>52.2</td>
<td>22.7 *</td>
<td>-3.6 *</td>
</tr>
<tr>
<td>2 Chelsea &amp; Westminster</td>
<td>746</td>
<td>672</td>
<td></td>
<td></td>
<td>52.8</td>
<td>72.8</td>
<td>87.6</td>
<td>20.1 *</td>
<td>14.8 *</td>
</tr>
<tr>
<td>18 Royal United Hospital</td>
<td>621</td>
<td>666</td>
<td></td>
<td></td>
<td>41.6</td>
<td>96.0</td>
<td>96.8</td>
<td>54.5 *</td>
<td>0.8</td>
</tr>
<tr>
<td>20 Northern General</td>
<td>566</td>
<td>550</td>
<td></td>
<td></td>
<td>39.5</td>
<td>70.0</td>
<td>85.5</td>
<td>30.5 *</td>
<td>15.5 *</td>
</tr>
<tr>
<td>8 South Durham</td>
<td>505</td>
<td>250</td>
<td></td>
<td></td>
<td>77.6</td>
<td>60.3</td>
<td>75.6</td>
<td>-17.3 *</td>
<td>15.3 *</td>
</tr>
<tr>
<td>5 Central Manchester</td>
<td>476</td>
<td>104</td>
<td></td>
<td></td>
<td>87.3</td>
<td>79.4</td>
<td>72.1</td>
<td>-7.8 *</td>
<td>-7.3 *</td>
</tr>
<tr>
<td>6 Royal Liverpool</td>
<td>408</td>
<td>382</td>
<td></td>
<td></td>
<td>23.6</td>
<td>73.2</td>
<td>80.6</td>
<td>49.6 *</td>
<td>7.5</td>
</tr>
<tr>
<td>14 Queen Mary's</td>
<td>26</td>
<td>138</td>
<td></td>
<td></td>
<td>81.3</td>
<td>90.9</td>
<td>84.1</td>
<td>9.6 *</td>
<td>-6.9 *</td>
</tr>
</tbody>
</table>

*p<0.05  Pilot 19 is a small pilot and the majority of admissions were to gastroenterology. The pilot noted that the increase in the percentage of patients waiting with a date did not necessarily reflect an increase in booking activity because many of these cases had been allocated a TCI date on receipt of a GP referral for endoscopy (ie patients not referred to outpatients). Hence, for this pilot the large proportion of patients waiting with a date does not indicate a high level of booking activity.

Responses to the survey of project managers indicated that the main factors facilitating booking were booking processes becoming more familiar, embedded and routine, the appointment of additional staff to support booking, and the role of pre-operative assessment clinics. Also helpful had been the phasing in of booking, starting with enthusiastic consultants and rolling out to others.
A wide range of issues were reported to have hindered booking. These included administrative staffing issues (including resignations, sickness, training and performance) and problems with recruiting senior clinicians and nursing staff. Lack of waiting list initiative funds and increasing waiting times and referrals had also hindered booking. In the absence of ring fenced day case facilities, bed availability had constrained booking in some pilots. Consultants’ reluctance to change their practices and give up the freedom to determine relative priority available under traditional waiting list arrangements was also reported, along with the difficulty of booking particular patient groups such as gynaecological oncology patients.

*Day case DNAs*

Figure 7 shows that at pilot level the proportion of DNAs varied from 0% to 8.6% in the first quarter of 2001. Analysis of the data illustrates that:

- nine of the 17 pilots experienced a statistically significant reduction in DNAs between the first quarter of 1999 and the first quarter of 2000, while only one pilot experienced a statistically significant increase

- five of the pilots experienced a statistically significant reduction in DNAs between the first quarter of 2000 and the first quarter of 2001, while five pilots experienced a statistically significant increase
Responses to the survey of project managers indicated a range of views on the impact of booking on DNAs. Some managers reported that the reductions experienced were ‘in line with the increase in booking’. Others suggested that booking had created the perception by patients that services were more accessible, leading to an increase in DNAs as some patients chose not to attend on the agreed date in the belief that an alternative could be easily arranged. As one manager reported, ‘Having easily negotiated a date to come in for a procedure they may feel it will be easy to fail to attend and renegotiate a future date’. Increasing waiting times were viewed as having contributed to increases in DNAs in some pilots. One manager suggested that ‘booking appears to have made very little difference to the level of DNAs’, and another could not say whether DNA performance was related to booking.

**Day case hospital initiated cancellations**

Figure 8 shows that at pilot level the proportion of day case hospital initiated cancellations varied from 1.6% to 19.2% during the first quarter of 2001. Analysis of the data illustrates that:
- Four of the 14 pilots experienced a statistically significant reduction in hospital initiated cancellations between the first quarter of 1999 and the first quarter of 2000, while six pilots experienced a statistically significant increase.

- Six pilots experienced a statistically significant reduction in hospital initiated cancellations between the first quarter of 2000 and the first quarter of 2001, while three pilots experienced a statistically significant increase.

**Figure 8: Variations in the percentage of day case hospital initiated cancellations at pilot level, 1999, 2000 and 2001 (n=14)**

Seven pilots were able to provide data on the reasons for hospital initiated cancellations during the first quarters of 2000 and 2001. These more detailed data on hospital cancellations corresponded to nearly 22% of all admissions during the first quarter of 2001, for consultants participating in the first wave pilots. Table 3 shows that hospital initiated cancellations increased from 11.5% to 12.9% for these seven pilots in contrast to a reduction for the 14 pilots shown in Table 1. Fifty three percent of the hospital cancellations during the first quarter of 2001 were due to patient admission dates being brought forward by the hospital.

Notes: each pilot is identified by the number shown on page 291. * indicates that the change in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05).
Figure 9 shows that of the hospital initiated cancellations during the first quarter of 2001 that were not due to patient admissions dates being brought forward, 75% were caused by ‘other’ factors such as lack of ward staff, rather than lack of beds, theatre related issues or the patient’s pre-existing medical condition.

Table 3: Day case hospital initiated cancellations relating to activity for consultants active in the first wave NBAP pilots: detailed data supplied by seven pilots

<table>
<thead>
<tr>
<th>Reason for hospital initiated cancellation</th>
<th>'live' NBAP</th>
<th>change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan-Mar 2000</td>
<td>Jan-Mar 2001</td>
</tr>
<tr>
<td>% admission date brought forward</td>
<td>3.9</td>
<td>6.9</td>
</tr>
<tr>
<td>% pre-existing medical condition</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>% theatre related issues</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>% lack of beds</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>% other reasons (e.g. lack of ward staff)</td>
<td>6.4</td>
<td>4.5</td>
</tr>
<tr>
<td>% total</td>
<td>11.5</td>
<td>12.9</td>
</tr>
</tbody>
</table>

The experience of the 14 pilots able to supply aggregate cancellation data is shown in table 1. * p<0.05 See appendix 1 for information about the statistical test applied.

Project managers’ responses to our survey indicated a range of factors that had influenced hospital initiated cancellations. One pilot noted that it had been able to reduce hospital cancellations by increasing capacity, for example by using a private hospital. Another reported ‘we work closely with operational management who co-ordinate clinician annual leave/study leave to actively manage effective use of theatre time’. Factors that were reported to have increased cancellations included recruitment difficulties among doctors and nurses, increases in emergency admissions, bed pressures, the absence of effective management to co-ordinate clinician annual leave/study leave and to actively manage theatre time, lists overrunning due to unplanned complications, and patients being ‘brought forward’ for earlier treatment. One manager commented that:

‘booking appears to have made very little difference to the level of hospital cancellations’.
Figure 9: Causes of day case hospital initiated cancellations (excluding patients brought forward) during the first quarter of 2001 in seven pilots

Day case patient initiated cancellations

Figure 10 shows that at pilot level the proportion of patient initiated cancellations varied from 2.1% to 38.5% during the first quarter of 2001. Analysis of the data illustrate that:

- four of the 14 pilots experienced a statistically significant reduction in patient initiated cancellations between the first quarter of 1999 and the first quarter of 2000, while two pilots experienced a statistically significant increase

- four of the 14 pilots experienced a statistically significant reduction in patient initiated cancellations between the first quarter of 2000 and the first quarter of 2001, while four pilots experienced a statistically significant increase

Responses to the survey of project managers indicated a range of views on the impact of booking on patient initiated cancellations. One manager noted that cancellations had fallen as booking had increased. A second manager reported surprise that patient initiated cancellations had fallen because the practice of booking patients at outpatients did not give patients a ‘cooling off’ period and it was felt that this was likely to result in an increase in cancellations. This was reinforced by another manager who felt that booking had made patients feel more confident about changing their admission date, leading to increases on this measure.
A related response was that:

‘sometimes having an out patient appointment, pre assessment and getting a
date for surgery all on one day has proved overwhelming for patients. Once
they have agreed their ‘booked date’ they go home and discuss it with their
family and give it some thought and then for a variety of reasons have to
change the date’.

Other responses suggested that booking did not seem to have affected patient
cancellations, and that in any case some cancellations by patients were inevitable.
Other data supplied by five pilots on their experience in the first quarters of 2000 and
2001 indicated that patient illness accounted for around one third of patient initiated
cancellations in both quarters.

Figure 10: Variations in the percentage of day case patient initiated
cancellations at pilot level, 1999, 2000 and 2001 (n=14)

Notes: each pilot is identified by the number shown on page 291. * indicates that the change in the proportion of patients waiting
with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05). Pilot 14 had the
highest patient cancellation rate during the first quarter of 2001. However, the pilot had only 26 admissions during the quarter.
Of the 10 patient initiated cancellations during this period, two were due to illness (excluding pre-existing medical conditions).
2.5 Comparisons between pilots and non-pilots

In any pilot programme, it is important to understand progress in the pilots in relation to what was happening elsewhere. To explore this, we used data from national statistical returns to compare performance in the pilots with non-pilots on five outcome measures. Figures 11 to 14 compare performance in the pilots booking day cases with non-pilots, in the seven most common specialties. Two important caveats should be noted.

First, the comparison does not seek to ‘control’ for differences in characteristics between the pilots and the non-pilots such as case mix and hospital capacity. Ideally, this would have been attempted as part of this study but in view of the complexity involved in undertaking a properly controlled comparison and the resources available to the evaluation team, it was decided, following discussion with the group advising on the evaluation, to undertake a more pragmatic and limited analysis. The findings presented below are therefore indicative only and seek to do no more than locate the experience of the first wave pilots in the context of what was happening elsewhere in the NHS.

Second, the non-pilots included NHS trusts participating in the second and third wave of the booked admission programme. The comparison presented here is therefore not between ‘booking’ and ‘non-booking’ but between the first wave pilots and those outside the pilots. As we noted at the outset of this chapter, some consultants not included in the first wave have been involved in booking in the past and continue to offer this service to patients. The extension of the booked admissions programme added a further complication and might have been expected to influence the extent to which consultants in the first wave were able to maintain the advantage over consultants not in the first wave that we reported in our second interim report. We now review what the available data indicate about this.

As Box 8 indicates, data for the pilots are based on those consultants who were active in the programme during the quarter ending March 2000. Non-pilot data include trusts in England not involved in the first wave and data for consultants in the pilot trusts whose specialties were not involved in the first wave pilots. The data for the
pilots differ from those in Table 1 because in this section the focus is on the seven most common specialties only.

*Patients waiting with a date*

Figure 11 compares the percentage of patients waiting with a date in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- **the percentage of patients waiting with a date in the pilots** increased from 48.8% at the end of March 1999 to 70.9% at the end of March 2000 and then fell to 64.8% at the end of March 2001. The changes between each period were statistically significant.

- **the percentage of patients waiting with a date in the non-pilots** increased from 26.7% at the end of March 1999 to 27.7% at the end of March 2000 and 31.6% at the end of March 2001. The changes between each period were statistically significant.

The difference between the pilots and the non-pilots on this measure therefore changed from 22.1% in 1999 to 43.2% in 2000 before falling back to 33.2% in 2001. The data for the non-pilots indicate that the impact of the second and third waves of the programme on booking was slight.
Figure 11: Percentage of patients waiting with a date for pilots\(^1\) and non-pilots\(^2\) in the seven most common specialties\(^3\), 1999, 2000 and 2001

<table>
<thead>
<tr>
<th></th>
<th>31 March 1999</th>
<th>31 March 2000</th>
<th>31 March 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>pilots</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-pilots</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 See summary tables in appendix 1. Comparable data were available for 20 of the 22 pilots which booked day cases in these specialties. Pilot data from the evaluation questionnaires. 2 Non-pilot data from the KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. 3 Gynaecology, general surgery, orthopaedics, ENT, urology, ophthalmology and oral surgery.

DNA\(s\)

Figure 12 compares the proportion of DNAs in the pilots and non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- DNAs in the pilots fell from 5.3% during the first quarter of 1999 to 2.8% during the first quarter of 2000 and then increased to 3.6% during the first quarter of 2001. The changes between each period were statistically significant.

- DNAs in the non-pilots fell from 4.1% during the first quarter of 1999 to 3.9% during the first quarter of 2000 and then to 3.4% during the first quarter of 2001. The changes between each period were statistically significant.
Figure 12: Percentage of DNAs for pilots\textsuperscript{1} and non-pilots\textsuperscript{2} in the seven most common specialties\textsuperscript{3}, 1999, 2000 and 2001

\begin{figure}
\centering
\includegraphics[width=\textwidth]{dna_percentage.png}
\caption{Percentage of DNAs for pilots and non-pilots in the seven most common specialties, 1999, 2000 and 2001.}
\end{figure}

\textsuperscript{1} See summary tables in appendix 1. Comparable data were available for 17 of the 22 pilots which booked day cases in these specialties. Pilot data from the evaluation questionnaires. \textsuperscript{2} Non-pilot data from the KH06 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. \textsuperscript{3} Gynaecology, general surgery, orthopaedics, ENT, urology, ophthalmology and oral surgery.

The difference between the pilots and the non-pilots on this measure therefore changed from being 1.2% higher in the pilots in the first quarter of 1999 to 1.1% lower in the pilots at the end of the pilot phase before becoming 0.2% higher again in the pilots in the first quarter of 2001.

\textit{Patients waiting six months}

Figure 13 compares the percentage of patients waiting six months or over in the pilots and non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the percentage of patients waiting six months or over in the pilots fell from 11.5% at the end of March 1999 to 11.1% at the end of March 2000 and then increased to 12.2% at the end of March 2001. The change between 2000 and 2001 was statistically significant.

- the percentage of patients waiting six months or over in the non-pilots fell from 22.4% at the end of March 1999 to 21.5% at the end of March 2000 and 19.1% at the end of March 2001. The change between each period was statistically significant.
On this measure, the pilots’ waiting times remained considerably shorter that those of the non-pilots throughout this period, although the difference narrowed from 10.9% in 1999 to 6.9% in 2001.

Responses to the survey of project managers indicated that a number of factors had contributed to reduced waiting times in the pilots, including the use of ‘semi-urgent’ and ‘short-notice’ theatre lists and pre-assessment clinics, waiting list initiatives and in one case improved patient prioritisation. Increases in waiting times were attributed to the cancellation of elective work due to the non-availability of beds, patients being unfit for surgery, and increasing referrals.

Figure 13: Percentage of patients waiting six months or over for pilots\(^1\) and non-pilots\(^2\) in the seven most common specialties\(^3\), 1999, 2000 and 2001

Figure 14 compares the number of patients waiting for admission in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the number of patients waiting for admission in the pilots fell by 4.7% between the end of March 1999 and the end of March 2000 and by a further 11.1% between the end of March 2000 and the end of March 2001

\(^1\) See summary tables in appendix 1. Comparable data were available for 20 of the 22 pilots which booked day cases in these specialties. Pilot data from the evaluation questionnaires. \(^2\) Non-pilot data from the KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. \(^3\) Gynaecology, general surgery, orthopaedics, ENT, urology, ophthalmology and oral surgery.

Patients waiting for admission

Figure 14 compares the number of patients waiting for admission in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the number of patients waiting for admission in the pilots fell by 4.7% between the end of March 1999 and the end of March 2000 and by a further 11.1% between the end of March 2000 and the end of March 2001
• the number of patients waiting for admission in the non-pilots fell by 3.6% between the end of March 1999 and the end of March 2000 and by a further 3.1% between the end of March 2000 and the end of March 2001.

On this measure, the pilots made faster progress than the non-pilots in reducing the number of patients waiting for admission.

Project managers’ responses to the survey indicated several factors that had influenced the number of patients waiting. The reclassification of some procedures as outpatient activity was stated to have reduced the numbers waiting in some pilots, as had waiting list initiatives. One manager noted that the number of patients waiting had fallen:

‘as a result of waiting list targets and better management of waiting lists. I do not think booked admissions was the cause of this but greater awareness of the whole issue probably helped’.

The dramatic increase in the number of patients waiting (115%) in one pilot was reported to be due to a change in the way patients were counted on the waiting list following discussion with the regional office.
Figure 14: Percentage change in the number of day case patients waiting and admitted for pilots\(^1\) and non-pilots\(^2\) in the seven most common specialties\(^3\), 1999, 2000 and 2001

<table>
<thead>
<tr>
<th></th>
<th>Pilots</th>
<th>Non-pilots</th>
<th>Pilots</th>
<th>Non-pilots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients waiting</td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
</tr>
<tr>
<td>Percentage</td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
<td><img src="image" alt="Bar Chart" /></td>
</tr>
</tbody>
</table>

\(^1\) See summary tables in appendix 1. Comparable data were available for 20 of the 22 pilots which booked day cases in these specialties. Pilot data from the evaluation questionnaires. \(^2\) Non-pilot data from the KH06 and KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. \(^3\) Gynaecology, general surgery, orthopaedics, ENT, urology, ophthalmology and oral surgery.

**Number of patients admitted**

Figure 14 also compares the number of patients admitted in the pilots and non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the number of patients admitted in the pilots increased by 4.7% between the first quarter of 1999 and the first quarter of 2000 and then fell by 12.1% between the first quarter of 2000 and the first quarter of 2001. The change between each year was statistically significant.

- the number of patients admitted in the non-pilots fell by 1.3% between the first quarter of 1999 and the first quarter of 2000 and then fell again by 6.1% between the first quarter of 2000 and the first quarter of 2001. The change between each year was statistically significant.

On this measure, the experience of the pilots and non-pilots was similar between the first quarters of 1999 and 2001, although the pilots experienced considerable fluctuation between these periods.
Responses to the survey of project managers indicated several factors that had contributed to increases in the number of patients admitted, including improved theatre utilisation and waiting list initiatives. Reductions in admissions were attributed to the reclassification of some procedures (including hysteroscopies, flexi-cystoscopies, wisdom teeth and lesions) from day cases to outpatients, the absence of waiting list initiatives, consultant vacancies and medical bed pressures.

2.6 Comparisons between specialties
Having reviewed progress in day case booking for consultants involved in the first wave, variations between pilots, and comparisons between pilots and non-pilots, we now go on to analyse performance at the specialty level. In so doing, we would emphasise that the volume of activity included in the analysis varied and in some cases was small. For this reason, particular caution is needed when interpreting specialty level comparisons. The focus in what follows is on three measures only: the proportion of patients waiting with a date, DNAs and the proportion of patients waiting six months or over. The purpose of this analysis is to explore whether booking made greater progress in some specialties than others.

Overview
Eighty three percent of all day case admissions under consultants participating in the first wave pilots during the first quarter of 2001 were in the seven most common specialties. Figure 15 shows that of the most common specialties, general surgery accounted for the largest number of admissions (27%; 8,230 admissions) and oral surgery accounted for the smallest number of admissions (5%; 1,474 admissions).

Table 4 shows that oral surgery was the specialty with the highest proportion of patients waiting with a date by the end of March 2001 (89.5%) followed by gynaecology (83.4%). General surgery had the lowest proportion of patients waiting with a date (55.6%). In the non-pilots, gynaecology (50.5%) and oral surgery (49.3%) had the highest proportion of patients waiting with a date and ophthalmology (22.4%) had the lowest proportion.
Figure 15: Percentage of day case admissions during the first quarter of 2001 in the pilots in the seven most common specialties

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>general surgery</td>
<td>27%</td>
</tr>
<tr>
<td>gynaecology</td>
<td>21%</td>
</tr>
<tr>
<td>orthopaedics</td>
<td>14%</td>
</tr>
<tr>
<td>ophthalmology</td>
<td>13%</td>
</tr>
<tr>
<td>urology</td>
<td>12%</td>
</tr>
<tr>
<td>ENT</td>
<td>8%</td>
</tr>
<tr>
<td>oral surgery</td>
<td>5%</td>
</tr>
</tbody>
</table>

Changes in percentage of patients waiting with a date

Table 4 shows that the percentage of patients waiting with a date increased in the pilots in all seven specialties between the end of March 1999 and the end of March 2000. The largest increases were in oral surgery and gynaecology.

By comparison, between the end of March 2000 and the end of March 2001, five specialties (general surgery, orthopaedics, ophthalmology, urology and ENT) experienced a reduction in the percentage of patients waiting with a date. The largest reductions were in orthopaedics and general surgery. Against the trend, oral surgery experienced an increase of almost one-fifth in the percentage of patients waiting with a date.
### Table 4: Percentage of day case patients waiting with a date in the most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>‘live’ first wave pilots 31 March</th>
<th>non-pilots 31 March</th>
<th>change in % between periods pilots non-pilots pilots non-pilots</th>
</tr>
</thead>
<tbody>
<tr>
<td>General surgery</td>
<td>53.0</td>
<td>65.5</td>
<td>55.6</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>49.1</td>
<td>83.1</td>
<td>83.4</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>45.8</td>
<td>77.0</td>
<td>65.7</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>51.3</td>
<td>64.2</td>
<td>60.6</td>
</tr>
<tr>
<td>Urology</td>
<td>53.9</td>
<td>70.1</td>
<td>60.8</td>
</tr>
<tr>
<td>ENT</td>
<td>41.9</td>
<td>71.6</td>
<td>61.9</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>37.4</td>
<td>72.2</td>
<td>89.5</td>
</tr>
<tr>
<td>Total</td>
<td>48.8</td>
<td>70.9</td>
<td>64.8</td>
</tr>
</tbody>
</table>

* p<0.05

1 Pilot data from evaluation questionnaires. Non-pilot data from KH07 central returns. See appendix 1 for information on the number of pilots active in each specialty.

Figure 16 uses quarterly specialty-level data from the KH07 central returns to illustrate how the progress made during the year to March 2000 was not sustained.

**Figure 16: Percentage of patients waiting with a date in ‘live’ first wave pilot trusts**

1 In contrast to the pilot-specific data used in Table 4, these quarterly specialty-level data from the KH07 central returns include activity for any non-participating consultants in specialties and trusts included in the first wave pilots.
Figure 16 shows that the pilots have seen least progress in general surgery, urology and ophthalmology. Most progress at specialty level was made in oral surgery and gynaecology.

Changes in DNAs
Table 5 shows that:

- in the first quarter of 1999 DNA rates in the pilots varied from 8.5% in oral surgery to 2.2% in ophthalmology, compared with a variation from 5.4% in urology to 2.4% in ophthalmology in the non-pilots

- in the first quarter of 2000 DNA rates in the pilots had both fallen and narrowed with urology experiencing the highest rate at 3.5% and ophthalmology the lowest rate at 0.7%, compared with a variation from 5.2% in urology to 2.2% in ophthalmology in the non-pilots

- in the first quarter of 2001 DNA rates in the pilots varied from 6.5% in oral surgery to 1.0% in ophthalmology, compared with a variation from 5.6% in urology to 1.8% in ophthalmology in the non-pilots.

Table 5: Percentage of day case DNAs in the most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>‘live’ first wave pilots quarter ending March</th>
<th>non-pilots quarter ending March</th>
<th>change in % between periods 1999 and 2000 pilots</th>
<th>non-pilots</th>
<th>2000 and 2001 pilots</th>
<th>non-pilots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
<td>2000</td>
<td>2001</td>
<td>1999</td>
<td>2000</td>
<td>2001</td>
</tr>
<tr>
<td>General surgery</td>
<td>5.0</td>
<td>3.0</td>
<td>4.0</td>
<td>4.6</td>
<td>4.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>6.0</td>
<td>2.7</td>
<td>3.6</td>
<td>4.1</td>
<td>4.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>4.9</td>
<td>2.8</td>
<td>2.2</td>
<td>4.2</td>
<td>3.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>2.2</td>
<td>0.7</td>
<td>1.0</td>
<td>2.4</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Urology</td>
<td>6.6</td>
<td>3.5</td>
<td>5.6</td>
<td>5.4</td>
<td>5.2</td>
<td>5.6</td>
</tr>
<tr>
<td>ENT</td>
<td>3.7</td>
<td>3.2</td>
<td>4.4</td>
<td>2.9</td>
<td>2.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>8.5</td>
<td>3.1</td>
<td>6.5</td>
<td>5.1</td>
<td>4.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Total</td>
<td>5.3</td>
<td>2.8</td>
<td>3.6</td>
<td>4.1</td>
<td>3.9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

* p<0.05

1 Pilot data from the evaluation questionnaires. Non-pilot data from KH06 central returns. See appendix 1 for information of pilots active in each specialty.
Table 5 shows that amongst the pilots, orthopaedics, ophthalmology and gynaecology made the greatest progress in reducing DNAs. Among the non-pilots, greatest progress was made in orthopaedics and oral surgery. These figures also suggest that DNAs in ophthalmology were consistently lower than in other specialties in both the pilots and the non-pilots. By comparison, DNAs in oral surgery and urology were higher than in other specialties in both the pilots and the non-pilots.

Changes in patients waiting six months or over
Table 6 shows the proportion of day cases waiting six months (or over) by specialty for each of the three quarters for which data are available for both pilots and non-pilots. The table illustrates that:

- in the first quarter of 1999 the proportion of patients waiting six months or over in the pilots varied from 5.5% in urology to 17% in oral surgery, compared with a variation from 13.5% in urology to 27.9% in ophthalmology in the non-pilots

- in the first quarter of 2000 the proportion of patients waiting six months or over in the pilots varied from 3.6% in gynaecology to 15.8% in ophthalmology, compared with a variation from 13.6% in gynaecology to 27.3% in ophthalmology in the non-pilots

- in the first quarter of 2001 the proportion of patients waiting six months or over in the pilots varied from 3.4% in gynaecology to 20.4% in ophthalmology, compared with a variation from 10.1% in gynaecology to 23.4% in ophthalmology in the non-pilots.

These figures suggest that waiting times were relatively long in ophthalmology and relatively short in gynaecology in both the pilots and the non-pilots.

Table 6 shows that while the pilots’ experience varied considerably, in the non-pilots the trend was a gradual reduction in the proportion of patients waiting six months. Despite this, in all specialties at the end of all three quarters, the proportion of patients waiting six months or over was lower for the pilots than elsewhere. This reflects the
fact that a condition of entry to the programme was that the pilots had to either have waiting times down to six months already, or have a plan for achieving this requirement.

Table 6: Percentage of day case patients waiting six months or over in the seven most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>‘live’ first wave pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31 March</td>
<td>31 March</td>
<td>pilots</td>
</tr>
<tr>
<td>General surgery</td>
<td>11.8 12.8 15.1</td>
<td>20.6 19.8 17.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>7.6  3.6  3.4</td>
<td>15.8 13.6 10.1</td>
<td>-4.1 *</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>11.5 11.2 9.6</td>
<td>26.7 25.7 23.1</td>
<td>-0.3</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>14.3 15.8 20.4</td>
<td>27.9 27.3 23.4</td>
<td>1.4 *</td>
</tr>
<tr>
<td>Urology</td>
<td>5.5  9.3  7.4</td>
<td>13.5 14.3 14.5</td>
<td>3.8 *</td>
</tr>
<tr>
<td>ENT</td>
<td>13.4 8.4  9.9</td>
<td>18.6 16.2 15.1</td>
<td>-5.0 *</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>17.0 10.6 4.5</td>
<td>20.7 14.1 12.0</td>
<td>-6.3 *</td>
</tr>
<tr>
<td>Total</td>
<td>11.5 11.1 12.2</td>
<td>22.4 21.5 19.1</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

* p<0.05

1. Pilot data from the evaluation questionnaires. Non-pilot data from the KH07 central returns. See appendix 1 for information on the number of pilots active in each specialty.

Figure 17 shows that specialties with a short waiting time tend to have a higher proportion of booked patients. Figure 18 shows that DNAs are lower in specialties with a long waiting time. Figure 19 shows that DNAs are lower in specialties with a lower proportion of booked patients. However, the correlation in each figure is not statistically significant.
Figure 17: Percentage of day case patients waiting with a date (31 March 2001) and percentage of patients waiting six months (31 March 2001) for the common seven day case specialties

Figure 18: Day case DNA rate (quarter ending March 2001) and percentage of patients waiting six months (31 March 2001) for the common seven day case specialties
Analysis by specialty indicates the challenges faced in extending booking in general surgery, urology and ophthalmology in particular.

2.7 Scope of the first wave pilots

A key to understanding the progress of the pilots is the very substantial variation in their scope and objectives. Figure 20 ranks the pilots by the proportion of all day case admissions under consultants participating in the first wave pilots. The scope of the pilots ranged from 1% to 94% of all day case activity. Figure 20 also shows the proportion of patients in the pilots waiting with a date at the end of March 2000 and March 2001. The figure indicates that pilots with a wide and a narrow scope achieved high levels of booking for the consultants included in the pilot.
But what was the experience of these pilots in extending booking? Nine of the 20 pilots included more than half of all day case activity in their scope (pilot 3 and all those to its right in Figure 20). Of these nine pilots, six experienced a statistically significant reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001. Only Homerton (4) and Hartlepool/North Tees (10) experienced a statistically significant increase in this measure. However, Heatherwood and Wexham Park (12) also stands out for having achieved both a very high level of booking within the pilot (96% of patients waiting with a date) and a very
high proportion of coverage (88% of all day cases). Dorset (16) also achieved a high level of booking across a wide scope.

Eleven of the 20 pilots included less than half of all day case activity (pilot 2 and all those to its left in Figure 20) in their scope. Of these 11 pilots, only one pilot experienced a statistically significant reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001, while four pilots experienced a statistically significant increase in this measure. *This finding suggests that there were greater difficulties in sustaining and extending booking in pilots with a wide scope.*

In addition to the wide range in scope, the first wave pilots differed considerably in size, as measured by the number of patients admitted in each pilot. Four of the 20 pilots in the analysis accounted for over half of day case activity. On average, the reduction in the proportion of patients waiting with a date between 2000 and 2001 was smaller in the small pilots than the large pilots, although overall the trends in the outcome measures were similar across all pilots.

2.8 *The NHS Plan* targets

It is important to acknowledge that the establishment of the first wave pilots predates the publication of *The NHS Plan* targets relating to booking and waiting times. Nevertheless, the first wave pilots could be expected to be in the vanguard of the drive to meet the national targets because of their work as pilots during 1999/00, and the expectation that NPAT’s targets (which include commitments to 100% booking and six month maximum waiting times) would be pursued.

Figure 21 uses data from the central statistical returns to illustrate the quarterly changes in the proportion of patients waiting with a date and the proportion of patients waiting six months for all day case activity at the 23 pilots undertaking some day case booking and all other trusts. Figure 21 also shows the change in these measures required in order to meet *The NHS Plan* targets that all surgery should be booked, and that maximum waiting times should be six months, by the end of 2005. The percentages of patients waiting with a date in the pilots are lower in this figure than in
previous tables because these data cover all day cases in the trusts and not just activity of consultants participating in the first wave.

Figure 21: Percentage of day cases waiting with a date and waiting six months or over, pilot trusts and all other trusts in England in relation to NHS Plan targets for 2005

2.9 Summary

Our analysis indicates that the proportion of patients waiting with a date increased, although not all of the increase experienced in the first year was sustained. Similarly, DNAs fell over the two years, but the early progress was not sustained. Hospital initiated cancellations returned to the initial rate having increased in 2000. Patient initiated cancellations fell along with the number of patients waiting and to a lesser extent the number of patients admitted. The proportion of patients waiting six months or over increased.
There were wide variations between pilots in what was achieved. Three large pilots stand out. Homerton Hospital (one of the case studies discussed further in chapter 4) was unique in achieving a very high level of booking across all surgical day case and inpatient activity. In terms of day case booking, the achievements of Heatherwood and Wexham Park Hospital are equally impressive. This trust achieved a very high level of booking by the end of the pilot phase and included almost all day case activity within its pilot. In contrast to Homerton, Heatherwood and Wexham Park had to contend with some patients waiting longer than six months despite actively working to increase available capacity.

Dorset (another of the case studies presented in chapter 4) stands out for covering all the trusts within a health authority and for appearing, at the end of the pilot phase, to be within striking distance of achieving a very high level of booking for day cases within its scope. The pilot also received comparatively modest funding. However, despite short waiting times, the pilot did not increase booking in the year after the end of the pilot phase.

Overall, the pilots continued to perform better than the non-pilots in relation to the proportion of patients waiting with a date. On the other available outcome measures, DNA rates in the pilots fell to a level marginally higher than for the non-pilots, waiting times remained shorter in the pilots than the non-pilots, although the difference narrowed, the pilots made faster progress than the non-pilots in reducing the number of patients waiting for admission, and there was little difference between the pilots and the non-pilots in relation to changes in the number of patients admitted.

The specialty level analysis shows that there was considerable variation in performance across the common specialties. Only two of the seven common day case specialties (gynaecology and oral surgery) experienced an increase in the percentage of patients waiting with a date between the end of March 2000 and the end of March 2001. These two specialties also had the lowest percentage of patients waiting six months or over at the end of March 2001. General surgery, ophthalmology and orthopaedics had the lowest proportion of patients waiting with a date by the end of March 2001.
Two of the specialties (general surgery and ophthalmology) with the lowest percentage of patients waiting with a date at the end of March 2001 also had the highest percentage of patients waiting six months or over at that point. The experience of the pilots therefore suggests that relatively long waiting times do inhibit booking. Unexpectedly, DNAs were lower in specialties with long waiting times.

Our analysis suggests that the pilots that included the majority of all day cases within their scope found it more difficult to increase booking activity beyond the level achieved by the first quarter of 2000, compared to pilots with more limited scope. This finding illustrates the challenge inherent in making booking part of the mainstream.

The data presented in this chapter point to a complex relationship between booking and other variables like DNAs and cancellations. In the pilots as a whole, DNAs fell as booking increased between 1999 and 2000 but then rose as booking fell between 2000 and 2001. Patient initiated cancellations fell overall, although the rate of reduction was much greater between 2000 and 2001 when the level of booking fell. Hospital initiated cancellations were at their highest when booking reached its peak in 2000.
3. Booking Inpatients and Booking from General Practice

This chapter reviews the experience of booking inpatients and booking from general practice. It begins with an analysis of inpatient activity across the first wave pilots for which data are available. This is followed by an assessment of variations between the pilots, a comparison between the pilots and the non-pilots, and an analysis of variations between specialties in both the pilots and the non-pilots. More detailed information on each pilot’s performance is included in appendix 2.

Key Findings

- The proportion of patients waiting with a booked or TCI date in the pilots increased between 1999 and 2001, although the increase experienced in the first year was largely eliminated in the second year. DNAs fell progressively over the two years. The early increase in hospital initiated cancellations was sustained while patient initiated cancellations fell substantially. The proportion of patients waiting six months or over increased, the number of patients waiting fell slightly, and the number of patients admitted fell substantially.

- There were wide variations between the pilots as measured by the proportion of patients waiting with a date, DNAs, hospital initiated cancellations and patient initiated cancellations in the first quarter of 2001. Only one pilot achieved a high level of booking across a large proportion of total inpatient work.

- The pilots continued to perform better than the non-pilots in relation to the proportion of patients waiting with a date. On the other available measures, the pilots made greater progress than the non-pilots in reducing DNAs; their waiting times remained shorter, although the difference narrowed; the non-pilots made slightly faster progress in reducing the number of patients waiting for admission; and the number of patients admitted fell faster in the pilots than the non-pilots.

- Comparisons between specialties shows that in the pilots ophthalmology and gynaecology had the highest proportion of patients waiting with a date by the end of March 2001. Orthopaedics and general surgery had the lowest proportion of patients waiting with a date. Orthopaedics had the highest DNA rates and ophthalmology the lowest rates in the first quarter of 2001. The highest proportion of patients waiting six months or over was in orthopaedics in both the pilots and the non-pilots. Analysis at the specialty level suggests that for inpatients there is a relationship between short waits, low DNA rates and a high proportion of patients waiting with a date.

- The scope of the pilots ranged from 2% to 94% of all inpatients. The inpatient pilots were dominated by four large pilots which together accounted for 80% of all activity across the 14 pilots in the analysis. Both large and small pilots encountered similar challenges in developing booking.

- Direct booking from general practice was limited to a small number of pilots and relatively few patients experienced this service.
3.1 Data and method

At the beginning of the first wave programme 20 of the 24 pilots planned to give booked dates to at least some inpatients and four of these aspired to book all inpatients. In practice, 16 pilots booked inpatients as part of their first wave activity. In our second interim report (Kipping et al, 2000), we reviewed progress made in booking inpatients between the first quarter of 1999 and the first quarter of 2000, noting that the challenges of booking inpatients were greater than the challenges of booking day cases. In this chapter we analyse data supplied by the pilots for the first quarter of 2001 in order to assess progress made in the first wave in each of the three years for which we have data.

In interpreting the data on the proportion of booked patients, it should be noted that we have used the proportion of patients waiting with a date as a proxy measure for ‘booking’. Patients waiting with a date include those who have been given a ‘to come in’ (TCI) date by the hospital as well as patients who have been booked. This helps to explain why the non-pilots reported that around one fifth of inpatients were waiting with a date.

A further complication is that the non-pilots include patients who were booked outside the first wave, either because they were booking patients before the booked admissions programme was launched or because they participated in subsequent waves. There is no means of assessing for the non-pilots the proportion of patients waiting with a date who were booked and the proportion who had received a TCI date. With the resources available to the staff in the pilots involved in data collection, it was not possible to distinguish more precisely between patients waiting with a date. The extent of booking under the booked admissions programme needs to be assessed with this caveat in mind.

As noted in chapter 2, some pilots have supplied more detailed cancellation data for the first quarter of 2000. New data from one small pilot have enabled it to be included in the analysis for the first time. Also, all the inpatient data for one pilot previously supplied and used in our interim report has been excluded because the activity was not in fact included in the first wave pilot.
The explanatory notes in Box 8 in chapter 2 apply to the analysis of inpatient activity and should be read in conjunction with this chapter. Further details about the methodology are provided in appendix 1. Statistical significance at the 5% level is indicated in the tables or in the text where data are presented in figures.

The rest of this chapter presents the findings of our analysis:

- section 3.2 analyses data for the first quarters of 1999, 2000 and 2001 for those consultants who were active in the programme during the quarter ending March 2000
- section 3.3 describes variations between pilots in the first quarters of 1999, 2000 and 2001
- section 3.4 compares performance in the pilots with non-pilots in the first quarters of 1999, 2000 and 2001 in the five most common specialties
- section 3.5 analyses the data at specialty level for both pilots and non-pilots in the first quarters of 1999, 2000 and 2001
- section 3.6 examines the performance of the pilots in booking patients in relation to their scope i.e. the proportion of all inpatients admissions included in the first wave
- section 3.7 reviews the progress made at trust level by pilots and non-pilots towards The NHS Plan targets

### 3.2 Booking inpatients

As with day case booking, a wide range of methods can be used to give inpatients booked dates, and these mirror the methods for day case booking (see Section 2.2 in chapter 2). In general, consultants prefer to retain the responsibility for giving the dates themselves, but there are examples where this has been delegated to a specialty specific booking clerk or a centralised booking bureau. It is not uncommon for consultants to delegate day case booking to administrative and clerical staff, but to agree dates directly with patients requiring impatient admission.
Table 7 summarises the analysis for the 14 pilots for which comparable data are available (see appendix 1 for information on the pilots, sites, specialties/procedures). The data include all inpatient activity for those consultants booking patients within the first wave booked admissions programme during the quarter ending March 2000. Table 7 shows that:

- **the proportion of patients waiting with a booked or TCI date** increased from 39.0% (of 10,116 patients) to 50.6% (of 9,927 patients) between the end of March 1999 and the end of March 2000 and then fell to 40.7% (of 9,997 patients) by the end of March 2001

- **the proportion of patients failing to attend (DNAs)** fell from 3.6% to 3.3% between the first quarter of 1999 and the first quarter of 2000 and then to 2.6% in the first quarter of 2001

- **the proportion of hospital initiated cancellations** increased from 13.6% to 14.7% between the first quarter of 1999 and the first quarter of 2000 and then to 14.8% in the first quarter of 2001

- **the proportion of patient initiated cancellations** fell from 15.3% to 11.4% between the first quarter of 1999 and the first quarter of 2000, and then to 7.9% in the first quarter of 2001. Some of the pilots were able to provide information on the causes of cancellations and these are discussed below

- **the proportion of patients waiting six months or over** increased from 17.5% to 20.2% between the end of March 1999 and the first quarter of 2000, and then fell to 20.0% at the end of March 2001
Table 7: Inpatient activity for consultants active in the first wave NBAP pilots¹, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date²</td>
<td>39.0</td>
<td>50.6</td>
</tr>
<tr>
<td>% of DNAs³</td>
<td>3.6</td>
<td>3.3</td>
</tr>
<tr>
<td>% of hospital cancellations⁴</td>
<td>13.6</td>
<td>14.7</td>
</tr>
<tr>
<td>% of patient cancellations⁴</td>
<td>15.3</td>
<td>11.4</td>
</tr>
<tr>
<td>% of patients waiting 6 months²</td>
<td>17.5</td>
<td>20.2</td>
</tr>
<tr>
<td>number of patients waiting²⁵,⁶</td>
<td>10116</td>
<td>9927</td>
</tr>
<tr>
<td>number of admissions²⁷</td>
<td>8058</td>
<td>7162</td>
</tr>
</tbody>
</table>

¹ p<0.05 See appendix 1 for information about the statistical significance tests applied.
² The pilots varied greatly in size and scope: the four largest pilots accounted for 79% of inpatient admissions during the quarter ending March 2001. Data supplied by pilots and further details as in appendix 1 (figure 48). Comparable activity data were not available for two of the 16 pilots which booked inpatients. 
³ At end of quarter. 
⁴ Data for 9 pilots. 
⁵ Data for 7 pilots. 
⁶ Percentage change between periods. 
⁷ No statistical significance test has been applied to this measure here. 
⁸ Data for 13 pilots.

- the number of patients waiting for admission fell by 1.9% between the end of March 1999 and the end of March 2000 (from 10,116 to 9,927) and this was followed by an increase of 0.7% between the end of March 2000 and the end of March 2001 (to 9,997).

- the number of patients admitted fell by 11.1% between the first quarter of 1999 and the first quarter of 2000 (from 8,058 to 7,162), and this was followed by a further reduction of 14.0% between the first quarter of 2000 and the first quarter of 2001 (to 6,160).

These aggregate figures mask variations between pilots in what was achieved. We now go on to describe these variations.

3.3 Variations between pilots

Table 8 and Figures 22, 23 and 24 illustrate changes between each of the three quarters in relation to four of the outcome measures summarised in Table 7. The table and figures show for each of the pilots for which data are available, the percentage of patients waiting with a date, the DNA rate, and the hospital and patient initiated cancellation rates. The table and figures also display the range of performance
between the pilots in each period. Table 8 shows the proportion of all inpatient admissions under consultants participating in each first wave pilot. This measure of the scope of the pilots is used to rank the pilots in figures 22 to 24 on an ascending scale from left to right. The scope of the pilots is addressed in section 3.6. Summary tables for each pilot’s inpatient activity covering all the outcome measures are presented in appendix 2. As in the day case chapter, the results of the survey of project managers are used to interpret the data.

Inpatients waiting with a date

Table 8 shows that at pilot level the proportion of patients waiting with a date varied from 22.1% to 100% by the end of March 2001. Analysis of the data illustrates that:

- four of the pilots experienced a statistically significant increase in the proportion of patients waiting with a date between the end of March 1999 and the end of March 2000

- three of the pilots experienced a statistically significant increase in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001, while six pilots experienced a statistically significant reduction.

Table 8 also shows that the two largest pilots, in terms of the number of inpatients admitted during the quarter ending March 2001, experienced a statistically significant reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001. These two pilots accounted for 53% of the inpatient admissions during the quarter ending March 2001.
Responses to the survey of project managers indicated that the main factors facilitating inpatient booking were similar to those affecting day case booking, in particular that booking processes had become more familiar, embedded and routine. Factors inhibiting inpatient booking were administrative staffing issues, problems with recruiting senior clinicians and nursing staff, medical bed pressures and the booking of particular patient groups such as gynaecological oncology patients. ‘Winter pressures’ was also reported to have led to an increase in hospital cancellations with one manager noting a ‘subsequent loss of confidence to book IP dates’.

Table 8: Variations in inpatient pilot size and the percentage of patients with a date at pilot level, 1999, 2000 and 2001 (n=14)

<table>
<thead>
<tr>
<th>Pilot</th>
<th>Number admitted during quarter ending March 2001</th>
<th>Number waiting at end of March 2001</th>
<th>Pilot scope: % of all admissions in pilot</th>
<th>% waiting with a date at end of March 1999</th>
<th>% waiting with a date at end of March 2000</th>
<th>% waiting with a date at end of March 2001</th>
<th>Change in % between 1999 and 2000</th>
<th>Change in % between 2000 and 2001</th>
<th>Change in % between 1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham Heartlands</td>
<td>1975</td>
<td>3038</td>
<td>94</td>
<td>29.9</td>
<td>44.5</td>
<td>28.4</td>
<td>14.6 *</td>
<td>-16.0</td>
<td>-1.5</td>
</tr>
<tr>
<td>Dorset</td>
<td>1718</td>
<td>1737</td>
<td>59</td>
<td>61.9</td>
<td>65.9</td>
<td>53.7</td>
<td>4.1 *</td>
<td>-12.3</td>
<td>-8.2 *</td>
</tr>
<tr>
<td>Chelsea &amp; Westminster</td>
<td>853</td>
<td>874</td>
<td>71</td>
<td>47.8</td>
<td>67.6</td>
<td>66.9</td>
<td>19.8 *</td>
<td>-0.7</td>
<td>19.1 *</td>
</tr>
<tr>
<td>West/Central Middlesex</td>
<td>631</td>
<td>2449</td>
<td>33</td>
<td>23.7</td>
<td>23.5</td>
<td>22.1</td>
<td>-0.2</td>
<td>-1.4</td>
<td>-1.6</td>
</tr>
<tr>
<td>Homerton</td>
<td>569</td>
<td>296</td>
<td>91</td>
<td>97.9</td>
<td>96.9</td>
<td>99.7</td>
<td>-1.0</td>
<td>2.8 *</td>
<td>1.7</td>
</tr>
<tr>
<td>Princess Royal</td>
<td>287</td>
<td>468</td>
<td>39</td>
<td>44.6</td>
<td>42.7</td>
<td>51.9</td>
<td>-2.0</td>
<td>9.3 *</td>
<td>7.3</td>
</tr>
<tr>
<td>South Durham</td>
<td>280</td>
<td>150</td>
<td>22</td>
<td>84.7</td>
<td>75.2</td>
<td>68.0</td>
<td>-9.5</td>
<td>-7.2</td>
<td>-16.7 *</td>
</tr>
<tr>
<td>Central Manchester</td>
<td>150</td>
<td>91</td>
<td>6</td>
<td>75.8</td>
<td>79.3</td>
<td>63.7</td>
<td>3.5</td>
<td>-15.5 *</td>
<td>-12.0</td>
</tr>
<tr>
<td>Royal Devon &amp; Exeter</td>
<td>149</td>
<td>132</td>
<td>5</td>
<td>85.2</td>
<td>89.3</td>
<td>53.8</td>
<td>4.1</td>
<td>-35.6 *</td>
<td>-31.4 *</td>
</tr>
<tr>
<td>Royal Liverpool</td>
<td>128</td>
<td>82</td>
<td>18</td>
<td>35.4</td>
<td>46.5</td>
<td>76.8</td>
<td>11.1</td>
<td>30.3 *</td>
<td>41.4 *</td>
</tr>
<tr>
<td>Tameside &amp; Glossop</td>
<td>112</td>
<td>129</td>
<td>9</td>
<td>20.7</td>
<td>28.4</td>
<td>86.0</td>
<td>7.7</td>
<td>57.6 *</td>
<td>65.4 *</td>
</tr>
<tr>
<td>Stoke Mandeville</td>
<td>103</td>
<td>130</td>
<td>11</td>
<td>22.6</td>
<td>94.6</td>
<td>82.3</td>
<td>71.9 *</td>
<td>-12.3</td>
<td>-59.7 *</td>
</tr>
<tr>
<td>Northern General</td>
<td>42</td>
<td>414</td>
<td>2</td>
<td>38.8</td>
<td>56.1</td>
<td>22.5</td>
<td>17.3</td>
<td>-33.7 *</td>
<td>-16.4 *</td>
</tr>
<tr>
<td>Queen Mary's</td>
<td>16</td>
<td>7</td>
<td>2</td>
<td>87.0</td>
<td>84.2</td>
<td>85.7</td>
<td>-2.7</td>
<td>1.5</td>
<td>-1.2</td>
</tr>
</tbody>
</table>

*p<0.05
Inpatient DNAs

Figure 22 shows that at pilot level the proportion of DNAs varied from 0% to 4.6% in the first quarter of 2001. Analysis of the data illustrates that:

- none of the pilots experienced a statistically significant change in DNAs between the first quarter of 1999 and the first quarter of 2000
- two of the pilots experienced a statistically significant reduction in DNAs between the first quarter of 2000 and the first quarter of 2001.

Figure 22: Variations in the percentage of inpatient DNAs at pilot level, 1999, 2000 and 2001 (n=9)

Notes: each pilot is identified by the number shown on page 291. * indicates that the change in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05).

The survey of project managers provided few comments on the factors influencing inpatient DNAs. One manager noted that as for day cases the ‘slight decrease (was) in line with the increase in booking’. Another manager stated that ‘the DNA rate appears to have been relatively unaffected by booking’. Managers from three other pilots indicated that they were not able to comment on the changes in DNA rates.
Inpatient hospital initiated cancellations

Figure 23 shows that at pilot level the proportion of inpatient hospital initiated cancellations varied from 0.3% to 29.5% during the first quarter of 2001. Analysis of the data illustrates that:

- two of the pilots experienced a statistically significant reduction in hospital initiated cancellations between the first quarter of 1999 and the first quarter of 2000, while one pilot experienced a statistically significant increase

- two pilots experienced a statistically significant reduction in hospital initiated cancellations between the first quarter of 2000 and the first quarter of 2001, while three pilots experienced a statistically significant increase

Figure 23: Variations in the percentage of inpatient hospital initiated cancellations at pilot level, 1999, 2000 and 2001 (n=7)

Notes: each pilot is identified by the number shown on page 291. * indicates that the change in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05).
Four small pilots were able to provide data on the reasons for hospital initiated cancellations during the first quarters of 2000 and 2001. These more detailed data on hospital cancellations corresponded to 6% of all inpatient admissions during the first quarter of 2001, for consultants participating in the first wave pilots. Table 9 shows that the percentage of hospital initiated cancellations remained at 22.3% for these four pilots (in contrast to the change from 14.7% to 14.8% for the seven pilots included in Table 7).

Nearly 43% of the hospital cancellations during the first quarter of 2001 in these four pilots was due to a lack of beds. Cancellations due to the presence of a pre-existing medical condition accounted for 17% of the total, and theatre related issues accounted for 10% of the total. During the first quarter of 2001, no cancellations were due to admissions being brought forward. Cancellations due to all other reasons, including a lack of ward staff, accounted for 30% of the total during the first quarter of 2001. This analysis based on limited data suggests that cancellations due to a lack of beds was the single most important cause of hospital initiated cancellations in the first quarter of 2001.

**Table 9: Inpatient hospital initiated cancellations relating to activity for consultants active in the first wave NBAP pilots: detailed data supplied by four pilots**.

<table>
<thead>
<tr>
<th>Reason for hospital initiated cancellation</th>
<th>'live' NBAP Jan-Mar 2000</th>
<th>'live' NBAP Jan-Mar 2001</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% admission date brought forward</td>
<td>0.1</td>
<td>0.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>% pre-existing medical condition</td>
<td>2.0</td>
<td>3.8</td>
<td>1.7</td>
</tr>
<tr>
<td>% theatre related issues</td>
<td>5.0</td>
<td>2.2</td>
<td>-2.8 *</td>
</tr>
<tr>
<td>% lack of beds</td>
<td>7.5</td>
<td>9.5</td>
<td>2.0</td>
</tr>
<tr>
<td>% other reasons (eg lack of ward staff)</td>
<td>7.7</td>
<td>6.8</td>
<td>-0.8</td>
</tr>
<tr>
<td>% total</td>
<td>22.3</td>
<td>22.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

* p<0.05  See appendix 1 for information about the statistical test applied.
1 The experience of the 7 pilots able to supply aggregate cancellation dates is shown in Table 7.
The survey of project managers indicated that the main factors contributing to increases in hospital cancellations were increasing emergency admissions and consequent bed pressures. One manager reported that theatre problems unrelated to booking had resulted in cancellations. Another manager suggested that hospital initiated cancellations had fallen because of the absence of bed pressures during a mild winter.

*Inpatient patient initiated cancellations*

Figure 24 shows that at pilot level the proportion of patient initiated cancellations varied from 2.8% to 23.5% during the first quarter of 2001. Analysis of the data illustrate that:

- one of the pilots experienced a statistically significant reduction in patient initiated cancellations between the first quarter of 1999 and the first quarter of 2000
- two pilots experienced a statistically significant reduction in patient initiated cancellations between the first quarter of 2000 and the first quarter of 2001

**Figure 24: Variations in the percentage of inpatient patient initiated cancellations at pilot level, 1999, 2000 and 2001 (n=7)**

Notes: each pilot is identified by the number shown on page 291. * indicates that the change in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05).
Responses to the survey of project managers indicated that views on the impact of inpatient booking on patient cancellations were similar to those for day case booking. One manager noted that cancellations had declined as booking increased. Several managers suggested that booking did not seem to have affected patient cancellations. Another manager noted that booking processes had been changed in order to increase patient awareness about the availability of choice when agreeing a date. One manager reported that:

‘as a direct result of hospital cancellations, new admission dates were sometimes rescheduled without appropriate consultation with patients. Subsequently, the new dates were not as convenient or robust. Patients cancelled knowing they had first been informed they had a choice. These procedures have now been revised’.

Other data supplied by four pilots indicated that cancellations due to illness, excluding the presence of a pre-existing medical condition, accounted for about 30% of patient initiated cancellations in the first quarters of 2000 and 2001.

3.4 Comparisons between pilots and non-pilots

In any pilot programme, it is important to understand progress in the pilots in relation to what was happening elsewhere. To explore this, we used the data from national statistical returns to compare performance in the pilots with non-pilots on five outcome measures. Figures 25 to 28 compare performance in the pilots booking inpatients with non-pilots in the five most common specialties. Two important caveats should be noted.

First, the comparison does not seek to ‘control’ for differences in characteristics between the pilots and the non-pilots such as case mix and hospital capacity. Ideally, this would have been attempted as part of this study but in view of the complexity involved in undertaking a properly controlled comparison and the resources available to the evaluation team, it was decided, following discussion with the group advising on the evaluation, to undertake a more pragmatic and limited analysis. The findings presented below are therefore indicative only and seek to do no more than locate the
experience of the first wave pilots in the context of what was happening elsewhere in the NHS.

Second, the non-pilots included NHS trusts participating in the second and third wave of the booked admission programme. The comparison presented here is therefore not between ‘booking’ and ‘non-booking’ but between the first wave pilots and those outside the pilots. As we noted at the outset of this chapter, some consultants not included in the first wave have been involved in booking in the past and continue to offer this service to patients. The extension of the booked admissions programme added a further complication and might have been expected to influence the extent to which consultants in the first wave were able to maintain the advantage over consultants not in the first wave that we reported in our second interim report. We now review what the available data indicate about this.

As Box 8 indicates, data for the pilots are based on those consultants who were active in the programme during the quarter ending March 2000. Non-pilots data include trusts in England not involved in the first wave and data for consultants in the pilot trusts whose specialties were not involved in the first wave pilots.

**Patients waiting with a date**

Figure 25 compares that the percentage of patients waiting with a date in the pilots and the non-pilots for each of the three quarters for which we have data. The results presented here are for the five most common specialties only and therefore differ in some respects from the data reported earlier in this chapter. The figure illustrates that:

1. **the percentage of patients waiting with a date** in the pilots increased from 44.1% at the end of March 1999 to 57.9% at the end of March 2000 and then fell to 45.7% at the end of March 2001. The changes between each period were statistically significant.

2. **the percentage of patients waiting with a date** in the non-pilots increased from 19.1% at the end of March 1999 to 20.1% at the end of March 2000 and 20.8% at the end of March 2001. The changes between each period were statistically significant.
The difference between the pilots and the non-pilots on this measure therefore changed from 25% in 1999 to 37.8% in 2000 before falling back to 24.9% in 2001. The data for the non-pilots indicate that the impact of the second and third waves of the programme on booking was slight.

Figure 25: Percentage of inpatients waiting with a date for pilots\(^1\) and non-pilots\(^2\) in the five most common specialties\(^3\), 1999, 2000 and 2001

<table>
<thead>
<tr>
<th></th>
<th>31 March 1999</th>
<th>31 March 2000</th>
<th>31 March 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>pilots</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-pilots</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(1\) See summary tables in appendix 1. Comparable data were available for 14 of the 16 pilots which booked inpatients in these specialties. Pilot data from the evaluation questionnaires.\(^\) 2 Non-pilot data from the KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots.\(^3\) Gynaecology, general surgery, orthopaedics, urology and ophthalmology.

**DNAs**

Figure 26 compares the proportion of DNAs in the pilots and non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- DNAs in the pilots fell from 3.1% during the first quarter of 1999 to 2.2% during the first quarter of 2000 and then to 2.1% during the first quarter of 2001. The change between 1999 and 2000 was statistically significant.

- DNAs in the non-pilots fell from 2.8% during the first quarter of 1999 to 2.7% during the first quarter of 2000 and then to 2.6% during the first quarter of 2001. The change between 2000 and 2001 was statistically significant.
The difference between the pilots and the non-pilots on this measure therefore changed from being 0.3% higher in the pilots in the first quarter of 1999 to 0.5% lower in the pilots in the first quarters of 2000 and 2001.

**Figure 26: Percentage of DNAs for pilots\(^1\) and non-pilots\(^2\) in the five most common specialties\(^3\), 1999, 2000 and 2001**

*Figure showing DNA percentages for pilots and non-pilots.*

1 See summary tables in appendix 1. Comparable data were available for 9 of the 16 pilots which booked inpatients in these specialties. Pilot data from the evaluation questionnaires. 2 Non-pilot data from the KH06 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. 3 Gynaecology, general surgery, orthopaedics, urology and ophthalmology.

**Patients waiting six months or over**

Figure 27 compares the percentage of patients waiting six months and over in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the percentage of patients waiting six months or over in the pilots increased from 15.4% at the end of March 1999 to 17.2% at the end of March 2000 and 17.8% at the end of March 2001. The change between 1999 and 2000 was statistically significant.

- the percentage of patients waiting six months or over in the non-pilots increased from 33.7% at the end of March 1999 to 34.1% at the end of March 2000 and then fell to 32.5% at the end of March 2001. The change between each period was statistically significant.
On this measure, the pilots’ waiting times remained considerably shorter that those of the non-pilots throughout this period, although the difference narrowed from 18.3% in 1999 to 14.7% in 2001.

**Figure 27: Percentage of patients waiting six months or over for pilots and non-pilots in the five most common specialties, 1999, 2000 and 2001**

Responses to the survey of project managers indicated that a number of factors contributed to increased waiting times in the pilots. Three managers reported that the non-availability of beds had led to increases in waiting times. Other issues included patient cancellations, consultant vacancies, the impact of a trust merger, and insufficient theatre capacity. The manager of one small pilot which experienced falling waiting times noted that:

> ‘in order to ensure booked admissions was implemented effectively, additional theatre sessions were used to reduce the number of patients waiting. This helped significantly in reducing the waiting time to 6 months and under’.

**Patients waiting for admission**

Figure 28 compares the number of patients waiting for admission in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

---

1 See summary tables in appendix 1. Comparable data were available for 14 of the 16 pilots which booked inpatients in these specialties. Pilot data from the evaluation questionnaires. 2 Non-pilot data from the KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. 3 Gynaecology, general surgery, orthopaedics, urology and ophthalmology.
• The number of patients waiting for admission in the pilots fell by 2.1% between the end of March 1999 and the end of March 2000 and then increased by 1.3% by the end of March 2001.

• The number of patients waiting for admission in the non-pilots fell by 0.2% between the end of March 1999 and the end of March 2000, and then fell again by 2.4% by the end of March 2001.

On this measure, the non-pilots made slightly faster progress than the pilots in reducing the number of patients waiting for admission.

**Figure 28:** Percentage change in the number of inpatients waiting and admitted for pilots\(^1\) and non-pilots\(^2\) in the five most common specialties\(^3\), 1999, 2000 and 2001

---

1 See summary tables in appendix 1. Comparable data were available for 14 of the 16 pilots which booked inpatients in these specialties for the waiting comparison and for 14 pilots for the admissions comparison. Pilot data from the evaluation questionnaires. 2 Non-pilot data from the KH06 and KH07 central returns. These data include all non-pilot trusts in England and specialty-level activity from pilots that were not ‘live’ as part of the first wave pilots. 3 Gynaecology, general surgery, orthopaedics, urology and ophthalmology.

One respondent to the project manager survey noted that a reduction in the number of patients waiting could be attributed to increased utilisation of capacity, and suggested that this might indicate ‘evidence of booking helping us to be more efficient’. Another manager reported that the number of patients waiting had fallen as a result of waiting list targets and better management of waiting lists. This manager commented ‘I do..."
not think booked admissions was the cause of this but greater awareness of the whole issue probably helped’.

Number of patients admitted

Figure 28 also compares the number of patients admitted in the pilots and the non-pilots for each of the three quarters for which we have data. The figure illustrates that:

- the number of patients admitted in the pilots fell by 10.0% between the first quarter of 1999 and the first quarter of 2000, and by a further 14.1% between the first quarter of 2000 and the first quarter of 2001. The change between each period was statistically significant

- the number of patients admitted in the non-pilots fell by 8.4% between the first quarter of 1999 and the first quarter of 2000, and by a further 1.3% between the first quarter of 2000 and the first quarter of 2001. The change between each period was statistically significant.

On this measure, activity levels fell further in the pilots than in the non-pilots.

Responses to the survey of project managers indicated that a number of factors influenced admission numbers. Two managers noted the impact of not having a waiting list initiative. Others stated that reductions in admissions reflected ‘winter pressures’, medical bed pressures, consultant vacancies and changes in referrals.

3.5 Comparisons between specialties

Having reviewed progress in inpatient booking for consultants involved in the first wave, variations between pilots, and comparisons between pilots and non-pilots, we now go on to analyse performance at the specialty level. In so doing, we would emphasise that the volume of activity included in the analysis varied and in some cases was small. For this reason, caution is needed when interpreting specialty level comparisons. The focus in what follows is on three measures only: the proportion of patients waiting with a date, DNAs, and the proportion of patients waiting six months
and over. The purpose of this analysis is to explore whether booking made greater progress in some specialties than others.

**Overview**

Eighty six percent of all inpatient admissions under consultants participating in the first wave pilots during the first quarter of 2001 were in five specialties. Figure 29 shows that of these specialties, orthopaedics accounted for the largest number of admissions (31%; 1,652 admissions) and ophthalmology accounted for the smallest number (7%; 349 admissions).

**Figure 29: Percentage of inpatient admissions during the first quarter of 2001 in the pilots in the five most common specialties**

Table 10 shows that ophthalmology was the specialty with the highest proportion of patients waiting with a date by the end of March 2001 (90.7%) followed by gynaecology (77.8%). Orthopaedics (38.3%) and general surgery (42.3%) had the lowest proportion of patients waiting with a date. The pattern in the non-pilots was broadly the same with gynaecology (36.1%) and ophthalmology (26.8%) having the highest proportion of patients waiting with a date and orthopaedics (14.9%) and general surgery (21.3%) the lowest proportion.
Changes in percentage of patients waiting with a date

Table 10 shows that the percentage of patients waiting with a date increased in the pilots in all five specialties between the end of March 1999 and the end of March 2000. The largest increases were in ophthalmology and general surgery. By comparison, between the end of March 2000 and the end of March 2001, four specialties (general surgery, orthopaedics, ophthalmology and urology) experienced a reduction in the percentage of patients waiting with a date. The largest reductions were in general surgery and urology. Against the trend, gynaecology experienced an increase in the percentage of patients waiting with a date.

Table 10: Percentage of inpatients waiting with a date in the five most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>'live' first wave pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31 March</td>
<td>2000</td>
<td>2001</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>42.0</td>
<td>49.4</td>
<td>38.3</td>
</tr>
<tr>
<td>General surgery</td>
<td>40.0</td>
<td>55.6</td>
<td>42.3</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>54.6</td>
<td>69.0</td>
<td>77.8</td>
</tr>
<tr>
<td>Urology</td>
<td>50.9</td>
<td>54.2</td>
<td>42.1</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>44.1</td>
<td>94.2</td>
<td>90.7</td>
</tr>
<tr>
<td>Total</td>
<td>44.1</td>
<td>57.9</td>
<td>45.7</td>
</tr>
</tbody>
</table>

* p<0.05

1 Pilot data from evaluation questionnaires. Non-pilot data from KH07 central returns. See appendix 1 for information on the number of pilots active in each specialty.

Figure 30 uses quarterly specialty-level data from the KH07 central returns to illustrate how the proportion of patients waiting with a date changed at specialty level in trusts with ‘live’ first wave pilots.
Figure 30: Percentage of inpatients waiting with a date in ‘live’ first wave pilots trusts

Figure 30 shows that the pilots have seen least progress in general surgery and orthopaedics which are the two specialties which dominated inpatient booking in the first wave pilots (together accounting for 59% of activity). Most progress at specialty level was made in ophthalmology (Table 10). However, the number of ophthalmology admissions accounted for only 7% of admissions in the main five specialties and so its impact on the overall performance is limited.

Changes in DNAs

Table 11 shows that:

- in the first quarter of 1999 DNA rates in the pilots varied from 3.8% in general surgery to 1.9% in ophthalmology, compared with a variation from 3.1% in orthopaedics to 2.4% in gynaecology in the non-pilots

- in the first quarter of 2000 DNA rates in the pilots had fallen with general surgery experiencing the highest rate at 3.7% and ophthalmology the lowest rate at 0.6%,
compared with a variation from 2.9% in orthopaedics to 2.5% in gynaecology in the non-pilots

- in the first quarter of 2001 DNA rates in the pilots varied from 3% in orthopaedics to 0.5% in ophthalmology, compared with a variation from 2.7% in orthopaedics, ophthalmology and urology to 2.0% in gynaecology in the non-pilots

Table 11 shows that among the pilots urology made the greatest progress in reducing DNAs between 1999 and 2000 and general surgery made the greatest progress between 2000 and 2001. By comparison, DNAs in orthopaedics remained high throughout. Among the non-pilots, there was relatively little change in DNAs throughout this period, with the exception of the reductions experienced in orthopaedics and gynaecology.

Table 11: Percentage of inpatient DNAs in the five most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>‘live’ first wave pilots quarter ending March</th>
<th>non-pilots quarter ending March</th>
<th>change in % between periods 1999 and 2000 pilots non-pilots</th>
<th>change in % between periods 2000 and 2001 pilots non-pilots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopaedics</td>
<td>2.8 2.4 3.0</td>
<td>3.1 2.9 2.7</td>
<td>-0.5 -0.2 * 0.7 -0.2</td>
<td></td>
</tr>
<tr>
<td>General surgery</td>
<td>3.8 3.7 2.3</td>
<td>2.7 2.8 2.6</td>
<td>-0.2 0.1 -1.4 * -0.2</td>
<td></td>
</tr>
<tr>
<td>Gynaecology</td>
<td>2.5 1.5 1.6</td>
<td>2.4 2.5 2.0</td>
<td>-1.0 0.0 0.1 -0.5 *</td>
<td></td>
</tr>
<tr>
<td>Urology</td>
<td>3.4 0.7 0.6</td>
<td>2.6 2.7 2.7</td>
<td>-2.7 * 0.1 -0.1 -0.1</td>
<td></td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>1.9 0.6 0.5</td>
<td>2.7 2.6 2.7</td>
<td>-1.3 -0.1 -0.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.1 2.2 2.1</td>
<td>2.8 2.7 2.6</td>
<td>-0.9 * 0.0 -0.1 -0.2 *</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

Table 12 shows the proportion of inpatients waiting six months or over by specialty for each of the three quarters for which data are available for both pilots and non-pilots. The table illustrates that:

- in the first quarter of 1999 the proportion of patients waiting six months or over in the pilots varied from 5% in urology to 30.1% in ophthalmology, compared with a variation from 24.1% in urology to 40.1% in orthopaedics in the non-pilots
• in the first quarter of 2000 the proportion of patients waiting six months or over in the pilots varied from 6.8% in urology to 21.7% in orthopaedics, compared with a variation from 25.3% in urology to 40.6% in orthopaedics in the non-pilots.

• in the first quarter of 2001 the proportion of patients waiting six months or over in the pilots varied from 6.7% in urology to 21.3% in orthopaedics, compared with a variation from 21.3% in gynaecology to 39.3% in orthopaedics in the non-pilots.

These figures suggest that waiting times were relatively short in urology and relatively long in orthopaedics in both the pilots and non-pilots.

Table 12 shows that while the pilots’ experience varied considerably, in the non-pilots the trend was a gradual reduction in the proportion of patients waiting six months. Despite this, in all specialties at the end of all three quarters, the proportion of patients waiting six months or over was lower for the pilots than elsewhere. This reflects the fact that a condition of entry to the programme was that the pilots had to either have waiting times down to six months already, or have a plan for achieving this requirement.

Table 12: Percentage of inpatients waiting six months or over in the five most common specialties, pilots and non-pilots, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Specialty</th>
<th>‘live’ first wave pilots 31 March</th>
<th>non-pilots 31 March</th>
<th>change in % between periods 1999 and 2000</th>
<th>change in % between periods 2000 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopaedics</td>
<td>15.5 21.7 21.3</td>
<td>40.1 40.6 39.3</td>
<td>6.2 * 0.5 * -0.4 -1.2 *</td>
<td></td>
</tr>
<tr>
<td>General surgery</td>
<td>10.9 17.8 18.1</td>
<td>30.9 30.7 29.0</td>
<td>6.8 * -0.2 0.3 -1.7 *</td>
<td></td>
</tr>
<tr>
<td>Gynaecology</td>
<td>15.6 12.9 11.2</td>
<td>25.7 25.6 21.3</td>
<td>-2.7 -0.1 -1.7 -4.3 *</td>
<td></td>
</tr>
<tr>
<td>Urology</td>
<td>5.0 6.8 6.7</td>
<td>24.1 25.3 25.2</td>
<td>1.8 1.2 * 0.0 -0.1</td>
<td></td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>30.1 9.5 9.7</td>
<td>34.2 33.7 31.1</td>
<td>-20.6 * -0.5 0.2 -2.7 *</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15.4 17.2 17.8</td>
<td>33.7 34.1 32.5</td>
<td>1.8 * 0.4 * 0.6 -1.5 *</td>
<td></td>
</tr>
</tbody>
</table>

* p<0.05

1 Pilot data from evaluation questionnaires. Non-pilot data from the KH07 central returns. See appendix 1 for information on the number of pilots active in each specialty.
Further analysis of specialty data suggests that among the pilots there was a relationship for inpatients between booking, DNAs and waiting times (Figures 31 and 32). Ophthalmology experienced relatively short waits, low DNA rates and high levels of booking. By comparison, orthopaedics experienced relatively long waits, high DNA rates and low levels of booking. The experience in general surgery was similar to that of orthopaedics.

A similar relationship can be identified among the non-pilots. For example, gynaecology experienced the shortest waits in the first quarter of 2001 and it also had the lowest DNA rate and the highest level of booking. At the other extreme, orthopaedics had the longest waits in the same period together with the highest DNA rate and the lowest level of booking. However, the correlation in each figure is not statistically significant.

**Figure 31:** Percentage of patients waiting with a date (31 March 2001) and percentage of patients waiting six months (31 March 2001) for the five most common inpatient specialties
It is also worth noting the experience of the specialty with the shortest waits among the pilots, urology. As might be expected from the experience of other specialties, the short waiting time was associated with low DNA rates, although urology had low levels of booking. Among the non-pilots, urology had relatively long waits, high DNA rates and a level of booking in the middle of the range.

Analysis by specialty indicates the challenges faced in extending booking in general surgery and orthopaedics in particular.

### 3.6 Scope of the first wave pilots
A key to understanding the progress of the pilots is the very substantial variation in their scope and objectives. Figure 33 ranks the pilots by the proportion of all inpatient admissions under consultants participating in the first wave. The scope of the pilots ranged from 2% to 94% of all inpatient activity. Figure 33 also shows the proportion of patients in the pilots waiting with a date at the end of March 2000 and March 2001.
The figure indicates that pilots with a narrow scope tended to achieve higher levels of booking than pilots with a wide scope for the consultants included in the pilot.

**Figure 33: The scope and percentage of patients with a date by pilot, 2000 and 2001 (n=14)**

Note: * indicates that the change in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001 is statistically significant (p<0.05).

But what was the experience of these pilots in extending booking? Four of the 14 pilots included more than half of all inpatient activity in their scope (pilot 16 and all those to its right in Figure 33). Of these four pilots, two experienced a significant reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001. One pilot (Homerton, 4) experienced a significant increase in this measure. Homerton stands out for having achieved both a very high
level of booking within the pilot (100% of patients waiting with a date) and a very high proportion of pilot coverage (91% of all inpatients).

Ten of the 14 pilots included less than half of all inpatient activity undertaken by the participating trusts in their scope, and half of these pilots accounted for less than 10% of inpatient activity. The smallest inpatient pilot accounted for just 16 admissions in the first quarter of 2001. Three of these 10 pilots experienced a significant reduction in the proportion of patients waiting with a date between the end of March 2000 and the end of March 2001, and three experienced a significant increase in the same period.

In addition to the wide range in scope, the first wave pilots are also marked by a substantial difference in size (as measured by the number of patients admitted within each pilot). Four of the 14 pilots included in the inpatient analysis were much larger than the others and accounted for 80% of the total activity. There were however no systematic differences between these large pilots and the remaining 10 inpatient pilots in the changes in booking experienced between the end of March 2000 and the end of March 2001. This indicates that the task of extending booking for inpatients was not limited to a few particularly challenged trusts.

3.7 The NHS Plan targets

The introduction of inpatient booking was not the central objective of the first wave pilots. Nevertheless, as with day case booking, the first wave pilots could be expected to be in the vanguard of the drive to meet the national targets. Figure 34 uses data from the central statistical returns to illustrate the quarterly changes in the proportion of patients waiting with a date and the proportion of patients waiting six months for all inpatient activity at the 14 pilots undertaking some inpatient booking included in the analysis and all other trusts.
The percentage of inpatients waiting with a date in the pilots are lower in Figure 34 than in previous tables because these data cover all inpatients in the trusts. Figure 34 also shows the change in these measures required in order to meet The NHS Plan targets that all admissions should be booked, and that the maximum waiting time should be six months, by the end of 2005.
3.8 Booking from general practice

The pilots used a range of methods to book appointments direct from general practice. These ranged from attempts to speed communications between the GP and trust by means of fax or email based referral to booking using an electronic schedule in the trust is accessed from the GP’s surgery. Figure 35 illustrates the options.

**Figure 35: Examples of types of booking from general practice**

**Example 1: Booking a patient by fax into an outpatient clinic or day surgery procedure**

1. GP assesses patient using protocol
2. GP completes proforma and asks the patient to telephone the hospital
3. Practice staff send the fax to the hospital
4. Patient telephones the hospital after a range of dates
5. Hospital offers a range of available dates
6. Patient attends booked appointment

**Example 2: Booking a patient by email into an outpatient clinic or day surgery procedure**

1. GP assesses patient using protocol
2. GP completes proforma and asks the patient to telephone the hospital
3. Patient telephones the hospital after 24-48 hours
4. Hospital offers a range of available dates
5. Patient attends booked appointment

**Example 3: Booking a patient using an electronic scheduler connected to the acute trust for an outpatient clinic or day surgery**

1. GP assesses patient using protocol
2. GP completes electronic or paper protocol
3. GP or practice staff agree a date with patient and book a slot on scheduler
4. Patient attends booked appointment
**Booking outpatient appointments**

Four first wave pilots included booking outpatient appointments from general practice. Two of these pilots (one booking oral lesions and the other booking for lung and breast cancer) were unable to supply us with activity data.

The Central Manchester pilot included booking for obstetric, paediatric and gynaecology appointments. The bookings were made by GPs using desk-top PCs to access NHSnet and an electronic scheduler. Table 13 shows that the number of referrals made using the booking arrangements fell by 25% from 131 in the first quarter of 2000 to 98 in the first quarter of 2001.

**Table 13:** Central Manchester: booking from general practice for obstetrics, paediatrics and gynaecology outpatient first attendances (within the scope of the project)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of referrals</td>
<td>330</td>
<td>131</td>
<td>225</td>
<td>98</td>
<td>260</td>
</tr>
<tr>
<td>Number of patients seen</td>
<td>237</td>
<td>105</td>
<td>115</td>
<td>83</td>
<td>63</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>18.6</td>
<td>13.3</td>
<td>11.0</td>
<td>18.1</td>
<td>30.8</td>
</tr>
<tr>
<td>% with total wait less than 4 weeks</td>
<td>46.4</td>
<td>71.8</td>
<td>53.8</td>
<td>55.9</td>
<td>64.9</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>10.5</td>
<td>5.7</td>
<td>5.2</td>
<td>12.0</td>
<td>14.9</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>10.1</td>
<td>2.9</td>
<td>7.7</td>
<td>3.6</td>
<td>16.0</td>
</tr>
</tbody>
</table>

The Birmingham City Hospital pilot also allowed GPs to book outpatient appointments via NHSnet and an electronic scheduler (the Rapport project). The pilot included referrals for procedures in general surgery, gastroenterology, dermatology, cardiology and gynaecology. Figure 36 shows the total number of patients booked in each quarter between the first quarter of 2000 and the first quarter of 2001. A recent report indicates that the Rapport project has been extended to a wider range of practices and has assisted in reducing DNA rates. The report noted:

*‘The results so far of the Birmingham model show that the on line booking system may only work in clinics where waiting lists are short and where GPs or delegated practice staff feel confident using NHSnet’* (Andalo, 2001, p24).
Figure 36: Number of patients booked from general practice for outpatient first attendances at Birmingham City Hospital

Booking day case surgery direct from general practice

Three first wave pilots included booking day case surgery direct from general practice. Two pilots provided some comparable data. The East Norfolk and Waveney pilot included a small number of hernia repairs (see Table 33 in appendix 2). Pinderfields and Pontefract is one of the case studies included in chapter 4 and their activity is shown in Table 19.

A pilot that put particular emphasis on booking day case surgery direct from general practice was Birmingham Heartlands and Solihull NHS trust. This pilot was subject to an independent assessment and the results are summarised in Box 9 below.
Box 9: Findings from trial of GP direct booking

The Birmingham Heartlands and Solihull NHS Trust (Teaching) undertook a study of GP direct booking of day case surgery through faxed referral. Nine procedures were identified for inclusion in the pilot. Patients eligible for these procedures were randomised between direct booking or (the conventional route) referral to an outpatients appointment. One hundred and fifteen referrals were received from participating GPs during the 15 months of the project. Of these referrals, 75 were allocated to direct booking and 40 to referral to the outpatient department. The most frequent referrals were for vasectomy, lumps and bumps and inguinal hernia repair. The results showed that the direct referral route was quicker. There was no difference in patient satisfaction between the direct and indirect groups of patients, nor between GP satisfaction. For the practices involved, the main benefit was the reduced waiting time, and the main disadvantage was a lengthening of GP consultation, including the problem of completing forms during the consultation, finding the referral form at the right time and the explanation and examination involved. Consultant and theatre staff were supportive of the project but too few referrals had been received to make any noticeable difference in workload. No significant problems were reported. Overall, the project overcame the challenge of change and questioning accepted practices but direct referral remained low.

Source: M Wilkinson, M Goldman and R Hobbs (not dated)

3.9 Summary

Our analysis indicates that the proportion of inpatients waiting with a date increased, although the increase experienced in the first year was largely eliminated in the second year. DNAs fell progressively over the two years. The early increase in hospital initiated cancellations was sustained while patient initiated cancellations fell substantially. The proportion of patients waiting six months or over increased, the number of patients waiting fell slightly, and the number of patients admitted fell substantially.

There were wide variations between pilots in what was achieved. Only one pilot (Homerton) was able to achieve high levels of inpatient booking and even in this case the first wave provided the opportunity to consolidate what had already been done rather than to provide the basis for innovation. The reasons why inpatient booking is more difficult than day case booking are discussed more fully in chapter 8 but in brief they centre on the longer time inpatients wait compared with day cases and the absence of protected facilities. The challenge faced by first wave pilots in increasing inpatient booking where waiting times were six months or below (for example,
Dorset) suggests that capacity constraints are the key rate limiting factor rather than waiting times per se.

Our analysis shows that the pilots continued to perform better than the non-pilots in relation to the proportion of patients waiting with a date. On the other available measures, the pilots made greater progress than the non-pilots in reducing DNAs; their waiting times remained shorter, although the difference narrowed; the non-pilots made slightly faster progress in reducing the number of patients waiting for admission; and the number of patients admitted fell further in the pilots than the non-pilots.

The specialty level analysis shows that in the pilots ophthalmology and gynaecology had the highest proportion of patients waiting with a date by the end of March 2001. Orthopaedics and general surgery had the lowest proportion of patients waiting with a date in the same period. Orthopaedics had the highest DNA rate and ophthalmology had the lowest DNA rate in the first quarter of 2001. The highest proportion of patients waiting six months and over was in orthopaedics in both the pilots and the non-pilots. There is a tendency for short waiting times, low DNA rates and high levels of booking to be associated for inpatients, although there are exceptions at the specialty level.

Direct booking from general practice occurred in a small number of pilots. The available data from these pilots show that few patients experienced this type of booking to date. The most rigorous study of this area suggests that direct booking for day surgery can be done but that it is not yet making a major difference to patients or staff.
4. Case Studies

The 24 first wave pilots varied greatly in their focus and ambition. This chapter summarises experience in four of the pilots.

**Key Findings**

- Dorset implemented an approach to booking across all hospitals in the county in which good progress was made on day cases and slower progress on inpatients
- Homerton extended booking from a high base to achieve almost 100% booking of both day surgery cases and inpatients
- The Royal United Hospital in Bath made good progress in booking day cases in three specialties but was unable to commence inpatient booking
- Pinderfields and Pontefract tested out direct booking from general practice using a web-based scheduler for three day surgery procedures, and, like the Royal United Hospital in Bath in its second wave work, learned a number of lessons along the way about the challenges involved in this type of booking
- The experience of these four case studies illustrates the importance of context, leadership, capacity and consultant and GP support in enabling booking to take place. It also shows what can happen when difficulties arise with ICT.

4.1 The case study approach

Four of the pilots were selected for in depth analysis. These pilots served as case studies in the evaluation to enable particular themes to be investigated in greater detail than was possible from the monitoring of progress in the programme as a whole.

Box 10 contains summary information about the case studies. Each case study is described in turn starting with a review of the outcomes achieved in relation to the objectives that were set. This is followed by an analysis of the experience in the case study site that seeks to relate these outcomes to the processes at work in the pilots and the role of managers and clinicians in bringing about change.
Case studies require the gathering over time of multiple sources of evidence using interviews, documentary analysis and observation (Yin, 1994). The criteria for judging the quality of research design and its conclusions (or construct validity) include the use of multiple sources of evidence, the establishment of a chain of evidence, and the use of key informants to review critically the draft case study reports. Comparison of different sources of information provides several perspectives to help to validate the analysis.

Regular contact with the case studies for the purpose of data gathering was maintained between October 1999 and May 2001. This included a series of person-to-person interviews with key informants over the period, as well as the use of occasional telephone updates and the analysis of documentary information (Hartley, 1994). The focus was on the context, mechanisms and process of change in the organisations concerned, and the relationship with outcomes achieved.

**Box 10: Description of four case studies**

<table>
<thead>
<tr>
<th>Pilot Name</th>
<th>Description of Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Dorset Whole Systems</td>
<td>A whole system approach to booking all patients in the health authority area.</td>
</tr>
<tr>
<td>B) Homerton Hospital NHS Trust</td>
<td>A district general hospital with favourable characteristics and context for establishing and sustaining a booking system.</td>
</tr>
<tr>
<td>C) Royal United Hospital Bath NHS Trust</td>
<td>A district general hospital with a challenging environment for establishing a booking system.</td>
</tr>
<tr>
<td>D) Pinderfields and Pontefract Hospitals NHS Trust</td>
<td>A pilot with electronic booking from general practice.</td>
</tr>
</tbody>
</table>

This chapter analyses the outcomes achieved in these pilots, and statistical significance at the 5% level is indicated in the tables.
4.2 Dorset

The organisations

This pilot covered the organisations within Dorset Health Authority, including three district general hospitals (Poole Hospital NHS Trust, Royal Bournemouth & Christchurch Hospitals NHS Trust and West Dorset General Hospitals NHS Trust), two community trusts (Dorset Healthcare NHS Trust and Dorset Community NHS Trust) and five primary care trusts, serving a population of approximately 700,000. Each of the district general hospitals has an accident and emergency department and Poole Hospital is the major trauma centre for the county. The district general hospitals are located in separate acute trusts based in different parts of the county.

Context

Over the last five years Dorset Health Authority has invested funds and taken waiting list initiative opportunities to tackle the problem of long waiting times. In consequence, Dorset’s hospitals have among the lowest average and maximum waiting times in the country. The maximum waiting time, for patients referred within Dorset, is six months for all specialties. Dorset was therefore in a favourable position for working towards its aim of booking a large proportion of day cases and inpatients. Although each trust had individual consultants who had used booking systems in the past, the only substantial prior experience of booking was in Bournemouth Hospital’s gynaecology department.

Process

The whole health community aimed to ensure that by 31 March 2005 any individual requiring admission either as a day case or elective inpatient at a Dorset NHS hospital would receive a booked admission. In addition, any individual referred by a GP to a selected ‘appropriate’ outpatient clinic would receive a booked appointment. The pilot had six phases, over a seven year period, even though the national pilots were only funded for eighteen months.

The first phase started with a review of the learning from the existing gynaecology day case booked admissions system. This learning was then extended at the Bournemouth and Poole hospitals to all day case admissions. The following phases
included day case booking in particular specialties in the remaining trusts, a roll out of booking to inpatients across the acute trusts, and the introduction of outpatient bookings from primary care.

The project aimed to make the reductions shown in Box 11 from the position at October 1998. In addition, as directed by NPAT, the project aimed to increase patient satisfaction, improve communications with patients and GPs, integrate the booking system with other systems and use resources in an innovative way.

**Box 11: Dorset: booking targets**

<table>
<thead>
<tr>
<th>Change</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients with booked dates in services covered by scope of project</td>
<td>100%</td>
</tr>
<tr>
<td>Number of DNAs</td>
<td>Minimum 10% lower than baseline by end of pilot</td>
</tr>
<tr>
<td>Number of patient initiated cancellations</td>
<td>Minimum 20% lower than baseline by end of pilot</td>
</tr>
<tr>
<td>Number of hospital initiated cancellations</td>
<td>Minimum 10% lower than baseline by end of pilot</td>
</tr>
</tbody>
</table>

The trusts took different approaches to how bookings were made (see Box 12). These differences affected which staff groups made the bookings, the use of information technology, the role of pre-operative assessment and the specialties and type of bookings covered. Two of the three acute trusts developed or purchased an electronic scheduler to support booking.
Box 12: Dorset: trusts’ approaches to booked admissions

- At **Bournemouth** bookings are made in the day case unit or by specialty based booking clerks using manual diaries. Consultants or specialty based booking clerks book inpatients. GPs can book outpatient appointments using an electronic scheduler.

- At **West Dorset** bookings are made by the consultants for day cases and some inpatients during the outpatient appointment using the scheduler developed by the trust. The scheduler is also used in community clinics to book patients for operations.

- At **Poole** day case bookings are centralised in the day case unit with nurses using the ‘theatreman’ electronic system to offer patients same day pre-operative assessment. Consultants have the choice to book inpatients using manual diaries or to delegate booking to a central booking clerk.

- At **Dorset Healthcare** manual diaries are used and patients who need to be admitted to the acute trusts are asked to telephone the trust to book the date.

4.3 Outcomes

**Day cases**

Table 14 summarises the outcomes achieved by the trusts in the Dorset pilot (see chapter 2 and appendix 1 for information about the data and analysis). The data include all activity for those consultants booking patients within the first wave and hence does not necessarily cover all day case activity in the participating trusts. Table 14 shows that overall:

- **the proportion of day case patients with a booked or TCI date** increased from 76.1% to 87.4% between the end of March 1999 and the end of March 2000 and then fell to 84.6% by the end of March 2001

- **the proportion of day case patients failing to attend (DNAs)** fell from 3.3% to 1.4% between the first quarter of 1999 and the first quarter of 2000 and then fell to 1.3% in the first quarter of 2001
• the proportion of hospital initiated cancellations fell from 10.1% to 9% between the first quarter of 1999 and the first quarter of 2000 and then increased to 13.1% in the first quarter of 2001

• the proportion of patient initiated cancellations fell from 14% in the first quarter of 1999 to 10.1% in the first quarter of 2000 and then to 5.5% in the first quarter of 2001

• the number of patients waiting for admission fell by 21.9% between the end of March 1999 and the end of March 2000 (from 3,899 to 3,044) and this was followed by a further reduction of 6.7% between the end of March 2000 and the end of March 2001 (from 3,044 to 2,841)

• the number of patients admitted increased by 13.1% between the first quarter of 1999 and the first quarter of 2000 (from 5,650 to 6,389) and this was followed by a reduction of 18.7% between the first quarter of 2000 and the first quarter of 2001 (from 6,389 to 5,196).

There were no patients waiting six months or over at the end of each quarter.

Table 14: Dorset: all day case activity for consultants active in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>Change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>76.1</td>
<td>87.4</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>3.3</td>
<td>1.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>10.1</td>
<td>9.0</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>14.0</td>
<td>10.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Number of patients waiting</td>
<td>3899</td>
<td>3044</td>
</tr>
<tr>
<td>Number of admissions</td>
<td>5650</td>
<td>6389</td>
</tr>
</tbody>
</table>

*p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here.
Within Dorset there were variations between trusts. For example, the proportion of patients waiting with a date increased in Poole and West Dorset but fell in Bournemouth, albeit from a much higher base. There were also variations in performance on patient initiated cancellations with Bournemouth experiencing a reduction and Dorset Healthcare an increase. Appendix 2 includes further data on the performance of trusts in Dorset.

**Inpatients**

Table 15 summarises the outcomes achieved in inpatient booking at Bournemouth and Dorset Healthcare (the numbers at the latter were very small). It excludes inpatient booking at Poole which started after the end of the first wave. The table shows that:

- **the proportion of inpatients waiting with a booked or TCI date** increased from 61.9% to 65.9% between the end of March 1999 and the end of March 2000 and then fell to 53.7% by the end of March 2001

- **the proportion of patients failing to attend** (DNAs) remained at 0.5% between the first quarters of 1999 and 2000 and then increased to 1% in the first quarter of 2001

- **the proportion of hospital initiated cancellations** fell from 13.9% to 11.3% between the first quarter of 1999 and the first quarter of 2000 and then increased to 18.6% in the first quarter of 2001

- **the proportion of patient initiated cancellations** fell from 17.9 to 8.4% between the first quarter of 1999 and the first quarter of 2000 and then fell again to 5.3% in the first quarter of 2001

- **the number of patients waiting for admission** fell by 5.9% between the end of March 1999 and the end of March 2000 (from 1,820 to 1,712) and then rose by 1.5% by the end of March 2001 (from 1,712 to 1,737)
the number of patients admitted fell by 5.4% between the first quarter of 1999 and the first quarter of 2000 (from 2,227 to 2,107) and this was followed by a further reduction of 18.5% between the first quarter of 2000 and the first quarter of 2001 (from 2,107 to 1,718).

There were no patients waiting six months or over at the end of each quarter.

Within Dorset there were variations between trusts. For example, Dorset Healthcare achieved 100% booking of inpatients compared with a reduction in the proportion of patients waiting with a date at Bournemouth. The overall reduction in the proportion of inpatients waiting with a date in Dorset is explained by the much larger number of inpatients within the scope of first wave booking in Bournemouth compared with Dorset Healthcare.

Table 15: Dorset: all inpatient activity for consultants active in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>Change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>61.9</td>
<td>65.9</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>13.9</td>
<td>11.3</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>17.9</td>
<td>8.4</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹²</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Number of patients waiting¹²</td>
<td>1820</td>
<td>1712</td>
</tr>
<tr>
<td>Number of admissions</td>
<td>2227</td>
<td>2107</td>
</tr>
</tbody>
</table>

* p<0.05  ¹ At end of quarter. ² No statistical significance test has been applied to this measure here.

4.4 Analysis of themes

Management and leadership

This pilot was unusual, compared with the other 23 first wave pilots, in the level of ambition and the degree of commitment from all acute trusts. The health authority
was responsible for recruiting the trusts to take part in booking and this was the key factor in enabling booking to be developed across the county as a whole. Many staff interviewed regarded the lead given by the chief executive of the health authority as a particularly critical motivating factor. The attitude in Dorset was one of ‘how’ rather than ‘whether’ to introduce a booking system. The management of the pilot involved central leadership by the health authority with each trust determining its own approach to booking.

As the coverage of day case and inpatient admissions increased, the trusts found the roll out of booking to all specialties to be more difficult than expected. Resistance was encountered from individual clinicians or specialties, and difficulties were faced in booking inpatients in the context of few elective inpatients being admitted because of bed or theatre pressures. There were frequent discussions between the project staff about how realistic it was to achieve 100% booking of inpatients and the time and costs involved in rebooking cancelled inpatients.

Several project managers increasingly involved trust chief executives to provide more senior influence among clinicians. A recurring issue across the trusts was the need for tighter management of leave with longer notice required from surgeons and a move away from consultants taking leave at short notice. During the later stages of the project several trusts were slipping on progress against plan and increasingly the health authority took a stronger performance management approach where there was cause for concern, through individual meetings with project managers and chief executives.

The booking system was set up with the intention that ongoing costs would be minimal, although there was a recognition by the health authority that it would need to work together with the trusts to meet the costs. The recurring costs from the first wave and a further year’s funding for the project managers were not agreed until the Service and Financial Framework (SaFF) for 2001. This delay created a degree of uncertainty among project staff about the future of their posts and how the work would be sustained. It is hoped that the fourth wave of the programme, which started in September 2001, will help to sustain and extend booking in Dorset.
Information technology

At the start of the pilot the trusts took independent decisions about the use of information technology to book patients within hospital and between primary and secondary care. Two of the three acute trusts received national funding to develop or purchase electronic scheduling systems. The chief executive’s approach at West Dorset was different from the others in that he insisted that consultants should book patients themselves.

Laptop computers were used by the first consultants in West Dorset to book patients and this gave them access to the hospital scheduler from community clinics. However, laptops were found to be cumbersome to carry to the clinics along with clinic notes and it was not always possible to make a connection to the scheduler. Accordingly, desktop computers were installed in outpatient clinics in the main hospital and community clinics for consultants to book during the consultation using the electronic scheduler. Consultants reported that the bookings were quick to make both within the trust and from peripheral clinics. The system was programmed with average lengths of time for each operation but the bookings still required an element of judgement by the consultants.

Although there was communication between trusts through the meetings of the steering group overseeing the pilot, the implications of the trusts’ development of separate scheduling systems for primary care to book outpatients was not recognised until two of the four trusts were financially or culturally committed to different systems. It was recognised that this was likely to create problems for GPs in the eastern area of the county where there were frequent referrals to both the Poole and Bournemouth trusts. With hindsight, a view was expressed that the pilot should have involved GPs earlier and there should have been more co-ordination between the projects so that they started booking from primary care with one system.

Booking from general practice

GPs and PCGs were not involved in the first wave of the project. This reflected the focus of booking procedures within the hospitals and also the early stage of PCG development. Through the work to extend booking to outpatients, there has been an increasing PCG/T presence at the steering group, and work with pilot practices.
To assess the views of GPs we undertook a questionnaire survey (see chapter 5) and received a response rate of 30% (14/46). The GPs we surveyed were new to booking patients, but highlighted the need for adequate remuneration of the time and work involved and the need for training. Through the initiative on electronic booking, the health authority has co-ordinated work to look at options for electronic booking from practices to the trusts. The health authority achieved the aim of having 90% of practices with GP desktop access by March 2001.

All acute trusts had planned to enable GPs to directly book patients for endoscopies. In the event, an early decision was made to delay this aspect of the pilot because the initial work on booked admissions highlighted the need to redesign the entire system of referral to and use of this service.

**Consultants’ views**

We surveyed consultants in seven specialties across the three acute trusts in Dorset as part of a wider survey of consultants (see chapter 5). Seventy-eight per cent completed and returned the form (58/74). The survey showed that there is a good degree of support for booking from the majority of consultants surveyed in Dorset, but there are a number of consultants whose preference is not to run a booking system because of the impact on flexibility, clinical priority and efficiency. The comments summarised below are biased towards the minority of consultants who were critical of booking and who were most likely to express the reason for this in the survey.

One consultant explained that booking worked better in ‘cold’ specialties and his experience in a ‘hot’ specialty was that operating lists were not fully utilised and cancellations had increased. At Poole Hospital, one consultant who was enthusiastic about booking expressed a reservation about the possibility of having to use an electronic system in the future. Other consultants wanted to see booking extended and to become mandatory throughout the NHS.

Two consultants expressed concern about bookings being made by someone who did not understand the complexities of lists:
At Bournemouth the main areas of reservation were the perceived inefficiency of booking systems and a preference by consultants to book patients themselves rather than through an administrative member of staff.

‘I would keep names on cards and book lists myself several weeks in advance. I do not like the booked system because it regularly underuses my operating slots.’

Consultants had particular concerns about the inefficiency of booking inpatients, the risk of cancellations and the lack of capacity to book patients. There was also concern that there needed to be adequate theatre availability. At Poole the reservations were mainly about the length of the waiting list, although there was also concern that booking may be inefficient. It appeared that IT was regarded as a greater challenge at Poole than elsewhere.

Bournemouth consultants also raised concerns about the inefficiency of booking, a preference to book by clinical need, the waiting list being too long to book and worries that booking might extend the overall waiting time, if patients chose to book an appointment beyond the maximum waiting time of the whole list. When asked to indicate what were the greatest challenges to the expansion of booked admissions at Bournemouth, consultants indicated that waiting times and capacity were the most important factors.

**Patients’ views**

The East Dorset CHC undertook a county-wide survey of patients’ views (East Dorset CHC, 2001) in 2000. The response rate was 28% (252/885) which makes it difficult to determine how representative the views were. The survey showed a very high level of satisfaction among the respondents with the experience of booked admissions and a view that it was preferable to waiting for an appointment. A number of comments made in the free text by respondents suggested that in some instances patients were not offered a choice of date (38%), although it was not clear whether this was because
the first date offered was convenient. The CHC recommended a number of areas for attention, including increased training and awareness of staff of the programme and procedures.

4.5 Summary

The Dorset pilot was unusual among first wave sites in the level of ambition to book all patients over a seven year period, because most pilots only had targets relating to the period of the first wave. It was also unique in the extent of coverage across all the acute and community trusts in the health authority area. Although the pilot received £600,000 for the first wave, this was relatively little compared to the scope and funding of other pilots. There was very little booking prior to the project, but the trusts all had the advantage of starting with waiting times that were short, relative to waiting times in the NHS generally.

The trusts took different approaches to the methods of pre-operative assessment, booking patients, the use of IT and the speed of implementation. The work on booking was co-ordinated by the health authority. As the pilot evolved there was greater integration of the strategy towards booking across the health authority area, particularly in relation to electronic bookings, through links to the work on electronic patient records and bookings from primary care.

Despite the progress made in booking day cases, this pilot did not achieve 100% day case booking of the scope in the first wave. West Dorset made greater progress than the other trusts in booking all day cases within the scope of the pilot. However, two specialties, general surgery and ophthalmology, were significantly slower than other specialties to start booking and were only included towards the end of the two year period. Reasons given included that some consultants had previous negative experiences of booking systems and one procedure needed to be redesigned fundamentally before booking could be introduced. The reduction in booking at Bournemouth was influenced by the decline in orthopaedic booking.

The exceptional increase to 100% inpatient booking at Dorset Healthcare is explained by the very small number of patients involved. Also, as a community hospital, Dorset
Healthcare did not have the problem of balancing emergency and elective pressures, and the trust reported that there was no shortage of beds. In contrast, Bournemouth encountered problems honouring booked dates for inpatients over the winter of 2000 in some specialties, which is also likely to explain the increase in hospital initiated cancellations. To reduce the number of cancellations, some maternity and private beds at the hospital were used to admit booked inpatients. Inpatient bookings started at Poole and West Dorset after the end of the first wave.

The pilot aimed to reduce the DNA rate by 10%. This was more than achieved for day cases, with a reduction of 60%. DNAs for inpatients increased by 100%, which may be in part because of the far fewer inpatients in the scope of the pilot who were actually booked. The pilot did not meet the target of reducing hospital initiated cancellations by a minimum of 10% for either day cases (an increase of 30%) or inpatients (an increase of 34%). In contrast, the target of a minimum of a 20% reduction in patient initiated cancellations was exceeded, with cancellations for day cases falling by 61% and for inpatients by 70%.

Experience across the trusts varied, but overall there was good progress with day case booking and much slower progress with inpatient booking. Further progress with inpatient booking may require broader changes to address capacity issues in the acute trusts. Bookings from primary care for outpatients is the area of least development, but work has started towards this in all three trusts.

The fourth wave funding will help to sustain and further extend the booking programme in Dorset. It will also allow new services to be included in the programme, for example booking mental health services, and aims to focus the trusts on redesigning services in addition to agreeing booked dates.

4.6 Homerton

The organisations

The Homerton Hospital in Hackney, East London, is a district general hospital of around 450 beds, of which 100 are obstetric. The trust has a dedicated day surgery unit. The hospital serves an ethnically diverse population of approximately 204,000
people. The pilot work on booked admissions was led by the trust with support from East London and the City Health Authority.

**Context**

Homerton was previously part of St Bartholomew’s Hospital (Bart’s) and had a low elective workload. When it was established as a trust in its own right, there was a strategic plan to move progressively more elective work to Homerton. This had the potential to increase the waiting times at the trust and required firm management of elective services. At the beginning of the pilot the trust had some of the shortest waiting times in the country, with 70% of day cases and inpatients waiting less than three months and 95% waiting less than nine months. During the pilot the waiting times dropped to three months for 80% of day cases and 90% of inpatients as a result of concerted action to improve access.

At the start of the pilot the trust had an unusually strong history of booking 80% of elective day surgery cases and inpatients because the trust’s chief executive had launched an initiative in 1997 to work towards 100% booked surgical admissions. The trust reported that this approach was helped by many of the consultants being new, young and supportive with more established consultants moving to Bart’s when the hospitals split. However, there remained problems with high DNA rates for pre-operative clinics (up to 20%). The trust anticipated that without further investment to improve the system it would not be possible to meet the 100% target.

**Process**

The trust’s aims were focussed on day case and inpatient bookings across all surgical specialties: general surgery, urology, trauma and orthopaedics, oral surgery, gynaecology, plastics, gastroenterology and ENT:

- to increase booked admissions from 80% to 100% for day surgery cases and inpatients
- to reduce the DNA rate for pre-admission clinics from 20% to 5%
- to reduce the number of patients deemed medically unfit for operation on the day of operation
- to increase the percentage of operative procedures carried out as day cases
• to reduce the number of admissions cancelled by the hospital
• to improve patient, GP and staff satisfaction

The actual targets are shown in Box 13 and in addition, as directed by NPAT, the project aimed to increase patient satisfaction, improve communications with patients and GPs, integrate the booking system with other systems and use resources in an innovative way.

**Box 13: Homerton Hospital: booking targets**

<table>
<thead>
<tr>
<th>Change</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients with booked dates in services covered by scope of project</td>
<td>100%</td>
</tr>
<tr>
<td>Number of patients waiting</td>
<td>to reduce to 1,030 by 31.3.99 to be maintained by 31.3.2000</td>
</tr>
<tr>
<td>Waiting time</td>
<td>5% lower than baseline by end of pilot</td>
</tr>
<tr>
<td>Number of DNAs</td>
<td>pre-operative assessment from 20% to 5%</td>
</tr>
<tr>
<td>Number of patient initiated cancellations</td>
<td>operations &lt;1% by end of pilot</td>
</tr>
<tr>
<td>Number of hospital initiated cancellations</td>
<td>pre-operative assessment from 22% to 10%</td>
</tr>
<tr>
<td></td>
<td>operations &lt;0.8% by end of pilot</td>
</tr>
<tr>
<td></td>
<td>pre-operative assessment from 15% to 8%</td>
</tr>
<tr>
<td></td>
<td>operations &lt;0.8% by end of pilot</td>
</tr>
</tbody>
</table>

Manual diaries were used by the consultants to agree dates with patients during the outpatient clinic. The patient walked from the outpatient department to the admissions desk to book their pre-operative assessment appointment and to register the admission date.

**4.7 Outcomes**

*Day cases*

Table 16 summarises the outcomes achieved for those consultants booking patients within the scope of first wave pilot. The table shows that:
• the proportion of day case patients with a booked or TCI date increased from 94.3 % to 96.2% between the end of March 1999 and the end of March 2000 and then increased again to 99.6% at the end of March 2001

• the proportion of day case patients failing to attend (DNAs) fell from 7.2% to 5.2% between the first quarter of 1999 and the first quarter of 2000 and then fell again to 1.3% in the first quarter of 2001

• the proportion of hospital initiated cancellations increased from 0.8% to 4.6% between the first quarter of 1999 and the first quarter of 2000 and then fell to 3.7% in the first quarter of 2001

• the proportion of patient initiated cancellations fell from 8.1% to 7.4% between the first quarter of 1999 and the first quarter of 2000 and then fell again to 4.2% in the first quarter of 2001

• the number of patients waiting for admission increased by 34% between the end of March 1999 and the end of March 2000 (from 315 to 422) and this was followed by a further increase of 12.8% between the end of March 2000 and the end of March 2001 (from 422 to 476)

• the number of patients admitted fell by 9.7% between the first quarter of 1999 and the first quarter of 2000 (from 1,160 to 1,048) and this was followed by an increase of 4.5% between the first quarter of 2000 and the first quarter of 2001 (from 1,048 to 1,095).

The small proportion of patients waiting six months or over at the end of March 1999 fell to zero by the end of March 2000 and this was sustained at the end of March 2001.
Table 16: Homerton Hospital: day case activity\(^1\) for consultants active in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^2)</td>
<td>94.3</td>
<td>96.2</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>7.2</td>
<td>5.2</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>0.8</td>
<td>4.6</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>8.1</td>
<td>7.4</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^2)</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting(^2,3,4)</td>
<td>315</td>
<td>422</td>
</tr>
<tr>
<td>number of admissions(^4)</td>
<td>1160</td>
<td>1048</td>
</tr>
</tbody>
</table>

\(^*\) p<0.05  \(^1\) The analysis includes data for ENT, general surgery, gynaecology, oral surgery, orthopaedics, plastic surgery and urology. The day case activity data supplied by the pilot covered 79% (1095/1394) of their scope which was all surgical activity. This error was due to non-surgical directorate activity being omitted from the data supplied to the evaluation team.  \(^2\) At end of quarter.  \(^3\) No statistical significance test has been applied to this measure here.  \(^4\) Percentage change between periods. Note: all patients waiting at 31 March 2001 had been waiting less than three months.

The staff at Homerton reported that the reason why booking is consistently just less than 100% is because junior doctors sometimes forget to book patients and occasionally patients go home without going to the booking bureau to confirm the date.

**Inpatients**

Table 17 shows that:

- **the proportion of inpatients with a booked or TCI date** fell from 97.9% to 96.9% between the end of March 1999 and the end of March 2000 and then increased to 99.7% by the end of March 2001.

- **the proportion of patients failing to attend (DNAs)** increased from 5.4% to 6.5% between the first quarter of 1999 and the first quarter of 2000 and then fell to 3.5% in the first quarter of 2001.

- **the proportion of hospital initiated cancellations** increased from 13.6% to 14.3% between the first quarter of 1999 and the first quarter of 2000 and then fell to 4.7% in the first quarter of 2001.

- **the proportion of patient initiated cancellations** fell from 15.1% to 14.1% between the first quarter of 1999 and the first quarter of 2000 and then fell further to 8.8% in the first quarter of 2001.
• **the number of patients waiting for admission** increased by 33.7% between the end of March 1999 and the end of March 2000 (from 193 to 258) and by a further 14.7% between the end of March 2000 and the end of March 2001 (from 258 to 296).

• **the number of patients admitted** increased by 10.6% between the first quarter of 1999 and the first quarter of 2000 (from 404 to 447) and then increased again by 27.3% between the first quarter of 2000 and the first quarter of 2001 (from 447 to 569).

There were no patients waiting six months or over at the end of each quarter.

**Table 17: Homerton Hospital: inpatient activity\(^1\) for consultants active in the first wave pilot, 1999, 2000 and 2001**

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^2)</td>
<td>97.9</td>
<td>96.9</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>5.4</td>
<td>6.5</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>13.6</td>
<td>14.3</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>15.1</td>
<td>14.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^2)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting(^2,3,4)</td>
<td>193</td>
<td>258</td>
</tr>
<tr>
<td>number of admissions(^4)</td>
<td>404</td>
<td>447</td>
</tr>
</tbody>
</table>

*\(p<0.05\)  \(^{1}\) The analysis includes data for general surgery, gynaecology, oral surgery and orthopaedics.  \(^{2}\) At end of quarter.  \(^{3}\) No statistical significance test has been applied to this measure here.  \(^{4}\) Percentage change between periods.

The trust reported that the relatively high initial DNA rate is likely to be a reflection of the mobility of the population. A new East London-wide DNA policy was introduced during 2000 which may have contributed to the reduction in the DNA rate for both day cases and inpatients. Patients who DNA are not given a new date for the operation and are instead referred back to the GP. The notes of patients identified by a consultant as ‘urgent’ and who do not attend the pre-operative assessment are reviewed by a consultant prior to referral back to the GP. The hospital also introduced a telephone cancellation answer-line.
Given that the hospital reports that it is ‘emergency-driven’, it would be expected that this would have resulted in a high number of cancelled booked appointments. It is probable that the short waiting times and the active bed management system (see below) are the principal factors in Homerton’s track record in giving all inpatients booked dates, with relatively few cancellations, although further analysis is needed to confirm this.

The trust’s project team undertook to understand why patients were cancelled by the hospital. A consultant anaesthetist reviewed the health records for patients cancelled during April 1999 to February 2000. The review showed that 57 patients were classified as clinically unfit and 66 were cancelled for a non-clinical reason. Only 54 sets of health records could be located for the review. Of these, the view was taken that 13 patients who were cancelled for clinical reasons need not have been admitted and then cancelled if more timely action had been taken. For the patients who were cancelled for non-clinical reasons, eight cancellations could have been avoided if there had been better ‘work-up’ prior to booking the operation (Al Dahma and Graham, 2000).

4.8 Analysis of themes

Management and leadership

During the pilot the chief executive was seconded to another hospital and the director of service development (and also the project leader) became the acting chief executive. This did not appear to impact detrimentally upon the project. The trust was awarded beacon status for the booked admissions work. Towards the end of the pilot the project team moved to different jobs and although new staff were involved there was inevitably a lack of continuity. The general manager for surgery took over responsibility for managing booked admissions at the end of the pilot including responsibility for managing the admissions bureau staff. The relatively small size of the hospital was reported to have contributed positively to the development of booking.
The trust received £206,000 over 18 months from the first wave funding. Homerton chose not to be part of wave two because it was felt that the infrastructure for booking outpatients from primary care was not sufficiently developed. However, the trust participated in the managing capacity and demand work known as continuous improvement of booked admissions (CIBA). This work highlighted a number of shortcomings with the management of resources, as noted in a report on communication pathways (Al Dahma, 2000):

‘Currently the consultants manage this (scheduling operations) by a process of experience and intuition. There are a number of problems with this method. The lack of a comprehensive scheduling approach based on available capacity means that sessions can be overbooked or under utilised. Filling sessions completely with routine procedures also creates the potential for cancellations as more urgent cases have to be accommodated. Whilst 100% utilisation may appear to be desirable, it is not realistically achievable and the Trust needs to establish what level of capacity can be achieved in order to avoid cancellations and maintain waiting list targets’. (p. 6)

Information technology
This pilot was not dependent on new information technology. It was recognised that an IT scheduler would enhance the booking system and a new integrated HISS system was investigated with the intention that it would link to the booking system but this work was independent of the pilot. The procurement was delayed because the supplier withdrew from UK health care but alternative options are being considered. Throughout the pilot, the project staff encountered problems with the quality of data which hindered their understanding of the impact of change. A great deal of time was spent trying to validate the data sources and although attempts were made to employ a member of staff to work on the IT this was not successful.

Consultants’ views
Consultants are more involved in the booking process at Homerton than in many other trusts, in that the majority agree admission dates with patients during the outpatient appointment using their manual diaries. On the whole this has not caused problems, but one consultant prefers his secretary to give dates to patients, which sometimes creates a delay for patients.
The hospital undertook two surveys of the consultants, with a response rate of 55% (11/20) and 53% (10/19). The analysis of the first survey by the trust concluded:

‘There seems to be a positive response from the surgeons to the process. This is probably due to the fact that they had largely been negotiating dates with patients for some years and this was not a major cultural change for them... The difficulties that were experienced are not general and may reflect a difference in ability to manage a list. This would include building in contingency slots to allow for emergencies’. (Al Dahma, 1999, p29)

The analysis of the second survey revealed a similar response:

‘Consultants are happy to negotiate admission dates with their patients as this had been common practice prior to the start of the project and has not constituted a major change in working practices. One consultant still does not discuss admission dates with his patients and would rather that this is done by his secretary... Problems that were identified, such as cancellations due to urgent case priority, are issues that need to be addressed and have already arisen in other forum’. (Al Dahma and Graham, 2000, p46)

To undertake an independent assessment of the views of consultants at Homerton Hospital, we arranged for a short questionnaire to be sent to all the consultants in the seven specialties most commonly involved in booking patients (see chapter 5 for more information about the questionnaire and methodology). Twenty consultants were included in the survey and eleven returned the questionnaire, giving a response rate of 55%. All the consultants who responded indicated that 100% of their day case patients were given booked dates, with 82% (9/11) indicating that all their inpatients were given booked dates and only one consultant saying that no inpatients were booked and another that some inpatients were booked.

The consultants were asked to indicate whether they would book patients differently from the method chosen by the hospital, if they were given the opportunity. The majority (82%, 9/11) said they would not book patients differently and only two (18%) said they would book patients differently. The two consultants added written comments to indicate their preference:

‘ – according to priority, like suspected urgent non-malignant conditions and suspected cancer cases.’
The consultants were asked to indicate their commitment to the booking system. The vast majority (73%, 8/11) were enthusiastic and the rest (27%; 3/11) were supportive. In sharp contrast to the other four trusts included in the survey (see chapter 5), no consultants at Homerton who responded were sceptical or not convinced of the value of booking. Those consultants who were supportive added the following comments:

‘There is a shortage of staffing.’

‘Booked dates ideally should be within three or four months (in my opinion). Others should be put on ‘month indicative’ booked list, i.e. if I see a patient today and my three or four month slots are filled I would say you will be operated in July or so. They must have confirmation of the date three months before the surgery.’

When asked to indicate the greatest challenges to the expansion of booked admissions at the trust, four of the respondents did not note any challenges, three noted waiting times, two capacity, two other priorities (e.g. cancer patients), one noted IT and one highlighted patient reliability given the high DNA rate.

The role of nurses

Through the pilot the role of nurses in pre-operative assessment for inpatients was reviewed. Previously, nurses were only involved in day case assessment and in the assessment of gynaecology patients. The pilot’s staff decided that the nurses needed to be involved in giving information to patients about pain and after care. On a trial basis, nurses were involved in assessing orthopaedic patients, and this was welcomed by the doctors.

Within Homerton, there is a well-established system of ‘clinical site managers’ who are experienced nurses acting as co-ordinators between all the ward areas, A&E and admissions to ensure that the bed resource is used to capacity. A typical shift would
be spent in the morning going round each of the wards and talking to the sisters to find out which patients they anticipate will be discharged during the day. In the process the clinical site managers are able to confirm the elective patients that sisters are expecting to admit, warn them of admissions that are pending in A&E, check the availability of the side rooms, and review which patients are infectious. They are also able to advise about any patients who are causing concern to the nurses.

The day is spent with regular visits to the wards to update this information and liaise between A&E, elective admissions and discharges. Given their overview, clinical site managers are in a good position to advise if patients should be moved between the wards, for example, to the critical care unit or to the step down rehabilitation stroke unit. Consequently, they have an advocacy role between the nurses and the consultants where this is necessary. The work of these managers has contributed significantly to the ability of Homerton to achieve high levels of inpatient as well as day case booking (Eamer, 1999).

Administrative staff

Before the start of the booking project there were separate day surgery admission officers and inpatient admission officers. As a result of the pilot, these staff were brought together and an additional staff member was appointed. The main change for these staff was that they met patients face to face and gave a letter to confirm the booked date the patient had agreed with the consultant. It became apparent that the booking staff were not using a standardised approach to booking patients and this was addressed. Two consultants are now willing for the clerical staff to agree dates for day surgery procedures with patients.

With hindsight, the project team considered that they could have reduced the speed of change, particularly for the admissions officers. They felt they could also have given more IT training. A further change would have been for the admission officers to give patients booked dates for day cases rather than the consultants. This would have made it easier for the admission officers to re-book patients, to slot patients in and to increase the use of the day case facilities.
Patients’ views

The trust sought patients’ views of booking through several focus groups and two questionnaires. The issues highlighted in the focus groups were the quality of communication; patients’ valuing the opportunity to book the operation; the varying usefulness of the pre-operative assessment clinic; the lower quality of care after discharge; and perceptions prior to admission.

Qualitative data from Homerton’s study (Al Dahma and Graham, 2000) confirmed in patients’ own words their feelings about the opportunities booking offered to them, the following comments being typical:

‘I thought it was very considerate as it made me feel involved in what I was about to undergo.’

‘It was very useful – being a mother with a 12 month old it was good to have a date set to which I could organise care for her.’

Homerton reported that the level of satisfaction with post-operative and post-discharge information was markedly lower than that given pre-operatively, with only just under two-thirds of patients happy that they had received enough information about their recovery. Ironically, lack of provision for the booking of follow-up appointments was cited by patients in the Homerton study as a problem:

‘I can’t believe that if you have had an operation, no matter how minor, that you are just discharged and that nobody wants to see you. I didn’t know if they were ever going to look at me again.’

The issue of poor follow up was addressed in this site as part of the CIBA work. This took the form of a requirement on the part of the staff concerned to inform such patients whether they need to be seen in the hospital again or not and the reasons for this decision. The project also seconded a nurse to the role of peri-operative nurse to review the existing pre-admission clinics and the after care services available to patients up to two weeks post discharge. In both cases recommendations for change
were made. This led to a pilot of nurse involvement in the pre-admission clinic for trauma and orthopaedics.

Homerton carried out a detailed patient study by specialty to give the data greater relevance. The hospital also sought a sample of patients who had not attended their agreed date, to discover whether the reasons for this lay with the patient’s circumstances or the clinic system. Although only 36 replies were received from 100 questionnaires distributed, the work was revealing and valuable for the range of reasons and justifications cited:

- five did not feel they received sufficient notice of the appointment
- six had not realised that they could change their clinic appointment
- eight forgot to attend
- two simply decided not to attend
- eleven were unable to attend, just under half of these for ‘social’ reasons, for example unable to get a babysitter at the time or able to take time off work.

Much attention has been paid to the quality and timing of verbal and written information around booked admissions. The hospital was unable to find examples of patients misunderstanding appointment letters written in English.

4.9 Summary

This hospital had a history of booking and short waiting times before the pilot phase and therefore was in a favourable position to work towards 100% booking for surgical inpatients and day cases. The trust achieved its aim of booking all day surgery cases and inpatients. With the high level of booking prior to the pilot, the change involved a continuation of what was already happening rather than a major innovation. Nevertheless, Homerton stands out as being exceptional in its achievements.

The trust has seen a marked reduction in the DNA rate, particularly for day cases. We do not have data to comment on the trust’s target to reduce the pre-operative DNA and cancellation rates. However, the data show that the DNA rate for day cases was 1.3% during the first quarter of 2001 - close to the trust’s target DNA rate for day case
operations of less than 1%. Although the DNA rate for inpatients fell, it was still 3.5% during the first quarter of 2001 compared with the target of 1%. The reduction in DNAs may be attributable to the policy of cancelling patients who do not attend the pre-operative assessment clinic, rather than the effect of booked admissions per se.

Homerton did not meet the target of reducing hospital initiated cancellations to less than 0.8%. Rather, cancellations increased for day cases to 3.7% and for inpatients it fell to 4.7%. Likewise, the target of 0.8% of patient initiated cancellations was not achieved. There were reductions in cancellations, but only to 8.8% for inpatients and 4.2% for day cases. The number of patients waiting increased between March 1999 and March 2000.

Homerton explored a number of areas of booking in greater depth than many other pilots. Of particular note is the work on communication in relation to the use of resources (e.g. theatres, staff and beds), reasons for patients not attending pre-admission clinics or admission for operations, and reasons for hospital initiated cancellations. In addition, the project team have undertaken extensive and repeated work to understand patients’, consultants’ and administrative staff’s views of the booking system.

The booking system at Homerton has the characteristics of being among the most robust systems in the NHS. In the words of one manager: ‘the booking system is totally durable – it is normal working practice.’ The survey of consultants also showed an unusually high degree of commitment to booking patients compared to other trusts. The existence of a young and supportive group of consultants enabled progress to be made. The trust’s ultimate aim is for doctors in clinics to be able to offer an operation date for the patient via a desk top PC.

The greatest threat to booked admissions at Homerton is the potential increase in waiting times if the number of referrals increase. The greatest challenge is undoubtedly in moving to booking outpatient appointments. The reported variable quality of primary care in the area and lack of IT infrastructure between primary care and the trust also pose challenges. In addition, difficulties in communicating with a highly multi-ethnic and mobile local population pose represent challenges in this area.
4.10 Bath

The organisations
This trust is a district general hospital providing health care to a population of nearly 500,000. As well as the district general hospital, the trust provides outpatient services in eleven community hospitals. The pilot was managed by the trust in partnership with Wiltshire and Swindon Healthcare NHS Trust, the three local health authorities, and primary care groups/trusts.

Context
There had been isolated examples of booking patients in some specialties, for example in urology, but long waiting times in most specialties prevented booking being common practice. Also, before the pilot some local GPs could email referrals to consultants’ secretaries, for example, for haematuria, but again this was the exception not the rule. Historically the trust was not in a position to offer booking for day cases or inpatients due to the length of waiting times. To enable the trust to take part in the booking project, the trust received extra funding from the waiting list initiative in 1998 to reduce waiting times.

Process
The aim of the project was to:

‘maximise the use of available resources and to improve patients’ experience of the hospital admission system by notifying them on the day of their outpatient attendance when they will be admitted for elective surgery’ (Royal United Hospital Bath NHS Trust, 1998).

The project was planned with three phases: booking all day surgery patients in urology and gynaecology; booking all day case surgery patients in the specialties which achieved a reduction in their waiting times to below six months; and booking all inpatient procedures in urology and gynaecology. Urology and gynaecology were chosen because these specialties had shorter waiting times than others.

The IT strategy, to support the booking pilot, aimed to:
• provide new personal computers in the outpatient department
• develop existing software to facilitate the interface between the outpatient department and the theatre scheduling system

• further enhance GP links with the hospital

The pilot aimed to make the reductions from the position at October 1998 shown in Box 14. In addition, as directed by NPAT, the pilot aimed to increase patient satisfaction, improve communications with patients and GPs, integrate the booking system with other systems and use resources in an innovative way.

**Box 14: Royal United Hospital: booking targets**

<table>
<thead>
<tr>
<th>Change</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Number of patients with booked dates in services covered by scope of project</td>
<td>• 100%</td>
</tr>
<tr>
<td>• Number of patients waiting</td>
<td>• 5% lower than position at end of October 1998</td>
</tr>
<tr>
<td>• Waiting time</td>
<td>• 5% lower than position at end of October 1998</td>
</tr>
<tr>
<td>• Number of DNAs</td>
<td>• 10% lower than position at end of October 1998</td>
</tr>
<tr>
<td>• Number of patient initiated cancellations</td>
<td>• 10% lower than position at end of October 1998</td>
</tr>
<tr>
<td>• Number of hospital initiated cancellations</td>
<td>• 10% lower than position at end of October 1998</td>
</tr>
</tbody>
</table>

A distinctive feature of this pilot was that the trust purchased the ‘UltraGenda’ electronic scheduling system. The system allows patients to be booked by consultants or administrative staff, both in the hospital and from peripheral clinics. Usually the day surgery unit bed managers agree booked dates with patients. Patients have to telephone within two weeks to confirm the booking.

4.11 Outcomes

*Day case bookings*

Table 18 summarises the outcomes for those consultants booking patients within the first wave pilot (ENT, gynaecology and urology) and does not cover all day case activity (see chapter 2 and appendix 1 for information about the data and analysis). Table 18 shows that:
• the proportion of day case patients with a booked or TCI date increased from 41.6% to 96.0% between the end of March 1999 and the end of March 2000 and increased again to 96.8% by the end of March 2001

• the proportion of patients failing to attend (DNAs) fell from 1.8% to 0.5% between the first quarter of 1999 and the first quarter of 2000 and then increased to 2.3% in the first quarter of 2001

• the proportion of hospital initiated cancellations fell from 9.3% to 3.1% between the first quarter of 2000 and the first quarter of 2001 (data for 1999 were not available)

• the proportion of patient initiated cancellations fell from 14.6 to 2.1% between the first quarter of 2000 and the first quarter of 2001 (again data for 1999 were not available)

• the proportion of patients waiting six months or over fell from 9.5% to 7.2% between the end of March 1999 and the end of March 2000 and then rose to 7.8% at the end of March 2001

• the number of patients waiting for admission fell by 41.7% between the end of March 1999 and the end of March 2000 (from 1,030 to 601) and then increased by 10.8% between the end of March 2000 and the end of March 2001 (from 601 to 666)

• the number of patients admitted fell by 3.3% between the first quarter of 1999 and the first quarter of 2000 (from 786 to 760) and this was followed by a further reduction of 18.3% between the first quarter of 2000 and the first quarter of 2001 (from 760 to 621).
The trust made good progress by introducing and then maintaining booking at close to 100% in the three specialties included in the first wave pilot. However, the long waiting times in other specialties and difficulties with the IT scheduler (see below) meant that the extension of booking beyond these three specialties was slow. Part of the reason given for the slower than planned progress in day case booking, as reported by one of the managers, was because ‘we took our eye off the ball’ and concentrated on outpatient booking in the second wave.

Staff reported that part of the reason for the low DNA rates was that patients were required to confirm the booked date within two weeks and the hospital contacted patients who did not confirm the appointment.

*Inpatient bookings*

It was intended that urology and gynaecology inpatients would be included within the scope of the first wave but no progress was made. This was reported to be because of problems with the high average acute bed occupancy level (89.3% in 1999/00 and 93.4% in 2000/01).

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1 The review of waiting list data by Bedford and Saunders (2002) highlighted waiting list data inaccuracies relating to outpatient and inpatient activity. The Trust reported that the day case specialties included in the pilot were minimally affected, and that the process of introducing booking had significantly helped the production of more reliable data.
4.12 Analysis of themes

Management and leadership

The aim to give patients booked dates was first identified through the trust’s ‘patient care development plan’. The opportunity to bid to be part of the booked admissions programme was strongly supported by the chief executive and executive directors, particularly the director of operations and the head of information services. The project staff were supported by three lead clinicians (a urologist, gynaecologist and anaesthetist) and a steering group whose membership initially included medical, nurse, IT and managerial representatives from the trust. The group met monthly and on a fortnightly basis an operational group in the trust, including the bookings staff, met to discuss the detail of the project.

During the first wave project the trust was awarded ‘beacon status’ for the booked admissions work, with the requirement to share learning with other NHS organisations. The trust also successfully bid to be part of the second wave of booked admissions and the capacity and demand stream of ‘continuous improvement for booked admissions’ (CIBA). The second wave of booked admissions in particular opened up the opportunity for the trust to involve primary care in developing bookings for outpatient appointments.

The trust received £410,000 from the Department of Health for the eighteen months of the first wave. In addition £51,000 was invested locally from waiting list initiative money during 1998/9. The trust subsequently received £495,000 for the second wave project.

Since the beginning of the pilot there have been considerable staff changes which, in the words of one member of staff, ‘had the potential to derail the project’. The director of operations, head of information services and project manager all moved to jobs outside the trust during the first year. The project manager was replaced by a team of four staff to support the second wave including a new project manager, an assistant project manager, an IT systems developer assistant to establish the web based referrals, and a primary care liaison manager. Notwithstanding these changes, the project maintained momentum and the involvement of stakeholders, although the
move of the head of information services appears to have made the IT developments more difficult.

The approach taken by the staff was to be flexible about the method of booking patients, rather than to impose one model. They deliberately started with enthusiastic consultants and specialties with short waiting times, or where there was scope to reduce the waiting times. Two of the lead clinicians showed strong support and enthusiasm throughout the project. These clinicians were the first two to use the electronic booking system and persuaded their colleagues to do the same. Initially the clinical managers (senior nursing staff), who manage the administrative staff, were not involved in the project but during the first wave they did take part in fortnightly meetings.

During the first wave the PCGs were not involved because of the focus on systems within the hospital. The second wave work was primary care orientated and led by primary care representatives. The project team created opportunities to involve practice managers, GPs and PCG chief officers through one to one meetings and roadshows. However, it was not easy to overcome the perception that it was a trust project. It was important that the primary care liaison manager was based in primary care and that the steering group was chaired by a GP. Ensuring ‘ownership’, particularly from PCGs and health authorities, was seen to be a big challenge. The pilot worked through the steering group meetings towards a joint vision for booking, shared by the acute trust, community trust and primary care.

**Information technology**

At the outset of the project the head of information services drove the information technology (IT) element. The trust planned to replace the antiquated patient administration system (PAS) in the near future, and so the aim was to purchase a scheduling system and an integration engine to link it to the existing PAS. The trust also purchased a Belgian electronic scheduler, UltraGenda. This holds the operating theatre diaries for each consultant and allows the user to search for future slots with the option of specifying search rules (for example, Monday afternoon slots for all urology consultants). The agreed date is booked by inserting the patient’s details and information about the operation.
UltraGenda is a flexible system but to make it an operational part of the hospital it had to be integrated with the PAS. The trust knew there would be a problem sharing information between the two systems, but the problem was greater than envisaged. With hindsight, UltraGenda and the trust recognised that development during the first year would have been improved if there had been a framework with regular face to face meetings (this was in part made difficult because the UltraGenda staff are not based in England). Despite these problems the trust and UltraGenda were successful in winning the 2000 Health Care Effectiveness Award for the best IT in health care.

The trust faced a number of problems with electronic day case booking. In April 2000 the two most pressing concerns were limited integration with the current PAS system and limitations in reporting from UltraGenda, for example, DNAs, cancellations and waiting list data collection to comply with NHS data requirements. There were also issues concerning theatre session booking, printing patient information using UltraGenda, application of clinic booking rules and remote booking of day case appointments from community hospitals by non consultant staff. The trust was reluctant to spend a lot of time or money on adapting the PAS, consequently there was (and remains) double entry of data into UltraGenda and PAS.

Originally laptops were used by consultants to book patients seen in community hospital outpatient clinics. This was in part to persuade consultants to book patients themselves, rather than seeing it as an administrative function. In practice a range of methods were used and the trust is now piloting booking by the community hospital receptionist rather than the consultants. This change was brought about in part by the difficulties in connecting at some of the community hospitals and the extra time involved for consultants to book patients.

**Booking from general practice**

In the second wave, the scope of booking was extended to include bookings from 22 practices to twelve outpatient clinics. It was hoped that the referrals would be more appropriate and that it would be easier to ensure that tests had been taken before the appointments could be booked. The intention was to book outpatient appointments from primary care by GPs linking to the UltraGenda software via NHSnet or the
existing (but slow) intranet links between some practices and the hospital. However, UltraGenda was not developed to enable bookings from general practice which posed significant problems for the project team, who reported that it had been ‘sold to the practices as an IT solution’. Three practices decided not to take part until an IT approach had been developed.

Through the second wave project, the trust employed a systems developer to work on the IT connections from primary care. When it became clear that there would be a delay before UltraGenda could be used to book from primary care, the systems developer designed a web page to enable GPs and practice staff to fill in a referral protocol for specific outpatient clinics which could be emailed or printed off and faxed to refer the patient to the hospital. The booking could not be made using the internet referral, but the practice or patient could telephone the hospital to agree the date. The project staff found that one of the medical staff in cardiology had independently started work to design a website for referrals. The team worked alongside this member of staff to avoid duplication and to incorporate the clinical criteria on the electronic referral form.

The web based referral protocols were piloted in five practices and the project staff reported a good response from practice staff. Where previously GPs had been opposed to using paper based referral protocols, they welcomed using the new medium of web based protocols. The project team reported that ‘everyone we talk to loves it’. However, the project team recognised that the use of protocols is still very controversial: ‘we can’t treat the GPs as data processors’. The approach the trust took was for referral forms to be used to allow GPs to make the clinical decision about where to refer and the form then helps the GP to communicate relevant clinical information and to determine the urgency (they are not to help the GPs to diagnose). The approach the team took was to ‘assume they do know, don’t assume that they don’t, but support those who are unsure’.

To cope with the growing number of telephone calls from patients and practice staff, the trust responded to feedback that the telephone lines were frequently engaged or not answered. In an incremental fashion, staff cover of telephones was increased in each of the specialties where outpatient clinics were booked. There were also
discussions to introduce a call centre to receive telephone calls across specialties. The challenge would be to take staff out of directorates and break the direct link between medical staff and the administrative staff. However, if the connection of the UltraGenda scheduling system to primary care works then it should not be necessary to have a call centre for a large volume of bookings. It is possible that there would remain a need for a small call centre to handle changes to bookings.

The IT challenges included the extent of IT facilities in practices; training requirements; access via NHSnet; control by the hospital; patient registration; protocols and referral information; and ability for the system to record core NHS data. In addition to the project encompassing many technological challenges, it was recognised that it involved a big behavioural change for GPs, staff and patients.

To assess the views of GPs, we sent a questionnaire to all GPs involved in booking patients from primary care for outpatient appointments at the trust (see chapter 5 for further information about the methodology and findings across the case studies). The response rate was 67% (55/82). It appears that not all the GPs who responded were using the booking system. The comments highlighted clearly that for GPs there are various conditions which make booking easier for them, or will be necessary to expand booking. Electronic methods, including email, web booking forms or electronic schedulers were particularly seen to be important to facilitate bookings from primary care. But, specifically, many GPs wanted there to be links between the electronic clinical systems in the practices with the electronic booking, so that there was not duplication of patient information and to ensure that a record of the referral and booking was registered in the electronic patient notes. Associated with electronic booking was a requirement that the system needs to be simple and easy to use to ensure that it is used.

Another key issue was the time the bookings are taking for GPs or clerical staff in primary care and related to this, the need for reimbursement financially for taking on what is seen to be the hospital’s work. As the number of bookings increase these two issues are likely to increase in importance. Several comments also exposed teething problems and ways in which the booking system / project could be improved.
The lessons offered from their experience of booking reiterated some of the issues mentioned above, including that the system must be simple to use, it takes time to make the bookings and a good appointment system is required. Of particular note was a problem that two GPs had experienced when patients received notification of a booking before they had been informed that the GP had made the referral.

**Consultants’ views**

In addition to interviews with consultants throughout the evaluation, we sent a questionnaire to all the consultants in the seven specialties most commonly involved in booking patients to assess the views of a larger number of consultants in the trust. The majority of consultants completed and returned the survey (87%, 34/39) (see chapter 5 for further information about the methodology and findings across the case studies). The consultants were asked to indicate their commitment to the booking system. Of those who answered this question, the majority (23/30) were enthusiastic or supportive, with only 23% (7/30) being either sceptical or not convinced of the value. The reasons given for reservations about booking focused on cancellations of booked patients, the length of the waiting list, the inefficiency of booked lists and the lack of control.

Consultants were asked to indicate whether they would book patients differently from the method chosen by the hospital, if they were given the opportunity. While the majority, 57% (17/30), said they would not book patients differently, 40% (12/30) said they would do so (and one said that is was not applicable). The written comments showed a diverse range of views with some consultants preferring to book by clinical need, and others favouring a waiting list system because they viewed it as more efficient. These comments were biased towards consultants who experienced a preference to book differently and who were more likely than other consultants to express the reasons for this:

‘I would book patients in order of clinical urgency not on the basis of 18/12 wait.’

‘Booked admissions, and we have genuinely tried hard here, makes the system very inefficient.’
Several consultants expressed the view that the waiting lists were too long:

‘The waiting list is not manageable as it is too long.’

The electronic approach to booking drew both positive and negative comments, with some wanting to have access to it and others seeing it as an unnecessary waste of money. Some of the consultants also stated that they would have preferred to be booking patients themselves, either using the computer or a diary.

‘Direct booking would work well. I do not have access to NBAP’s computer in my clinics’.

“We have invested in an IT package that does not communicate directly with our hospital mainframe system nor with the urology department’s audit base computer system. A ‘diary’ would have sufficed, been rather cheaper and more flexible!”

In addition there were several proponents of the system who would like it to be extended:

‘All patients should have booked dates for admission.’

When asked to indicate the greatest challenges to the expansion of booked admissions at the trust, the majority of respondents indicated capacity, with others selecting waiting times, IT and other priorities.

Administrative Staff

The new administrative processes will in the long term mean some roles will no longer be needed but new roles have been developed, for example the staff receiving telephone calls from patients to book outpatient appointments. Reassurances were given to the staff at an early stage that jobs were not under threat. The administrative staff in the day surgery unit (DSU) were trained in using UltraGenda. To begin with the new IT system did not reduce the workload in the DSU for the administrative staff. Instead one of the administrative staff was using a paper diary to select the date
(rather than searching on the scheduling system), entering the date into the paper
diary, entering it into UltraGenda and then entering it onto PAS. The data still needs
to be entered onto UltraGenda and PAS, but the entry onto PAS is now handled by
data entry staff rather than the day case staff.

Patients' views
The community health council have not been involved, in contrast to the usual pattern
of involvement in other sites. Likewise, a patient representative was not involved on
the steering group. Instead the trust has periodically surveyed patients including
interviews with patients. The majority of patients booked from general practice for
outpatient appointments felt the booking process is clear and were either very satisfied
or satisfied.

4.13 Summary
The trust achieved the target of booking nearly 100% day cases in the scope of the
project, but made no progress with booking inpatients. With respect to the number of
patients waiting, the target reduction of 5% was exceeded with a reduction of 35%.
We do not have information about changes in waiting times. The trust did not
achieve the target of a reduction in DNAs of 10%. Instead, DNAs increased from
1.8% to 2.3%. There are no baseline data for hospital and patient initiated
cancellations, but there were large reductions in both cancellation rates (66% and 86%
respectively) between 2000 and 2001.

Electronic links with general practice were more difficult than envisaged, but despite
not being able to implement the intended IT solution, the project team worked
creatively to introduce an alternative. The project provided considerable learning to
the national development of electronic booking systems through the experience with
electronic scheduler and emailed referrals using a webpage.

During the first wave the departure of several members of staff had an impact on the
implementation of the project. The successful second wave bid and the recruitment of
a team of new staff ensured that the momentum was maintained. However, the focus
of the new team on establishing booking from primary care coincided with increasing
problems with the integration of the scheduling system with the PAS. These events worked together to shift the focus from extending day case booking towards managing the IT issues and getting bookings from general practice started via fax and internet.

The second wave phase of the project was viewed by staff to have maintained the momentum and raised the profile of booking. It also increased joint working with the community hospitals, health authorities and PCGs. But the second wave was also reported to have distracted attention from completing the work on the first wave, most notably inpatient booking.

At the outset of the project the trust identified that a critical success factor for the extension of booking would be the reduction and maintenance of waiting times at a maximum of six months. The service and financial framework agreement for 2000/01 provided the trust with capacity to achieve and maintain a six month waiting time for day surgery. For inpatients, a twelve month maximum waiting time was agreed. Partly for this reason, inpatient booking has not started and the pilot sees the main problem to be the high average bed occupancy as well as the long waits. The hope is that the trust’s involvement in the capacity and demand stream of CIBA will help towards implementing inpatient bookings.

The challenges in primary care will continue as more practices are introduced to booking outpatients and more clinics are included. These challenges include facilitating GPs to select the correct care pathway and prioritising patients; the redesign of administrative and IT systems; and ensuring full support from the organisations involved. The continuation of this programme of work will require greater ownership and active leadership from the PCG/Ts and general managers as well as at a senior level in the organisation to facilitate the wider changes around length of waiting times and increasing capacity.
4.14 Pinderfields and Pontefract

The organisations

Two years prior to the first wave of the booked admissions programme this trust was created from the merger of two acute trusts in Wakefield (Pinderfields hospital) and Pontefract. A new hospital will be built in Wakefield, and when built it will be the main acute site and Pontefract will be the site for elective work. The pilot work involved the local health authority and five local practices seeking to offer GPs direct access for a defined number of hospital procedures.

Context

There had been some direct access from primary care for endoscopies and other procedures before this pilot. One of the five practices involved in the pilot was already accessing the trust’s intranet before the booked admissions initiative, to view lists of patients over 65 years who were being discharged daily and those attending accident and emergency. The booked admissions project was led by trust managers, rather than consultants or GPs, as an experimental part of the trust’s long-term communications strategy.

Process

The pilot was relatively unusual in the first wave programme because it was focused on enabling GPs to book patients electronically onto day surgery operating lists, thereby removing the outpatient appointment with a consultant. Three day surgery procedures were included in the pilot: vasectomy, female sterilisation and minor plastic surgery. Colposcopy, endoscopy and other diagnostic services were planned to follow after an evaluation. In the first phase, the procedures chosen were low volume and consequently it was explicit from the outset that the pilot would not be geared to delivering high numbers of booked patients.

A separate telemedicine project was included in the scope of the pilot to enable real time communication between consultants on the details of particular patients’ conditions. Patients attending Pontefract’s accident and emergency department could have their conditions reviewed instantly by Pinderfields’ plastic surgery department.
staff. This aspect of the pilot was not included in the evaluation because it was not focused on booked admissions.

The targets for the pilot are outlined in Box 15.

**Box 15: Pinderfields and Pontefract: booking targets**

<table>
<thead>
<tr>
<th>Change</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Number of patients with booked dates in services covered by scope of project</td>
<td>• Unspecified</td>
</tr>
<tr>
<td>• Number of DNAs</td>
<td></td>
</tr>
<tr>
<td>• Number of patient initiated cancellations</td>
<td>• Reduce from baseline of 8% to 4%</td>
</tr>
<tr>
<td>• Number of hospital initiated cancellations</td>
<td>• Reduce from baseline of 10% to 5%</td>
</tr>
<tr>
<td></td>
<td>• No change from baseline of 0.5%</td>
</tr>
</tbody>
</table>

4.15 Outcomes

Table 19 shows the number of patients directly booked by GPs onto day case surgery lists during the quarters ending December 1999 to March 2001. During the first wave (to the end of March 2000) 21 patients were booked. In the year since the end of the first wave, a further 72 patients were booked, with the greatest increases being for urology procedures. The majority (68.8%) of these 93 patients were booked for a urological procedure (vasectomy), with 22.6% for a gynaecology procedure (colposcopy or female sterilisation) and only 9% for minor plastic surgery. No data were provided about the number of cancellations, waiting times or DNA rates.

**Table 19: Number of day case patients directly booked from primary care**

<table>
<thead>
<tr>
<th></th>
<th>Dec-99</th>
<th>Mar-00</th>
<th>Jun-00</th>
<th>Sep-00</th>
<th>Dec-00</th>
<th>Mar-01</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urology</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>10</td>
<td>17</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Plastics</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>7</td>
<td>15</td>
<td>13</td>
<td>20</td>
<td>24</td>
<td>93</td>
</tr>
</tbody>
</table>
Interviews with GPs and project staff revealed that with hindsight the choice of procedures included in the pilot was unfortunate because some of the GPs from the five practices did not refer vasectomies or laparoscopic sterilisations to the trust. Even if all the GPs directly booked all possible patients to the trust, the volume would have remained small in comparison to other first wave pilots.

4.16 Analysis of themes

Management and leadership

The pilot was part of a wider strategy to develop electronic communications within the trust and between the trust and primary care. There was a high level of GP fundholding in Wakefield during the 1990s and use of the private sector. Part of the rationale behind the pilot was to bring work back into the trust.

The pilot was led by the trust rather than GPs. The clinical ‘ownership’ of the pilot, whether by GPs or consultants, appeared limited and guarded throughout. This initiative was viewed to be led by managers and supported by clinicians rather than led by clinicians. The health authority was involved and was supportive. The trust received £631,000 over 18 months for the booking pilot, a high level of funding relative to that provided to other pilots.

Information technology

The project involved the development of additional software (a comprehensive, integrated theatre management scheduler) and hardware installation in five GP surgeries to give real-time, multi-site booking. This entailed establishing connections between the hospital sites and practices through installing local area network lines and networks within practices. The installation of computer hardware and software connections were used in part to gain GPs’ commitment.

Detailed protocols for the booked procedures were developed to take account of anaesthetic considerations, the patient’s general suitability for surgery and minimum and maximum age limits which governed patients’ eligibility. The protocols were designed to filter patients out at the primary care stage who could be appropriately managed by the GP. Through the use of a software tool called Protocol Navigator,
these protocols were made available for GPs through the use of web browser technology. Bookings were made through the hospitals information system with direct connection to the theatre schedule.

‘One to one’ training was provided by the trust where required, although most surgeries opted for ‘cascade’ training, where thorough training was given to one or two people in the practice, who in turn trained others. With hindsight, the ‘cascade’ training was less successful and far more intensive training was seen to be required for each surgery to ensure that the procedures were followed properly and obstacles overcome.

A number of problems were encountered by the pilot in establishing the direct booking connections. These included the time taken for British Telecom to install ISDN lines (30-40 days) and the ‘router’ to be set up; the speed of access to the booking screens (in some cases taking approximately seven minutes to make the booking); and intermittent faults with the IT connections. A further IT issue encountered was the reimbursement of call charges to GPs. These costs were initially funded by the pilot and subsequently by the health authority.

**GPs’ views**

There were good relations between the consultants and GPs at this site, and this was in part a legacy of a high proportion of GP fundholding. GPs conceded that the incentive to get involved was the possibility of additional hardware. The benefit to GPs from electronic booking was principally a reduction in paperwork because there was no need for a referral letter. However, the price for this saving was increased time during the consultation with the patient.

During the pilots GPs from four of the five practices continued to make bookings, but one practice withdrew, feeling uncomfortable at being placed in a ‘specialist’ role. In another practice, which was the most committed to making the link work, GPs conceded that this it was a ‘painful’ process for the doctors involved due to the additional workload.
Through interviews the GPs reported a number of problems they encountered during the pilot:

- the small number of potential referrals which did not make the effort worthwhile
- the need for GPs to bring to patients’ attention the length of waiting time at the hospital
- the time required to make the electronic booking (in one practice the routine consultation increased from seven minutes to fifteen)
- the need to have effective networks established within each practice
- the reimbursement of call charges for the hospital links
- a successful connection to the trust was only made 50% of the time and the system was susceptible to crashing
- the system only showed the availability of operating slots after the full process of patient registration
- the need for double entry of patient data in two unconnected programmes, which was time consuming
- the lack of promised electronic test results (X-ray, MRI, CT and pathology) and discharge letters

Over time, GPs reported that the process of screen booking was taking too much time and was too complicated to make it viable. As a result most of the GPs who remained committed to electronic booking in principle were turning to paper protocols and leaving the electronic booking to secretarial staff, although this was demanding some reconfiguration of the surgery and processes. The time to make bookings steadily reduced, with the system becoming more robust. The trust also reduced the password protection requirements. However, the length of the protocols continued to create problems, with some GPs wanting shorter protocols which was not supported by the consultants.

Five participating GPs were surveyed by HSMC as part of a survey across the case studies (see chapter 5). Four of the five GPs responded. Three of the four GPs were booking patients themselves using the web based scheduler and one GP delegated booking to the practice manager.
The GPs identified the following factors as being important to increase bookings:

- quick access to web site (3)
- no ‘downtime’
- ability to access hospital patient details and protocols without having to come out of medical system
- number of protocols available
- short protocols to follow on line
- resources for practice staff to have time for direct access
- GP training on system

The greatest challenges identified were:

- time
- too temperamental / reliability (2)
- requires planning by the practice
- avoid every referral having a separate protocol
- future scale of booking via booked admissions and time constraints
- slowness of getting through passwords
- training

With regard to the lessons from the pilot, two GPs highlighted the need for access to the website to be quicker and easier and two GPs identified that IT problems need to be resolved. The comments showed that the issue of training and competence with IT is a major issue if this approach is to be adopted on a larger scale:

‘GPs need proper training. We did this in our practice and our experience is very different from other surgeries locally. However please note that I am an IT enthusiast.’

‘IT proficient GPs may see it as a challenge. Others just give up!’

*Consultants’ views*

With the realisation that vasectomy could be booked successfully by GPs the gynaecologists were encouraged to develop direct booking for colposcopy and female sterilisation. There was some disquiet among the consultants generally about the speed of introducing booked admissions. The orthopaedic surgeons declined to
become involved during the first wave because they were not confident that booking could be honoured with current resources. Other specialties also perceived difficulties with booking admissions.

Some consultants were concerned about the value of booking day case patients in view of the relatively short wait times; the lack of evidence that patients either disliked the present day case arrangements or would prefer a booked date; and the apparently low DNA rate for certain day procedures.

Patients’ views
In March 2000 the trust sent questionnaires to booked patients whose treatment had taken place in the previous three months. Twenty questionnaires were sent and ten returned. All the patients who responded had been given a date for admission whilst at the GP surgery and 90% reported that they were able to select a date. The views of these patients were:

- 80% felt it better to agree a date at the surgery
- 80% felt that agreeing a date made it easier to plan for the visit
- 60% felt that being given a date made no difference to how much they would plan for the visit
- 100% felt the GP gave enough information and advice
- 100% received leaflet or booklets about the operation
- 100% found the booklets easy to understand
- 100% kept the original agreed date of admission.

4.17 Summary
In contrast to many other pilots, this pilot had significant risks, notably that booking could only be established when a theatre scheduler had been installed, and the web technology embraced. The introduction of direct booking would have been helped by the earlier development of results reporting systems (e.g. pathology), although these were not part of the pilot. GPs may have been more favourably disposed to persisting with booking if these systems had been available electronically as expected.
It was recognised at the beginning of the pilot that even with significant investment (£631,000 from the Department of Health) the volume of bookings would be low initially, and this was borne out. This level of booking (21 bookings during the first wave) may have been increased if the trust had realised that some GPs in the pilot did not routinely refer patients with the three selected procedures to the trust. It might also have been more productive to have introduced GPs more gradually to booked admissions using paper based protocols and booking methods before taking on the challenges of unpredictable electronic connections. This might have helped familiarise the GPs and staff with booking.

During the pilot a number of problems were encountered with the electronic element of the booking system. These problems were related to delays in installing the hardware and difficulties establishing reliable connections from the practices to the trust. Additional barriers to establishing and maintaining the booking system included lack of time, resistance to changing established practices, and GPs perceived as not giving enough to the pilot and not getting enough out of it. With hindsight the project manager would have secured formal commitment from GPs from the beginning and would have provided more one to one training. Many of the teething problems with the IT have been resolved but the length of time it takes for a GP to make a booking continues to be a problem and therefore several practices have delegated the electronic booking to other practice staff.

Since the beginning of the pilot PCGs have been formed and the local PCG is committed to electronic booking. The level of booking has increased in the year since the end of the pilot as direct booking has been expanded to other procedures and practices. However, even 93 bookings over an 18 months is low compared with pilots which were booking outpatient appointments or day case booking from outpatient clinics. This pilot has demonstrated the cultural and practical barriers which are encountered when redesigning established ways of working between primary and secondary care. It has highlighted the need for booking systems in primary care to be simple, reliable and quick to use. It has shown the potential there is to make electronic connections between primary and secondary care to facilitate booking, but that it is not absolutely necessary for GPs to make the booking with the patient.
Whilst protocols for direct day case bookings are a pre-requisite for gaining co-operation from consultants and to ensure patients are eligible for surgery, the pilot has shown that it is easier for GPs if protocols are short and quick to use. The number of procedures which are amenable to direct booking appear to be limited, and other than endoscopy, the volume of direct bookings will be low. Therefore, direct bookings are unlikely to be a priority for trusts to concentrate on and rather the focus should be first to establish robust outpatient, day case and inpatient booking systems before directly attempting to book procedures from primary care.

Through the second wave, the list of direct booking procedures was expanded to include carpal tunnels, cataracts and meibomian cysts. Four additional GP practices were included in the direct booking project. The health authority provided funding for hardware and the acute trust provided training. Some GPs continue to book on screen while in others the practice staff have taken over the role. It was acknowledged that in future the task of booking would most likely be passed to practice staff after the GP had completed a protocol, in part because of the low number of referrals which could be directly booked and also because of the time involved. It was felt by one GP that for some procedures (e.g. vasectomy) it would be more appropriate for a nurse rather than a receptionist to make the booking.

4.18 Conclusion
The booking project in Dorset was unusually large in its scale, with all the acute and community trusts in the health authority area included, and its approach, in that it was co-ordinated by the health authority. The trusts all had the advantage of starting with waiting times which were short, relative to waiting times in the NHS generally. Progress across the trusts varied, but overall there was very good progress with day case booking and much slower progress with inpatient booking. Further progress with inpatient booking may require broader changes to address the capacity issues in the acute trusts. Bookings from primary care for outpatients is the area of least development, but work has started towards this in all three trusts. Good progress was made in reducing DNAs and patient initiated cancellations for day cases, but hospital initiated cancellations for both day and inpatients increased.
Homerton Hospital also had a history of short waiting times, but in addition it had a strong history of booking thereby placing it in a favourable position to work towards 100% booking for surgical inpatients and day cases. The trust achieved its aim of booking all surgical day cases and inpatients. With the high level of booking prior to the pilot, the change involved a continuation of what was already happening rather than a major innovation. The trust has seen a marked decrease in the DNA rate, particularly for day cases. The trust did not experience great reductions in patient or hospital initiated cancellations. The booking system at Homerton has the characteristics of being among the most robust systems in the NHS. The size of the hospital and the existence of a supportive group of consultants contributed to its success.

In contrast to Dorset and Homerton, the RUH in Bath had a more challenging context because of long waiting times. In addition the trust had high bed occupancy levels and outpatient clinics were held in a number of locations. Through the pilot the trust introduced new scheduling software to the NHS. The trust achieved the target of booking nearly 100% day cases in the scope of the project, but made no progress with booking inpatients. DNAs increased. There are no baseline data for hospital and patients initiated cancellations, but there were large decreases in both cancellation rates between 2000 and 2001. The second wave has progressed the booking in the trust, but also distracted attention from completing the work on the first wave, most notably inpatient booking.

Unlike many other pilots, the Pinderfields and Pontefract pilot had significant risks, in particular that booking was inextricably intertwined with a number of other complex and long term redesign projects. The bookings during the pilot period were very low (21 bookings). With hindsight, it might have been more productive to have introduced GPs more gradually to booked admissions using paper based protocols and booking methods before taking on the challenges of imperfect electronic connections.

Unlike many other first wave pilots, the consultants within the trust were relatively uninvolved. During the pilot, barriers to establishing and maintaining the booking system included lack of time, resistance to changing practices, and GPs perceived as
not giving enough to the pilot and not getting enough out of it. The work highlighted
the need for booking systems in primary care to be simple, reliable and quick to use.
Notwithstanding these challenges, the pilot succeeded in that it identified many of the
issues that need to be addressed in introducing direct booking from general practice.

The four cases varied greatly in their starting points, aims, and both the type of
booking and method of booking they introduced. The experience of booking in each
pilot is the result of a complex combination of these variables and many others.
Analysis of the variation seen between different pilots is provided in chapter 8 but
here we may note the importance of having a receptive context, effective leadership,
maximum waiting times at or around six months, and having a well developed plan
for the development of ICT. The case studies also illustrate the central role of
consultants and GPs in booking and the need for their commitment and support.
5. Consultants’ and GPs’ Views of Booked Admissions

In this chapter we present the findings from our surveys of consultants and GPs in the case study sites, along with project managers’ views of the incentives and disincentives for consultants.

Key Findings

- HSMC undertook a survey of 133 consultants in the case study pilots. The response rate was 77%

- While the majority of consultants surveyed were enthusiastic or supportive of booking, about a quarter were sceptical or not convinced of its value

- Consultants’ main concerns were the inefficiencies involved in booking, the increased risk of cancellations and loss of flexibility

- Consultants regarded the greatest challenges to extending booking as capacity constraints (nurses, beds and theatres) and long waiting times

- Approximately half of consultants surveyed would only want to book less than three months ahead and approximately half would be prepared to book under six months ahead. Very few consultants were prepared to book more than six months ahead

- HSMC undertook a survey of 133 GPs in the case studies that were booking from primary care. The response rate was 53%

- The challenges GPs reported in booking were the time involved in making a booking, waiting times for patients, funding and having a reliable appointment system

- GPs identified a number of factors which help booking to increase from primary care. These focused on the availability of electronic booking methods, particularly linked to clinical systems, the simplicity of the system, the length of time taken to make the booking and funding for this work.

5.1 Summary from previous evaluation reports

There has been an increase in the number of consultants involved in booking during the period of the programme. Each trust steadily involved consultants in specialties that were previously not booking and added new consultants to already part-booking
specialties. Our second interim evaluation report (Kipping et al, 2000) noted that this phased approach had been shown to be a successful strategy up until that point. Some trusts beginning from an established booking culture claimed ‘total’ booking for day surgery across all specialties and the emergence of durable booking systems in the trust as a whole. Pilots with more modest aims were able to establish a foundation of booking in certain specialties or with individual consultants, creating a basis for further progress. The majority of consultants were reported by project managers to be enthusiastic about booking with only a minority remaining to be convinced of the benefits. The pilots used a range of approaches to increase consultant involvement in booking and reported that medical leadership and the use of incentives (see Box 24 in chapter 9) to encourage involvement had had most impact.

Although not the most common form of booking, direct booking from primary care had been established among pockets of enthusiasts and the strengths and limitations of different forms of electronic links were clearer. Direct booking to outpatient clinics was more straightforward than direct booking to day case tests and treatment but both were hampered by problems with the use of information technology. A further challenge in direct booking of day cases was the requirement to develop and use protocols to guide referrals. With few exceptions, ‘high-tech’ booking connections were generally seen to place too many burdens on GPs without sufficient benefits or the feeling of ownership.

5.2 Consultants’ and GPs’ survey methodology

The views of consultants and GPs involved in booked admissions during the first two years of the evaluation were gained through face to face interviews with staff across the 24 pilots. To supplement this approach we surveyed consultants and GPs in the four case studies (depending on whether consultants and/or GPs were involved) for this final report.

The five acute trusts included in the survey of consultants were Homerton Hospital NHS Trust, Poole Hospital NHS Trust, Royal Bournemouth and Christchurch Hospitals NHS Trust, Royal United Hospital Bath NHS Trust and West Dorset General Hospital NHS Trust. All consultants in the seven specialties most frequently
using booking systems were sent a copy of the survey questionnaire (ENT, gynaecology, general surgery, ophthalmology, oral surgery, orthopaedics and urology). The consultant questionnaire contained eight questions with closed response tick-box and free text sections (see appendix 4).

GPs involved with the booking project at the following trusts were sent a copy of the survey questionnaire: Royal Bournemouth and Christchurch Hospitals NHS Trust, Royal United Hospital Bath NHS Trust and Pinderfields and Pontefract NHS Trust. The GP questionnaire contained six questions with closed response tick-box and free text sections (see appendix 4).

Questionnaires were sent to 133 consultants and 133 GPs in February 2001. A total of 103 consultant questionnaires were returned by the closing date, giving a 77% overall response rate. The response rate by participating trust ranged from 55% to 87% for the consultant survey. A total of 71 GP questionnaires were returned by the closing date, giving a 53% overall response rate. The response rate varied from 30% to 80% for the GP survey (the low response rate from one site was attributable to booking not having started in this case study). There was no opportunity to pursue reasons for non-response.

5.3 Findings from consultants’ survey

Extent of booking

Consultants indicated the extent of booking for their day cases, inpatients and outpatients (see Figure 37). The majority of consultants who answered this question (53%, 52/99) reported that all their day cases were given booked dates and only 15% (15/99) of consultants indicated that their day cases were not receiving booked dates (these consultants were predominantly from Bath). A larger proportion of consultants reported that none of their inpatients (34%, 34/100) and outpatients (27%, 25/91) were given booked admissions compared to day cases.
Method of booking patients

A range of manual and electronic methods are being used in the case studies to book patients and different staff are involved in booking. The two most common methods used to book day cases across the five trusts were by a central office or booking co-ordinator (51%, 44/87) and consultants making the bookings themselves (36%, 31/87). A smaller number of respondents (14%, 12/87) indicated that other members of the team (e.g. nurse, junior doctor or secretary) made the bookings.

The majority of those consultants booking inpatients chose to book patients themselves (52%, 36/69). Twenty six per cent (18/69) of consultants had their inpatients booked by a central co-ordinator and 22% by another member of the team. Outpatients were most commonly booked by a central co-ordinator (52%, 34/65) but 26% (17/65) were booked by a member of the team and 22% (14/65) were booked by a consultant.

We asked the consultants whether they would choose to book their patients differently from the way established in their trust, if they had a choice. Whilst 59% (57/97) would not book differently, a sizeable minority (36%, 35/97) said that they would choose to book in a different way. A small number, 5% (5/97), indicated that the
question was not applicable to them. Consultants who were satisfied with booking methods tended not to add further comments whereas those who expressed a preference to book differently did.

The majority of comments were about which member of staff made the bookings, with a preference for the consultant or consultant’s secretary to be responsible for the booking, rather than central clerical staff.

‘Booked admissions need to be within a specialty or team. Priorities are lost when remote clerical staff simply book on time of procedure, waiting time or their unqualified view.’ (Poole)

‘(The) booking system in our Trust is central and I already opted out to book patients with my own secretary.’ (Poole)

Other changes that consultants identified as being desirable included:

- a preference to book by clinical priority rather than in ‘order’
  ‘Prefer to book after the clinic according to clinical need.’ (West Dorset)

- a preference for a traditional waiting list system
  ‘I would use a waiting list system giving dates 2-3 months in advance.’ (Poole)

- a view that booking was less efficient than the waiting list system
  ‘Booked waiting lists work when there is excess supply vs. demand and in predominantly ‘cold’ specialties. Mine is hot. My lists are half empty. Cancellations have gone up markedly. I would abandon this process myself but appreciate that patients like it (in theory).’ (Bournemouth)

- a view that the waiting list needed to be shorter if patients are to be booked
  ‘How can you book a list when the wait times are eighteen months?’ (Bath)

- an enthusiastic endorsement of booking and wanting to see it extended
  ‘Uniformity of booking arrangements throughout the Trust should be mandatory. Every patient should be given dates and not a select minority.’ (Poole)

- a need to have more slots left for urgent patients to avoid frequent cancellations
‘I do not like the booked system because it regularly under-uses my operating slots.’ (Bournemouth)

Level of commitment

We asked consultants to indicate their level of commitment to booked admissions. The responses are displayed in Figure 38. Whilst the majority of respondents were enthusiastic (47%, 46/98) or supportive (28%, 27/98) of booked admissions, this is skewed by the overwhelmingly positive attitude to booking at Homerton Hospital where all respondents were enthusiastic or supportive of booking. In contrast, at the RUH in Bath 20% (6/30) of respondents were not convinced of the value of booking systems, and at Poole 21% (4/19) were sceptical and a further 21% (4/19) were not convinced of the value of booked admissions.

Comments made by consultants were biased towards those who were sceptical or not convinced of its value. These comments focused on the increased number or risk of cancellations, the length of waiting lists, the inefficiency inherent in a booking system, the lack of capacity (including staff, theatres and beds) and specialty-specific concerns. The most strongly voiced concern was a frustration about running an inefficient system.

‘I did much more work before (using a) booked waiting list!’ (Bournemouth)

‘Lists are underbooked to allow for emergencies/urgent cases which do not always appear. I therefore do fewer cases per list.’ (West Dorset)

‘Patients are cancelled because of leave (study/annual/sickness) and have to be found new times – very difficult to give them times close to original as other lists already booked.’ (West Dorset)

‘“Routine” patients often fill up slots so that “soon” patients have to wait longer than before booked admissions system started.’ (Poole)

‘Complete loss of flexibility. Cancellation of booked admission = complaints!’ (Bath)

‘I am anxious that a proper emergency service is established before elective surgery takes priority.’ (West Dorset)
Challenges

Consultants were asked to indicate if the following factors were the greatest challenges to booked admissions within their trust, or to suggest other challenges: waiting times, capacity (nurses, beds or theatres), information technology, competing with other priorities or another challenge. Several consultants selected more than one challenge. The numbers indicating the challenges are shown in Figure 39.

When asked to elaborate on the challenges, the comments covered the issues already mentioned although the pressures varied between the trusts. For example, in one trust the issue of not having an emergency theatre was a great challenge, in comparison to long waiting lists in a second and the shortage of beds in a third.
Figure 39: Challenges to extending booked admissions

How far ahead should patients be booked?

Consultants were asked to indicate how far ahead they would be prepared to book patients. The results are presented in Figure 40. There was an equal number of consultants who would be prepared to book less than three months and less than six months ahead (43%, 42/97), with only a very small number being prepared to book under nine months, twelve months or over twelve months.

Figure 40: How far ahead the consultants were prepared to book patients
Other comments

The questionnaire offered consultants the opportunity to make any additional comments. In addition to issues already raised above there were an equal number (six) of consultants who took this opportunity to give particular support for booked admissions or to express their opposition to running a booking system. Comments included:

‘Hugely appreciated by patients and staff and it has greatly changed my practice and removed the dreaded card index system!’ (Poole)

‘Excellent project which has allowed new ways of working.’ (Bath)

‘I think it is a disaster and a waste of money.’ (Bath)

‘Please scrap it.’ (West Dorset)

Other comments showed a commitment to the concept but a real difficulty in practice in making it work:

‘It’s a nice idea but, for the large volume practice most of us have, it is very difficult to work efficiently despite my being enthusiastic about it.’ (Bournemouth)

‘It was a noble and laudable idea but there is simply not the slack in the system to make this workable.’ (Bath)

Another respondent highlighted the negative impact on patients when booked patients are cancelled:

‘If a booked case is cancelled they tend to be more upset if cancelled as they have had greater opportunity to forward plan their admission.’ (Bournemouth)

Incentives and disincentives

Six to nine months after the end of the first wave we interviewed all the project managers. We asked what they thought were the incentives and disincentives for the consultants with regard to booking patients.
The most commonly cited incentive securing commitment from consultants related to the more efficient way patients were organised for surgical lists, notwithstanding the views expressed by some consultants (and reported above) indicating that booking sometimes resulted in greater inefficiency. In some sites, associated benefits were that theatre time was more efficiently used and patients were pre-operatively assessed and therefore confirmed as being ready for surgery. For many, an equally important spin-off had been shorter waiting lists.

Project managers said of consultants:

‘They see it is an efficient process.’

‘They appreciate the approach to patients which takes the form of a clinical pathway.’

‘They love seeing patients who are ‘ready’ for surgery.’

‘It gives them much greater clarity.’

‘They have liked the view that it should protect their operating.’

‘There is decreased hassle if they set booking rules because they do not have to manage the waiting lists.’

‘Being able to offer equity of service to patients from community hospitals.’

‘Giving a better service to the patients.’

‘Parents like it and tell the consultants – this is a major influence.’

‘They get happier patients and the DNA rate drops. They are offering a patient focussed service.’

The use of tangible incentives had also helped to gain good will.

‘PCs on desks.

‘Laptops kick started their involvement.’

‘It has alleviated pressure on their secretaries because there are less phone calls and they are supporting it.’
Notwithstanding these positive comments, many project managers reported that the incentives available were limited. The disincentives for involvement included loss of control and flexibility of organising theatre lists and planning their personal time. An associated disincentive was when there were insufficient resources to honour the booked dates.

‘It is a hard project to sell in terms of benefits to them - the benefits are for the patients.’

‘We struggled to come up with any incentives for them. The hospital has more to benefit.’

‘There is not a lot in it for them. It limits their freedom.’

‘Removal of autonomy in choice of leave dates.’

‘They have not liked the screws being tightened on leave.’

‘It ties them down; it can disrupt their private work’

‘It reduces their flexibility and gives less control over their lists. With the scheduler the theatre lists will be locked 24 hours in advance.’

‘The bed crisis has been a disincentive.’

‘The time it takes to re-organise the cancelled bookings.’

‘If they do not have the resources they are not keen to do it because they are entering into a contract with the patient to agree a date’.

‘Cancellations by the hospital, lack of beds or under-utilised theatre lists.’

‘Having unrealistic targets so we use the data to look at what a realistic targets for the hit rate are rather than having unrealistic targets’.

‘There are teething problems with any change, like. the telephone calls for dermatology outpatient referrals went to the secretary by mistake. If you make things worse before they are made better then it can become a nuisance.’

‘The bigger incentive is to have a long waiting list.’
5.4 Findings from GPs’ survey

Sample
The 73 GPs who responded to the survey were predominately GPs referring to Bath (55/73), compared with 14/73 GPs referring to Bournemouth and 4 to Pinderfields and Pontefract. Therefore the findings, whilst presented across the three sites, are biased to the experience in the Bath pilot. Homerton was not involved in direct booking from primary care in the first wave and therefore was not included in the survey.

Involvement in booking from general practice
Across the three sites, 56% of GPs (40/72) indicated that at least some of their patients were given choice about their hospital outpatient appointment, hospital investigation or admission. 21% (15/72) did not know whether their patients were given booked appointments (however 11 of these GPs went on to answer the following two questions indicating that their patients were ‘booked’) and 24% (17/72) indicated that their patients were not given booked appointments. Lack of knowledge by GPs suggested that for a minority the ability to offer booked appointments may not be particularly salient.

All the GPs who completed surveys from Royal Bournemouth and Christchurch and Pinderfields and Pontefract said that some patients were booked. Only 44% (24/55) of respondents from Bath said that some of their patients were receiving booked dates, even though the GPs included in the survey were from practices included in the pilot practices for booked admissions. All answers from GPs who were not booking or did not know were therefore from the Bath pilot.

Method of referral
The most common method of referral for patients who were eligible for a booked appointment was to fax the referral to the hospital (followed by either the practice or patient contacting the hospital to agree the date (42%, 30/72)). The other methods of referral are shown in Figure 41. Three of the four other methods use electronic technology via the internet and taken together are the most common method of referral for booked patients (50%, 36/72).
Method of agreeing booked dates

The most common method for agreeing the date was for the patient to telephone the hospital after the referral had been sent (38%, 23/60). The next most common methods were for the practice to book the date using an electronic scheduler, via the internet (32%, 19/60), or for the practice to telephone the hospital to agree the date (22%, 13/60). It was much less common for the hospital to telephone either the patient or the practice (see Figure 42).

Figure 41: Method of referral
Factors which will be important to increase bookings

GPs (both those booking and not booking) identified a wide range of factors that in their view were important in expanding bookings from general practice (listed in order of frequency). The following quotations, all from Bath GPs, illustrate this.

- Using electronic links via email, web or scheduler to book

  ‘Rapid email forms linked to patients electronic records so that easy to attach medical summary, medicines AND record of referral in patients computer notes. Current stand alone booked admissions are not linked to patients notes so involve unnecessary double entering of data.’

- Simplicity of booking system

  ‘To keep the system simple and similar for all referrals or it gets complicated and will go wrong.’

- Time taken to book patients

  ‘Requires time and effort from staff/GPs.’

- Funding and remuneration for primary care

  ‘Funding. This is another shift of work out of hospitals.’
• Reliability of the booking system

‘Reliability – I have twice been unable to transmit the referral which means all
the information has to be re-entered on the template.’

• Training for staff in primary care

‘Now that we’re able to use email, ability of GPs to access and use method.’

• Having an efficient appointment system in the hospital

‘Excellent clerical systems – the most constant refrain I hear is ‘the
appointment didn’t arrive’ or ‘I cancelled the appointment but they said they
didn’t receive it’.

• Availability of appointments and short waiting times

‘Availability of appointments. Waiting list for outpatients now one year for
outpatients. What’s the point of booking that far ahead?’

• Guidelines for referrals

‘Appropriate assessment of urgency. Appropriateness of referral.’

• Number of clinics or procedures available

‘Only a limited number of well defined clinics available for direct booking.’

• Communication

‘Improve communication between practices and hospital – when we sent our
first on-line booking form the hospital reception staff had never seen one
before!’

• Commitment

‘Commitment from secondary care.’

The comments highlighted clearly that there are various conditions which make
booking easier for GPs, or will be necessary to expand booking. Electronic methods,
including email, web booking forms or electronic schedulers were seen to be
particularly important in facilitating bookings from primary care. Many GPs wanted
there to be links between the electronic clinical systems in the practices with
electronic booking, to avoid duplication of patient information and to ensure that a
record of the referral and booking was registered in the electronic patient notes.
Associated with electronic booking was a requirement that the system adopted needed to be simple and easy to use to ensure that it is used.

Another key issue was the time the length of time it takes to make the bookings for GPs or clerical staff in primary care. Related to this was the need for reimbursement for taking on what is seen to be the hospital’s work. As the number of bookings increase, these two issues are likely to increase in importance. Several comments exposed teething problems and ways in which the booking system / project could be improved.

**Challenges**

When GPs were asked what factors will present the greatest challenge to increase bookings, the following answers were given, many of which are the mirror image of the factors given in answer to the question of what will help to increase bookings. Again, the quotations all come from GPs in Bath:

- **Time**
  
  ‘*GP’s time to complete referral at time of consultation*.‘
  
  ‘*Clerical time. GPs do not have time to deal with the direct booking when patient is in consultation – needs to be passed to clerical staff*.‘

- **Waiting times**
  
  ‘*The specialties with long waiting lists will find it hardest to set up direct booking*.‘

- **Funding**
  
  ‘*Lack of funding*.‘

- **Good appointment system**
  
  ‘*Easy access to booking schedules. More ‘phone lines (almost an impossibility to book appointment whilst patient with you). More hospital staff to cover sickness and absences*.‘

- **Training**
  
  ‘*Training*.‘
Compatibility of electronic systems and appropriate IT

‘An efficient integrated paperless system, which includes our community hospital outpatient sessions, which deal with 50% of our referrals and is currently administered differently’.

Reliability

‘Reliability’.

Commitment

‘Lack of commitment from either primary or secondary care sector.’

The challenges identified by GPs who had not booked patients, or who did not know if their patients were booked, focused on concern about the time it would require for the practice, the need for compatible electronic systems and appointment availability. Whilst those GPs whose patients had been booked also highlighted the same issues, they raised other, more detailed issues e.g. the practicalities around dates being given, the number of clinics, the commitment the change requires from primary and secondary care and need for training.

Lessons from booking patients

Many of the GPs who offered lessons from their experience of booking reiterated some of the issues mentioned above. Of particular note was a problem that two GPs had experienced when patients received notification of a booking before they had been informed that the GP had made the referral:

‘Colposcopy: ensuring patient is aware GP has referred them to colposcopy clinic before making appointment (as result of smear test) and informing them of date of appointment. Problem occurred because patient wasn’t contactable by phone. GP wrote letter and went on holiday. Patient then contacted with appointment date before letter received.’

One GP offered a view on the increased role patients could play in the future with booking electronically:

‘Probably the future will be best served by a system that allows the patient to access the appointment system at the hospital site clinics from a terminal at the GP practice.’
Several GPs answered the question by saying that they felt they had too little experience to offer any lessons from booking patients. However, several GPs who had previously said that their patients were not booked, or they did not know, did offer ‘lessons’; these included time constraints, training, funding, involving all staff and avoiding duplication of information.

5.5 Summary
The survey of consultants showed that different methods of booking were used for different patients, with day cases and outpatients usually being booked by a central co-ordinator whilst the majority of consultants booked inpatients themselves. The majority of consultants are enthusiastic or supportive of booking patients, however about a quarter of consultants are sceptical or not convinced of the value of booking patients. The main concerns were the reduced efficiency of a booking system, increased cancellations and the loss of flexibility.

The greatest challenges to extending booking were seen by consultants to be capacity (nurses, beds and theatres) and waiting times. Approximately half of consultants surveyed would only want to book less than three months ahead and approximately half would be prepared to book under six months ahead. Very few consultants were prepared to book more than six months ahead.

The GP survey results were dominated by the experience of GPs booking patients at Bath. Approximately half of the GPs indicated that at least some of their patients were receiving booked admissions. The most common method of booking was for the referral to be made by fax or using IT (email, scheduler or webpage). The patient or receptionist usually telephoned the hospital to book the date or the practice booked the date using the electronic scheduler.

GPs identified a number of factors which help booking to increase from primary care. These focused on the availability of electronic methods, particularly linked to clinical systems, the simplicity of the system, the length of time it takes to make the booking and funding for this work. The challenges identified were the time involved in making a booking, long waiting times, funding and having a good, reliable appointment system.
6. Patients’ Views of Booked Admissions

This chapter reports the results of our assessment of day case patients’ views of the booking system in 15 of the 23 first wave pilots which undertook this kind of booking.

Key Findings

- About a fifth of respondents did not identify their experience as either booked or non-booked suggesting that for some patients the distinction is not straightforward, memorable or appropriate.

- The remainder of respondents to the survey were divided almost evenly between those who identified themselves as having been booked to attend on a date agreed with the hospital, and those who reported that the hospital told them when to attend.

- 87% of booked patients felt that having a booked date made it easier to plan. 11% felt it made no difference and 2% felt that it made it harder to plan.

- 56% of booked patients felt that the agreed date was very convenient and 40% felt that it was quite convenient.

- 72% of booked patients would choose to have another booked date, 10% would prefer in the future to be told when to attend and 19% had no preference.

- 35% of those who indicated they had been allocated a date said they would prefer a booked date in future.

- If given the hypothetical choice of attending sooner without a booked date or attending later with a booked date, 62% of booked patients would prefer to attend sooner (unbooked), compared to 38% who indicated a preference for a booked date.

- A majority of non-booked patients (71%) and booked patients (62%) preferred a shorter wait and an allocated date than a later booked date.

6.1 Data and method

One of the reporting requirements of the first wave pilots’ participation was to carry out patient satisfaction surveys to monitor patients’ views of the changes being made to admissions. The sites used a wide range of methods to achieve this, including: questionnaires, focus groups, and face-to-face interviews. Some conducted their own...
surveys; others used commercial research organisations or sought CHC assistance. The numbers sampled varied from a handful to several hundred. The results have encouraged the further spread of booked admissions and have helped to refine the methods used to book patients. Overall, the findings have endorsed the introduction of the programme and have been commented on in previous reports in this evaluation.

Our evaluation included an independent patient survey across all of the participating sites to find out about patients’ views and experiences of agreeing a booked date for day case treatment. The research proposal was given Multi-centre Research Ethics Committee (MREC) approval in May 2000. HSMC contacted the 24 pilots to obtain written permission for the survey from the chief executive and medical director. At the same time, formal submissions were made to all relevant local research ethics committees (LRECs) for permission to proceed. Permission was obtained from 18 trusts but only 15 distributed the survey.

A questionnaire was written which included 17 questions, containing closed response tick-box and free text sections (see appendix 3). The questionnaire was designed with the co-operation of project staff in the 15 trusts that took part in the survey and it was piloted in one trust. The questionnaires were sent to recently discharged day case patients as identified by trust staff from discharge lists. The participating trusts had no access to the individual patient responses. Further details about the methodology are included in appendix 3.

At the close of the survey, 1125 questionnaires had been mailed to patients and reminder copies sent where necessary. The overall response rate was 51.5% (580/1125). The response rate by participating trust ranged from 32% to 69%.

6.2 Recall of experience of admission process

The survey was intended to explore the experiences and views of day case patients whose appointments had been booked. To establish whether patients felt that their appointment had been booked, Question 1 asked how the treatment or test date was arranged. The respondents were given a choice of three options:
(i) ‘the hospital wrote or phoned to tell me when to attend’ (a ‘non-booked’ scenario);

(ii) ‘I was booked to attend on a date I agreed in advance with my hospital (or my GP)’ (a ‘booked’ scenario); or

(iii) a free text response under the prompt ‘other (please describe)’.

Of the respondents to this question, 47% (224/480) chose the booked option and 48% (231/480) chose the non-booked option. The remainder of the respondents (5%, 25/480) chose the ‘other’ option and described in their own words how the appointment had been arranged. In addition, some of those who chose one of the booked/not booked options also wrote comments in the free text box.

Patients in this study were recruited by project staff from discharge lists belonging to clinical staff involved in the booking projects. The finding that only half the patients who answered the question perceived that they had been booked may be due to booking not being universally available across the pilots. This is supported by the analysis reported in chapter 2 which indicated that in the first wave pilots not all day case patients were able to book their appointments.

The high proportion of patients who reported that they were not booked may also reflect the fact that some patients may have found it difficult to distinguish between agreeing a date in advance and the hospital telling them when to attend. This may be because their memory of how the appointment was arranged was not good, or because the process of making the appointment was in itself less salient than other aspects of their experience as patients. It may also reflect the approach taken by staff involved in arranging appointments who may not necessarily have offered patients a real choice of dates. Furthermore, for respondents who had not been treated as day cases before, the opportunity to agree a date in advance may not have appeared particularly memorable or noteworthy.
There is some support for this from the fact that 17% (100/580) of those who sent back questionnaires failed to answer the question or wrote comments that did not allow the admission procedure to be determined. An analysis of the dozens of comments made by those who did not tick an option box for this question suggests that many either were unable to tell whether they were booked, or did not feel that this was a relevant question. Equally important, as the quotations below indicate, the comments made by respondents who failed to answer this question suggest that some patients did in fact book their dates even though they did not choose this option. For example:

‘When I went to see (consultant's name) he booked me in there and then by checking his diary.’

‘I went direct to the day surgery where the appointment was arranged.’

‘Date arranged by hospital consultant.’

‘I was booked in by the hospital.’

‘The appointment was made during attendance at an out-patient clinic.’

‘I was informed on the day of my pre-op appointment.’

‘The hospital gave me a date.’

‘The consultant made the appointment on his computer.’

‘We were given a date on visit to day care centre.’

For some respondents (around 20), the relevant point was that the GP had organised the appointment:

‘GP called consultant direct for an urgent appointment.’

‘Referred by GP.’

‘I went to see my GP at his surgery and he advised me to see a consultant at the hospital and made the necessary arrangements.’

‘GP used fast track system and gave me a date in advance.’

‘Through my GP.’
‘I went to the doctors and they referred me to a specialist.’

‘After going to see my doctor he immediately booked me into (name of hospital).’

About the same number of respondents remembered only that the hospital had contacted them:

‘I was written to by the hospital after a private consultation by (consultant name).’

‘The hospital wrote to me with the date.’

‘The hospital wrote and said when to attend.’

‘I was telephoned first then confirmed by letter.’

‘Hospital wrote.’

‘The hospital day surgery bed manager phoned to give me my date.’

Another complicating factor was that for many patients the appointment was one of many in their treatment experience and they were unsure which was being referred to and so they explained the whole process:

‘GP referral to consultant. Consultant appointment and visit at which an approximate date was agreed and a pre-assessment made by the day case unit. A letter from the day case unit with an admission date and relevant literature.’

‘My treatment was for a cataract operation in my left eye. My GP referred me to the hospital who contacted me for tests. The operation finally took place on (date) and was a complete success. I was very well treated in all preliminary testing.’

‘(Name) received a letter to have a check with his problem and on the same day was sent to (place) to be assessed. Then given date for operation.’

A small number of those surveyed felt they could not answer the question because they had been referred by someone else or admitted as an emergency:

‘In the first instance I had a fall and was taken in by ambulance.’
‘Road traffic accident, admitted immediately then revisited for check up.’

‘I was referred to the hospital by my dentist.’

‘My dentist wrote to hospital and the hospital wrote to me for a date to attend.’

‘I was made an appointment by my regular dentist who deemed it necessary for me to be treated quickly.’

Others patients were offered cancellations which they took advantage of:

‘Hospital wrote to me regards tests. There was a cancellation. I was offered this which I accepted. Including two weekends I was in the day case centre within 10 days. Wonderful.’

‘Hospital wrote after I had telephoned to see if there was a cancellation.’

‘As there was a cancellation I was given a much earlier date for my eye operation.’

‘Whilst attending hospital appointment they had a cancellation and we accepted it.’

Finally, some respondents seemed to have had a booked appointment but because they saw themselves as taking the initiative they did not choose one of the fixed choice responses:

‘I agreed with my hospital in advance.’

‘The date was agreed in advance by myself with the hospital section.’

‘I rang the pain clinic to ask for treatment.’

‘After seeing the consultant I had to phone the hospital to arrange a convenient date.’

‘I phoned the hospital and agreed a date.’

These comments, written in response to question 1, confirm the difficulty some patients have in identifying whether they were booked or not. For the patient, different parts of the process of receiving treatment may be more or less memorable. During the stressful experience of illness, important events will be remembered but salience will be of a personal nature. Even when explicitly informed they have been
'booked', this may not carry significance for the patient and so may not be remembered. And the term ‘booking’ itself may not be understood by patients as especially relevant to their experience.

Much will also depend on how the staff making the appointment behave towards patients. In a culture in which waiting is deeply ingrained, it cannot be assumed that doctors, nurses and other staff involved in arranging appointments necessarily present the choice of date to patients as very different from the hospital telling patients when to attend. Although we were not able to observe interaction between staff and patients in the process of making appointments, there is some support for this explanation from our survey of project managers conducted in October 2001. As one of those responding noted, a CHC survey of patients:

‘... showed patients were not fully understanding the concept of mutual booking and were taking the first date offered...Now all patients are offered three dates and are aware that they can make a choice’

It follows that attempts to make services more responsive to patients may not be experienced as especially memorable by patients unless those providing these services act in a way that makes it clear that a choice is being offered.

6.3 The place of booking and waiting time

The 224 patients who indicated that they had booked a date that was agreed with them were asked a number of questions about what this involved. Ninety seven percent (218/224) of these patients indicated where the date was agreed (Question 2). Seventy seven percent (169/218) of these respondents indicated that it had taken place in the hospital with 12% (26/218) reporting that it was their GP's surgery and 11% (23/218) choosing the ‘other’ option.

In Question 3 all but three (221/224) of the booked patients indicated how far ahead the ‘booked’ date was. Nearly half were seen within one month (49%; 109/221) while about one third indicated two to three months ahead (35%; 78/221). Most of the rest were booked four to six months ahead (11%; 24/221) with a small number waiting more than six months (5%; 10/221).
6.4 The impact of a booked admission

Questions 4-6 addressed the psychological and social impact of the prospect of a day case admission, and the degree to which agreeing a date in advance reduced any worries patients might have, and allowed them to plan better. These questions comprised fixed choice responses followed by a comment box.

Of those answering Question 4, asking whether they were worried about having to go into hospital, 54% (113/210) were not worried about the prospect and the remainder were worried (46%; 97/210).

Patients who indicated they were worried were then asked in Question 5 whether agreeing a date in advance made them more or less worried. Ninety of the 97 booked patients who indicated that they were worried about their admission responded to this question and the majority (62%; 56/90) said it made no difference. About a quarter (26%; 23/90) said it made them worry less and a small number indicated that it made them worry more about having to go into hospital (12%; 11/90).

Given the opportunity to comment in their own words, many respondents used this opportunity to discuss what worried them about their procedure (eg. the anaesthetic). Only a few people made comments about the effect of agreeing a date in advance. For example:

‘I worried less in that I had a specific time scale to plan and work to, and not the added worry of how long I would wait’.

Asked in Question 6 what effect being able to agree a date had on them, of the 220 ‘booked’ respondents answering this question (four of the 224 ‘booked’ respondents missed this question out), the majority (87%; 191/220) agreed that the date made it easier for them to plan their visit. Of the remainder, 11% (25/220) felt that it made no difference and 2% (4/220) said it made it harder for them to plan.

6.5 Changes to the booked date

In Question 7 patients were asked whether the agreed date was convenient or not at the time it was fixed. Of the 217 (out of 224) ‘booked’ patients who answered this question, 56% (121/217) indicated that it was very convenient, with most of the rest
(40%; 86/217) choosing the ‘quite convenient’ response. Only 5% (10/217) chose to say it was not particularly or not at all convenient.

In **Question 8** patients were asked whether the date they had been admitted to hospital was the same as originally agreed. Of those responding, 82% (178/216) of booked patients said that it was and 18% (38/216) said it was not. The 38 respondents who said the date was not the same as originally agreed were then asked in **Question 9** who had changed the date. The majority (57%; 21/37) said the hospital did with 43% (16/37) indicating that they had (one respondent missed the question out).

In the free text box, respondents gave a range of reasons for changed dates including the telephone offer of sooner admission due to availability of cancellation slots, change in the patient’s health status leading to clinically necessary rescheduling, and lack of availability of staff. For example:

‘The secretary simply changed my date due to a (surgeon’s) commitment problem.’

‘A test showed problems with my blood so I had to delay my admission.’

‘The surgeon didn’t turn up.’

‘I was in pain and given an earlier date when someone cancelled.’

The patient survey was not designed with the objective of comparing the views of booked and non-booked patients because it was intended that all respondents would have been booked. The finding that 40% (231/580) of the respondents viewed themselves as not being booked provided an opportunity to compare the views of booked patients with those who indicated that they had been ‘told’ when to attend and so this analysis is also included.

**Question 10** asked ‘if you attended on the original date, had you tried to have this date changed (without success)?’ Eighty seven percent (194/224) of the booked patients responded to the question, and 5% (9/194) of the respondents chose the ‘yes’ response. The response of non-booked patients was very similar: 83% (192/231) of
the non-booked patients responded to the question, and 5% (10/192) of the respondents chose the ‘yes’ response.

**Question 11** inquired how the patient felt about the length of waiting time. Ninety three percent (209/224) of booked patients responded to both question 11 and question 3 (about the time waited). Table 20 shows that for these respondents, the longer the time waited the higher the proportion of patients expressing concern about the length of wait. It is noteworthy that the number of patients waiting more than three months is small.

**Table 20: Booked patients’ views on length of time waited by time waited**

<table>
<thead>
<tr>
<th>How do you feel about the length of time you were on the waiting list before your admission to hospital?</th>
<th>Roughly how far ahead was your agreed date for?</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>within one month</td>
<td>about 2-3 months ahead</td>
</tr>
</tbody>
</table>
| | % | n | % | n | % | n | % | n |%
| I was admitted as soon as I thought necessary | 88.5 | 92 | 78.4 | 58 | 60.9 | 14 | 62.5 | 5 | 80.9 | 169 |
| I should have been admitted a BIT sooner | 7.7 | 8 | 18.9 | 14 | 30.4 | 7 | 12.5 | 1 | 14.4 | 30 |
| I should have been admitted a LOT sooner | 3.8 | 4 | 2.7 | 2 | 8.7 | 2 | 25.0 | 2 | 4.8 | 10 |
| Total | 100.0 | 104 | 100.0 | 74 | 100.0 | 23 | 100.0 | 8 | 100.0 | 209 |

6.6 Patients’ rating of the booked admission service

**Questions 12-14** attempted to explore patients’ views about the appointment system that they had experienced. **Question 12** asked if in retrospect there was anything which could have been done to improve the way their hospital visit was arranged. Ninety six percent (214/224) of the booked patients responded to the question, and 8% (17/214) of the respondents felt that arrangements could have been improved. The response of patients who reported themselves as not having been booked was similar: 92% (213/231) of the non-booked patients responded to the question, and 11% (24/213) of the respondents felt that arrangements could have been improved. The
respondents who felt it could be improved offered some insights via their free-text comments.

‘It would be nice to be able to arrange a date by telephone when you visit your GP and not have the agonising wait for a letter.’

‘When you are given a date from the hospital you can usually work life around it. I would have liked specific time of day so as not to wait all day.’

‘It took a long time to get on the waiting list’; two different assessment clinics said two different things about my anaesthesia – one should be saying the same as the first.’

‘I should have been admitted sooner as I had a tumour and was rushed in because of a haemorrhage.’

‘I was made to wait 1.5 hours before I could be given a date because it was over lunch time.’

‘I would have liked written info on the operation.’

‘There appears to be an inordinate delay between the submission of a report from the GP to specialist and notification of a date to attend the hospital.’

**Question 13** asked which mode of admission would be preferred if the patient had to come into hospital as a day patient again. Respondents could choose either: ‘to receive a letter or phone call from the hospital telling me when to attend’, or ‘to be booked to attend on a date agreed in advance with the hospital’. A ‘no preference’ option was also offered. Ninety seven percent (443/455) of the respondents who reported having booked their date or been allocated a date responded (i.e. those who failed to answer question 1 (100) or answered ‘other’ (25) are omitted from this analysis, making a total of 455 out of 580). There was a marked difference in preference between booked and non-booked respondents with most booked patients expressing a preference for another booked admission (see Table 21).
Table 21: Patients’ preference for the method of determining the admission date

<table>
<thead>
<tr>
<th>Reported method of determining date experienced by patients</th>
<th>Booked date</th>
<th>Told when to attend</th>
<th>No preference</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>booked date</td>
<td>71.6% 154</td>
<td>9.8% 21</td>
<td>18.6% 40</td>
<td>100.0% 215</td>
</tr>
<tr>
<td>allocated date</td>
<td>34.6% 79</td>
<td>40.4% 92</td>
<td>25.0% 57</td>
<td>100.0% 228</td>
</tr>
<tr>
<td>Total</td>
<td>52.6% 233</td>
<td>25.5% 113</td>
<td>21.9% 97</td>
<td>100.0% 443</td>
</tr>
</tbody>
</table>

Note: The chi-squared test for association indicates that there is an association between the reported method of determining the date experienced by patients and the patients’ preference between the three stated options ($p<0.001$)

All but one (214/215) of the respondents reporting that they had booked their date provided information about their age. For these patients, the majority in each age band, apart from those aged 75 and over, expressed a preference for a booked date. The number of patients in the 75 and over age band was small. Nevertheless although the most common choice for patients aged 75 and over was no preference, of those patients who expressed a preference, the majority were in favour of booking (see Figure 43).

Figure 43: Booked patients’ preference for the method of determining the admission date by age
In contrast, Figure 44 shows that for patients who reported that they had been allocated a date, the preference for a booked date was only expressed by the majority of patients in the 18 to 34 age band.

**Figure 44: Non-booked patients’ preference for the method of determining the admission date by age**

These findings suggest that those patients who have not experienced a booked date may not readily perceive the benefit of booking, although younger people may be more likely to do so. This is supported by the free text comments, which suggest that working people and people with family responsibilities prefer to book:

‘*It gives more flexibility to working people.*’

‘*I wanted to book because I have a disabled son.*’

‘*Booking is good because my husband is a shift worker.*’

‘*I can arrange my work around the date booked.*’

‘*I can attend on date convenient to me.*’

‘*Booking means: work notified, arrangements made, transport sorted, after care taken care of.*’
‘If you are told when you are coming in you can arrange things to fit in with it.’

‘Easier to make arrangement for children; more time to arrange travel and care of pets.’

Some older patients wrote comments about their preference for the traditional method of being told when to attend hospital. This may be because they have time on their hands to accommodate the request of the hospital:

‘Being a retired pensioner I can always be available.’

‘I am retired and have no problem with either.’

However, in some comments this rationale seemed to be combined with a feeling that the hospital was putting itself out needlessly for them with this service. Those respondents seemed to feel that it was easier for a hospital to draw its patients from the list rather than arrange dates to suit the convenience of the patient. In effect some of these patients felt they were doing their hospital a favour by not expecting a date which suited them.

‘I think it is more convenient for my hospital to provide alternative dates if my original date is unsuitable.’

Other patients felt that being told when to attend was not a problem for them:

‘It is irrelevant to me whether I book dates in advance (changing circumstances may mean I can’t keep it anyway) or be given a date by the hospital. I have always found the hospital helpful and co-operative when needing to change dates anyway. The bigger problem is the number of pre-visits.’

‘A phone call or letter is just as easy as an arranged date.’

A complementary question 14 inquired further of patients' preferences by asking, if they had a choice, would they ‘attend hospital sooner on a date allocated at short notice by the hospital’ or ‘later on a date they had agreed in advance’. When the responses of ‘booked’ respondents are compared to those ‘allocated a date’, differences emerge (i.e. those who failed to answer question 1 (100) or answered
‘other’ (25) are omitted from this analysis, making a total of 455 out of 580). Eighty-eight percent (401/455) of these ‘booked’ or ‘allocated’ respondents answered question 14. A greater proportion of non-booked patients preferred a shorter wait and an allocated date, rather than a later booked date (see Table 22).

Table 22: Patients’ preference for a booked date versus an allocated date with a shorter wait

<table>
<thead>
<tr>
<th>Patients’ hypothetical preference between a future admission:</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘soonest’ on a date allocated</td>
<td>61.9</td>
<td>122</td>
<td>38.1</td>
<td>75</td>
<td>100.0</td>
</tr>
<tr>
<td>‘later’ on a date booked</td>
<td>71.1</td>
<td>145</td>
<td>28.9</td>
<td>59</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>66.6</td>
<td>267</td>
<td>33.4</td>
<td>134</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: The chi-squared test for association indicates that there is no association between the reported method of determining the date experienced by patients and the patients’ hypothetical preference between the two stated options (p=0.052).

Of the booked patients who indicated a preference for booking (see Table 21), 89% (137/154) answered question 14. Fifty-four percent (74/137) of these respondents would choose a sooner and non-booked date, compared to 45% (62/137) who would prefer a booked date, and 1% (1/137) did not express a preference. With this small sample size, the finding that a majority of booked patients expressing a preference for booking would still choose a shorter non-booked option is not statistically significant. However, across all booked and non-booked respondents, the finding that a majority preferred a shorter non-booked option is statistically significant.

The survey findings suggest that although the majority of booked patients reported positive views about their experience of booking, a greater priority is placed on minimising waiting time than on booking, as the following free-text comments suggest:
‘It saves having to re-arrange with the hospital when they send an appointment which I cannot keep due to being away on holiday. But I would also be glad to take advantage of a short notice chance if someone else had cancelled.’

‘Just needed an appointment ASAP no matter whether it was convenient or not.’

‘I asked for a date as soon as possible and luckily there was a cancellation.’

‘I don’t think its any difference on how you arrange an appointment as long as you do get one within a sufficient time period.’

‘Makes no difference- shouldn’t have to wait though.’

6.7 Summary
Responses from this survey have highlighted the difficulties researchers face in selecting samples of ‘booked’ from ‘non-booked’ patients. While it was intended that the survey would only go to booked patients, many respondents regarded their experience as a non-booked one. Furthermore, the finding that about a fifth of the respondents did not identify with either the booked or non-booked options, suggests that for some patients the way in which the date is arranged is not straightforward, memorable or salient.

The most likely reason for this is that patients did not receive an explanation as they were being booked that a system was in operation in which they could agree a date that was convenient to them. Having said this, even if an explanation had been given, it is easy to understand how patients might fail to remember it during the anxiety produced by the medical encounter and while trying to record the date of a future appointment, especially if this was their first or only experience of being a day patient. The comments respondents made to question 1 illustrate the difficulty patients have isolating the experience of having a hospital appointment from other experiences relating to their condition or illness and its treatment.

In spite of this, the survey has drawn on a population of patients from across England, from 15 trusts of all types and sizes. It provides a profile of current attitudes to booked admissions among those ostensibly selected on the basis of having entered
hospital at an agreed time. The popularity of booking and the reasons for this are identified. Moreover, the system is for the most part working to patients’ satisfaction. The vast majority of the booked respondents felt the agreed date was either ‘very’ or ‘quite’ convenient for them.

As only very small minorities felt the agreed date was ‘not particularly’ or ‘not at all’ convenient, it is clear that patients are overwhelmingly being served by the booking system. The data also revealed that most of the booked dates reported lay within the six months boundary for feasible day-case booking. However, it is important to note that nearly half the booked respondents waited less than one month and 84% were seen within three months. Only 5% of patients waited more than six months. Clearly, the respondents’ views may not represent the views of patients waiting six months or above. The vast majority of respondents felt booking made it easier for them to plan their visits. Patients who agreed their booked date were overwhelmingly satisfied with the duration of wait agreed to; and just over half the respondents felt they would wish to be booked in the same way again.

The booked admissions system has firm advocates among those whose circumstances particularly require it. However the preference for ‘soonest’ dates over booked dates highlights the perception so many have that the hospital admission is still essentially about waiting, and avoiding this takes priority over the benefits of booking.
7. Programme and Project Management

This chapter describes the local, regional and national management arrangements, how the money was spent by the projects, and the changes to the roles of managers, nurses and administrative staff that occurred. It draws from interviews throughout the two years with staff from the pilots and recent interviews with NPAT staff and civil servants from the waiting and booking branch at the Department of Health.

### Key Findings

- The pilots set up project management arrangements involving a project manager or team under the direction of a steering group. The majority of project managers felt that the time and management support required to implement booking systems was underestimated in the first wave compared to subsequent waves. There was also a lack of continuity of project management in some pilots at the end of the ‘live’ period and this affected progress.

- Active support from chief executives and senior staff (including clinicians) helped in the development of booking. There was limited involvement of health authorities and PCGs, and the participation of CHCs was variable.

- The main impact of booking on nurses was where pre-operative assessment was introduced or reviewed.

- The transition for administrative staff was generally smooth. The introduction of booking led to trusts creating new administrative posts, upgrading existing posts or providing additional training.

- A distinctive approach was taken by NPAT, with an emphasis on training, quality improvement methodologies, programme management, dedicated project management, ring-fenced funding and measurement of progress.

- As the programme expanded, regional offices took over the running of the programme and NPAT assumed a more strategic role.

- The programme management style changed over time with an increase in standardisation, a more structured approach to training and measurement, and greater direction on issues such as electronic booking.

- The future management arrangements are unclear, with the emergence of strategic health authorities, but a combination of national leadership from NPAT along with local strategic management will continue through the fourth wave of the programme.
7.1 Local project management

Management

In contrast to many national initiatives, there was a broad uniformity of approach to the local management of the pilots. NPAT required each pilot to be managed locally by a project manager under the direction of a steering group. In some pilots there was a very clear commitment to booked admissions, often demonstrated by chief executives chairing the steering group and giving sustained support to the pilot. The importance of their role was seen when chief executives moved to other trusts during the lifetime of the pilot, which sometimes created a gap in leadership. In most trusts a senior manager, for example a medical director or operational director, gave support and direction to the pilot.

Representation from health authorities and patients or CHCs was frequently reported to be ‘hit and miss’, but there were a number where it was both consistent and valued. By comparison, there was very little engagement with PCGs in the first wave. The two main reasons were because PCGs were not established at the beginning of the programme and because the majority of pilots were both secondary care initiated and hospital focused. Pilots with direct booking from general practice predictably had closer working relationships with PCG/Ts.

A strongly held view by the majority of project managers was that the time and management support required to implement the booking systems was underestimated in the first wave compared to subsequent waves. This usually reflected a degree of inexperience at the outset about the work involved. Likewise, many project managers felt that their scope and time scale had been over ambitious. Consequently, depth of progress with booked admissions was, at times, sacrificed by achieving breadth of coverage. The following quotations, taken from interviews with managers, illustrate these themes:

‘We should have had a full time project manager.’

‘The dedicated manager working with booking from general practice has been very important. Any primary care project should have this level of commitment with someone from a primary care background.’
'In wave one we should have had a full time project team rather than a project manager. This would have allowed for the senior member of the team to have responsibilities other than NBAP to increase the influence of the work.'

Project managers in 15 of the 24 pilots were no longer involved with booked admissions at the pilot when the final interviews were undertaken (six to nine months after the end of the first wave). Several project managers from the first wave moved on to other booked admissions related jobs, particularly at regional offices or the Modernisation Agency. Where there was lack of continuity of project staff between the first and second waves, there were several examples of booking systems regressing. Consequently, a hand over period of approximately three months was recommended by one project manager to ensure continuity.

Staff changes also created problems in training new staff in skills like process redesign, particularly when training programmes were not available at the time they were needed. The following quotations, taken from interviews with managers, illustrate these themes:

‘I have real concerns that a lot of project managers from the first wave have migrated to supportive roles at region or NPAT. They need to remain in the trusts to make the changes.’

‘The project team fell apart at the end of March 2000 because the project manager and co-ordinator left. The impact was that the total numbers of bookings dropped in April and May 2000.’

‘Both the IT manager and project co-ordinator have moved to other positions within the last six months creating gaps in supervision of consultants and GPs and a consequent drop in the number of bookings.’

‘To integrate the booking into the normal work of the trust it needs continuity of management at operational and project levels. Once started it is down to the operational managers to continue it.’

‘In the final six months we will concentrate on transferring skills to the general managers.’

‘We have formed a second wave implementation group with middle managers which has been brilliant in helping to unstick the sticky bits.’
Genuine commitment from senior managers (trust directors or chief executives) was regarded to have been an asset where it was present and a barrier to progress where it was lacking. Associated with this was the stronger partnership there could have been with the health authority, where this did not exist. The greater priority placed on booking through The NHS Plan appears to have increased the support from health authorities and trusts, as noted by one project manager:

‘The national agenda of the plan is helpful in giving political priority to booked admissions which can not now simply be dismissed as a managerial initiative.’

Nurses

A core component of booking at a number of the sites was the development of pre-operative assessment. Nurses are frequently central to these arrangements. For example, in pilots focusing on booking patients for day surgery, it is nurses in the day surgery unit who are usually responsible for pre-operative assessment work. As well as determining whether patients are suitable for surgery, nurses are involved in providing patients with information, arranging consent for treatment, and ensuring that admission dates are recorded and communicated to other relevant staff.

Pre-operative assessment takes many forms, some of which are outlined in Box 16. Assessment is important because it not only filters out ineligible patients who are not fit for surgery but it also allows the hospital to see whether a patient still wants to have the surgery. This can take place either on the same day that a decision is made to operate or at a later date if a patient returns to the hospital for assessment.

Several staff may be involved in the pre-operative assessment; the doctor may obtain the patient’s consent for the operation in the outpatient clinic, followed by an auxiliary doing the preliminary questioning and a nurse undertaking tests and asking further questions. To complete the process the nurse or a booking clerk may agree the date for surgery with the patient. Where trusts have sought to increase the role of nurses in pre-operative assessment, there have been some challenges in safe-guarding the requirements for junior doctors’ training, and therefore their involvement in assessment.
Box 16: Methods of pre-operative assessment

- Patients are invited to stay after the outpatient clinic for a pre-operative assessment on the same day
- Patients are given a date for pre-operative assessment at the end of the outpatient clinic
- Patients attend a peripheral clinic and are asked to telephone the hospital to arrange a date for pre-operative assessment
- No pre-operative assessment takes place at the hospital, but patients are posted a medical and social postal questionnaire in advance of surgery.

Through the programme, the majority of pilots embarked on work to establish, develop or review pre-operative assessment. Discussions at the regular project managers’ meetings showed there was a lack of consensus about a range of issues and so a working group was formed. A project was created to establish national guidance on this subject, based on evidence, with the support of the royal colleges and other national groups. The guidance is presented in appendix 5.

Administrative and clerical staff

The initial move to a booking system often entailed substantial work for medical secretaries, or other administrative and clerical staff. This was particularly the case when many patients had to be assigned dates for surgery and additional activity was commissioned to reduce waiting times to enable booking to commence from a sound base. Many pilots made extensive changes to administrative practices to streamline, simplify and shorten the number of contacts patients must make with hospital staff to secure a date for treatment (see Figure 6 in chapter 2). This was consistent with the application of redesign principles in the programme as a whole.

Beyond this, the move to booking involved changes to the role of administrative and clerical staff as well as nurses. Whereas traditionally, consultants and their secretaries decided when patients should be admitted and handled patient enquiries, in many sites some of this responsibility transferred to other staff. For example, in the case of day surgery, medical secretaries often passed their involvement to nurses and central booking co-ordinators, although the extent and pace of change varied between sites.
The jobs for many waiting list clerks have become more diverse and interesting as a result of increasing contact with patients. In a few cases managers reported that they were over-optimistic about the ability of clerks to handle the new systems or the amount of training required. This was tackled through additional training and appointing new staff where appropriate.

Exceptionally, pilots handed back to medical secretaries responsibility for booking when clerks found the creation of lists too complicated. Although some administrative staff felt threatened about their job security as booking was extended, there were no reports of redundancies. With the different models of booking, it is not clear how the pattern of roles and staffing levels will change within primary and secondary care in the future.

7.2 Information and Communications Technology (ICT)

Recognising the risks attached to ICT-dependent projects, NPAT stated in the criteria developed with regional office and NHS executive colleagues for selection, that funding would not be given for ICT investment other than modest upgrades to existing hospital systems. The intention was for pilots’ energies to be devoted principally to changing human rather than technical processes. However, a few pilots secured funding to introduce a range of PCT approaches to booking, including greater use of faxes, email referrals, electronic diaries and scheduling software.

The range of ICT approaches used in the first wave is illustrated in Box 17. These new systems were developed to facilitate direct booking from general practice and booking within acute trusts. The merit of scheduling systems (computer based diary systems that enable staff to search for and book outpatients or operating dates and in some cases for this to be communicated with other hospital information systems, like PAS or the theatre system) is that they allow staff in different locations to view or book into the system. It is also possible in some systems to introduce booking rules and thereby ensure that the number, length and type of procedures per operating list meet each consultant’s preferences. As Box 17 shows, there was considerable variety in the types of scheduling systems that were developed in the first wave.
Box 17: Examples of ICT approaches to booked admissions

**In-house scheduling system: West Dorset General Hospitals NHS Trust**

Electronic booking of some description was needed because clinics take place in a number of peripheral clinics. The Trust chose to design a scheduling programme, which is a simple application of Microsoft's 'access' software in a slot format linked to the hospital's intranet network. The doctors have access to theatre schedules with pull down screens to make the booking. Clinicians initially used laptop computers to book patients at the peripheral clinics, but they found them to be cumbersome. Instead desktop computers in outpatient clinics have been installed throughout the acute and community hospitals, which allows the booking to be agreed between the patient and the doctor. When a patient has been booked on the system the day surgery unit sends the patient a letter of confirmation.

**Electronic Scheduling System: Royal United Hospital Bath NHS Trust**

The Trust purchased the ‘UltraGenda’ scheduling system. This allows patients to be booked in the hospital and from peripheral clinics. In most cases the day case bed managers in each specialty make the bookings, but some consultants also book patients directly. UltraGenda was chosen for ease of use and because it uses the messaging system which will allow it to communicate with other systems. It has a web-based front end so it is easy for external dial-in which can be accessed with Microsoft Office. UltraGenda is a flexible system in practice but to make it an operational part of the hospital it has to be integrated with the hospital PAS. The Trust knew there would be a problem sharing information between the 2 systems, but the problem has been greater than envisaged (see chapter 4 for more detail).

**Electronic Scheduling System: South Durham Health Care NHS Trust**

As part of its booked admissions pilot, South Durham commissioned and implemented an integrated advance scheduler and theatre system. This electronic diary system has real-time active links to theatre list composition, bed management and booking from general practice potential to be exploited in future. It is based around a user friendly, touch-screen scheduler. It is used by consultants, medical secretaries, theatre and waiting list staff to book patients and reserve (on a first come first served basis) day surgery theatre slots. A quick entry screen facility is provided in all areas (dumb terminals) to allow for entry of emergency patients. Consultants book patients directly into a theatre slot during the initial outpatient consultation process. The consultants scan patients’ details in using a scanner on bar-coded case notes. It also allows for the production of a letter for the patient confirming their booking. Consultants’ secretaries also have access to the system to allow them to see consultants’ lists and manage changes.
Several of the more ambitious ICT approaches encountered delays in introducing the hard or software to enable booking and some faced problems with integrating the scheduling system with the hospital PAS or theatre system, or in primary care with practice’s clinical information systems (see chapter 4). The less technical ICT systems did not encounter these problems, although it was recognised that these systems might be inadequate as booking became more firmly established and covered a wider range of consultants and specialties. First wave pilots that decided not to develop new ICT systems to support booking tended to make better progress time than those that did give priority to ICT, although ICT in itself was not the main obstacle to the introduction of booking. The point to emphasise is that difficulties with ICT reinforced the misgivings of staff, particularly doctors, who were not convinced that booking was a priority. This applied as much to GPs as to consultants.

Having made this point, the experience of the first wave demonstrated that manual booking or single ICT systems were unlikely to be adequate to support booking as it was extended from the enthusiasts to become part of the mainstream. It was for this reason that there was increasing interest in the development of electronic booking. The lessons from the pilots indicate that an electronic booking system should ideally:

- schedule outpatient, diagnostic appointments, day case and inpatient admissions
- be accessible to any member of staff from any location where booking may take place, including peripheral clinics
- incorporate referral protocols where appropriate
- be fully integrated with a single database of patient information to avoid duplication of entry

Other lessons included the importance of systems working reliably and speedily, for the costs to be fully funded and for national guidance about encryption when patients’ details are conveyed electronically by email as part of the booking, to ensure confidentiality.
7.3 Project costs and recurring costs

The Department of Health provided £9.9 million to the pilots for the 18 months of the programme. On average, each pilot received £413,655, within a range of £165,000 to £756,000 (see Figure 5 in chapter 1). Financial data from many of the pilots on how they allocated their funds were not collected routinely by NPAT because project steering groups were given responsibility to manage the budget locally. However, NPAT collected budgetary data which indicated that at the end of March 2000 there was financial slippage on spending amounting to 11% of the total allocation to the pilots. Two of the pilots incurred small over-spends, and NPAT reported that the other 22 pilots had agreed plans with NPAT on how the remaining available funds would be used to further their booking objectives during the financial year 2000-2001.

During the winter of 1999, as the pilots came towards the end of the funded programme, our interviews with project managers revealed that the majority had not discussed the recurrent costs for booking with their health authority (and PCGs). Where funding had been discussed, there was rarely confirmed commitment to fund the recurrent costs. NPAT responded to this and requested health authorities and trusts to work together to submit a three to five year plan for booked admissions, with an indication of the commitment to funding the plan. This served to raise the profile of booking during the SAFF negotiations.

Twenty-two of the pilots supplied data on their planned level of recurrent costs. A number of pilots designed their booking system to ensure that recurrent costs would be low, and five pilots reported that their funding requirement would be zero or minimal. The average reported recurrent cost was about £60,000, with a range from zero to £208,000. Several pilots reported significant recurrent costs for ongoing project management support or for pre-operative assessment nurse posts. The distribution of the recurrent costs, as a percentage of the total programme funding, is shown in Figure 45.

Eighteen of the 24 pilots provided data on the income and expenditure relating to their first wave activity. Data were requested for the period from the formation of the pilots up to March 2000, and for 2000/01. The expenditure reported for 2000/01
included both recurrent costs and expenditure that was delayed from the previous year. For this reason, Table 23 includes all reported income and expenditure up to March 2001.

**Figure 45: Planned recurrent costs as a percentage of total NPAT funding by pilot (n = 22)**

Table 23 groups the pilots into three categories: large pilots (covering more than half of all day case activity), small pilots (covering less than half of all day case activity), and other pilots (booking a range of procedures from general practice only). It shows that on average the large pilots spent more on project management than the small pilots. The large pilots also spent a larger proportion of available funds on administrative staff and equipment and clinical staff and equipment, compared to the small pilots. In contrast, the large pilots spent much less on average on information and communications technology than the small pilots. The expenditure on information and communications technology varied greatly across the small pilots, from £3,000 to £385,000.
Table 23: Average income and expenditure relating to first wave pilots to March 2001 (n=18)

<table>
<thead>
<tr>
<th></th>
<th>large pilots (n=6)</th>
<th>small pilots (n=10)</th>
<th>other pilots booking from general practice only (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>NPAT</td>
<td>414,715 (89)</td>
<td>332,956 (95)</td>
<td>456,750 (100)</td>
</tr>
<tr>
<td>Other sources (eg Trust’s funds)</td>
<td>53,340 (11)</td>
<td>15,913 (5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>468,054 (100)</td>
<td>348,869 (100)</td>
<td>456,750 (100)</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project management</td>
<td>138,115 (30)</td>
<td>55,116 (18)</td>
<td>176,715 (39)</td>
</tr>
<tr>
<td>Information &amp; communications technology</td>
<td>61,169 (13)</td>
<td>126,398 (41)</td>
<td>212,330 (47)</td>
</tr>
<tr>
<td>Administrative staff and equipment</td>
<td>102,879 (22)</td>
<td>41,818 (13)</td>
<td>14,100 (3)</td>
</tr>
<tr>
<td>Clinical staff and equipment</td>
<td>97,917 (21)</td>
<td>48,020 (15)</td>
<td>30,230 (7)</td>
</tr>
<tr>
<td>Waiting list initiatives</td>
<td>30,267 (7)</td>
<td>31,208 (10)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Other (eg project related and overheads)</td>
<td>27,524 (6)</td>
<td>25,970 (8)</td>
<td>21,155 (5)</td>
</tr>
<tr>
<td>Total</td>
<td>457,871 (100)</td>
<td>311,219 (100)</td>
<td>454,530 (100)</td>
</tr>
<tr>
<td>Surplus</td>
<td>10,184</td>
<td>37,650</td>
<td>2,220</td>
</tr>
</tbody>
</table>

7.4 National and regional management

*National Patients’ Access Team*

We noted in chapter 1 that the National Patients’ Access Team (NPAT) was established in 1998 to support trusts and health authorities achieve reductions in waiting lists and to help re-design elective patient processes. This included overseeing the introduction of the National Booked Admissions Programme to pilot a range of approaches to enable patients to book their appointment or treatment. The head of NPAT was accountable to the chief executive of the NHS Executive to ensure that the programme achieved the agreed outcomes.

At its inception, NPAT was a small multi-disciplinary team, combining clinical and managerial expertise in elective care management. Team members were seconded from their jobs for approximately two years to help deliver the government’s waiting list targets. The team worked closely with colleagues in the NHS Executive, regional
offices, the waiting list action team and its regional task forces, emergency services action team, trusts, health authorities, PCGs, royal colleges and patient representatives’ groups. It was envisaged that NPAT would be wound down, probably in 2000, when its original work was complete.

In practice, The NHS Plan announced in 2000 that NPAT would be part of a new organisation, the NHS Modernisation Agency. The Agency co-ordinates work to modernise services to meet the needs and convenience of patients alongside co-ordination of management and leadership development in the NHS. NPAT’s role, within the Agency, is:

- providing experienced, practical help for NHS trusts and health authorities to achieve agreed reductions in inpatient, day case, and outpatient waiting
- identifying and disseminating good waiting list and elective care management across the NHS
- supporting NHS staff and patients to redesign and implement improved elective care through, for example, booking systems (NPAT, 2001b)

National programme management

NPAT’s responsibilities in the case of booked admissions are set out in Box 18. Each booked admissions pilot had an NPAT lead who gave advice to the pilots and usually attended the steering group project board meetings. Detailed knowledge from several pilots enabled the leads to transfer learning across the programme.

Box 18: The role of NPAT in relation to the booked admissions programme

- To ensure the pilots use of a common approach to project planning and service redesign
- To review their progress against milestones, in partnership with the Regional Office Booked Admissions Leads (ROBALs)
- To provide coaching, facilitation and technical skills
- To distil learning from and between the pilots
- To identify and overcome potential constraints and barriers to achievement or project goals, in partnership with the ROBALs
- To ensure the Programme Steering Board and NHS Executive is aware of potential constraints and inhibitors to programme progress
NPAT staff worked closely with Regional Office Booked Admissions Leads (ROBALs). The ROBALs were involved in the first wave through attending steering group meetings for the pilots within the region and providing a link within the regional office to broader work on waiting list management. The functions of the ROBALs are set out in Box 19.

NPAT had an unusually close working relationship with the Department of Health and ministers as well as with the pilots. This ensured that the programme was sensitive to changes at national and local levels. The importance of relationships with the Department of Health was emphasised by those involved with the national leadership of the programme:

'We were able to bring at that time a novel short circuit between NPAT and the Department of Health. So we were able to be relatively assertive about the direction of travel rather than reactive to the Department of Health.'

'The relationship between the Department of Health and NPAT was particularly important when NPAT were the new kids on the block. The Department of Health staff were able to raise the profile of the work with Ministers - it was a joint effort. NPAT needed the Department of Health input to have the credibility.'

**Box 19: The role of Regional Office booked admissions leads**

- To work in partnership with the designated member of the National Patients’ Access Team to provide project specific support and monitoring of pilot projects on behalf of the Programme Steering Board
- To review pilot project progress against agreed project goals and milestones
- In partnership with pilot projects and National Patients’ Access Team members, to identify potential constraints and barriers and work to overcome these
- To ensure that each pilot adopts and continues to utilise standardised project management and progress reporting systems
- To ensure effective communication with pilot projects
- To participate in the meetings of pilot project groups within the region

The NPAT approach to the programme was distinct in many ways (see below) and interviewees identified a number of influences which shaped the approach. As we noted in chapter 1, the team’s combination of learning from the Leicester Royal Infirmary re-engineering project (Bowns and McNulty, 1999) and operational
experience from working in the NHS gave it a firm grasp of improvement methodologies. As one of those involved nationally put it:

‘We were attempting to bring into practice the theory of improvement, rather than embarking on a journey without the necessary discipline.’

Interviewees identified a number of other features of NPAT’s approach (see Box 20).

**Box 20: NPAT’s approach**

- dedicated management nationally and locally
- direct support and advice given to project managers
- delivery of training to the pilots
- ring-fenced funding
- involvement of commissioners in the bidding process
- the role of measurement to understand and demonstrate improvement
- the link to similar work internationally.

The following quotations from interviewees illustrate these themes:

‘Prior to the NBAP there were bids for national initiatives and trusts wrote a report at the end. What was different with the NBAP was regular reporting to the centre and also NPAT providing day to day support.’

‘The training was very unusual for Department of Health projects.’

‘It was very structured, but pragmatic management, with regular reporting, clear directives and an inclusive project board. NPAT spent time once a month looking at progress and keeping things on track.’

‘We gave expertise, advice and determination. We aimed to support but also to challenge and share good practice within a community of pioneers.’

‘Having dedicated resources has been crucial, along with capability, vision, consistent leadership, continuity and stability of people.’
One of the features of NPAT’s approach was the emphasis throughout on learning and development as a means of bringing about service improvements. In the words of one project manager: ‘It felt fine to learn from mistakes. This approach was completely new.’ This emphasis derived from the philosophy that underpinned NPAT’s work and its position outside the main structure of NHS performance management. It was also consistent with the approach of IHI with which NPAT worked increasingly closely, particularly on the development of the collaboratives (see chapter 1).

Consistent with this philosophy, there was a significant investment in training and support in the programme. This included events intended to impart specific skills and knowledge; for example training for clinicians focussed on pre-operative assessment, direct access and endoscopy. Staff from the pilot sites also benefited from access to general NPAT training, including topics such as redesign, national policy, measuring for improvement and managing capacity and demand. Colleagues from the pilots worked alongside NPAT to distil learning and understanding from experience of booking for the nurse directors’ network.

The Quality Review Group (QRG) meetings were the focus for much of this work and were critically important in the initial phases of the programme. These monthly meetings for all the booked admissions project leaders combined updates from the pilots and training from NPAT staff, or others, on relevant topics, for example, waiting list management and the Plain English Campaign for communicating with patients. The meetings, which ran for the duration of the first wave (eighteen months), also provided the opportunity for project managers to share learning and good practice which led in some cases to visits between pilots.

For the pilots, being part of the programme was not without pressure. When the original bids were submitted, the time scale for submission was considered by many to be unreasonably short, and this created problems because there was insufficient time to gain commitment across all staff groups. The short time scales also caused difficulties in appointing project staff. A minority of project managers did not like some aspects of NPAT’s working style, with strict reporting requirements so that changes could be monitored quickly, compulsory attendance at meetings for support and training, and rapid responses to ministerial questions. However, NPAT itself was
often responding to urgent requests for information and has little choice but to operate in this way.

**Strengths and weaknesses of first wave**

Those interviewed saw many of the distinctive features of NPAT’s approach to be the main strengths of the first wave of booked admissions. In particular, the training (especially the QRGs), NPAT’s expertise in redesign techniques, dedicated project management at a national and local level and the emphasis on measurement of change were valued. In addition, easy access to NPAT staff for advice or support was appreciated by the pilots. This close contact between NPAT and the pilots gave NPAT staff the opportunity to learn a great deal about booking systems from the pilots in what was in effect a collaborative exercise in service improvement and capacity building. And at least in the early stages, NPAT was able to focus on the first wave without having to deal with the competing claims of several other programmes.

Those involved in the national leadership identified a number of areas which, with the benefit of hindsight, could have been approached differently. These included a lack of strategic involvement with health authorities and PCGs, NPAT taking a late lead on the electronic dimension of booking and linking it to *Information For Health*, a lack of electronic links between NPAT and the sites, and the absence of dedicated support in regional offices. These and other themes are illustrated by the following quotations:

‘With hindsight, we didn’t link in with the *Information For Health* work, but project sites moved more quickly than we did nationally. The risk of developing incompatible systems happened more quickly than we expected.’

‘Towards the end of the scheme some health authorities withdrew their early support because of financial pressures...we were asking for sign up before the cash allocation was known and it was at a time when the funding levels had not been increased.’

‘It was not uncommon for no one other than the ROBAL in the regional office to know anything about booked admissions. NPAT should have engaged more regional office staff.’

‘We didn’t learn from our own advice – we didn’t create full time ROBALs... Most were leads on waiting list and emergency care issues and we expected booked admissions to be crammed in.’
Evolving management of booked admissions

NPAT was initially set up for two years. During the plans to launch the second wave of the booked admission programme, the expectation was that NPAT would be disbanded in 2000, although in the event it was retained and is now part of the NHS Modernisation Agency. In the light of this, the role of the regions was increased at the launch of the second wave pilots and from April 2000 ROBALs also took over NPAT’s role in relation to the first wave.

The ROBALs we interviewed reported that this has been a unique opportunity for relationships between trusts and the regional office to develop, given the focus on development rather than performance management. Whilst there were challenges for regional offices in taking on this significant agenda, the response in some regions was to establish a team of staff modelled on NPAT, in the form of a Regional Patients’ Access Team. NPAT appointed service improvement managers (SIMs) in each region to support the rollout of booked admissions and improve outpatient services, on which NPAT had also been working.

NPAT continued to provide leadership to the overall programme through a combination of training, activity reports and project management arrangements. NPAT’s work on booked admissions expanded into establishing and leading the Cancer Services Collaborative and the Coronary Heart Disease Partnership Collaborative as well as the other initiatives described in chapter 1. NPAT’s involvement with the majority of the pilots continued through ‘Continuous Improvement of Booked Admissions’ (CIBA) initiative launched as part of the second wave of booked admissions (NPAT, 1999). One of the consequences was that the intensive focus on the first wave pilots that was a feature of the programme in its early stages was diluted.

CIBA aimed to accelerate learning about booked admissions and create conditions for spreading booking systems across the NHS. Nineteen of the 24 pilots received some
funding and support to take part in one of three strands of work during March 2000-
March 2001. These covered matching capacity and demand, booking services across
the process of care and optimising team delivery of booked admissions systems.

Booked admissions also spawned other NPAT projects including the national work on
pre-operative assessment (see appendix 5) and endoscopy. Many of the first wave
sites found endoscopy a difficult area because it is characterised by long waiting times
and high volume and confusions about whether it is a day case or an outpatient
procedure. NPAT used an expert panel and project manager to give a guide to best
practice with pooled lists and arranged for 200 nurses to be trained as endoscopists.

Since the end of the first wave there has been a significant increase in the number of
organisations involved with the booking programme. The breadth of work of NPAT
and the number of staff has also increased. The transition and growth from wave one
to two was not without its problems. NPAT and regional offices tried to retain the
ethos of the first wave, but with the necessary requirement for increased performance
management, standardisation and management on a bigger and inevitably less
intimate scale. Those involved nationally reflected on these changes:

'We possibly started the second wave twelve months too early...but I wouldn’t
want to turn the clock back, even though we were managing by the skin of our
teeth.'

'NPAT has grown very quickly and it has not quite caught up with itself.'

'In wave one the project managers could ring Helen or Nik and say they
needed help. The SIMs are (now) the link and first port of call.'

'SIMs also had the remit for outpatients, waiting lists and booking and so
quickly became over stretched.'

One of the changes from the first wave was the different approach to data collection.
At the outset, NPAT staff had a good knowledge of each site which enabled them to
interpret the data from the pilots. With the move to regional management and more
sites came the need for greater standardisation of data, as noted by one of the
interviewees.
‘People were asking for lots of guidance and some projects gave lots of data which was too detailed, so we decided to produce a standardised reporting spreadsheet.’

In the first wave NPAT was fairly loose about the definition of booked admissions.

Now the standard definitions are:

1. **Non-booking**: a date is allocated up front or on a later date.
2. **Partial booking**: The scenario where a patient is given a choice of dates, but outside the one working day period, will be categorised as partial booking.
3. **Full booking**: The patient is given the choice of when to attend. For full booking the patient is given the opportunity to agree a date on, or within one working day, of the referral or decision to admit. (Maher, 2001)

NPAT and the Department of Health have responded to the need to have more national direction on using electronic systems to support booked admissions and to make the link to *Information For Health*. An outline business case (NPAT 2001a) has been agreed and provides a framework for implementing electronic booking. It allows health communities the freedom to implement locally based solutions within that framework. A small number of advanced communities were selected to take forward electronic booking further and faster than elsewhere. The three components of electronic booking are an information booking service to provide information to patients and health care professionals about waiting times; a transaction booking service to enable the booking to be made; and a bookings management service, providing a call centre linked to NHS Direct, to support patients and professionals in making and amending appointments.

**Future management**

The fourth wave of booked admissions, *Moving To Mainstream* (Department of Health, 2001a), aims to roll out and embed booking systems throughout the NHS. The targets and the end point are clear: for two thirds of all outpatient appointments and elective admissions to be booked by 2003/4 on the way to 100% booking by 2005 (Secretary of State, 2000). What is less clear is how the process will be managed with the planned changes in the regional offices and the creation of strategic health authorities. Although uncertain about the detail, interviewees felt confident that the
capacity has been created at a regional level to manage and support the local booking systems. There was also a recognition that the challenge is great:

‘For it to succeed in the longer term it needs to be seen to be a priority by chief executives. The trick will be for PCTs and strategic health authorities to ensure that booked admissions is in contracts for acute services and if not to ask ’why?’.’

‘It was not relevant in all SaFFs and business planning this year… Only the Trent region have put booking into their core business to achieve 100% day case booking by the end of this year.’

‘We know from the evaluation that mergers and major reorganisations upset booked admissions and the same will happen with the changes at regional level.’

‘There are potentially turbulent times ahead which may impact on booked admissions.’

Interviewees recognised the challenge for NPAT is to keep ahead of the pace of change and to connect the booking initiative to similar redesign work through other national (NHS Modernisation Agency) initiatives:

‘It (co-ordination of initiatives) is very difficult... it almost feels out of control sometimes.’

‘We have detected that quite often the staff in the different programmes are working in isolation.’

‘Fourth wave bids have to demonstrate which other initiatives are involved and how they will jointly work together to achieve booking targets.’

To maintain momentum, a national director was appointed to lead the development of booked admissions in 2001. In retrospect, those involved felt that this appointment could and should have been made sooner in view of the scale of the challenge in moving from a pilot programme into the mainstream. At the same time, they expressed concern that continuing changes to the organisation of the NHS were likely to have an adverse impact in the short term, even with effective leadership by the NHS Modernisation Agency.
7.5 Summary
The pilots were managed at a local level by project managers (and in some cases teams) supported by steering groups. Project managers generally felt that the work involved was underestimated in the first wave and that the significantly larger (and dedicated) project teams formed in subsequent waves were more appropriate to the job to be done. The level of support from senior managers (including chief executives and clinicians) varied. In some pilots, senior support facilitated cultural or organisational change which enabled progress to be made with booking, whilst in other pilots there was less support and this held back change. The low level of engagement with health authorities and PCGs in most pilots was seen to be a weakness in the first wave.

Booked admissions have mainly impacted on nurses through changes to pre-operative assessment. With the programme’s emphasis on redesigning the whole system, booking has stimulated an overhaul of day case and inpatient pre-operative assessment, both within the pilots and also nationally. The national project has given clearer guidance to the NHS about good practice. Where pilots employed extra nurses to develop or enhance pre-operative assessment services, the recurring costs of changes made through the booking pilot tend to be more substantial than elsewhere. Although it can be argued that these costs are not necessary to sustain booked admissions, most trusts take the view that it is a fundamental and integral quality improvement and requires continuing funding.

Considerable effort has gone into redefining the tasks of medical secretaries and clerical staff. In the main, tasks have been successfully transferred, particularly the introduction of central booking clerks or co-ordinators. The additional responsibility for face-to-face dealings with patients has been valued, although some have found it stressful. In contrast to clerks, medical secretaries have occupied a more powerful position, traditionally enjoying the support of consultants with a degree of autonomy and sometimes being more reluctant to change.

The first wave pilots were managed by the National Patients’ Access Team (NPAT) with support from regional office leads. NPAT’s approach to managing a national programme was unusual in the history of quality improvements in the NHS. The
approach drew on the experience of members of NPAT, particularly from the re-engineering work at the Leicester Royal Infirmary. The distinctive features included a close working relationship with the Department of Health and an emphasis on training, programme management, dedicated project management, ring-fenced funding and measurement.

As the programme expanded regional offices took over the local management of the programme and NPAT assumed a more strategic role. In addition there was an increase in standardisation, with a more structured approach to training, measurement and direction on issues such as electronic booking. The service improvement manager based posts in the regional offices have been key to rolling out the work across the NHS.

The future management of booked admissions is likely to retain the characteristics of three tiers of management: the NHS Modernisation Agency taking the lead with the Department of Health to give a the strategic and national direction, regions or strategic health authorities managing the programme and sharing practice locally, and project staff within the local organisations leading the day to day management of the booking systems.
8. Analysis of Programme

8.1 Introduction

The results presented in this report tell the story of an initiative that neither wholly worked nor entirely failed. As is often the case with policy innovations, the story is more complex and more nuanced. The early evidence of considerable progress in introducing booked appointments for day cases identified in our first two reports was followed by some slipping back in the programme in the year following the end of the pilot phase. There was also variation between sites in what was achieved.

Despite this, for both day cases and inpatients across the programme as a whole, the pilot sites were able to demonstrate improvements in all of the outcome measures over the period for which data have been collected, except for hospital initiated cancellations and the proportion of patients waiting six months or over. In addition, the performance of the pilots in relation to the proportion of patients identified as being booked or having a date to come into hospital and the proportion of patients waiting six months or longer remained consistently better than that of non-pilots. To be sure, the change on some measures was small, but movement was in the desired direction.

Even more important, the experience of the pilots has thrown up lessons for the NHS as a whole as government policy seeks to move booking into the mainstream. The main significance of this evaluation is therefore less what it tells us about the pilot sites than the implications it contains for NHS organisations seeking to implement the ambitious targets set out in the NHS Plan. *From this perspective, the achievements (or shortcomings) of the first wave pilots should be assessed in terms of the opportunity they offer to inform the future development of booking.* And in this respect, the programme has thrown up lessons that have relevance for the future of redesign in general as well as booking in particular.
In recognition of this, we now go on to interrogate the data we have gathered with a view to explaining what happened. This involves distilling from the mass of evidence we have collected the main factors that facilitate or (the other side of the coin) inhibit the implementation of booking, drawing on the preliminary analysis offered in our earlier evaluation reports.

In so doing, we seek to understand the outcomes reported here by making use of evaluation frameworks developed by Pawson and Tilley (1997) and Pettigrew et al (1992) and applied to health policy innovations by Mays et al (2001). In Pawson and Tilley’s terms, this means examining how outcomes result from the interplay between context and mechanisms. We also drew on the literature on the management of change (for useful reviews of this literature and its relevance to the health services see Garside, 1998, and Iles and Sutherland, 2001) and on quality improvements in health care (Shortell et al, 1995). Our analysis in this chapter is developed further in chapter 9 which explicitly seeks to draw out the lessons of the evaluation for policy and practice. In both chapters we draw together the processual, comparative, pluralist and historical perspectives that have informed our approach to the evaluation in order to distil the major findings and implications of this research.

8.2 Context
A number of contextual factors are relevant to the implementation of booked admissions. For the purposes of this analysis, we will focus on the political environment, the history of booking in the pilots, and the culture into which booking was introduced.

Political environment
As we noted in chapter 1, the election of the Labour government in 1997 led to a renewed focus on how access to health services for patients could be improved. The most visible manifestation of this was the commitment made by the Labour party during the election to reduce the number of people on waiting lists by 100,000 during its time in office. Related initiatives included the introduction of NHS Direct, walk-in primary care centres, and a promise that all patients with suspected cancer should be seen by a specialist within two weeks of their GP deciding that they need to be seen
urgently. Booked appointments did not appear in the Labour party’s 1997 election manifesto but just over a year after the election the new ministerial team in the Department of Health announced their intention to pilot booking as part of a clear commitment to make services more responsive and accessible to patients.

Access (including booking) was given high priority by the newly elected government because of evidence that waiting for appointments and treatment was the aspect of NHS performance of most concern to the public. For the government, this was inextricably linked to the perception that the NHS needed to be able to offer high quality, patient centred services to retain continuing population loyalty and commitment to a tax funded health service. And while the focus on waiting and booking was not new, it was argued that, at a time of rising social expectations, the willingness of the population to tolerate a service in which they might have to wait weeks or even months to be seen by a doctor was limited. In this sense, the introduction of booking was central to the government’s strategy of maintaining public support for the NHS.

For these reasons, additional resources and staff were allocated to the reduction of waiting and the introduction of booking after the election. The momentum was maintained with the announcement in March 2000 that spending on the NHS was to be increased significantly. The NHS Plan published in July 2000 confirmed that some of the resources being committed to the NHS would be targeted particularly at waiting and booking. Specifically, the Plan stated that by the end of 2005:

> ‘waiting lists for hospital appointments and admissions would be abolished and replaced with booking systems giving all patients a choice of a convenient time within a guaranteed maximum waiting time’ (p.105).

Planning guidance issued to the NHS in November 2000 confirmed targets for two thirds of all consultant outpatients and elective admissions to be booked by the end of March 2004 and for all consultant outpatients and elective admissions to be booked by the end of 2005 (Department of Health, 2000c). The importance of these statements was in confirming that, two years after the announcement of the booked admissions programme, offering patients the opportunity to book their appointments
had become a key plank of government policy and was supported by strong political commitment.

The existence of strong political commitment both assisted and potentially hindered the implementation of booking. It helped in that it indicated to managers the importance attached to booking compared with other government priorities for the NHS. As a consequence, time and energy that might have been channelled in alternative directions were used to support booking, often as part of an overall strategy to improve access to services and redesign the process of care. This was increasingly evident as booking moved from being a relatively minor ‘side show’ in 1998 to becoming a core element of health policy in The NHS Plan. Having emphasised this point, we would also note that during the period in which the first wave pilots were live the commitment to booking was variable as managers and other staff grappled with a large and complex agenda on which booking was only one of many priorities.

Political commitment appeared to be a hindrance where doctors did not share the priority attached by the government to waiting and booking. The issue here was less that doctors did not recognise the importance of improving access to services than their view that other needs had even greater priority. This was expressed in the following statement by a consultant surgeon:

‘I think it is an appalling use of taxpayers’ money. Instead, the money should be directed towards serious diseases and not towards a gimmick...This is wallpapering by the government’.

The concern of a number of doctors (see below) that booking reduced their autonomy also led to some medical resistance. As another consultant surgeon told us:

‘You tell Tony Blair that he can give me his diary and he can see how he likes to have someone else fill it for him’.
In extreme cases, therefore, doctors used the interest shown by ministers as a justification for not lending their support to booking, notwithstanding the commitment to booking of a majority of consultants in our survey (see chapter 5) and the enthusiasm of many to work in this way. And while on balance the priority attached to booking by politicians helped to ensure that the programme was taken seriously in the NHS, the cynicism of some doctors about the motives of politicians meant that it was not an entirely positive influence.

In practice, many of the pilots overcame this cynicism by using local leaders (managerial and clinical) to act as advocates in the development of booking and to help their colleagues understand why change was desirable even in the face of political imperatives they may not have shared. The point to emphasise here is that the source of the message may influence how it is received. Without exaggerating the evidence we have gathered, politicians are unlikely to be persuasive in the cause of reform unless they have the active support and engagement of respected leaders at a local level (see below). As other research has found, opinion formers play a key role in persuading doctors to change their practices (Locock et al, 2000) and this has important implications for future redesign programmes.

The history of booking

Booking has long been part of the NHS even though the booked admissions programme was not launched until 1998. We noted in chapter 1 that previous booking initiatives have usually been confined to enthusiastic clinicians, a specialty or at most a region. Of the 24 pilots involved in this programme, most reported some previous experience of booking, and it was partly for this reason that they were selected from the 70 applicants to take part.

The extent of previous experience did, however, vary. It was most common for pilots to have been involved in booking day cases and/or inpatients before the commencement of the programme with three-quarters of the pilots reporting this. By comparison, booking from general practice was reported in only one quarter of the pilots. Among the pilots with experience of booking, there was a range from those in which booking was limited to a handful of doctors to sites where almost all those eligible to book patients had had some involvement.
As with political commitment, previous experience of booking served to facilitate the extension of booking at some sites and to inhibit its development at others. Among enthusiasts, the creation of the booked admissions programme provided a welcome opportunity to lever in additional resources to enable existing activities to be extended e.g. by reducing waiting times to make booking possible. It also gave access to the expertise of the National Patients Access Team and the support provided by the team in redesigning care processes. The combination of new resources and external expertise allowed some sites to bring a larger number of doctors and specialties into booking and to see booking as routine rather than exceptional.

Among sceptics, previous experience of booking worked in the opposite direction. This was particularly the case where earlier initiatives had run into difficulties e.g. because funding restrictions on elective activity or the pressures of emergency work had made it difficult to honour booked appointments. For some consultants this led to caution about embracing the booked admissions programme with enthusiasm, not least because they and their staff might have to cope with the disappointment of patients who needed to be rescheduled and the difficulty of balancing routine and urgent cases. And although the pilots sought to address these concerns, there remained a minority of consultants who were reluctant to repeat previous uncomfortable experiences until they were convinced that on this occasion things would really be different. As we discuss later, this is one of the most important challenges to be overcome if booking is to become firmly embedded in the NHS.

Culture
Introducing booked appointments brings in its train both technical challenges concerning the methods of booking and the use of available capacity (discussed further below) and challenges to the culture of NHS work. The central issue here is that what on the surface appears as a relatively simple innovation in the delivery of health services (offering patients a choice and the certainty of a date as opposed to placing them on a waiting list) has significant implications for the way in which professionals do their job. This is because, for the doctors providing care, there is a need to relinquish a degree of control by committing to treat patients on given dates. This may be compounded by doctors transferring to other staff like nurses and booking clerks the responsibility for agreeing dates (and in the process diminishing
not only the control they exercise directly but also that of their secretaries - see below). To be sure, nurses and booking clerks have long been involved in making appointments for patients in parts of the NHS, but for some doctors new to this way of working there was initial resistance to change. In our first report, we summarised these cultural challenges in the following words:

‘To exaggerate only a little, if booking is to become the accepted way of providing care in the NHS...then major changes will be required in how consultants, nurses, managers and others treat patients. In a service like the NHS, in which professionals enjoy considerable freedom in organising their work, these changes will have to be introduced with the full involvement of doctors and nurses and in a manner sensitive to the needs of patients’ (Meredith, Ham and Kipping, 1999, p. 61-62).

Further challenges arise for some hospital doctors where they have tested the concept of ‘pooling’ patients, as opposed to referrals to named doctors; and where GPs are able to book patients directly onto day case lists in circumstances where consultants may doubt their competence to so do. Pooling has been used in some pilots and while often working well has encountered concerns that GPs should be able to refer to a named consultant. One of the objections to pooling is that it may make it difficult to provide continuity of care from the outpatient consultation through to surgery and discharge. Similarly, direct access by GPs may be resisted by consultants who feel that it would be professionally remiss to operate on patients they have not diagnosed or examined. There are also concerns that direct access will increase the number of (inappropriate) referrals to consultants, even when protocols are used to guide GPs in making referrals. These concerns persist even though protocols may improve the consistency and accuracy of referrals. A further issue for some consultants is that booking may make it difficult to treat patients in order of clinical priority.

Planning patient care through booking therefore reduces some of the discretion available to hospital doctors. In practical terms, the effects may be felt in the number and mix of patients seen by consultants, and their ability to change their working arrangements e.g. to see urgent patients, attend professional meetings and conferences at short notice, take leave and undertake private work. It is for this reason that the introduction of booking has usually been done in a way that recognises the
importance of carrying doctors along. Examples include ensuring that consultant working preferences are known to the staff booking patients (for example, in relation to the number and mix of patients put on an operating list) and allowing space for urgent cases to be accommodated. Problems have arisen where solutions of this kind are not readily available, as in the difficulty of persuading some doctors to plan their leave sufficiently far ahead to avoid booked dates having to be rearranged or the conflicts that may arise between NHS and private work.

The same considerations apply to booking from general practice. For general practitioners, there are obvious challenges in finding the time to book patients into hospital outpatient clinics and day case slots during the course of a busy surgery. In this case, some of those involved have sought to introduce booking by training other staff (such as practice managers and receptionists) to make the booking, enabling patients to be booked outside the time available for appointments. However, this still creates some additional work for the practice unless direct booking replaces existing systems, although there may be benefits in patients making fewer requests for information about their place on the waiting list or the arrangements at the hospital. GPs may also find it difficult to use protocols as intended when the number of patients referred to the relevant clinics is low and they therefore do not become accustomed to working in this way.

The common point in relation to both hospital and primary care staff is that the culture of medical work (and it is mainly the autonomy of doctors that is affected) can inhibit booking unless it is possible to find ways of fitting new arrangements around preferred practice styles, reassuring doctors that quality of care will not be compromised and offering training to support different ways of working. Research into strategic change in the NHS by Pettigrew and colleagues (1992) has identified a number of ways of changing professional cultures, including the role of leaders, the introduction of new practices and behaviours in advance of attitudinal change, the use of rewards and incentives, and the contribution of human resources policies and practices. All of these approaches and others were used in the development of booked admissions with varying degrees of success.
To make this point is to underline that booking appointments entails a shift from a service that has traditionally been based around staff to one that is more responsive to patients. In other words, the drive by politicians to tackle waiting and introduce booking and to address the concerns of patients has run into some long established ways of doing things that require changes in professional practice that may not be easy to achieve. In this sense, the transition from a tradition of waiting to a system of booking symbolises the challenges involved in moving from an NHS centred on the main group of professionals delivering care to the patients who receive that care. The issue here is not that doctors are necessarily reluctant to provide a service that is accessible and offers certainty to patients, but rather they may not perceive this as the highest priority in the face of competing demands. It is also the case that doctors and other staff do not always embrace new ways of working with enthusiasm and their hesitation to participate in booking may reflect in part a simple reluctance to change unless they can be persuaded of the benefits.

In some cases there may also be concerns that booking may disadvantage doctors by reducing opportunities for private work. This may be because reducing waiting times to facilitate booking may affect the demand for private treatment. More subtly, by requiring consultants to be present at certain times for their NHS work, booking constrains the ability of doctors to undertake private work at short notice. In our research, managers and nurses interviewed reported that the implications of booking for private practice did have an impact on the involvement of consultants even though doctors rarely raised the issue directly. In this sense, other objections to booking identified by consultants may have served as acceptable public rationales for their real underlying concerns. This underlines the difficulties in developing organisational cultures to support new ways of working like booking when the most powerful profession involved has divided loyalties that inhibit total commitment to what the organisation is trying to achieve.

The point here is that, if in the past there has been a tendency for some doctors to maintain long waiting lists and waiting times as an indication of their popularity (and as an opportunity to undertake private work), in the future it is necessary to reverse the values implied by this behaviour and to recognise and reward consultants who offer an accessible and convenient services. This is a much greater challenge of
course than overcoming a simple reluctance to adopt new ways of working or to question a different interpretation of what is in the patient’s best interest, and it will only be addressed if the incentives within the NHS are realigned to support innovations that reinforce patient centred services. It will also require a willingness on the part of senior managers and clinicians to challenge consultants where appropriate.

8.3 Mechanisms

At the heart of the booked admissions programme is a change in the way in which patients access hospital appointments. In this part of the chapter, we analyse the mechanisms involved in this process, focusing particularly on booking methods and ICT, staff roles, service redesign, and the use of NHS capacity. We also discuss the leadership of the programme at the national, regional and local levels.

Booking methods

The first wave pilots used a variety of booking methods. In large part, this reflected recognition of the need to carry medical and other staff along with the implementation of booking and to allow flexibility to accommodate different preferences. It also enabled alternative methods of booking to be tested in order to identify lessons for subsequent waves.

In earlier chapters, we described the main features of these methods, noting that in hospitals booking may be done by doctors, nurses, booking clerks and medical secretaries, and that it may rely on manual diaries or on electronic systems. Similarly, booking from general practice may be done by doctors or other staff, and it may make use of an electronic link to the hospital, telephone or fax. Booking in hospitals tends to be specialty based where consultants are keen to retain control over their work but it is increasingly centralised (for example, in a day surgery unit) where confidence and trust in new arrangements have been established. From the evidence we have gathered, there does not seem to be ‘one best way’ of booking, and the pragmatic approach taken in the pilots, stimulated by the need to develop commitment from staff, has been a necessary part of the shift in culture that booking has initiated.
Consistent with advice from NPAT, most pilots did not make a major investment in ICT to support booking. Rather, they relied principally on adaptations to existing ICT systems, supported by the use of telephone, fax and email. In some cases, staff involved in the pilots themselves developed the software needed to facilitate booking, and in others the resources made available to the pilots were used to acquire the necessary hardware and schedulers to enable a shift to take place from manual to electronic booking (see Box 17). Only in a few cases was ICT a significant feature of booking in the first wave pilots and we have described in this and earlier reports the delays and difficulties that often resulted. The experience gained in the first wave pilots helped to inform the initiative taken by the Department of Health in 2000 to develop a business case to support electronic booking for the NHS as a whole.

**Staff roles**

Booking has an impact not only on hospital consultants and GPs but also on other staff with whom patients come into contact in the course of arranging hospital appointments. We have emphasised so far the particular significance of doctors because it is their decisions on whether to refer patients, order tests and undertake surgery that lie at the heart of the process of care. Also involved are nurses and booking clerks given the increasing importance of teamwork in health care and the willingness of some doctors to delegate tasks that have previously been undertaken by consultants and their secretaries.

The role of nurses has been enhanced as booking has been rolled out, particularly in those sites where nurses are responsible for both assessing patients and booking their appointments. The importance of this was recognised during the first wave pilots with the decision to establish a national project to provide guidance on all aspects of pre-operative assessment. The project drew together the relevant national colleges and associations to address variations in practice, for example concerning which patients should be assessed, how far in advance of surgery patients should be assessed, what form the assessment should take, who should do the assessment and what training they should receive. A summary of the guidance is included in appendix 5 (National Pre-operative Assessment Project Steering Group, 2001).
Booking clerks have also been affected and like nurses have been given more responsibility to arrange appointments with patients and to make changes should these be necessary. The evidence from the evaluation is that for the most part this has been handled well and has been welcomed by the staff involved. The main difficulties have occurred where booking clerks have not been properly trained and supported for their additional responsibilities and where consultants’ medical secretaries have been reluctant to give up work they have traditionally valued. The latter has been addressed in some sites by booking clerks managing bookings for day case surgery and medical secretaries and consultants retaining responsibility for inpatient booking. Many of the challenges involved in changing staff roles have been overcome by the pilots investing in communicating with their staff why change is occurring and preparing staff for their new responsibilities.

**Service redesign**

Implementation of the booked admissions programme started as a relatively discrete initiative focused on patient access to hospitals but quite quickly began to raise fundamental questions about the use of acute hospital resources. This stimulated managers and clinicians to address the redesign of patient care as a whole, from referral through to treatment and discharge, in the process forcing re-examination of practices that had long been taken for granted (see Box 21). An example was the introduction at a number of sites of ‘one stop’ clinics for day surgery at which patients who were deemed to need surgery were assessed by nurses on the same day as their outpatient appointment and left hospital with a date for their operation. In this example, the patient pathway was streamlined to enable patients to be given the certainty of a date for their treatment without the need to return to the hospital for assessment or other reasons before undergoing surgery.
Box 21: Examples of redesigned services

**Pre-operative assessment following outpatient appointment**

Several pilots with short waiting times for surgery removed the need for patients to visit the hospital for pre-operative assessment between the outpatient appointment and surgery. By matching the staffing levels in pre-operative assessment to the clinics being run each day, they were able to give patients the option of being assessed immediately after the outpatient clinic. This also allowed medical conditions or social issues which may lead to operation being cancelled to be picked up early and to be addressed prior to the surgery date.

**A homeward service**

In one pilot, the orthopaedic specialty had suffered from large numbers of patients not attending and hospital initiated cancellations because patients’ conditions had deteriorated. The service was redesigned to validate patient eligibility for the procedure in terms of their physical condition, home circumstances and support for rapid discharge. The nursing sister now spends some of her time visiting patients awaiting admission in their home well in advance of their appointments and making the assessment. This ensures they are eligible for booking, which is done at the time of the visit and patients have a ‘named’ person to contact if their situation changes.

**Direct booking for surgery from general practice**

GPs within direct booking pilots were able to assess patients using an agreed protocol and to either refer the patient to be listed for particular surgical procedures (e.g. hernia or vasectomy) and the patient telephoned the hospital to book the date, or the GP surgery used an electronic link to the hospital to book the date. This redesigned service removed the need for a separate outpatient appointment at the hospital and the patients were either pre-operatively assessed in a clinic prior to surgery or on the day of admission.

Redesign was particularly important in relation to inpatient treatment where, unlike in relation to day surgery, hospital resources were not ring fenced for patients undergoing elective surgery. The risk in this case was that honouring booked appointments would be difficult in circumstances in which acute hospitals were running close to capacity and when surges in demand from emergency cases and medical admissions would take priority over patients booked for elective procedures.

To tackle these challenges, the pilots developed a number of approaches to service redesign to support inpatient booking. Examples included Homerton Hospital, which made use of clinical site managers (experienced nurses) to ensure that beds were used as efficiently as possible; and Hartlepool Hospital, which developed an integrated
package of nursing and therapy support in hospital and in patients’ homes to facilitate discharge to the community.

Direct access from general practice also led to services being redesigned. In this case, patient care was streamlined by giving GPs in some practices the ability to book patients in some specialties into outpatient clinics and/or day surgery slots. As with other forms of booking, this had the effect of giving patients certainty as well as cutting out unnecessary steps in the patient pathway. Although the evidence from the evaluation indicates that direct booking from general practice was much less developed than day case and inpatient booking, the pilots involved in direct booking were able to demonstrate the potential of this approach and its impact on services.

The work done on redesign has impacted on the patient experience in a variety of ways. Most obviously, efforts to streamline the patient pathway have reduced the number of visits made to hospital and helped to make services more convenient. Thinking about services from the patient’s point of view has also led to other changes including better signposting, the creation of booked admission lounges, and changes to information leaflets and methods of communication with patients, including patients for whom English is not the first language. In some cases, patients themselves now play a major part in making the booking, as when GPs communicate with the hospital that the patient needs an appointment and the patient then calls the hospital to arrange the date and time.

In the light of experience, a number of pilots have adapted their booking arrangements in response to patient preferences to allow patients to book an appointment for surgery following a visit (after a cooling off period) rather than on the day of the outpatient appointment. This enables patients to assimilate the information they have been given, consider the options, and confirm that the appointment can be fitted into their work and home commitments. What this suggests is that, just as there needs to be flexibility for consultants in the method of booking, so too for patients one size will not fit all needs. Indeed, our study of patients’ experiences indicates that some patients do not want to book a date and this preference needs to be respected if the aim is to make services responsive to all patients.
Capacity

Previous research by the NHS Executive has shown the importance of hospital capacity in enabling booked appointments to be honoured (Bensley et al, 1997). In particular, this research indicated that there need to be sufficient beds to ring fence elective admissions and allow emergency admissions to be dealt with separately; operating theatres need to have extended running times with greater staff flexibility and increased staff cover to enable hospitals to cope with peaks of demand; and waiting times need to be less than six months for elective admissions and to be falling for outpatient appointments. Drawing on this evidence, the focus of the first wave pilots was day case treatment (where for the most part capacity is ring fenced) and on sites where waiting times were under six months or were approaching this target.

The findings of this evaluation confirm the crucial role of capacity in facilitating or inhibiting booked admissions. The outcomes demonstrate that more progress has been made in day case booking than in other areas and, to underline the point made above, the existence in most pilots of ring fenced facilities for day surgery and comparatively short waiting times help to explain this. By comparison, the combination of high average bed occupancy rates, peaks of emergency admissions and the demands of medical patients, and waiting times of more than six months have made inpatient booking much more challenging. Other factors such as the availability of staff, theatre time and intensive care facilities have also limited the progress made in implementing booked appointments for inpatients.

Our earlier reports documented the steps taken in some of the pilots to overcome capacity problems. Three broad approaches have been used. First, the pilots have sought to increase capacity by paying NHS staff to provide extra sessions and by making use of the private sector. Often, this has entailed using waiting list initiative funding, for example to clear the backlog of long waiters and to enable trusts to achieve a position in which the maximum waiting time is six months.

Second, linked to this, the pilots have endeavoured to use existing capacity more efficiently by reducing DNAs and cancellations. One way in which this has been done is through the more intensive use of operating theatres, thereby ensuring that operating lists are fully utilised. Efficiency improvements of this kind are as relevant
to day cases as to inpatients and they help to persuade sceptical consultants to become involved in booking by enabling surgeons to do what they most enjoy i.e. treat patients.

Third, as already noted, increasing interest has been shown in service redesign. It is particularly notable that an initiative whose focus was initially on improving access at the ‘front end’ has led to a review of resources at every stage of the patient pathway. As this has happened, the importance of facilitating discharge at the ‘back end’ of the pathway has become ever more apparent, not least to avoid delayed discharges and to release beds for patients who need to be in hospital (see Box 22). In more recent work on emergency services, the NHS Modernisation Agency, has described this as ‘pulling’ patients through the hospital and back into the community rather than just ‘pushing’ them from casualty departments and into hospital beds (Modernisation Agency, 2001a). Work has also been undertaken to explore the scope for pooling patients and resources between consultants.

**Box 22: Facilitating discharge**

| At West Middlesex University Hospital NHS Trust the RADIATE team (Rapid Assessment and Diagnosis and Treatment of The Elderly) aims to manage the seasonal pressures on admissions. The team works closely with social services to provide specialist multi-disciplinary assessment, treatment and rehabilitation for older people to reduce their need for hospital admission, to prevent their dependence on long term care and to enable patients to be discharged from the hospital by providing immediate, short term social support. This in turn supports the admission of patients booked for elective procedures. |

More generally, the experience of the first wave pilots has informed later stages of the work of the booked admissions programme with effort focusing on the matching of capacity and demand. The aim of this work is to understand better the real demand for a service and the capacity available to meet this demand. When this has been done, steps can be taken to reduce the backlog of demand and to achieve a better balance between capacity and demand in the future. Work on matching capacity and demand includes identifying blockages that occur in the patient pathway with the aim of using capacity more effectively to tackle these blockages. And given the barriers to ring fencing resources for elective inpatients, at least in the short term, it is this approach
that is now being promoted by the NHS Modernisation Agency in its work on service improvement.

There have also been developments in so called ‘partial booking’ under which patients are sent a letter giving an indication of the length of wait and approximate month when an appointment will be available, either for outpatients or day surgery. Shortly before the appointment the hospital contacts the patient who then arranges the date and time with the hospital. Partial booking is a way of addressing the concerns of consultants who are reluctant to book patients more than six months ahead while moving towards a service that is more responsive and accessible to patients. More commonly, a number of pilots have adopted the practice of contacting patients close to the appointment even when they have an agreed date to remind them of the appointment and in so doing to ensure that resources are utilised as fully as possible. This practice has complemented the development of pre-operative assessment which has helped to reduce DNAs and cancellations.

Capacity constraints also present a challenge in primary care. The issue here is more the availability of doctors’ time to book patients into hospital than the volume of hospital appointments and slots that GPs can access. As we have noted, this has been tackled through staff other than the GP making the booking. The other capacity constraint has been the availability of appropriate ICT. The way forward has varied with use of fax and email referrals in advance of the technology permitting direct booking from general practice onto hospital schedulers. The volume of bookings direct from general practice has so far been low and the targets set in the NHS Plan for achieving 100 per cent booking of outpatient by 2005 will require rapid progress to be made to enable direct booking from general practice to become the norm. The hope is that the introduction of electronic booking throughout the NHS will facilitate this.

**Leadership**

A distinctive feature of the booked admissions programme has been the leadership put in place at different levels. Within the pilots, implementation has been facilitated where trust chief executives have demonstrated their personal commitment to booking by attending steering group meetings and making it clear that booking is a priority for
the organisation as a whole. Leadership at this level has been enhanced where senior clinicians have lent their support to booking and have helped in overcoming resistance from colleagues. As we noted earlier, clinical leadership has been important not least in overcoming cynicism on the part of some doctors about the motives of politicians in promoting service innovations like booking. Pilots with full time project managers have reported that it has been easier to make progress than those without dedicated project support. A number of the pilots found their progress was delayed when experienced project managers moved to other roles (often to support the development of booking at a regional or national level), reinforcing the importance both of dedicated support and continuity of such support within NHS organisations.

The work of project managers and their teams was eased by the availability of extra funds to pump prime developments. Although the resources made available to the pilots were not large in comparison with the budgets of the trusts concerned, even relatively small sums were reported to be helpful. In particular, the pilots were able to invest in equipment, ICT, and additional staff to support booking. Project managers acknowledged that the ability to use resources in this way was helpful in overcoming the concerns of consultants and other clinical staff. The more general point here, as we noted in our second report, is that consultant involvement in booking is more likely to be progressed through the offer of modest incentives (such as the purchase of equipment for assessing patients and the acquisition of laptop computers to enable consultants to book patients directly) as well as by a belief that it is the right thing to do. Put another way, those leading the programme drew on the natural attractors (Plsek and Wilson, 2001) in the system to secure clinical commitment to a new way of working.

Within the pilots, recognition that the implementation of booked appointments involves the management of change, and that this was likely to encounter obstacles along the way, led to a phased programme of work. Hence, rather than attempt a big bang, booking tended to start with consultants who had previous experience of booking and who were enthusiastic about the opportunities to offer a better service to patients and to plan their work more effectively. The programme was subsequently extended to other consultants and specialties as progress was made in reducing waiting times and in demonstrating what was possible in the trail blazing/pioneering
services. In practice, change was rarely linear or unproblematic, and as the outcome measures show there were wide variations in what was achieved. Nevertheless, among those involved in the first wave, the opportunity to implement change a step at a time, and to learn in the process of doing, was seen to be important in enabling progress to be made.

There was widespread acknowledgement among those involved in the programme that the leadership provided by NPAT was crucial in the implementation of booked admissions. The characteristics of NPAT that contributed to this included specialist expertise in service redesign and the management of waiting lists, the availability of dedicated staff time, and the forging of strong links in the first wave between NPAT team members and the sites. One of the most notable features of NPAT’s approach has been the emphasis throughout on learning and development as a means of bringing about service improvements. This emphasis derived from the philosophy that underpinned NPAT’s work and its position outside the main structure of NHS performance management. The credibility of NPAT’s staff and their background in the NHS reinforced its influence and enhanced its standing among those involved in the first wave.

Consistent with this philosophy, there was a significant investment in training and support in the programme. This included events intended to impart specific skills and knowledge and regular networking meetings (through the so-called Quality Review Group) through which the pilots were able to exchange experience with each other and with NPAT staff. Through these meetings there emerged an approach to service improvement that in some respects resembled the ‘collaborative’ way of working used by NPAT in later redesign programmes. This was based on the development of a network of pioneering sites whose work was co-ordinated and facilitated by NPAT, the latter supporting the process of change and offering techniques and assistance to the work being done by clinicians and managers in the programme. And although the collaborative approach did not derive only from the booked admissions programme, experience gained in the programme undoubtedly helped in informing the development of this approach.
The expansion of the programme beyond the first wave resulted in regional offices taking on many of the responsibilities of NPAT in relation to booking. This was facilitated by the appointment of service improvement managers with experience in redesign who worked with trusts across the region to support the development of booked admissions and improving outpatient services. Given the high regard in which NPAT staff were held, it is perhaps not surprising that regional offices struggled to make the same impact with the first wave pilots. The view from these pilots was not that regional office support had been unhelpful, more that the sites were less in need of the support regional offices were able to offer by the time they took over from NPAT. Linked to this was a perception that the high quality of the contribution NPAT was able to offer to the first wave, through a small team of experienced staff, became diluted as a wider range of organisations and people became involved in service redesign work.

One other aspect of leadership deserves comment, namely the support provided by health authorities and primary care groups and trusts. With a small number of notable exceptions - with Dorset being the best example - health authorities were not closely involved in the first wave. The same applied to primary care groups and trusts who arrived on the scene too late to play a significant part in the first wave pilots. The progress made in Dorset in the development of booking raises the question of the relative importance of health authorities in the development of booking, suggesting as it does that development across a whole health community may be dependent on active health authority engagement and leadership. The evidence available to us is too limited to offer a view on this but the Dorset experience is suggestive of lines of enquiry worth pursuing in the future. As other work has shown, the progress made in Dorset on improving patient access to services predates the booked admissions programme (Locock, 2001b) and hinged on action across a range of fronts. In this respect, Dorset lends support to the argument that innovation rests on making complementary sets of changes rather than pursuing a single line of development (Pettigrew and Fenton, 2000).
8.4 Sustaining progress

In the light of this analysis, we now return to the beginning of this chapter, and our observation there that while the pilots achieved progress over the whole of the period for which we have collected data, there was some slipping back in the year after the end of the pilot phase. The issue this raises is the sustainability of initiatives such as the booked admissions programme, and the factors that might help to explain why the progress made between 1999 and 2000 was not maintained and extended.

A number of explanations suggest themselves. To begin with, the first wave pilots may have experienced a ‘Hawthorne effect’ i.e. the fact that they were involved in developing new ways of working and received attention may have contributed to the outcomes achieved. Linked to this, it could also be that the programme benefited initially from the enthusiasm and commitment that often attends innovations of this kind, and then was adversely affected by booking become more routine. As Garside has expressed it:

‘Lack of momentum for the change process or project as it enters the middle phase of its projected lifespan is a common cause of failure to implement. Projects begin with much enthusiasm, momentum, and elaborate project management flow charts but if momentum is not maintained through the critical phase half or two thirds of the way through the process, then even with political and top support in place, the process can flounder’ (Garside, 1998, p. 814)

Related to this is evidence from the evaluation of the destabilising effect of movements of project managers and teams on booking. In this connection, the need to continue providing support to the first wave sites of the kind offered during the pilot phase was not adequately recognised. With the benefit of hindsight (the privilege of the evaluator), more could have been done to assist the pilots to consolidate the changes they made in the period up to the end of March 2000.

The introduction of booked admissions therefore demonstrates that rapid periods of innovation and service improvement will only be sustained and extended if effective management and support arrangements are put in place. It also contains a warning about the length of time needed to achieve sustainable change. Again with the benefit of hindsight, the 18 month period during which the first wave was ‘live’ appears
relatively short in view of the challenges involved in booking. More accurately, perhaps, the time required to make change is unlikely to be the same everywhere given differences in starting points and receptiveness to change and is almost always likely to be longer than anticipated.

Another explanation (and not necessarily an alternative to the above) would be that the NHS experienced pressures during 2000/2001 of a kind that were not experienced in 1999/2000 and that made it difficult to sustain the progress achieved in the pilot phase. The line of reasoning here would be that the demands of emergency admissions took precedence over elective cases, causing beds, theatres, staff and other resources to be diverted from booking to other needs. These demands would have had a bigger impact on inpatients than day cases but the latter would also have been affected to some degree. In these circumstances, the pilots would have had to use their available capacity to address the most urgent requirements.

The available evidence on this point is displayed in Table 24 which illustrates annual trends in emergency admissions, ordinary elective admissions, day cases and bed occupancy for England as a whole for 1998/99, 1999/2000 and 2000/2001. The table shows year on year reductions in ordinary elective admissions and increases in emergency admissions and day cases. Acute bed occupancy rates increased throughout this period with the rate of increase being greater between 1999/2000 and 2000/2001 than in the previous year.

Although this may have had an impact on booking, the finding that the increase in emergency admissions was greater between 1998/1999 and 1999/2000 than in the following year makes it difficult to sustain the argument that additional pressures on the NHS in 2000/2001 from this source were responsible for the results reported here. On the other hand, the rising bed occupancy rate and slowing down in the reduction of ordinary elective admissions may have affected the ability of the pilots to sustain booking. Against this, the slowing down in the increase of day case admissions between 1999/2000 and 2000/2001 should have facilitated booking.
### Table 24: Annual changes in activity for all trusts in England

<table>
<thead>
<tr>
<th></th>
<th>1998/99</th>
<th>1999/00</th>
<th>2000/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute bed occupancy rate (%)&lt;sup&gt;1&lt;/sup&gt;</td>
<td>80.8</td>
<td>81.4</td>
<td>83.1</td>
</tr>
<tr>
<td>Ordinary elective admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1,972,276</td>
<td>1,889,539</td>
<td>1,850,684</td>
</tr>
<tr>
<td>Day case admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3,418,818</td>
<td>3,575,700</td>
<td>3,606,333</td>
</tr>
<tr>
<td>Emergency admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3,714,243</td>
<td>3,767,925</td>
<td>3,792,505</td>
</tr>
</tbody>
</table>

<sup>1</sup> KH03  <sup>2</sup> HES

The outcome measures we have collected from the pilots relate only to the first quarter of each year, and the NHS may have experienced particular challenges during this quarter that would help to account for our findings. To explore this, we have extracted from national data sources trends in the same indicators apart from bed occupancy for these quarters. The results are displayed in Table 25.

The quarterly trends confirm that if anything the NHS was under more pressure from emergency admissions between 1998/1999 and 1999/2000 when most progress was made in introducing booking in the first wave than between 1999/2000 and 2000/2001 when some of the initial gains were lost. The well publicised difficulties confronting the NHS in the winter of 1999/2000 compared with 2000/2001 points in the same direction. Hence, although the evidence is not conclusive, yearly variations in the pressures facing the NHS (as expressed by the activity data in these two tables) in this period cannot in themselves account for our findings.

### Table 25: Quarterly (January to March) changes in activity for all trusts in England

<table>
<thead>
<tr>
<th></th>
<th>Quarter ending March</th>
<th>Change in % between quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
<td>2000</td>
</tr>
<tr>
<td>Ordinary elective admissions&lt;sup&gt;1&lt;/sup&gt;</td>
<td>474,795</td>
<td>448,714</td>
</tr>
<tr>
<td>Day case admissions&lt;sup&gt;1&lt;/sup&gt;</td>
<td>907,364</td>
<td>957,192</td>
</tr>
<tr>
<td>Emergency admissions&lt;sup&gt;1&lt;/sup&gt;</td>
<td>882,594</td>
<td>910,185</td>
</tr>
</tbody>
</table>

<sup>1</sup> HES

233
A further potential explanation is that those trusts able to cross a certain threshold of booking were more likely to sustain and improve their position than those below this threshold. Commensurately, trusts in which booking remained a minority interest may have found it difficult to embed this way of working into the culture of their organisations. There is some evidence to support this from our survey of project managers (on which more below), and from our analysis of the outcome measures using data supplied by the pilots.

On the latter, three of the pilots achieved and sustained a high level of day case booking across a wide scope (Dorset, Homerton and Heatherwood and Wexham Park). In so doing, the experience of these pilots confirmed a view expressed in the survey of project managers that it was easier to sustain booking where it had become routine and familiar - part of ‘the way things are done around here’. However, the balance of evidence does not support this explanation. As our analysis of the experience of day case booking in chapter 2 showed, pilots with a wide scope experienced greater difficulties in sustaining and extending booking than pilots with a narrow scope.

These findings suggest that sustaining and extending booking for day cases is on balance more of a challenge in pilots where booking has become common but not universal than in pilots where booking is less developed. And indeed, given that previous booking initiatives have been shown to work where there is commitment among enthusiastic clinicians and managers, this was precisely the challenge that the programme had to address and overcome. The evidence we have gathered therefore suggests that universalising booking remains problematic and only in very few trusts has it become the norm. Booking for inpatients in the first wave pilots was not sufficiently advanced to offer lessons on the extension of booking other than the challenge faced by all pilots (large and small, wide and narrow scope) in making progress.
There appear to be two main reasons for this. The first is the difficulty in involving all consultants in booking, especially those who were sceptical of the benefits and feasibility of working in this way. Project managers repeatedly commented on the challenges they faced in persuading consultants who were not in the vanguard to start booking, suggesting that the focus on working with the enthusiasts and rolling out to others as a strategy has limitations. The second reason concerns the need to have robust methods in place to support booking as it moves from covering most to all patients, for example to accommodate absences and sickness among staff doing the booking and requests by patients to change their appointment.

In order to explore the changes that occurred between 2000 and 2001 further, we undertook a survey of the project managers in autumn 2001 to seek views on the causes of the trends reported here. The responses reinforce our earlier analysis of the factors that facilitate and inhibit the development of booking in general. Apart from the issues already mentioned, the survey identified a number of influences at work. Some of these were specific to individual sites, others were mentioned on a number of occasions. They included staffing difficulties affecting consultant recruitment, nurses and booking clerks; problems of capacity involving beds being used for emergency admissions and priority medical cases, thereby causing waiting times to lengthen; and factors affecting individual specialties. Box 23 summarises responses to the survey.
Box 23: Facilitators and inhibitors of booking drawn from the key factors influencing performance between the first quarter of 2000 and the first quarter of 2001 reported by the project managers

<table>
<thead>
<tr>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Booking had become more familiar, embedded and routine</td>
</tr>
<tr>
<td>• Booking had been phased in starting with the enthusiasts</td>
</tr>
<tr>
<td>• Capacity had been increased e.g. through use of the private sector, weekend working, a mobile theatre, and arranging a semi-urgent operating list</td>
</tr>
<tr>
<td>• Operating theatres were used more efficiently, and pre-operative assessments introduced to ensure patients were fit for surgery</td>
</tr>
<tr>
<td>• Staff leave was planned and managed</td>
</tr>
<tr>
<td>• DNAs were reduced</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhibitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Capacity was insufficient, specifically: waiting list initiative funds were no longer available to buy extra capacity, emergency admissions were impacting on booking, waiting times were lengthening (in some cases this involved day case facilities being used for urgent inpatient work), and referrals were increasing</td>
</tr>
<tr>
<td>• Individual specialties experienced particular pressures and difficulties with high volumes of patients, lengthening waits for appointments and multiple access routes</td>
</tr>
<tr>
<td>• Difficulties arose in recruiting and training staff such as consultants, nurses, theatre staff and booking clerks</td>
</tr>
<tr>
<td>• Trust mergers had an adverse impact e.g. resulting in services transferring between sites and unsettling established booking arrangements</td>
</tr>
<tr>
<td>• Patients wanted to change appointments or simply not attend because of the perception that services were more accessible, leading to an increase in cancellations and DNAs</td>
</tr>
<tr>
<td>• Booking processes not understood by patients as an opportunity to mutually agree dates, or did not allow a ‘cooling off’ period for patients</td>
</tr>
<tr>
<td>• Consultant resistance to adopting booking practices and to planning leave</td>
</tr>
</tbody>
</table>

_NB:_ A number of responses pointed out that the reclassification of some day case procedures as outpatients had had an impact on the number of patients admitted as day cases e.g. flexi-cystoscopies, hysteroscopies, and wisdom teeth.

In the light of this, the most plausible explanation of the outcomes of this evaluation is a combination of these different factors and other variables like the use of ICT and changes in trust leadership. In other words, in a system like the NHS it is difficult to ‘control’ the environment into which initiatives are introduced to enable
implementation to be smooth and linear. Taking two steps forward and one step back is an inherent feature of the system and will only be avoided if the conjuncture of circumstances is particularly favourable and there is effective and sustained leadership to overcome obstacles. Fundamentally, the challenge is how to make change work in a system in which outcomes are strongly shaped by the people delivering and receiving the service and where the interaction between the two is unpredictable.

This is well illustrated by evidence from our survey of project managers that part of the deterioration in some of the outcome measures where this occurred may be due to patients perceiving the service on offer to be more flexible as a result of the introduction of booking. It is because of this that patients may be more inclined to change the date of their appointment or in some cases to not attend because they perceive that it will be straightforward to rearrange. Trusts are responding by contacting patients to confirm their appointments but the lesson from this is that, at least during the bedding in of new mechanisms, increased patient choice and responsiveness may reduce the efficiency with which resources are used. This is confirmed by some of the evidence gathered from consultants during our survey in the case study sites, to the effect that in some specialties in certain hospitals the introduction of booking is associated with operating lists being less than full.

Further support for this comes from the data we have gathered on the declining trends in admissions in the pilots, although in relation to day cases this may be in part due to the reclassification of some treatments as outpatients. The evidence from the pilots, as from the NHS as a whole, is that not enough attention has been paid to managing volumes of activity and the relationship between admissions, the utilisation of beds and discharge to enable the targets set for waiting and booking to be achieved. Indeed, as we were writing this report, the challenges facing the NHS in this regard were receiving ever more urgent attention. One of the implications that follows is the need to recognise the importance of effective management of hospital resources alongside the emphasis placed on redesigning services from the patient’s point of view. This includes acknowledging the key role of middle management roles within hospitals focused on the effective use of scarce resources like beds and operating theatres.
Drawing these strands together, our research offers strong support for the findings of other studies into the impact of quality improvement initiatives in health care (Shortell et al, 1995, Bowns and McNulty, 1999). As we now go on to discuss, the impact of these initiatives is crucially dependent on professional and organisational cultures, and on leadership. Change introduced from the top (whether at the level of government or institutions) is unlikely to succeed unless there is a receptive context and an implementation process that is sensitive to the nature of professional work. Furthermore, change is both complex and lengthy where it involves challenging long established ways of doing things. Those leading change need a combination of vision, persistence and strong interpersonal skills if they are to overcome obstacles and firmly embed new ways of working into their organisations.

8.5 Conclusion

We conclude this chapter by returning to the evaluation frameworks suggested by Pawson and Tilley (1997) and Pettigrew et al (1992). The findings reported here, as this chapter has sought to show, support the view that the outcomes of policy interventions can be usefully analysed by reference to the context and mechanisms involved. More challenging is to understand the interaction between context and mechanisms and the relative importance of the range of factors we have analysed here.

In addressing this challenge, it is important to recognise the type of organisation the NHS is. While to outward appearances the NHS bears all the hallmarks of a hierarchical, bureaucratic, ‘machine’ organisation, in reality it is a professional bureaucracy (to use Mintzberg’s (1983) term) in which control resides among the professionals delivering services rather than the politicians or managers who are notionally in charge of the organisation. Actually, of course, the reality is even more complex in that the NHS is a collection of professional bureaucracies (hospitals, clinics, practices) encompassed in the shell of a machine organisation (the formal organisational structure of the NHS) and with all the features of a complex adaptive system noted by Plsek and Wilson (2001) and others.
Previous research has underlined the challenges involved in introducing change in the NHS. Of particular relevance to this evaluation is the study of re-engineering at Leicester Royal Infirmary (Bowns and McNulty, 1999). This study concluded that re-engineering produced some improvement in performance but not the transformation envisaged at the outset. Bowns and McNulty emphasise that part of the explanation is to be found in the limited ability of managers to achieve change in the context of professionalism and medical autonomy:

‘The experience of LRI suggest that it is unlikely that sufficient energy and momentum for re-engineering .. can be generated either by top management selling re-engineering to staff or by the skills and enthusiasm of change agents’ (p,66).

It follows that introducing change has to address, first and foremost, the attitudes of the professionals who exercise control and to find a way of making change acceptable and attractive to these professionals. Simply put, booked admissions have made progress where this has been recognised and new arrangements adapted to accommodate professional practices, and has encountered difficulties where this has not been the case. And given that the national context in which the pilots were working was common and the support available from NPAT (in theory) equally accessible to all, the most important explanations of variations between the pilots are to be found within the organisations themselves and their local environments.

These variations include previous experience and history of booking but also important, as we have shown, were flexibility in the methods adopted, the quality and consistency of local leadership, and above all capacity constraints. The initiative taken by the government on booking had the effect of putting this policy at the heart of the health policy agenda, but this was simply the first step in a lengthy and complex process of organisational and professional change. In this process, those leading the introduction of booking had to use a range of approaches to persuade doctors and other staff to adopt new ways of working. In this respect, the booked admissions programme demonstrates the more general challenge in the NHS of translating national policies and priorities into local action.
As we noted earlier in this chapter, the programme also illustrates the importance of organisational as well as professional cultures, given that some sites were more successful than others in taking booking forward. To be more concrete, it is possible to identify pilots where there was a receptive context (especially a history of booking), effective leadership by a chief executive and senior clinicians, a dedicated project manager and team, and a flexibility of approach to clinicians. Pilots with all or most of these characteristics made progress in implementing booked admissions where there were ring fenced facilities (usually for day surgery) and waiting times under six months. Other contributory factors included the flexible use of theatres and staff and (to make a negative point) the avoidance of complex ICT approaches, at least in the initial stages. Examples of pilots in this position were Homerton, Heatherwood and Wexham Park and Dorset.

By contrast, introducing booking was much more problematic where pilots had no previous experience of booking, leadership by senior managers and clinicians was lacking or fragmented, project management was under resourced, booking methods were applied rigidly rather than flexibly, and there was a reliance on ICT based booking. In practice, it was rare for all of these factors to co-exist in one pilot, if only because the pilots were chosen because they had characteristics (like short waiting times) that were favourable to booking. Nevertheless, it was apparent from the fieldwork that some pilots were better prepared and organised than others and this had some influence on their performance. In this respect, the evidence we have gathered lends support to the work of writers on the management of change who have drawn attention to the need for there to be a vision and leadership guiding change, a receptive context and culture, and focused attention on the process of implementing change (Garside, 1998, Pettigrew et al, 1992).

Just as important as culture, leadership and the implementation process were capacity constraints, especially where capacity was not earmarked and where waiting times were long. The development of innovative approaches to the use of acute hospital resources through service redesign enabled some progress to be made in these challenging environments, as did the use of waiting list initiative funds to buy capacity from the private sector and to pay NHS staff to provide extra sessions at weekends and other times. Despite this, the outcome measures reported here illustrate
that, with the exception of day cases, only marginal gains were possible in most sites. It was for this reason that increasing attention was given to matching capacity and demand both in the booked admissions programme and its sister programme, the cancer services collaborative.

The overriding importance of capacity constraints is underscored by the difficulties experienced by almost all sites in developing booking for inpatients. Only a third (5/14) of the pilots for which we have data achieved a high level of booking in their chosen specialties (measured in terms of pilots with greater than 75% of patients waiting with a date in these specialties at the end of March 2001). With the exception of Homerton, the impact on the trusts involved was usually small because the pilots were limited to a few specialties and consultants in which the conditions for booking inpatients were present. Greater progress was made with day case booking (with 60% (12/20) of the day case pilots for which we have data having more than 75% of patients waiting with a date at the end of March 2001 in their chosen specialties). What is more, several of the pilots that achieved high levels of day case booking decided not to attempt inpatient booking because of capacity constraints.

Homerton was the exception and was interesting not only because of this but also because it was able to achieve and sustain almost 100% of inpatient booking even though average bed occupancy was over 90%. The approach adopted at Homerton of active acute bed management (see above) contributed to its success. Having made this point, it is worth noting that Homerton is a relatively small acute hospital with a case mix that may not be typical of other hospitals seeking to achieve similarly high levels of booking. Nevertheless, the Homerton experience does suggest that for the NHS as a whole the main constraint on booking inpatients is the existence of waiting times longer than six months rather than bed occupancy per se. Having made this point, the difficulties experienced in Dorset in booking inpatients even with waiting times of less than six months is a warning against the search for single explanations. In Dorset, high bed occupancy levels in Poole hospital (the main emergency hospital in the county) and pressures on operating theatres in other hospitals were reported to be the main factors affecting progress in implementing booking of inpatients. These arguments underline the importance of developing context specific approaches to booking.
As we have indicated, capacity issues can be tackled by increasing or ring fencing facilities, using existing resources more efficiently, and redesigning how services are used. In the next chapter we explore in more detail the lessons from this evaluation for the development of booking in the future but here we would emphasise the point that unless it is possible to find ways of matching capacity and demand then the aspirations of The NHS Plan will remain just that, even though the political commitment behind booked admissions is greater than ever. To this extent, it could be argued that in designing the programme not enough attention was paid to evidence already available from previous studies, such as that conducted by the NHS Executive’s own staff immediately prior to the launch of the booked admissions programme (Bensley et al, 1997), even though this work did influence the focus on booking day cases in sites with short waiting times.

More recent work by the Department of Health has highlighted the relationship between high levels of bed occupancy and the risk of cancellations of elective admission, particularly at occupancy levels of 82% and above. Other research has revealed a similar conclusion (Bagust, Place and Posnett, 1999), with the caveat that the occupancy level needed to meet demands may vary according to hospital size (Jones, 2001). And as the application of queuing theory indicates, variations in length of stay and high occupancy levels increase the risk of cancellations (Gallivan et al, 2002). The common point in all of these analyses is the crucial importance of spare capacity in enabling cancellations to be avoided and bookings to be honoured.

Linked to capacity, our research has underscored also the critical influence of doctors on initiatives such as booking. To return to an earlier point, the existence of variations in booking between specialties indicates that receptive contexts with adequate capacity and short waiting times may yet be vulnerable to long established professional practice patterns. The evidence reported here shows that pilots that had achieved a high level of booking in their chosen specialties found it difficult to both sustain and extend booking where individual doctors and specialties were unwilling to participate. In these circumstances, leadership by chief executives and senior clinicians, and the demonstration of what was possible among peers, were not always sufficient to enable progress to be made. This meant that existing practices remained
unchanged and trusts were left to ‘work around’ doctors who were not persuaded that they (as opposed to patients) would benefit.

To make this point is to acknowledge that within receptive contexts there may still be challenges in making new practices the norm. This is partly because hospitals as organisations are made up of specialties and clinical directorates that provide a powerful focus for professional work. If specialties and directorates are not receptive to change, or contain subcultures at odds with those promoted by organisational leaders, service innovations and quality improvements like booking may struggle to gain a foothold.

The conclusion this suggests is that managing a change like the introduction of booked admissions depends critically on understanding and working with the culture of the organisations and professions concerned and maintaining a focus on the key factors that affect implementation (Garside, 1998; Shortell et al 1995). In practice, the challenge is knowing how to act on this conclusion given the elusive nature of culture and the difficulties involved in changing deeply held beliefs, long established practices, and ‘the way things are done around here’ (Davies, Nutley and Mannion, 2000). The evidence we have gathered suggests that a variety of factors are relevant, including the recruitment of medical staff who are willing to work differently (a key reason why Homerton was able to make substantial progress); sustained commitment from a chief executive linked to a compelling vision of how the future might be different (a key reason behind Dorset’s achievements); and, more prosaically, an effective change management programme in which there was an unrelenting focus on working with enthusiasts and overcoming anxiety about change involving both a trust chief executive and a project manager (the lesson from Heatherwood and Wexham Park). In practice, in each of these ‘successful’ sites there was a range of factors at work, again underlining the need to undertake complementary sets of changes (Pettigrew et al 1992) as illustrated in the accompanying figure (see Figure 46).
Figure 46: Factors enhancing or inhibiting the implementation of booking systems in the first wave booking pilots

- Prior experience of booking
- Level of clinical involvement

- National: training, support, redesign expertise, funding and measurement
- Local: dedicated staff, steering boards, senior clinical and managerial leadership

- Communication with staff
- Involvement of chief executive and clinicians
- Innovative solutions
- Learning by experimentation

- Involvement of CHCs
- Health Authority and PCG/T engagement
- Long-term commitment to sustaining booking systems

- Phased approach
- Flexible booking to accommodate staff and patients’ preferences: manual, electronic, web-based, faxes and telephones
- Pooling patients

- Length of waiting times
- Average bed occupancy
- Management of emergency admissions
- Ring-fenced resources
  - Staffing levels
  - ITU capacity
  - Theatre capacity

- ICT-dependency
- Local and national co-ordination with broader ICT strategies
- Integration with clinical and administrative systems

- Medical: impact on control, advanced leave, private work
- Nursing: pre-operative assessment
- Admin: role changes, training, increased contact with patients

- Changes to processes
- Review of all resources
- Change to roles / responsibilities
- Changes to interface between primary and secondary care

- NHS Plan targets for booking
- Priority for chief executives

- National: training, support, redesign expertise, funding and measurement
- Local: dedicated staff, steering boards, senior clinical and managerial leadership
The findings of this evaluation therefore reinforce the conclusions of the study into re-engineering at Leicester Royal Infirmary:

‘Significant change in clinical domains cannot be achieved without the co-operation and support of clinicians ... Clinical support is associated with process redesign that resonates with clinical agendas related to patient care, services development and professional development ... To a large degree interesting doctors in re-engineering involves persuasion that is often informal, one consultant at a time, and interactive over time ... clinical commitment to change, ownership of change and support for change constantly need to be checked, reinforced and worked upon (Bowns and McNulty, 1999, pp.66-67)

In summary, then, our research indicates that the challenges of booking patients for treatment are a microcosm of the difficulties facing the NHS as a whole as the government seeks to make the NHS patient centred. In this sense, making services more responsive to patients is dependent on the development of a new kind of professionalism in which doctors generally adopt the values and behaviours of their colleagues who have already embraced change. Among other things, this requires GPs and consultants to see patients as their customers who may not be paying for treatment directly but are certainly doing so through the tax system.

The ability of doctors to work in this way is illustrated by how patients are served in the private sector. This suggests that the main obstacle is not only long standing paternalistic attitudes towards patients but also institutional inertia in parts of the NHS. Having made this point, the ability of a number of the first wave pilots to overcome this obstacle and to achieve and sustain high levels of booking through effective management and clinical leadership shows that change is possible. What is clear is that in the absence of effective leadership by senior managers and clinicians in NHS organisations, it will be extremely difficult to develop patient centred services. Put another way, there needs to be a strong and supportive organisational culture of the kind that was present in the sites that made most progress to enable new working practices to become established and then embedded.
Research into hospital cultures (Degeling, Kennedy and Hill, 1998) has suggested that organisations with a bottom up and adaptive way of working may be better placed to achieve change than those with a top down mechanical approach, particularly in the light of evidence that professional cultures may impede the implementation of quality improvement initiatives (Degeling and Carnegies, 1995). Sustaining innovation and achieving high levels of performance therefore calls for skills of the highest order in managing a series of dualities and making complementary sets of change (Pettigrew et al, 1992). These skills are needed as much among those developing policy in the Department of Health as among managers in hospitals and other health care organisations. Unless national initiatives are launched and implemented in a way that is sensitive to the key role occupied by doctors, then there is likely to a widening gap between government intent and the experience of patients. This is especially the case in relation to policy that impacts on clinical work, like the booked admissions programme. The increasing involvement in government of senior doctors appointed to lead national programmes in areas such as cancer and heart disease indicates that this is recognised by policy makers, as does the use of collaborative methods in which clinical leaders work with their peers to bring about change. At a macro level, these initiatives can be seen as an attempt to make use of the collegial processes that Mintzberg (1983) argues are characteristic of professional bureaucracies. Implementing change in future requires that these collegial processes are used systematically at all levels in the NHS.

As a concluding comment, and echoing the argument of those writers who emphasise the need for change to address simultaneously several related issues, we would note the similarities between our findings of those of Shortell and colleagues (1998) in their research into the impact of continuous quality improvement on clinical practice in the US. Shortell et al emphasise that for continuous quality improvement to flourish there needs to be a receptive context, sustained leadership, training and support, measurement and data systems and protection from burdensome regulation. Drawing on the work of O’Brien and colleagues (1995), Shortell et al go on to outline the four inter-related dimensions that are necessary for success: strategic, cultural, technical and structural. If one of these dimensions is missing, then it is unlikely that organisation wide improvement will occur. The consequences of different dimensions being absent are illustrated in Table 26. One of the most important implications of
This analysis is that moving beyond pockets of improvement and spreading learning throughout the organisation is dependent on all dimensions being in place. This rarely happened in the first wave booked admissions pilots.

Table 26: Dimensions needed to achieve clinical quality improvement across the organisations

<table>
<thead>
<tr>
<th>Strategic x</th>
<th>Cultural x</th>
<th>Technical x</th>
<th>Structural x</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>No significant results on anything really important</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>Small, temporary effects; no lasting impact</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>Frustration and false starts</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Inability to capture the learning and spread it throughout the organisation</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Lasting organisation-wide impact</td>
</tr>
</tbody>
</table>

0 = absent; 1 = fully present

There are many different obstacles to be overcome to achieve organisation wide change. They include cultural barriers, as when organisations look inward to the needs of their professionals rather than outward to the need of their customers; technical obstacles, as when not enough attention is given to training or information systems; strategic obstacles, as when quality improvement work is not a central part of organisational planning or priorities; and structural obstacles, as when there is a failure to take advantage of organisation wide steering groups. Shortell et al (1998) note that the application of continuous quality improvement is complex and demanding and requires a fundamental shift in culture and effective involvement by doctors in hospital governance to be effective. Our findings reinforce these conclusions both in the emphasis placed on variables within organisations in accounting for change and on the challenges involved in achieving change across institutions.
9. Lessons for Policy and Practice

In this final chapter, we take stock of the evidence reported here and draw out the lessons of the evaluation for policy and practice.

9.1 Introduction

The work we have undertaken was designed as a formative study in which the aim was both to describe the implementation and impact of the booked admissions programme, and to identify the implications for government and the NHS of the experience gained in the first wave. The importance of drawing lessons became increasingly apparent as booking hospital appointments moved from being a pilot programme into the mainstream of health policy.

As is often the case with evaluations of this kind, the policy context in which researchers work is dynamic and at no point was there an expectation that the world would ‘stand still’ until the results of our assessment of the first wave pilots became available. The establishment of successive waves of booked admissions pilots and the commitment in The NHS Plan to achieve 100% coverage by 2005 underscored this point and added to the potential importance of the evaluation for policy and practice. The movement of booking into the mainstream also served to confirm that the main purpose of the evaluation was to assist those in government and the NHS to enable booking to work as effectively as possible rather than to determine whether booking was the right direction of travel. The latter objective would not only have been inconsistent with the purpose of the evaluation when it was commissioned by the Department of Health but also it would have been of limited value given that policy makers had already established the course they wanted to pursue.

In recognition of this, the design of the evaluation contained a commitment to report on progress at regular intervals during the study, and to feed back the emerging findings to the Department of Health, the pilots and the NHS as a whole. The first interim report was published in October 1999, six months after the evaluation.
commenced, and this was followed by a second interim report just over a year later. The team undertaking the evaluation also prepared written briefings for the Department of Health in between publication of these two reports and again in March 2001. An early draft of this final report was also shared with the Department in July 2001 in view of the relevance of the findings to the fourth wave of booked admissions launched in September 2001. The aim of providing these briefings and draft reports was to summarise the evidence being gathered by the researchers for those involved in directing the booked admissions programme in order to inform policy makers in ‘real time’ of experience in the first wave.

In parallel, and again consistent with the research brief, the emerging findings were disseminated to the NHS using a variety of media. These included not only making available the two interim reports to NHS staff involved in booking (in both hard copy and via the Department of Health and HSMC websites) but also preparing summaries of each report in an easy to read format. In addition, the evaluation team organised four conferences and seminars at which they and staff from the first wave pilots discussed and shared their experiences. A further means of dissemination was the publication of articles in the journals most frequently read by NHS staff involved in booking, such as the Health Service Journal. In view of the rapid roll out of booking, and the need to share the learning as effectively as possible, priority was given to these kinds of articles rather than papers for academic journals. The completion of the evaluation will enable effort to be directed at the latter in the coming months.

One of the challenges confronting those involved in formative evaluations is the weight that should be attached to emerging findings when data gathering is incomplete. This was addressed in the study reported here by the evaluation team being circumspect in its initial reports and briefings about drawing firm conclusions at too early a stage. It was for this reason that the first interim report was largely descriptive and held back from identifying anything other than ‘early messages’ from the first phase of fieldwork (Meredith et al, 1999). As the evaluation moved into its second year we were able to draw from a greater number of interviews and analysis of the outcome measures collected from the pilots. This enabled us to highlight both areas of progress (such as increasing consultant involvement in booking) and of difficulty (for example, with the more complex ICT ‘solutions’ being introduced in
some pilots). Yet even at this stage, it was clear that the promising reports emerging from a majority of the pilots contained sufficient warnings about pockets of resistance and challenge that caution had to be exercised in interpreting the meaning of the first set of outcome measures available to the evaluation team.

This was reflected in the second interim report (Kipping et al, 2000) which drew attention to the progress made, particularly in day case booking, while at the same time noting the challenges involved in extending and sustaining change. It was for this reason that it was decided to gather a further set of activity data from the pilots to help in understanding whether booking could indeed be extended and sustained and the factors that facilitated and inhibited progress. The results reported here on performance in the first quarter of 2001 compared with the same period in 2000 and 1999 enable a more considered judgement to be made about the lessons for policy and practice from the first wave pilots.

Even so, it is important to emphasise that the evaluation is limited to the experience of 24 pilots that represent a small portion of overall NHS activity over a two and a half year period. In a dynamic policy context, the world will have already moved on by the time this report is published and the evaluator’s privilege of hindsight is also a handicap if, to alter the image, he or she is condemned to navigate only through the rear view mirror. This is especially important in relation to booked admissions where the experience of the first wave has consciously been drawn on in subsequent pilots. A further complication follows, namely the difficulty of comparing the performance of the pilots with what was happening elsewhere. This became particularly problematic in the final year of the evaluation when the non-pilots included sites that participated in subsequent waves of booking. These caveats should be borne in mind in reading what follows.

Against this background, we now go on to summarise the main lessons from the evaluation. In so doing, we build on the findings on the first and second interim reports and the unpublished briefings prepared for the Department of Health. For convenience, the chapter follows a similar structure to chapter 8, focusing on the context of booking, the mechanisms used and sustainability. The lessons are intended to be complementary to those distilled by the NHS Modernisation Agency in its guide
to implementing booked admissions and appointments for patients, Ready, Steady, Book (Modernisation Agency, 2001b). Specifically, they are less concerned with the detail of managing change and redesigning services than the implications for policy makers and senior managers and clinicians of taking forward the implementation of booking in line with the commitments of The NHS Plan.

In drawing out these lessons, we have been conscious of the scale of the challenge facing the NHS. Our analysis of what has been achieved so far in relation to what needs to be done to hit the targets contained in The NHS Plan suggests that a step change in performance will be required. This is illustrated by Figures 21 and 34 in chapters 2 and 3. It is also worth recalling that the criteria for selecting first wave pilots included being able to achieve waiting times under six months, the support of clinicians and other characteristics that might have been expected to give those involved a natural advantage compared with many other parts of the NHS. The evidence from this evaluation - that the first wave has demonstrated progress while also illustrating the challenge involved in extending and sustaining booking and making it routine - indicates how much remains to be done to develop a patient centred NHS in which services are accessible and responsive. The challenge of implementing booking applies not only to the sites we studied but also, and perhaps especially, sites in which some of the conditions needed to support booking may not exist.

9.2 Context

The evidence we have gathered has highlighted aspects of the local and national context that influence how booking is implemented.

Booking will not work unless consultants and GPs can be persuaded to take part; starting with the enthusiasts is one way of enabling progress to be made

Our analysis in chapter 8 showed that the aspect of context most relevant to booking is the culture of medical work. The autonomy enjoyed by GPs and consultants means that the way work is organised in hospitals and primary care revolves around the preferences and styles of doctors. Changes in how services are delivered to patients depend on doctors being prepared to support - or at least go along with - new ways of
working. In a professional service like health care, the ability of non-professionals to control medical work is highly constrained, even though the clinical freedom of doctors has come into question in recent times. This means, quite simply, that politicians and managers either have to go with the grain of medical practice patterns, or find ways of persuading doctors that change is desirable and is in their interests, as well as the interests of patients.

The individualism of much medical practice means that there are always likely to be some doctors willing to try out new ideas, as demonstrated by the interest shown in booking in parts of the NHS before the launch of the programme. The approach adopted in many of the first wave pilots of working with the enthusiasts and rolling out booking to others built on these earlier initiatives and enabled booking to gain a foothold. Yet while the individualism of medicine was conducive to booking being tested in sites where enthusiasts could be identified, it also meant that even when booking became established there were some doctors who were unwilling to join in. Only in those pilots where the practise of booking had become embedded into the culture of the organisations involved was it possible to overcome the reservations of these doctors.

*Surgeons must be able to see how they will benefit from booking if the scepticism of some is to be tackled e.g. by ensuring that operating lists are fully utilised and patients attend for treatment*

Doctors have been persuaded to take part in booking in a number of ways. In particular, those leading the introduction of booking have appealed to the interest of surgeons by showing that booking can help in ensuring that operating lists are fully utilised and that patients attend for treatment. This has been achieved through changes to pre-operative assessment procedures and the more efficient use of theatres, among other things. Given that most surgeons like nothing better than being able to operate on patients, there are obvious attractions in this strategy, especially when it is possible to overcome the fear of surgeons that they will be required to undertake a mix of work not to their liking.
Having made this point, the evidence from the case studies (chapter 4) is that in some circumstances booking may result in doctors having fewer patients on their lists. This may be because of the need to allow spaces for urgent patients to be slotted in in specialties where ‘hot’ work is significant, and these spaces not being taken up; or it may be because the convenience of booking results in patients changing their appointments or not attending for treatment, and the hospital finding it difficult to use the slot vacated because all patients have been booked. Whatever the reason, when booking results in surgeons and other staff having time on their hands, it may become more difficult to convince doctors who may not see booking as the highest priority to adopt a new way of working. This difficulty is compounded when doctors have to cancel booked appointments and communicate this to patients.

*A range of incentives is available to encourage doctors to book patients*

Another means of persuasion has been the use of incentives to involve doctors in booking. In our second interim report, we listed the incentives used most frequently in the first wave pilots, and these are displayed in the Box 24. Coupled with the persuasive power of respected peers, most notably the senior clinicians who acted as product champions in a number of pilots, then these incentives have often been sufficient to encourage clinicians to give booked admissions the benefit of the doubt. In this way, the pilots drew on the natural attractors (Plsek and Wilson, 2001) in the system to make progress. This applied to GPs as much as consultants, as when they were given the opportunity to book patients directly onto surgeons’ lists or outpatient clinics. And to echo an earlier point, incentives helped booking to become established among the enthusiasts in the early stages of implementation. Extrinsic motivators may therefore be a valuable supplement to the intrinsic desire of doctors to offer a high quality service.
Box 24: Incentives used to persuade doctors to become involved in booking

- Equipment for assessing patients
- Laptop computers
- Additional staff
- Extra operating lists for emergency or urgent patients
- Promise of electronic patient records
- Anatomical models
- Participation being linked to merit awards

Medical concerns can be overcome by giving priority to organisation development

Despite the progress that was possible through working with enthusiasts and the use of incentives, our findings demonstrate that a minority of consultants in almost all sites remained reluctant to become involved in booking. The size of this minority varied between pilots as did the reasons for their non-participation (see chapter 5). In this context, one of the surprises from the fieldwork is that more effort was not put in to changing the culture in which, to use often cited examples, the unwillingness of some consultants to plan leave sufficiently far ahead or to pool patients in appropriate cases, held back progress.

Of course, questioning powerful consultants is not easy, and cultural change in any organisation, especially one dominated by highly skilled professionals, is a notoriously lengthy and convoluted activity. Nevertheless, approaches drawn from organisation development and other disciplines can contribute to this process, for example by developing the skills and capabilities of staff to overcome resistance and to achieve commitment to change. The literature on change is replete with examples of the strategies needed to support innovation (see Box 25 and also the reviews by Iles and Sutherland, 2001 and the Audit Commission, 2001a) and yet our research suggests that these were not used systematically in the first wave.
Rather, the emphasis was placed on creating project management arrangements to facilitate booking in the chosen specialties, and the need to bring about organisation wide changes in behaviour and performance was relatively neglected. In the light of our finding that the most important explanation of variations in progress with booking is to be found within the organisations themselves and their local environment, this was an important omission. Indeed, the omission is surprising given the emphasis in the first wave on avoiding technical solutions and investing in learning and development to support change. In this respect, our findings echo those of Shortell and colleagues (1998) who similarly note the tendency for quality improvement initiatives to fail to achieve lasting organisation-wide impact.

Box 25: Kotter’s eight stage process for achieving change

1. Establishing a sense of urgency
2. Creating the guiding coalition
3. Developing a vision and strategy
4. Communicating the change vision
5. Empowering employees for broad-based action
6. Generating short term wins
7. Consolidating gains and producing more change
8. Anchoring new approaches to culture

Source: Kotter (1996)

*National leadership is important in creating the context for local innovation*

If the commitment and behaviours of clinicians and managers in NHS trusts is the most important contextual variable, then the national leadership provided by government is also relevant. In the case of booked admissions, the Department of Health took the initiative in launching the booked admissions programme and then worked with and through NPAT and the 24 pilots to take the initiative forward. Unlike other policy developments, the Department’s approach was one step removed, leaving an unusual degree of latitude to those involved in the programme to decide how best to make progress. If one of the consequences of this was a much less prescriptive approach than that which was pursued in some other policy areas, another was the unleashing of innovation and creativity of a type that is not commonly found in the field of health policy.
The lead provided by ministers enabled managers and clinicians to demonstrate the experimentation and innovation which can occur within a permissive policy framework. To be sure, not all of the pilots did make demonstrable progress towards their objectives, but the programme as a whole was able to show what was possible where the combination of circumstances was favourable. And unlike in relation to pilot programmes in other areas (for example, total purchasing and personal medical services pilots), the first wave pilots received considerable support in bringing about change.

Another difference from some other pilot programmes is that officials in the Department of Health and the staff of NPAT took a continuing interest in the emerging lessons and were keen to draw on these lessons as booking rolled out across the NHS. The point to emphasise here is that creating the national context and a permissive policy framework did not mean that the centre excused itself from involvement in the development of booking. Rather, the Department of Health provided the stimulus to get the programme off the ground and used NPAT as the catalyst to support the pilots and to co-ordinate their activity. In this sense, the nature of central intervention was different from in many other policy areas where the tendency was for the Department to issue detailed guidance and monitor compliance through the management line. The wider significance of the booked admissions programme was in signalling a shift from a tradition of vertical performance management to an approach that recognised the value of horizontal performance improvement.

9.3 Mechanisms
The experience of the first wave pilots offers a number of lessons about the mechanisms needed to support booking.

*The particular method of booking used is less important in the early stages of booking than allowing flexibility to accommodate different preferences (and avoiding complex technologies)*
In relation to who makes the booking with the patient, the evidence indicates the importance of allowing flexibility and to understand in particular the preferences of consultants, GPs and their staff as booking is initiated and extended. Although centralised booking by booking clerks has emerged as the most common approach for day cases, and consultant booking with the support of medical secretaries is usually favoured for inpatients, the first wave has thrown up a range of practices, none of which appears obviously superior to the rest. The same applies to booking from primary care, although at this stage the benefits of ‘low tech’ approaches appear preferable to those that rely on newer technologies.

*ICT based booking must be well planned and properly resourced to overcome the difficulties encountered in the first wave*

Looking to the future, it seems highly likely that information technology will play a bigger part in booking than has been the case so far, not least because offering booked appointments to all patients in 2005 cannot rely on the variety of manual and electronic systems that characterised the first wave. Nevertheless, the clear lesson from this evaluation is that ICT based booking needs to be well planned, integrated across primary and secondary care (and within secondary care systems) and properly resourced if it is to overcome the obstacles encountered in some of the pilots. This includes investing in staff training, hardware and software; ensuring that the costs of running ICT based booking are allowed for (especially in the case of primary care); and finding ways of introducing this form of booking into the already crowded schedules of the staff making the booking. This may involve staff other than doctors undertaking booking to allow consultants and GPs to concentrate on clinical tasks (especially as doctors gain confidence in the operation of new systems).

*Priority should be given to staff training and development (for all staff) and communications to support booking*

Although doctors are the staff whose support for new ways of working is most important, nurses, booking clerks, medical secretaries and practice managers are also affected by changes of this kind and their involvement is essential in enabling progress to be made. A recurrent theme in the reflections of project managers and
others whom we interviewed was that with the benefit of hindsight they would have put more emphasis on staff training and development in their own organisations and on improving communications between staff to support the implementation of booking. There are echoes here of experience drawn from earlier initiatives like resource management where the failure to recognise the importance of training and development hindered progress (Packwood, Keen and Buxton, 1991).

Similarly, studies of current redesign initiatives, like the Orthopaedic Services Collaborative (Bate, Robert and McLeod, 2001), have noted the gap between acknowledgement of the need to achieve cultural change, and action to meet that need. As we observed earlier, the limited attention paid to organisational development in the first wave helps to explain why more progress was not made with booked admissions in the pilots we studied. This finding reinforces evidence from other research on quality improvements that has pointed to the relationship between a receptive culture and the degree of change achieved and to the risk of change being limited to pockets of improvement (see Shortell et al, 1998, and Ferlie and Shortell, 2001).

Yet while the importance of culture and context is often recognised by those involved in change programmes, the necessary interventions and support are not always put in place. This was certainly the case in the first wave booking pilots which, as we noted earlier, were usually defined as projects affecting part of the trusts concerned rather than organisation wide programmes even when steering groups representing different interests within the organisation were appointed to oversee the implementation of booking. It followed that the more broadly based changes needed to support booking - such as changes to emergency services to enable booked appointments for elective care to be honoured - were not pursued. To be sure, the importance of taking a whole systems perspective and of investing in organisation development was picked up in later waves of booked admissions, but this happened at too late a stage to impact on the trusts in our evaluation during the time we have reviewed.

*Staff need to be given the time and space to get off the treadmill and to redesign services*
Where it has taken place, staff training and development has often focused on providing those involved in booking with the skills needed to map the process of care and to redesign services from the patient’s point of view. These techniques have lain behind the introduction of one-stop clinics for day surgery, the better management of acute beds, and schemes to facilitate the smoother discharge of patients from hospital. The lesson here is the value of enabling staff to get off the treadmill and to explore how access and responsiveness can be improved. This is in line with the approach set out in *The NHS Plan* in which the emphasis is not only on increasing the capacity of the NHS (see below) but also ‘doing things differently’. The evidence from this evaluation is that when staff are freed up to look at how services can be delivered differently they will often come up with innovative solutions.

International experience reinforces the need to move away from a tradition of ‘hamster health care’ (Morrison and Smith, 2000). Service redesign has a part to play at all stages in the process of care from the GP consultation to outpatient appointments and assessment, inpatient treatment and discharge and care in the community. One of the most important lessons of this study is that NHS staff are paying increasing attention to service redesign with the support of NPAT/NHS Modernisation Agency and that patients are beginning to see the benefits. More effort and resources now need to be invested in redesign, especially in NHS organisations themselves given the emphasis we have placed on factors within these organisations as the main variables explaining whether change occurs. Among other things, this includes creating a critical mass of staff in each organisation dedicated to work on redesign, and ensuring that the work being done on different redesign programmes is effectively co-ordinated. This includes establishing redesign teams within NHS trusts and PCTs that are clearly and visibly supported by the leaders of these organisations, and which are able to move beyond project based change to organisation wide quality improvement.

It also means finding effective ways of transferring experience and learning within the NHS. The use of networking meetings to bring together the first wave pilots was a valued feature of the programme, and a similar approach has been used in the collaboratives developed by NPAT. A variant on this approach is for experienced
sites to be paired with less experienced sites in a form of organisational mentoring*, especially as booking moves into the mainstream.

* We are grateful to Steve Shortell for this suggestion.

*Day case booking is most developed and has been facilitated by short waiting times and ring fenced facilities; it offers the most promising way of extending booking*

The evidence that day case booking has made greater progress than either inpatient booking or booking direct from general practice confirms what was known before the setting up of the pilots. The lesson that follows is that increasing the proportion of patients with booked dates will be facilitated through a focus on day cases and by providing dedicated day case facilities in those trusts that do not currently have such facilities. Given that around two thirds of elective surgery is now done on a day case basis, and also the difficulties experienced in booking inpatients, a concerted effort in this area is likely to reap considerable benefits. This includes increasing the proportion of patients waiting for elective surgery who are treated as day cases. As this happens, attention needs to be given to specialties in which day case booking has proved particularly challenging. A clear policy and management focus on day surgery at all levels is now needed to make this happen.

There is a need to use existing capacity more efficiently to extend booking and to increase capacity

Having made this point, it is also clear that the further development of booking is dependent on the better use of existing capacity and the provision of additional capacity in many circumstances. Although this has been known since before the inception of the first wave, the results of this study underline the difficulty the NHS faces in achieving the ambitious targets set out in The NHS Plan without progress in these areas. In the case of efficiency, this includes the more intensive use of staff, theatres and beds. In the case of additional facilities, it means making use of spare capacity in the NHS, the private sector and European hospitals, as well as investing in diagnostic and treatment centres as envisaged in The NHS Plan.
The scope for efficiency improvements has been demonstrated by the Audit Commission in its work on day surgery (Audit Commission, 2001b) which has shown that there is the potential to increase the number of patients treated in existing units in England by up to 120,000 a year. Efficiency improvements can also be made through greater use of available theatre capacity (for example, through three shift and weekend working), and by greater productivity on the part of some consultants. On the latter, the evidence suggests that there are wide variations in the number of operations done by surgeons in the specialties where patients face long waits for surgery (Harley, Jayes and Yates, 1999). The sources of these variations need further analysis leading to the development of action plans for productivity improvements.

*Inpatient booking poses a particular challenge with current capacity constraints and requires a focus on using existing resources differently and the development of partial booking*

Providing extra capacity and making more efficient use of existing facilities is especially important in relation to inpatient booking which has proved a much greater challenge than day case booking. Inpatient booking entails two distinct capacity challenges. First, waiting time is a key factor for booking and therefore the attainment of maximum waiting times of about six months as a precursor to booking needs to be reaffirmed. Second, once inpatients are booked, the ability to honour the dates by delivering the planned care is affected by the potential for unpredicted emergencies and variations in length of stay to consume elective resources.

This was recognised in a study of booked admissions carried out a decade ago which noted the need for ‘protected facilities for elective surgery’ (Frankel et al, 1991, p. 1257) to enable booking to happen. Having made this point, we would emphasise that ring fencing facilities for inpatients is much more difficult than ring fencing facilities for day cases given current capacity constraints in the NHS. Partly because of this, current work in the booked admissions programme is focusing on approaches other than ring fencing. The challenges of inpatient booking have concentrated attention on how resources can be used more efficiently and the lessons from our second interim report on the conditions that facilitate inpatient booking are displayed in the Box 26.
The challenges of inpatient booking have given rise to a focus on increasingly sophisticated management of both capacity and demand as part of the work of NPAT/NHS Modernisation Agency. This includes the active management of acute beds as at Homerton Hospital which has achieved almost 100 per cent inpatient booking even though average bed occupancy is over 90 per cent. The use of clinical site managers at Homerton to ensure that beds are used efficiently (see Chapter 4) reinforces evidence from other studies of the need for new roles, akin to the production manager and process analyst in the manufacturing setting, to overcome bottlenecks and to streamline the patient journey (Mango and Shapiro, 2001). In this sense, the introduction of booked admissions has underscored the importance of key middle management positions that are often invisible but without which new ways of working cannot become embedded. Alongside the development of effective clinical and senior management leadership, these positions hold the key to the more rapid development of booking through the better use of capacity, and a sustained focus on improving the flow of patients through the hospital.

Given that inpatient waiting times are usually longer than six months, many pilots decided to focus on booking day cases rather than take on the challenges of inpatient booking. Where inpatient booking has been tried, partial booking has enabled some progress to be made where waiting times have been longer than six months. More work is needed to explore the implications of using partial booking in these circumstances. There is also a need to understand better why trusts with waiting times

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**Box 26: Conditions which facilitate inpatient bookings**

- A match between capacity and demand for beds
- Integrated planning of elective and emergency demand and capacity
- Average bed occupancy rates at approximately 82%
- Short waiting times (under six months)
- Forward planning of all staff leave and availability
- ‘Pooling’ referrals
- A low degree of sub-specialisation
- A low reliance on high dependency or intensive care unit beds
of six months or under (as in Dorset) found it difficult to make substantial progress with inpatient booking, including the impact of bed occupancy and operating theatre usage. And as with day case booking, specialties in which inpatient booking has been particularly challenging need special attention.

Booking from general practice is least developed and will require rapid rollout to enable the NHS Plan targets to be achieved

Booking direct from general practice is much less developed than day case and inpatient booking. The challenges here include problems with ICT connections, the low volume of referrals involved for most GPs and therefore the difficulty of getting into the habit of using a new system; the mismatch between the time available to GPs for patient consultations and the time needed to make an appointment; and the fear of some consultants about relying on GPs to book patients directly into day case lists or for investigations. Step by step the first wave pilots have found ways of overcoming these challenges yet despite this the number of patients benefiting remains small and the investment made in some of the pilots appears disproportionate in relation to these benefits, as our case studies showed (see chapter 4). Rapid development using more basic methods such as fax or email to send referrals, followed by the patient telephoning to make the booking, is now essential if booking from general practice is to become the norm, alongside the use of reliable ICT links between primary and secondary care of the kind being developed in subsequent waves (Solly, 2001). Even when these links exist, the evidence is that ‘a considerable culture change is needed to persuade practices to become involved’ (ibid. p. 22).

Effective trust leadership and project management is needed to make booking work

Our analysis has shown the central importance of leadership at different levels in making booking work. In trusts, the visible support and commitment of chief executives and senior clinicians is essential, as is the existence of a dedicated project team with access to sufficient funds to pump prime developments and to support staff training and development and communications. One of the most important lessons is the need for continuity of commitment at this level to ensure that the focus on booking is maintained over time. This was not sufficiently recognised in many of the first
wave pilots and the effort put into innovation was not matched with sustained improvement. To link this to our earlier discussion, trust leadership and project management need to be part of an integrated approach to organisation development to enable booking to become embedded in the culture of service delivery.

*The involvement of strategic health authorities and primary care trusts will become more important as booking moves into the mainstream*

As booking extends from trust led initiatives to become part of the NHS mainstream, it is important to involve health authorities and primary care trusts who with few exceptions were not at the heart of the first wave. The experience of Dorset is especially instructive in this context, suggesting as it does that developing booking across a whole health care system is strongly assisted by health authority commitment and leadership. In a different context, the involvement in Bath of the local primary care groups in the latter stages of the first wave pilot enabled GPs to work in partnership with the trust to shape the development of electronic bookings from primary care.

*NPAT/NHS Modernisation Agency has provided valuable support for booking*

The leadership provided by NPAT (now part of the NHS Modernisation Agency) has been a distinctive and overwhelmingly positive aspect of the programme. As we noted earlier, the role of NPAT was distinctive in that it prefigured a greater emphasis on horizontal performance improvement through the sharing of information between NHS organisations, the active dissemination of emerging and best practice, and the provision of expertise in service redesign. The only qualification to be made to this statement concerns the challenge in making the transition from close NPAT involvement when the first wave was getting off the ground to relative independence for the pilots when NPAT transferred responsibility to regional offices and focused on later waves. Together with variable continuity in leadership and management arrangements at trust level, this contributed to the slipping back that occurred between 2000 and 2001. One of the lessons is the need for sustained external support over a longer period with the aim of building local capability for change.
As the work of the NHS Modernisation Agency develops, it will also be important to keep under review the balance between external support and building capacity within NHS organisations to achieve change. During the first wave of booking, when NPAT was small and the number of pilot sites limited, this was not a major issue. The rapid expansion of NPAT and the establishment of the NHS Modernisation Agency puts on to the agenda the question of how best to facilitate re-design, particularly as NPAT recruited an increasing number of staff from the NHS. The finding of this evaluation, that the capacity of NHS organisations themselves to achieve change accounts in large part for the variation in performance that occurred, suggests that there is a need for caution in taking staff with expertise in redesign away from these organisations. Put another way, it will be important to build capacity in the NHS to ensure that each organisation has a critical means of managerial and clinical staff involved in redesign (see below).

9.4 Sustainability

Programmes like booked admissions will only succeed if the same effort is to put into their sustainability as their launch

This last point reinforces our argument that the sustainability of booked admissions is as much of a challenge as its extension. While this chapter has identified a shopping list of lessons for policy and practice, our findings reinforce evidence from other studies that change is most likely to succeed where innovation occurs simultaneously in a number of areas (Pettigrew and Fenton, 2000). In the present context, this entails political commitment at a national level alongside management and clinical leadership at a local level. It also involves external support from NPAT/NHS Modernisation Agency linked to facilitation and change management within the organisations making the change. Equally important is attention to the technical aspects of change alongside work on the implications for staff and their roles. And to underline a core lesson of this study, increasing capacity has to go hand in hand with doing things differently through service redesign. Managing these dualities and engaging in complementary sets of change lies at the heart of the effective implementation of booking systems in the NHS.
The skills required in managing dualities and making complementary sets of changes are considerable. This explains why successful innovation is such an elusive goal. The point to emphasise here is that those leading change need to avoid approaches that focus on only one aspect of the change process or that frame the choices as alternatives rather than complementary. Locock (2001a) has underlined this in her review of the literature (see Box 27) as have Berwick and Nolan (1998) in their emphasis on a systems approach. And as we have emphasised, there needs to be a commitment to change over time based wherever possible on continuity of leadership and project management. Unless the importance of sustainability is recognised from the outset and is designed in, then it will be difficult to ensure that future programmes overcome the challenges encountered in the introduction of booked admissions.

In this context, it is worth noting the view of Ferlie and Shortell (2001) who have argued for a multilevel approach to change based on their analysis of quality improvement efforts in the UK and the US. Specifically, this means pursuing change at the systems, organisational, team and individual levels. It also entails focusing on what they describe as the core properties underlying quality improvement, namely leadership, organisational culture, team development and ICT. It might be added that sustainability requires too a commitment to the measurement of change to support both local and national leadership of the development of booking.

**Box 27: Complementary changes needed to support redesign**

- Ownership by clinical teams linked to strong clinical and managerial leadership
- Incremental bottom up changes linked to a wider top level vision about the whole system
- Internal drivers of redesign linked to external stimuli
- Quick wins linked to time to achieve enduring change
- Project management linked to organisation wide commitment to change
- Training and development linked to the process staying simple

Source: Locock (2001a)
One final point needs to be emphasised. The mechanisms used to develop booking have to accommodate patient preferences as well as staff preferences. As experience so far has shown, initiatives like booked admissions influence the behaviour of people in the health care system in ways that are difficult to predict. Some of the evidence we have gathered indicates that patients may change the way they perceive and use services as booking becomes established and may be more inclined to cancel at short notice or rearrange their appointment. This suggests not only that patients need to be offered the opportunity to book in different ways but also that those providing care need to develop a different relationship with patients. Among other things, this entails arranging bookings to fit with patients’ convenience rather than the hospital’s convenience and making it easy for patients to contact the hospital to book and change dates.

It is also important to reiterate the finding of our patient study that while booking is valued by patients it is only one part of a complex process of care. Not only does this mean that some patients may not recognise the significance of being able to agree a date for their appointment, but also other parts of the process may matter more to them. Specifically, our finding that a majority of patients would prefer to attend hospital when called in at short notice rather than have the certainty of a booked appointment at a later date indicates that the role of booking needs to be put into perspective. To the extent that the drive to roll out booking in line with the targets set out in The NHS Plan results in a reduction in waiting times to facilitate booking, then there need be no conflict between speedy access to diagnosis and treatment on the one hand and the convenience of a booked date on the other. But to the extent that resource constraints require choices to be made, the evidence of this study is that cutting waiting is a higher priority for most patients than offering the choice and certainty of a booked date.

An important point linked to this is the evidence that booking may in some circumstances lead to inefficiencies in the use of operating theatres and other scarce NHS resources. This suggests that achieving 100% booking may only be possible if the NHS is prepared to tolerate a degree of slack in the deployment of these resources.
The implication for policy is that aiming for a high level of booking, albeit less than 100%, may be the best way of meeting patient preferences and achieving efficiency objectives.

9.5 Conclusion

As we noted at the outset of this concluding chapter, the main value of this evaluation is in the lessons it offers for the NHS as a whole as booking moves into the mainstream. We have shown how the experience of the first wave pilots contains important implications for NHS organisations about to embark on booking, and in this sense our report should help to shorten the learning curve for doctors, managers and other staff involved in booking. This report also contains lessons for policy makers responsible for improving access to services.

If we have left the impression that there is no magic bullet solution to the challenge of booking, then we will have faithfully and accurately rendered the main findings from our research. Equally, if the reader takes away the message that the main source of change and service improvement has to come from within each and every NHS organisation, stimulated and supported by political commitment, national leadership and the expertise offered by the NHS Modernisation Agency, then we will have been successful in conveying perhaps the most important single lesson we have taken from this work. Promoting innovation in professional organisations requires skill in managing dualities and making complementary sets of changes and this report will have served its purpose if the absence of short cuts has been underlined. While the learning curve may be curtailed, it cannot be eliminated.

The implication this suggests is that renewed effort now needs to be put into developing the staff and organisations that can embrace cultural change of the kind foreshadowed by The NHS Plan. Fundamentally, no amount of guidance, support, hectoring or cajoling can substitute for the lack of capability and understanding among the staff delivering care to patients of the need to reshape the provision of services. It is this, together with the plans already announced to increase capacity, that will unlock the potential demonstrated by the first wave pilots. At the heart of this process there needs to be involvement and ownership by clinical teams, strong clinical
and managerial leadership, and dedicated project management, alongside an organisation wide commitment to change. The changing health policy context has moved booked admissions from a relatively minor side-show when this evaluation started to the mainstream of NHS development. The lessons outlined in this chapter offer a guide through the maze for the uninitiated.

The final point to emphasise is that the blend of experience and evidence that NPAT brought to booking contributed substantially to the progress that was made, and in the light of the evidence reported here justified the extension of redesign techniques to other areas. Yet our findings on variations in outcomes between the first wave pilots suggests that those techniques in themselves were not sufficient given differences in capacity within the NHS. The development by NPAT of different methods of support and intervention (see chapter 1) demonstrated the learning that occurred in the booked admissions programme and related initiatives. The application of approaches from outside the health care sector in NPAT’s work also suggested that, following the reaction against the re-engineering experience in Leicester, there was a willingness to examine afresh methods drawn from change management programmes in other areas, as in the work on matching capacity and demand.

In this respect, by the end of the period under review, the pendulum had moved to incorporate elements of both NHS and non-NHS approaches to change. The synthesis represented by the redesign work of NPAT/NHS Modernisation Agency, linked to the capacity to undertake leadership and organisation development, held out the prospect of a further distinctive contribution to service improvement. It also underlined the importance of combining bottom-up approaches to quality improvement with methods that address the organisational and systems aspects of change. While bottom-up approaches helped to secure the commitment of doctors and other staff to change, they did not in themselves enable innovations in parts of the system to become established as new routines.

The challenge then became how to build on these innovations and secure organisation wide improvement. This, of course, is exactly what was attempted at the LRI in the first phase of re-engineering, and it was abandoned because of the difficulty of engaging with all staff through an ambitious, top-down, systems wide change
programme. The unanswered question of this evaluation is whether, in the light of the experience of the first wave booked admissions programme, it is possible to achieve a synthesis of the kind described by Locock (see Box 27). Put another way, the challenge for the NHS Modernisation Agency is to demonstrate that it can support the NHS not only to bring about pockets of improvement (the main achievement to date) but also organisation wide and ultimately systems wide change.

As a last word, it is worth noting that the evaluation reported here, together with sister projects on the orthopaedic services collaborative, and the cancer services collaborative, have begun to establish a firmer evidence base on the impact of redesign methods. This is in contrast to similar initiatives in the US, such as those undertaken by IHI, which have not been evaluated in the same way. The emerging conclusion from this and other UK studies (Bate et al 2001; Robert et al 2002) is that redesign methods and collaboratives have made a difference in the right circumstances. The extent of their impact and the sustainability of change is, however, crucially dependent on capacity, culture and leadership. In view of this, the more ambitious claims made for redesign should be interpreted with caution. Like previous fads and fashions in health care, there is a risk that redesign will be viewed as a panacea when all of the evidence suggests that it has a contribution to make as part of a more broadly based programme of performance improvement.
Glossary

CHC  Community Health Council – statutory organisation which acts as the patient’s watchdog

CIBA  Continuous Improvement of Booked Admissions

DNA  Did Not Attend – when a patient fails to attend a hospital appointment

DSU  Day Surgery Unit

GP  General Practitioner - family doctor who works in the community

GP direct access  GPs being able to refer patients for services without an outpatient appointment

Health Authority  The organisation with responsibility for providing a strategic direction for local decision making, commissioning and funding NHS services and taking responsibility for public health issues

HES  Hospital episode statistics

HISS  Hospital Information Support System - generic name for integrated systems used in hospitals

ISDN  Integrated Services Digital Network

ICT  Information and Communications Technology

PAS  Patient Administration System – an administrative computer system for planning and tracking the patient’s journey through the system

PCG  Primary Care Group - sub-committees of health authorities, governed by GPs, community nurses, social services and lay people, with responsibilities for commissioning NHS services and developing primary care

PCT  Primary Care Trust – primary care organisation responsibilities for commissioning NHS services and developing primary care

NBAP  National Booked Admissions Programme

NPAT  National Patients’ Access Team - established by the NHS Executive in 1998 to support trusts and health authorities achieve agreed waiting list reductions and to identify and disseminate good practice

Redesign / reengineering  A process which looks in detail at all the key stages and processes in patient care with the aim of achieving dramatic improvements in effectiveness, quality and performance through radical redesign

Regional Office  Part of the NHS Executive with strategic and performance management responsibilities for the health authorities and trusts in the region

ROBAL  Regional Office Booked Admissions Lead

Trust  NHS organisations which provide health services (including acute, mental health and community health services)

TCI  To come in
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Appendix 1: Quantitative analysis

i) Introduction
As noted in the Introduction, NPAT identified 10 outcome measures on which the pilots were required to report their progress on a quarterly basis. Six measures relate to activity (see Box 7), and summaries of our analysis of these measures along with changes in admissions are presented in chapters 2 and 3. This appendix provides information about the methodology used in the analysis and appendix 2 shows the pilot-level summary analysis.

ii) Methodology

Data collection
The data reported to NPAT by the pilots varied considerably in terms of format and coverage. In order to allow the comparative analysis presented here, the pilots supplied activity data for the evaluation in a standardised format using questionnaires. The questionnaire used to collect data for the first quarter to 1999 and the first quarter of 2000 is shown in appendix 2 of Kipping et al (2000). The questionnaire used to collect data for the first quarter to 2001 followed the same format, but requested additional data on cancellations during the first quarters of 2000 and 2001. The categories used to classify the cancellation data are shown in Box 28.

Box 28: Cancellation data: categories used to classify the requested data

<table>
<thead>
<tr>
<th>Cancellation type</th>
<th>category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital initiated</td>
<td>pre-existing medical condition</td>
</tr>
<tr>
<td></td>
<td>theatre related issues</td>
</tr>
<tr>
<td></td>
<td>lack of beds</td>
</tr>
<tr>
<td></td>
<td>admission date brought forward</td>
</tr>
<tr>
<td></td>
<td>all other reasons (eg lack of ward staff)</td>
</tr>
<tr>
<td>Patient initiated</td>
<td>illness (excluding pre-existing medical condition)</td>
</tr>
<tr>
<td></td>
<td>all other reasons (eg social)</td>
</tr>
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</table>
Change during the life of the booked admissions programme is quantified by comparing activity during the final quarter of the pilot phase, January to March 2000, with activity in the same period in 1999 and 2001. The questionnaires incorporated the data definitions used for the relevant central returns (KH07, KH07A and KH06) for two reasons. First, in order to standardise the data reported by the pilots, and second, to allow a wider comparison with data on elective day case and inpatient activity reported in the central returns by the pilots and other trusts in England. This approach was intended to minimise the burden of data collection by the pilots and maximise the potential to utilise routine data sources.

All 24 pilots supplied activity data for use in the evaluation. A few of the participating trusts were unable to provide all the data requested. The main difficulty related to the retrospective collection of baseline data for the procedure-specific initiatives. Figures 47 and 48 detail the day case and inpatient activity included in the programme at pilot and site level, and what has been excluded from the analysis. Figure 4 differs from these figures because it shows planned activity across day cases, inpatients and outpatients.

A postal questionnaire to the pilots included in the comparative analysis was used to elicit commentary on their experience from the project managers (or their successors). For each outcome measure, the managers were asked to comment on the key factors influencing their pilot’s experience in the first quarter of 2001, and the change in the value of the outcome measure between the first quarters of 2000 and 2001. The same questions were asked separately for day cases and inpatients depending on the scope of the pilot. Each questionnaire included a day case and/or inpatient Trust-level summary (as shown in appendix 2 or chapter 4).

Eighteen managers from 15 of the 21 pilots included in the survey completed the questionnaire. Two other pilots provided some information by telephone, one reported that no one then working at the Trust had sufficient knowledge to respond to the questionnaire, and three pilots made no response. The results of the survey are summarised in chapters 2 and 3.
Figure 47: Day case activity included in NBAP by March 2000

<table>
<thead>
<tr>
<th>Pilot</th>
<th>Trust or hospital name</th>
<th>Gynaecology</th>
<th>General surgery</th>
<th>Orthopaedics</th>
<th>ENT</th>
<th>Urology</th>
<th>Ophthalmology</th>
<th>Oral surgery</th>
<th>Other</th>
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<td>● †</td>
<td>● †</td>
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<td>8† 12†14† 15†</td>
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<td></td>
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<tr>
<td></td>
<td>Total number of pilots (sites)</td>
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</tr>
</tbody>
</table>

Legend:
- c cancellation data not included in analysis
- d DNA data not included in analysis
- a admission data not included in analysis
- r baseline data from central return
- † excluded from comparative analysis due to data issues
- 1 Plastic surgery
- 2 Paediatrics
- 3 Dentistry
- 4 Gastroenterology
- 5 General medicine
- 6 Pain management or anaesthetics
- 7 Dermatology
- 8 Endoscopy
- 9 Thoracic surgery
- 10 Hernia repair
- 11 Oral lesions
- 12 Lung cancer investigations
- 13 Rheumatology
- 14 Breast cancer investigations
- 15 Colorectal cancer investigations
- 16 Podiatry

Total number of pilots (sites): 19 (28) 14 (21) 14 (19) 13 (18) 14 (18) 11 (14) 8 (11) 15 (23)
### Figure 48: Inpatient activity included in NBAP by March 2000

<table>
<thead>
<tr>
<th>Pilot</th>
<th>Trust or hospital name</th>
<th>Gynaecology</th>
<th>General Surgery</th>
<th>Orthopaedics</th>
<th>Urology</th>
<th>Ophthalmology</th>
<th>ENT</th>
<th>Other</th>
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</tr>
<tr>
<td>2</td>
<td>Chelsea and Westminster</td>
<td>c d a</td>
<td>c d a</td>
<td>c d a</td>
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<td></td>
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<tr>
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<td>West Middlesex</td>
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</tr>
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<td>Tameside and Glossop</td>
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<tr>
<td>14</td>
<td>Heatherwood and Wexham Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Queen Mary’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>16</td>
<td>Margate</td>
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<td></td>
</tr>
<tr>
<td>17</td>
<td>William Harvey</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>18</td>
<td>Kent and Canterbury</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Royal Bournemouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Poole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Dorset HealthCare (Sun)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Dorset HealthCare (Wim)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>23</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Royal Devon and Exeter</td>
<td>d</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Royal United Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Leicester General Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Northern General Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Rotherham General Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Birmingham Heartlands</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>City Hospital, Birmingham</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Royal Shrewsbury</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Princess Royal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total number of pilots (sites) | 10 (13) | 9 (12) | 9 (10) | 6 (7) | 6 (6) | 3 (4) | 8 (8) |

- c cancellation data not included in analysis
- d DNA data not included in analysis
- a admission data not included in analysis
- † excluded from comparative analysis due to data issues
- † not officially part of the NBAP
- 8 Endoscopy
- 9 Thoracic surgery
- 10 Hernia repair
- 11 Oral or oral maxillo facial surgery
- 15 Colorectal
- 16 Cardiology
- 2 Paediatrics
- 3 Dentistry
Statistical significance tests

The statistical significance tests used in the analysis of outcome measures chapters 2, 3, 4 and appendix 2 are as follows:

I) Change in proportions (Outcome measures: % of patients with a date, % of patients waiting 6 months, % of DNAs, % of hospital and patient initiated cancellations)

The standard probabilistic approach was used assuming the conditions of Normal approximation are met, $p_1$ and $p_2$ are independent and the samples are large. Let $p_1$ be the proportion of, for example, DNAs for the pilots in period 1, $p_2$ be the proportion of DNAs for the pilots in period 2, $N_1$ be the number of admissions for the pilots in period 1, $N_2$ be the number of admissions for the pilots in period 2. In this case 95% confidence intervals can be calculated as follows:

$$(p_1 - p_2) \pm 1.96 \sqrt{\frac{p_1(1-p_1)}{N_1} + \frac{p_2(1-p_2)}{N_2}}$$

For simplicity in the tables (numbers 1 and 3 and those in appendix 3), significance ($p<0.05$) is noted with a *.

II) Change in the number of admissions

Let the number of admissions for the pilots be $p_1$ in period 1 and $p_2$ in period 2. Assuming a Poisson distribution, 95% confidence intervals can be calculated as follows:

$$\left(\frac{p_2}{p_1}\right) \pm 1.96 \sqrt{\frac{(p_1 + p_2)p_2}{p_1^3}}$$

III) Change in the number of patients waiting

No test for statistical significance has been applied to the change in the number of patients waiting between periods within the pilots.
In Tables 27 to 32 in this appendix, the statistical significance tests are of the difference in change in outcome measures experienced by the pilots and the non-pilot comparator. These statistical significance tests are as follows:

I) **Difference in change in proportions** (Outcome measures: % of patients with a date, % of patients waiting 6 months, % of DNAs, % of hospital and patient initiated cancellations)

Where comparator data are shown, the statistical test is of the difference in change in proportions experienced by the pilots and the comparator. In addition to the notation used in section a) I) above, for example, let $p_3$ be the proportion of DNAs for the comparator in period 1, $p_4$ be the proportion of DNAs for the comparator in period 2, $N_3$ be the number of admissions for the comparator in period 1, $N_4$ be the number of admissions for the comparator in period 2. Using standard probabilistic arguments, 95% confidence intervals can be calculated as follows:

$$= (p_1 - p_2) - (p_3 - p_4) \pm 1.96 \sqrt{\frac{p_1(1-p_1)}{N_1} + \frac{p_2(1-p_2)}{N_2} + \frac{p_3(1-p_3)}{N_3} + \frac{p_4(1-p_4)}{N_4}}$$

Similarly, for simplicity in the tables significance ($p<0.05$) is noted with a *.

II) **Difference in change in the number of admissions**

Let the number of admissions for the pilots be $p_1$ in period 1 and $p_2$ in period 2, the number of admissions for the comparator be $c_1$ in period 1 and $c_2$ in period 2. Assuming a Poisson distribution, 95% confidence intervals can be calculated as follows:

$$\left(\frac{p_2}{p_1}\right) - \left(\frac{c_2}{c_1}\right) \pm 1.96 \sqrt{\frac{(p_1 + p_2)p_2}{p_1^3} + \frac{(c_1 + c_2)c_2}{c_1^3}}$$

III) **Differences between the number of patients waiting**

The Chi-squared test is used to indicate whether or not the proportions of patients waiting in period 1 and period 2 are the same in the pilots and the comparator. $P<0.05$ indicates a significant difference.
### iii) Summary analysis

Comparisons between pilots and non-pilots – day case summary tables (see Figures 11 to 14 in chapter 2).

**Table 27:** Day case activity for consultants active in the first wave NBAP pilots: in the seven most common specialties, 1999 and 2000

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>48.8</td>
<td>70.9</td>
<td>26.7</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>5.3</td>
<td>2.8</td>
<td>4.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>11.5</td>
<td>11.1</td>
<td>22.4</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>27738</td>
<td>26433</td>
<td>430848</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>32940</td>
<td>34478</td>
<td>415114</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.

**Table 28:** Day case activity for consultants active in the first wave NBAP pilots: in the seven most common specialties, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>70.9</td>
<td>64.8</td>
<td>27.7</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.8</td>
<td>3.6</td>
<td>3.9</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>11.1</td>
<td>12.2</td>
<td>21.5</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>26433</td>
<td>23503</td>
<td>415373</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>34478</td>
<td>30315</td>
<td>409893</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.

**Table 29:** Day case activity for consultants active in the first wave NBAP pilots: in the seven most common specialties, 1999 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>48.8</td>
<td>64.8</td>
<td>26.7</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>5.3</td>
<td>3.6</td>
<td>4.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>11.5</td>
<td>12.2</td>
<td>22.4</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>27738</td>
<td>23503</td>
<td>430848</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>32940</td>
<td>30315</td>
<td>415114</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.
Comparisons between pilots and non-pilots – inpatient summary tables (see Figures 25 to 28 in chapter 3).

### Table 30: Inpatient activity for consultants active in the first wave NBAP pilots: in the five most common specialties, 1999 and 2000

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>44.1</td>
<td>57.9</td>
<td>19.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>3.1</td>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>15.4</td>
<td>17.2</td>
<td>33.7</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>8198</td>
<td>8023</td>
<td>338919</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>6843</td>
<td>6157</td>
<td>214346</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.

### Table 31: Inpatient activity for consultants active in the first wave NBAP pilots: in the five most common specialties, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>57.9</td>
<td>45.7</td>
<td>20.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.2</td>
<td>2.1</td>
<td>2.7</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>17.2</td>
<td>17.8</td>
<td>34.1</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>8023</td>
<td>8129</td>
<td>338244</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>6157</td>
<td>5290</td>
<td>196325</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.

### Table 32: Inpatient activity for consultants active in the first wave NBAP pilots: in the five most common specialties, 1999 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>pilots</th>
<th>non-pilots</th>
<th>change in % between periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>44.1</td>
<td>45.7</td>
<td>19.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>3.1</td>
<td>2.1</td>
<td>2.8</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>15.4</td>
<td>17.8</td>
<td>33.7</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>8198</td>
<td>8129</td>
<td>338919</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>6843</td>
<td>5290</td>
<td>214346</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Percentage change between periods.

Table 33 summarises annual occupied bed rates (%) for acute beds for pilots and non-pilots in each of the three years to 2000/01.
Table 33: Annual occupied bed rates (%) for acute beds\(^1\): pilots and non-pilots

<table>
<thead>
<tr>
<th>pilot</th>
<th>year</th>
<th>change in % between years</th>
<th>98/9 &amp; 99/0</th>
<th>99/0 &amp; 00/1</th>
<th>98/9 &amp; 00/1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1998/99</td>
<td>1999/00</td>
<td>2000/01</td>
<td>98/9 &amp; 99/0</td>
<td>99/0 &amp; 00/1</td>
</tr>
<tr>
<td>1</td>
<td>79.2</td>
<td>79.2</td>
<td>82.9</td>
<td>0.0</td>
<td>3.7</td>
</tr>
<tr>
<td>2</td>
<td>83.4</td>
<td>81.3</td>
<td>80.8</td>
<td>-2.2</td>
<td>-0.5</td>
</tr>
<tr>
<td>3</td>
<td>86.3</td>
<td>90.4</td>
<td>86.8</td>
<td>4.2</td>
<td>-3.7</td>
</tr>
<tr>
<td>4</td>
<td>91.9</td>
<td>95.6</td>
<td>90.1</td>
<td>3.7</td>
<td>-5.6</td>
</tr>
<tr>
<td>5</td>
<td>85.0</td>
<td>84.8</td>
<td>85.3</td>
<td>-0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>6</td>
<td>77.9</td>
<td>77.7</td>
<td>78.6</td>
<td>-0.2</td>
<td>0.9</td>
</tr>
<tr>
<td>7</td>
<td>78.0</td>
<td>77.4</td>
<td>82.7</td>
<td>-0.6</td>
<td>5.4</td>
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<tr>
<td>8</td>
<td>66.9</td>
<td>68.9</td>
<td>69.3</td>
<td>2.0</td>
<td>0.4</td>
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<tr>
<td>9</td>
<td>82.8</td>
<td>80.5</td>
<td>82.4</td>
<td>-2.4</td>
<td>2.0</td>
</tr>
<tr>
<td>10</td>
<td>70.8</td>
<td>73.8</td>
<td>71.3</td>
<td>3.0</td>
<td>-2.5</td>
</tr>
<tr>
<td>11</td>
<td>83.0</td>
<td>85.1</td>
<td>85.9</td>
<td>2.1</td>
<td>0.7</td>
</tr>
<tr>
<td>12</td>
<td>89.7</td>
<td>85.5</td>
<td>92.5</td>
<td>-4.2</td>
<td>7.1</td>
</tr>
<tr>
<td>13</td>
<td>81.8</td>
<td>82.6</td>
<td>86.0</td>
<td>0.8</td>
<td>3.4</td>
</tr>
<tr>
<td>14</td>
<td>75.4</td>
<td>73.8</td>
<td>79.2</td>
<td>-1.6</td>
<td>5.4</td>
</tr>
<tr>
<td>15</td>
<td>89.2</td>
<td>86.6</td>
<td>88.8</td>
<td>-2.6</td>
<td>2.2</td>
</tr>
<tr>
<td>16</td>
<td>76.9</td>
<td>78.2</td>
<td>79.1</td>
<td>1.2</td>
<td>0.9</td>
</tr>
<tr>
<td>17</td>
<td>80.1</td>
<td>79.3</td>
<td>82.9</td>
<td>-0.8</td>
<td>3.7</td>
</tr>
<tr>
<td>18</td>
<td>84.2</td>
<td>89.3</td>
<td>93.4</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>19</td>
<td>73.3</td>
<td>77.7</td>
<td>84.2</td>
<td>4.4</td>
<td>6.5</td>
</tr>
<tr>
<td>20</td>
<td>80.6</td>
<td>81.3</td>
<td>84.0</td>
<td>0.7</td>
<td>2.7</td>
</tr>
<tr>
<td>21</td>
<td>67.0</td>
<td>73.9</td>
<td>76.0</td>
<td>6.9</td>
<td>2.1</td>
</tr>
<tr>
<td>22</td>
<td>90.8</td>
<td>90.8</td>
<td>91.1</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>23</td>
<td>92.7</td>
<td>93.8</td>
<td>88.7</td>
<td>1.1</td>
<td>-5.1</td>
</tr>
<tr>
<td>24</td>
<td>84.8</td>
<td>83.8</td>
<td>81.6</td>
<td>-1.0</td>
<td>-2.2</td>
</tr>
<tr>
<td>24 pilots</td>
<td>81.5</td>
<td>82.5</td>
<td>83.9</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>non-pilots</td>
<td>80.7</td>
<td>81.2</td>
<td>83.0</td>
<td>0.5</td>
<td>1.8</td>
</tr>
</tbody>
</table>

\(^1\) Department of Health KH03 data
Appendix 2: Pilot-level analysis of outcome measures

This appendix includes pilot-level analysis of the outcome measures. Summary tables for each pilot are listed in the following order:

<table>
<thead>
<tr>
<th>Number</th>
<th>Name of pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>East Norfolk &amp; Waveney</td>
</tr>
<tr>
<td>2</td>
<td>Chelsea and Westminster Hospital</td>
</tr>
<tr>
<td>3</td>
<td>West / Central Middlesex Hospitals</td>
</tr>
<tr>
<td>4</td>
<td>Homerton Hospital</td>
</tr>
<tr>
<td>5</td>
<td>Central Manchester</td>
</tr>
<tr>
<td>6</td>
<td>Royal Liverpool Childrens</td>
</tr>
<tr>
<td>7</td>
<td>Tameside and Glossop</td>
</tr>
<tr>
<td>8</td>
<td>South Durham Healthcare</td>
</tr>
<tr>
<td>9</td>
<td>Pinderfields and Pontefract</td>
</tr>
<tr>
<td>10</td>
<td>Hartlepool / North Tees</td>
</tr>
<tr>
<td>11</td>
<td>Buckinghamshire Partnership</td>
</tr>
<tr>
<td>12</td>
<td>Heatherwood and Wexham Park</td>
</tr>
<tr>
<td>13</td>
<td>Frimley Park</td>
</tr>
<tr>
<td>14</td>
<td>Queen Mary’s Hospital, Sidcup</td>
</tr>
<tr>
<td>15</td>
<td>East Kent Hospitals</td>
</tr>
<tr>
<td>16</td>
<td>Dorset Health Authority and Trusts</td>
</tr>
<tr>
<td>17</td>
<td>Royal Devon and Exeter Trust and North Devon Health Authority</td>
</tr>
<tr>
<td>18</td>
<td>Royal United Hospital Bath</td>
</tr>
<tr>
<td>19</td>
<td>Leicester General Hospital</td>
</tr>
<tr>
<td>20</td>
<td>Northern General Hospital</td>
</tr>
<tr>
<td>21</td>
<td>Rotherham General Hospital</td>
</tr>
<tr>
<td>22</td>
<td>Birmingham Heartlands</td>
</tr>
<tr>
<td>23</td>
<td>City Hospital, Birmingham</td>
</tr>
<tr>
<td>24</td>
<td>Royal Shrewsbury / Princess Royal</td>
</tr>
</tbody>
</table>

The specialties included in the following summary tables are shown in Figures 47 and 48 in appendix 1.
## 1 East Norfolk and Waveney

Table 34: James Paget Hospital: day case hernia repair in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>n/a</td>
<td>0.0</td>
<td>57.9</td>
<td></td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>0.0</td>
<td>25.0</td>
<td>21.4</td>
<td></td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>0.0</td>
<td>25.0</td>
<td>28.6</td>
<td></td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>n/a</td>
<td>0.0</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>number of patients waiting¹</td>
<td>0</td>
<td>1</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>number of admissions</td>
<td>3</td>
<td>12</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

¹ At end of quarter.

## 2 Chelsea and Westminster Hospital

Table 35: Chelsea and Westminster Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>52.8</td>
<td>72.8</td>
<td>87.6</td>
<td>20.1</td>
<td>14.8</td>
<td>34.9</td>
<td></td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>2.8</td>
<td>4.2</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of hospital cancellations²</td>
<td>n/a</td>
<td>4.9</td>
<td>7.0</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patient cancellations²</td>
<td>n/a</td>
<td>1.4</td>
<td>2.9</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>8.8</td>
<td>17.5</td>
<td>7.9</td>
<td>8.7</td>
<td>-9.6</td>
<td>-0.9</td>
<td></td>
</tr>
<tr>
<td>number of patients waiting¹³⁻⁴</td>
<td>707</td>
<td>942</td>
<td>672</td>
<td>33.2</td>
<td>-28.7</td>
<td>-5.0</td>
<td></td>
</tr>
<tr>
<td>number of admissions²⁻⁴</td>
<td>n/a</td>
<td>863</td>
<td>746</td>
<td>-13.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 February 1999 data were unavailable. 3 No statistical significance test has been applied to this measure here. 4 Percentage change between quarters.

Table 36: Chelsea and Westminster Hospital: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>47.8</td>
<td>67.6</td>
<td>66.9</td>
<td>19.8</td>
<td>-0.7</td>
<td>19.1</td>
<td></td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>4.2</td>
<td>5.3</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of hospital cancellations²</td>
<td>n/a</td>
<td>13.8</td>
<td>2.6</td>
<td>-11.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patient cancellations²</td>
<td>n/a</td>
<td>1.6</td>
<td>15.7</td>
<td>14.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>30.5</td>
<td>20.1</td>
<td>12.5</td>
<td>-10.4</td>
<td>-7.6</td>
<td>-18.1</td>
<td></td>
</tr>
<tr>
<td>number of patients waiting¹³⁻⁴</td>
<td>786</td>
<td>896</td>
<td>874</td>
<td>14.0</td>
<td>-2.5</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>number of admissions²⁻⁴</td>
<td>n/a</td>
<td>911</td>
<td>853</td>
<td>-6.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 February 1999 data were unavailable. 3 No statistical significance test has been applied to this measure here. 4 Percentage change between quarters.
### 3 West/Central Middlesex Hospitals

**Table 37: West/Central Middlesex Hospitals: day case activity in the first wave pilot, 1999, 2000 and 2001**

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>47.3</td>
<td>89.9</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>8.1</td>
<td>3.9</td>
</tr>
<tr>
<td>% of hospital cancellations²</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations²</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>21.7</td>
<td>13.0</td>
</tr>
<tr>
<td>Number of patients waiting¹,²,³</td>
<td>1389</td>
<td>1889</td>
</tr>
<tr>
<td>Number of admissions¹</td>
<td>1423</td>
<td>2726</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 Data provided for our interim report was subsequently withdrawn as erroneous. 3 No statistical significance test has been applied to this measure here. 4 Percentage change between quarters.

**Table 38: West/Central Middlesex Hospitals: inpatient activity in the first wave pilot, 1999, 2000 and 2001**

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>23.7</td>
<td>23.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>9.4</td>
<td>11.1</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>29.0</td>
<td>40.8</td>
</tr>
<tr>
<td>Number of patients waiting¹,²,³</td>
<td>2717</td>
<td>2396</td>
</tr>
<tr>
<td>Number of admissions¹</td>
<td>1502</td>
<td>745</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

### 4 Homerton Hospital
- See Tables 16 and 17 in chapter 4.

### 5 Central Manchester

**Table 39: Central Manchester: day case activity in the first wave pilot, 1999, 2000 and 2001**

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>87.3</td>
<td>79.4</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.4</td>
<td>3.8</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>10.5</td>
<td>11.8</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>9.3</td>
<td>12.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Number of patients waiting¹,²,³</td>
<td>314</td>
<td>136</td>
</tr>
<tr>
<td>Number of admissions¹</td>
<td>964</td>
<td>527</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
Table 40: Central Manchester: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>75.8</td>
<td>79.3</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>8.8</td>
<td>11.1</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>11.1</td>
<td>12.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>99</td>
<td>135</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>226</td>
<td>198</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

6 Royal Liverpool Children’s Hospital

Table 41: Royal Liverpool Children’s Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>23.6</td>
<td>73.2</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>36.5</td>
<td>8.1</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>178</td>
<td>149</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>151</td>
<td>402</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

Table 42: Royal Liverpool Children’s Hospital: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>35.4</td>
<td>46.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>29.2</td>
<td>14.0</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>48</td>
<td>86</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>94</td>
<td>115</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
7 Tameside and Glossop

Table 43: Tameside and Glossop: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>29.1</td>
<td>62.8</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>1.8</td>
<td>6.0</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>12.6</td>
<td>13.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>4.8</td>
<td>3.6</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>714</td>
<td>724</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>1434</td>
<td>906</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

Table 44: Tameside and Glossop: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>20.7</td>
<td>28.4</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.6</td>
<td>9.2</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>11.8</td>
<td>9.2</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>16.5</td>
<td>2.3</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>121</td>
<td>88</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>152</td>
<td>130</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

8 South Durham Healthcare

Table 45: South Durham Healthcare: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>77.6</td>
<td>60.3</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>1.5</td>
<td>8.6</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>134</td>
<td>209</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>394</td>
<td>596</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>84.7</td>
<td>75.2</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.9</td>
<td>4.3</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>85</td>
<td>117</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>276</td>
<td>314</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

### 9 Pinderfields and Pontefract - See Table 19 in chapter 4.

### 10 Hartlepool/North Tees

### Table 47: Hartlepool/North Tees: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>53.3</td>
<td>63.0</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>7.7</td>
<td>5.8</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>1577</td>
<td>1605</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2695</td>
<td>3156</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

### 11 Buckinghamshire Partnership

### Table 48: Stoke Mandeville: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>22.6</td>
<td>94.6</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>3.4</td>
<td>0.9</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>35.0</td>
<td>21.7</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>29.9</td>
<td>18.0</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>38.3</td>
<td>11.7</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>720</td>
<td>460</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>234</td>
<td>322</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
### 12 Heatherwood and Wexham Park

Table 49: Heatherwood and Wexham Park: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>72.0</td>
<td>100.0</td>
<td>96.3</td>
<td>28.0 *</td>
<td>-3.7 *</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>6.5</td>
<td>2.8</td>
<td>4.4</td>
<td>-3.6 *</td>
<td>1.6 *</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>18.9</td>
<td>10.4</td>
<td>4.0</td>
<td>-8.6 *</td>
<td>-6.4 *</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>17.3</td>
<td>12.0</td>
<td>18.0</td>
<td>-5.3 *</td>
<td>6.0 *</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>15.5</td>
<td>8.9</td>
<td>11.3</td>
<td>-6.6 *</td>
<td>2.4 *</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>2211</td>
<td>1080</td>
<td>1064</td>
<td>-51.2</td>
<td>-1.5</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2740</td>
<td>3397</td>
<td>2199</td>
<td>24.0 *</td>
<td>-35.3 *</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.

### 13 Frimley Park

Table 50: Frimley Park: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>28.3</td>
<td>90.2</td>
<td>65.6</td>
<td>61.9 *</td>
<td>-24.6 *</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>4.3</td>
<td>2.5</td>
<td>0.9</td>
<td>-1.8 *</td>
<td>-1.6 *</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>13.5</td>
<td>16.5</td>
<td>10.8</td>
<td>3.0 *</td>
<td>-5.7 *</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>6.6</td>
<td>19.5</td>
<td>2.1</td>
<td>12.9 *</td>
<td>-17.4 *</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>19.3</td>
<td>11.9</td>
<td>14.5</td>
<td>-7.4 *</td>
<td>2.6 *</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>2621</td>
<td>2466</td>
<td>2313</td>
<td>-5.9</td>
<td>-6.2</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2660</td>
<td>3209</td>
<td>3476</td>
<td>20.6 *</td>
<td>8.3 *</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters. Note: After March 2000, the Trust introduced partial booking for day cases in some specialties. Cancellation data excludes illness or medical condition-related cancellations.

### 14 Queen Mary’s Hospital, Sidcup

Table 51: Queen Mary’s Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>81.3</td>
<td>90.9</td>
<td>84.1</td>
<td>9.6 *</td>
<td>-6.9</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>6.9</td>
<td>5.9</td>
<td>0.0</td>
<td>-1.0</td>
<td>-5.9 *</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>18.6</td>
<td>6.7</td>
<td>19.2</td>
<td>-11.9 *</td>
<td>12.5</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>25.5</td>
<td>12.6</td>
<td>38.5</td>
<td>-12.9 *</td>
<td>25.9 *</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>27.6</td>
<td>14.3</td>
<td>24.6</td>
<td>-13.4 *</td>
<td>10.4 *</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>123</td>
<td>154</td>
<td>138</td>
<td>25.2</td>
<td>-10.4</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>102</td>
<td>119</td>
<td>26</td>
<td>16.7</td>
<td>-78.2 *</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
Table 52: Queen Mary’s Hospital: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date¹</td>
<td>87.0</td>
<td>84.2</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.0</td>
<td>2.7</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>9.8</td>
<td>13.5</td>
</tr>
<tr>
<td>% of patients waiting 6 months¹</td>
<td>21.7</td>
<td>5.3</td>
</tr>
<tr>
<td>number of patients waiting¹,²,³</td>
<td>46</td>
<td>19</td>
</tr>
<tr>
<td>number of admissions³</td>
<td>61</td>
<td>37</td>
</tr>
</tbody>
</table>

¹ p<0.05  ¹¹ Excludes endoscopy data.  ² At end of quarter.  ³ No statistical significance test has been applied to this measure here.  ³³ Percentage change between quarters.

15 East Kent Hospitals

Table 53: East Kent Hospitals: day case activity¹ in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date²</td>
<td>37.5</td>
<td>48.6</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>8.3</td>
<td>1.7</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>7.0</td>
<td>19.1</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>17.9</td>
<td>17.4</td>
</tr>
<tr>
<td>% of patients waiting 6 months²</td>
<td>14.9</td>
<td>18.0</td>
</tr>
<tr>
<td>number of patients waiting²,³, ⁴</td>
<td>7383</td>
<td>8125</td>
</tr>
<tr>
<td>number of admissions⁴</td>
<td>7445</td>
<td>6769</td>
</tr>
</tbody>
</table>

¹ p<0.05  ¹² Excludes endoscopy data.  ² At end of quarter.  ³ No statistical significance test has been applied to this measure here.  ⁴ Percentage change between periods.

16 Dorset Health Authority and Trusts

In addition to the following trust-level tables, pilot-level tables (14 and 15) are shown in chapter 4.

Table 54: Royal Bournemouth: day case activity¹ in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date²</td>
<td>89.3</td>
<td>87.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>4.6</td>
<td>1.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>12.5</td>
<td>11.6</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>14.8</td>
<td>7.6</td>
</tr>
<tr>
<td>% of patients waiting 6 months²</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting²,³, ⁴</td>
<td>1931</td>
<td>1627</td>
</tr>
<tr>
<td>number of admissions⁴</td>
<td>3018</td>
<td>3461</td>
</tr>
</tbody>
</table>

¹ p<0.05  ¹² The analysis includes data for dermatology, general surgery, gynaecology, ophthalmology, orthopaedics, rheumatology and urology.  ² At end of quarter.  ³ No statistical significance test has been applied to this measure here.  ⁴ Percentage change between periods.
### Table 55: Royal Bournemouth: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>61.8</td>
<td>65.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>14.3</td>
<td>11.6</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>18.5</td>
<td>8.5</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>1800</td>
<td>1683</td>
</tr>
<tr>
<td>number of admissions</td>
<td>2141</td>
<td>2060</td>
</tr>
</tbody>
</table>

* p<0.05  1 The analysis includes data for general surgery, gynaecology, ophthalmology, orthopaedics and urology.  2 At end of quarter.  3 No statistical significance test has been applied to this measure here.  4 Percentage change between periods.

### Table 56: Poole Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>66.0</td>
<td>89.2</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>9.9</td>
<td>8.3</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>8.8</td>
<td>8.5</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>1191</td>
<td>844</td>
</tr>
<tr>
<td>number of admissions</td>
<td>1390</td>
<td>1483</td>
</tr>
</tbody>
</table>

* p<0.05  1 The analysis includes data for general surgery, gynaecology and orthopaedics.  2 At end of quarter.  3 No statistical significance test has been applied to this measure here.  4 Percentage change between periods.

### Table 57: West Dorset General Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>52.4</td>
<td>83.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.9</td>
<td>2.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>5.1</td>
<td>2.5</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>20.1</td>
<td>20.7</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>616</td>
<td>417</td>
</tr>
<tr>
<td>number of admissions</td>
<td>1037</td>
<td>1190</td>
</tr>
</tbody>
</table>

* p<0.05  1 The analysis includes data for dentistry, ENT, gynaecology, oral surgery and pain management.  2 At end of quarter.  3 No statistical significance test has been applied to this measure here.  4 Percentage change between periods.
### Table 58: Dorset Healthcare: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>83.2</td>
<td>85.9</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.0</td>
<td>0.4</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.0</td>
<td>7.8</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>5.4</td>
<td>5.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>161</td>
<td>156</td>
</tr>
<tr>
<td>number of admissions</td>
<td>205</td>
<td>255</td>
</tr>
</tbody>
</table>

* p<0.05  1 The analysis includes data for general surgery, gynaecology and orthopaedics.  2 At end of quarter.  3 No statistical significance test has been applied to this measure here.  4 Percentage change between periods.

### Table 59: Dorset Healthcare: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>70.0</td>
<td>93.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>0.0</td>
<td>2.1</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.3</td>
<td>0.0</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>2.3</td>
<td>2.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>number of admissions</td>
<td>86</td>
<td>47</td>
</tr>
</tbody>
</table>

* p<0.05  1 The analysis includes data for general surgery and gynaecology.  2 At end of quarter.  3 No statistical significance test has been applied to this measure here.  4 Percentage change between periods.

### 17 Royal Devon and Exeter Trust and North Devon Health Authority

### Table 60: Royal Devon and Exeter: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date</td>
<td>75.1</td>
<td>91.0</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>8.7</td>
<td>6.2</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>30.2</td>
<td>20.6</td>
</tr>
<tr>
<td>% of patients waiting 6 months</td>
<td>15.6</td>
<td>8.8</td>
</tr>
<tr>
<td>number of patients waiting</td>
<td>1551</td>
<td>1545</td>
</tr>
<tr>
<td>number of admissions</td>
<td>826</td>
<td>1052</td>
</tr>
</tbody>
</table>

* p<0.05  1 Excludes medical endoscopy data supplied for 2001.  2 At end of quarter.  3 excludes general surgery.  4 excludes ophthalmology.  5 Percentage change between periods.  6 No statistical significance test has been applied to this measure here.
### Table 61: Royal Devon and Exeter: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>85.2</td>
<td>89.3</td>
<td>53.8</td>
<td>4.1</td>
<td>-35.6 *</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>13.4</td>
<td>7.4</td>
<td>29.5</td>
<td>-6.0 *</td>
<td>22.1 *</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>26.4</td>
<td>26.1</td>
<td>23.5</td>
<td>-0.3</td>
<td>-2.6</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^1)</td>
<td>15.7</td>
<td>10.1</td>
<td>20.5</td>
<td>-5.6</td>
<td>10.4 *</td>
</tr>
<tr>
<td>Number of patients waiting(^2,3)</td>
<td>230</td>
<td>169</td>
<td>132</td>
<td>-26.5</td>
<td>-21.9</td>
</tr>
<tr>
<td>Number of admissions(^3)</td>
<td>284</td>
<td>230</td>
<td>149</td>
<td>-19.0 *</td>
<td>-35.2 *</td>
</tr>
</tbody>
</table>

* p<0.05  \(^1\) At end of quarter.  \(^2\) No statistical significance test has been applied to this measure here.  \(^3\) Percentage change between quarters.

### 18 Royal United Hospital Bath - See Table 18 in chapter 4.

### 19 Leicester General Hospital

### Table 62: Leicester General Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>82.9</td>
<td>91.6</td>
<td>97.0</td>
<td>8.6 *</td>
<td>5.4 *</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>5.1</td>
<td>7.7</td>
<td>6.0</td>
<td>2.6 *</td>
<td>-1.7</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>11.1</td>
<td>18.7</td>
<td>13.4</td>
<td>7.6 *</td>
<td>-5.3 *</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>16.1</td>
<td>20.5</td>
<td>23.2</td>
<td>4.4 *</td>
<td>2.7</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^1)</td>
<td>7.0</td>
<td>3.1</td>
<td>0.2</td>
<td>-3.9 *</td>
<td>-2.9 *</td>
</tr>
<tr>
<td>Number of patients waiting(^2,3)</td>
<td>914</td>
<td>831</td>
<td>428</td>
<td>-9.1</td>
<td>-48.5</td>
</tr>
<tr>
<td>Number of admissions(^3)</td>
<td>1393</td>
<td>1526</td>
<td>1878</td>
<td>9.5 *</td>
<td>23.1 *</td>
</tr>
</tbody>
</table>

* p<0.05  \(^1\) At end of quarter.  \(^2\) No statistical significance test has been applied to this measure here.  \(^3\) Percentage change between quarters.

### 20 Northern General Hospital

### Table 63: Northern General Hospital: day case activity\(^4\) in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
<th>1999 and 2000</th>
<th>2000 and 2001</th>
<th>1999 and 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^2)</td>
<td>39.5</td>
<td>70.0</td>
<td>85.5</td>
<td>30.5 *</td>
<td>15.5 *</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.2</td>
<td>3.0</td>
<td>1.1</td>
<td>0.7</td>
<td>-1.9 *</td>
</tr>
<tr>
<td>% of hospital cancellations(^3)</td>
<td>18.8</td>
<td>18.5</td>
<td>8.8</td>
<td>-4.5 *</td>
<td>-9.6 *</td>
</tr>
<tr>
<td>% of patient cancellations(^3)</td>
<td>13.8</td>
<td>16.7</td>
<td>15.5</td>
<td>2.3</td>
<td>-1.2</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^2)</td>
<td>14.3</td>
<td>6.9</td>
<td>3.5</td>
<td>-7.4 *</td>
<td>-3.4 *</td>
</tr>
<tr>
<td>Number of patients waiting(^2,4,5)</td>
<td>1097</td>
<td>626</td>
<td>550</td>
<td>-42.9</td>
<td>-12.1</td>
</tr>
<tr>
<td>Number of admissions(^3)</td>
<td>981</td>
<td>980</td>
<td>566</td>
<td>-0.1</td>
<td>-42.2 *</td>
</tr>
</tbody>
</table>

* p<0.05  \(^1\) Excludes general medicine data supplied for 98/9 and 99/0 and endoscopy data supplied for 00/1.  \(^2\) The endoscopy data are a subset of the general medicine data.  \(^3\) The comparatively low number of admissions in 00/1 was due to consultant vacancies in general surgery and orthopaedics.  \(^4\) At end of quarter.  \(^5\) 1999 cancellation data for orthopaedics were unavailable.  \(^6\) No statistical significance test has been applied to this measure here.  \(^7\) Percentage change between periods.
### Table 64: Northern General Hospital: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>38.8</td>
<td>56.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>n/a</td>
<td>0.5</td>
</tr>
<tr>
<td>% of hospital cancellations(^2)</td>
<td>n/a</td>
<td>56.5</td>
</tr>
<tr>
<td>% of patient cancellations(^3)</td>
<td>n/a</td>
<td>18.3</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^4)</td>
<td>0.0</td>
<td>4.7</td>
</tr>
<tr>
<td>number of patients waiting(^1,5,4)</td>
<td>103</td>
<td>171</td>
</tr>
<tr>
<td>number of admissions(^4)</td>
<td>122</td>
<td>191</td>
</tr>
</tbody>
</table>

*\(p<0.05\)  
1 At end of quarter.  
2 1999 cancellation data for orthopaedics were unavailable.  
4 No statistical significance test has been applied to this measure here.  
4 Percentage change between periods.

### 21 Rotherham General Hospital

### Table 65: Rotherham General Hospital: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>41.1</td>
<td>63.4</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>9.0</td>
<td>4.6</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>9.0</td>
<td>12.6</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>12.5</td>
<td>12.6</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^1)</td>
<td>6.8</td>
<td>6.6</td>
</tr>
<tr>
<td>number of patients waiting(^1,2,3)</td>
<td>1198</td>
<td>928</td>
</tr>
<tr>
<td>number of admissions(^3)</td>
<td>1866</td>
<td>1732</td>
</tr>
</tbody>
</table>

*\(p<0.05\)  
1 At end of quarter.  
2 No statistical significance test has been applied to this measure here.  
3 Percentage change between quarters.

### 22 Birmingham Heartlands

### Table 66: Birmingham Heartlands: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>45.7</td>
<td>78.1</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>8.1</td>
<td>6.0</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^1)</td>
<td>3.7</td>
<td>8.3</td>
</tr>
<tr>
<td>number of patients waiting(^1,2,3)</td>
<td>3257</td>
<td>3153</td>
</tr>
<tr>
<td>number of admissions(^3)</td>
<td>4408</td>
<td>4523</td>
</tr>
</tbody>
</table>

*\(p<0.05\)  
1 At end of quarter.  
2 No statistical significance test has been applied to this measure here.  
3 Percentage change between periods.
### Table 67: Birmingham Heartlands: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>29.9</td>
<td>44.5</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>3.1</td>
<td>3.9</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>11.5</td>
<td>21.8</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>2897</td>
<td>3073</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2228</td>
<td>1989</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between periods.

### 23 City Hospital, Birmingham

#### Table 68: Birmingham City Hospital: number of patients booked from general practice for outpatient first attendances

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>39</td>
<td>30</td>
<td>12</td>
<td>59</td>
<td>56</td>
</tr>
</tbody>
</table>

### 24 Royal Shrewsbury/Princess Royal

#### Table 69: Princess Royal: day case activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date&lt;sup&gt;1&lt;/sup&gt;</td>
<td>33.1</td>
<td>55.8</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>4.3</td>
<td>4.0</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>2.2</td>
<td>2.5</td>
</tr>
<tr>
<td>% of patients waiting 6 months&lt;sup&gt;1&lt;/sup&gt;</td>
<td>13.5</td>
<td>11.3</td>
</tr>
<tr>
<td>number of patients waiting&lt;sup&gt;1,2,3&lt;/sup&gt;</td>
<td>505</td>
<td>434</td>
</tr>
<tr>
<td>number of admissions&lt;sup&gt;3&lt;/sup&gt;</td>
<td>676</td>
<td>604</td>
</tr>
</tbody>
</table>

* p<0.05  1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
Table 70: Princess Royal: inpatient activity in the first wave pilot, 1999, 2000 and 2001

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Quarter ending March</th>
<th>change in % between quarters ending March</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with a date(^1)</td>
<td>44.6</td>
<td>42.7</td>
</tr>
<tr>
<td>% of DNAs</td>
<td>2.4</td>
<td>1.8</td>
</tr>
<tr>
<td>% of hospital cancellations</td>
<td>2.4</td>
<td>3.3</td>
</tr>
<tr>
<td>% of patient cancellations</td>
<td>3.2</td>
<td>2.1</td>
</tr>
<tr>
<td>% of patients waiting 6 months(^1)</td>
<td>18.7</td>
<td>21.0</td>
</tr>
<tr>
<td>number of patients waiting(^1,2,3)</td>
<td>251</td>
<td>347</td>
</tr>
<tr>
<td>number of admissions(^3)</td>
<td>248</td>
<td>337</td>
</tr>
</tbody>
</table>

\(^*\) \(p<0.05\) 1 At end of quarter. 2 No statistical significance test has been applied to this measure here. 3 Percentage change between quarters.
Appendix 3: Patient questionnaire

The patient survey focused its questions on four specific issues:

- the extent to which discharged day patients were aware they had been given the option of deciding a date for their test or treatment;
- how flexible the booking arrangement was felt to be in dealing with the patient’s wishes;
- how efficient the booked admissions process they experienced had been;
- whether patients would choose a booked admission should they require a similar admission in future over the customary alternatives.

The proposal was given MREC approval in May 2000. HSMC then contacted the trust sites in all of the 24 pilots to obtain written permission from the chief executive and medical director for the study. At the same time formal submissions were made to all relevant local ethical committees (LRECs) for permission to proceed. By a deadline of July 2000, all levels of permission had been acquired from 18 Trusts across the pilots (see below). This was regarded as a suitably representative sample of sites from which to draw the patient sample.

The survey design

The questionnaire contained 17 questions, containing closed response tick-box and free text sections (see below). The ‘target population’ is as representative a sample as resources permit of booked patients in the first wave of the National Booked Admissions Programme. To ensure comparability of experience the survey was restricted to day case patients and excluded booked outpatient and in patient projects which some of the sites were carrying out.

The survey forms were sent to recently-discharged, booked, day case patients. To ensure patient confidentiality and encourage willingness to respond, the participating hospital project managers identified eligible (i.e. booked) patients via their discharge records. HSMC prepared all documentation, received responses and was responsible for analysing the anonymous data. We have had no access to names or addresses of respondents. The sites and HSMC tracked returns by means of a patient/site code. The participating trusts had no access to the individual patient responses.
The questionnaire was re-worded where necessary to account for sites involved in paediatric booking by parents for their children (2 sites). Some respondents with ethnic minority backgrounds may not read English sufficiently well to understand and complete the form. To account for this, every questionnaire contained a statement in Gujarati, Urdu, Punjabi and Bengali explaining the importance of the survey, and that if the reader had difficulties in understanding English, the letter should be passed to someone who could translate. The form was printed in large font on coloured paper to increase readability.

Piloting the questionnaire

The questionnaire was piloted in West Middlesex University Hospital NHS Trust in June 2000 by means of ‘cold mailing’ to 17 booked patients, without reminders. Eight completed forms were returned to HSMC. Analysis led to some minor changes to the wording of the form, which was felt to be easily understood and suitable for the study.

Sample size & timetable

With a provisional target of 50 completed forms per site, it was proposed to send questionnaires to 75 patients from each site (x 18), making a sample size of 1350 patients. The distribution was timed to commence November-December, with a deadline for all reminders and returns by 9 March 2001, by which time 15 trusts in 12 pilots had completed distribution.

Response rate

Three sites failed to commence distribution and were excluded from the study. At the close of the survey, (75 x 15) 1125 questionnaires had been mailed to patients and reminder copies sent where necessary. A total of 580 forms were returned by the closing date, giving a 51.5% overall response rate. There was no opportunity in this study to pursue reasons for non-response, though some may have been due to inability to complete due to illness, death or move from original address. In a minority of cases, reminders were not mailed, and forms not fully coded. The response rate by participating trusts revealed a range from 32% to 69% (see Table 71).
### Table 71: Response rate by participating trust site (Trust N=15)

<table>
<thead>
<tr>
<th>Trust Code</th>
<th>Frequency</th>
<th>Per Cent of Mailing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>24</td>
<td>32.0</td>
</tr>
<tr>
<td>B</td>
<td>50</td>
<td>66.6</td>
</tr>
<tr>
<td>D</td>
<td>38</td>
<td>50.6</td>
</tr>
<tr>
<td>E</td>
<td>36</td>
<td>48.0</td>
</tr>
<tr>
<td>F</td>
<td>38</td>
<td>50.6</td>
</tr>
<tr>
<td>G</td>
<td>42</td>
<td>56.0</td>
</tr>
<tr>
<td>H</td>
<td>43</td>
<td>57.3</td>
</tr>
<tr>
<td>I</td>
<td>33</td>
<td>44.0</td>
</tr>
<tr>
<td>J</td>
<td>31</td>
<td>41.3</td>
</tr>
<tr>
<td>K</td>
<td>35</td>
<td>46.6</td>
</tr>
<tr>
<td>L</td>
<td>43</td>
<td>57.3</td>
</tr>
<tr>
<td>M</td>
<td>51</td>
<td>68.0</td>
</tr>
<tr>
<td>O</td>
<td>34</td>
<td>45.3</td>
</tr>
<tr>
<td>P</td>
<td>52</td>
<td>69.3</td>
</tr>
<tr>
<td>Q</td>
<td>30</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>580</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### Characteristics of the sample

#### Table 72: Sex of respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>220</td>
<td>37.9</td>
</tr>
<tr>
<td>Female</td>
<td>347</td>
<td>59.8</td>
</tr>
<tr>
<td>Not recorded</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>580</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Figure 49: Age distribution of respondents

![Age distribution of respondents graph]

Table 73: Age distribution of respondents

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 18</td>
<td>9.7</td>
</tr>
<tr>
<td>18 – 34</td>
<td>18.1</td>
</tr>
<tr>
<td>35 - 54</td>
<td>34.0</td>
</tr>
<tr>
<td>55 – 74</td>
<td>26.7</td>
</tr>
<tr>
<td>75+</td>
<td>11.5</td>
</tr>
<tr>
<td>N =</td>
<td>100.0</td>
</tr>
</tbody>
</table>

P<0.0001
For reasons of competence in the domestic language, there is significant concern in the health care professions that those skilled in ethnic minority languages are able to take equal advantage both of health care and the services which deliver it. There is also a research issue that linguistically disadvantaged patients are able to respond to surveys. In order to explore the relevance of ethnic variation in this study, the questionnaire contained guidance in four leading minority languages. A question also requested respondents to confirm (according to three categories) the language most spoken at home. Table 74 shows that in this study the prevalence of (potential) minority language speakers is too small to affect its findings.

Table 74: Ethnic variation by language indication

<table>
<thead>
<tr>
<th>Language</th>
<th>Frequency</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>561</td>
<td>96.7</td>
</tr>
<tr>
<td>Other European language</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Asian language</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Total</td>
<td>566</td>
<td>97.6</td>
</tr>
<tr>
<td>Non-responses</td>
<td>14</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>N=</strong></td>
<td><strong>580</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
1. How was your treatment or test date at the hospital arranged?

☐  the hospital wrote or phoned to tell me when to attend  
   PLEASE GO TO QUESTION 10

☐  I was booked to attend on a date I agreed in advance with my hospital  
   (or my GP)

☐  Other (please describe):

2. Did you agree your date to attend hospital:

☐ A) in your GP’s surgery

☐ B) in your hospital

☐ Other ____________________________________________

3. Roughly how far ahead was your agreed date for?

☐ within one month

☐ about 2-3 months ahead

☐ about 4-6 months ahead

☐ more than 6 months ahead (please specify) ……………………

4. Were you at all worried about having to go to hospital?

☐ Yes

☐ No  (Please go to question 6):

5. If yes, which of the following statements do you most agree with. (Please tick ONE only):

Agreeing a date in advance:

☐ made me worry MORE about having to go to the hospital

☐ made me worry LESS about having to go to the hospital

☐ made NO DIFFERENCE to how much I worried

Please add any comments you wish to make:
6. Which of the following statements do you most agree with. *(Please tick ONE only):*

Agreeing a date in advance:

☐ made it EASIER for me to plan for the visit
☐ made it HARDER for me to plan for the visit
☐ made NO DIFFERENCE to in planning for the visit

7. At the time you agreed the date for your hospital visit, was this date:

☐ very convenient for you
☐ quite convenient for you
☐ not particularly convenient for you
☐ not at all convenient for you

*Please add any comments you wish to make:*

---

8. Was the date you came in, the same one as originally agreed?

☐ Yes  (please go to question 10)
☐ No

9. If no, who changed the date?

☐ I did
☐ The hospital did

*Please describe what happened:*

---

10. If you attended on the original date, had you tried to have this date changed (without success)?

☐ Yes
☐ No

*Please describe what happened:*
11. How do you feel about the length of time you were on the waiting list before your admission to hospital?

☐ I was admitted as soon as I thought necessary
☐ I should have been admitted a BIT sooner
☐ I should have been admitted a LOT sooner

12. Looking back on it now, is there anything you think that could have been done to improve the way your visit to the hospital was arranged?

☐ Yes
☐ No

*If yes, please describe what this is:

13. If you had to attend hospital as a day patient again, which of the following arrangements would you prefer?

(please tick one box only):

☐ to receive a letter or phone call from the hospital telling me when to attend
☐ to be booked to attend on a date I agree in advance with the hospital
☐ No preference

*Please give the main reason for your choice:

14. If you had to attend hospital as a day patient again, which of the following would you prefer?

☐ To attend SOONER on a date allocated at short notice by the hospital
☐ To attend LATER on a date I agreed in advance

15. Please tick your age group:

☐ < 18. ☐ 18-34. ☐ 35-54. ☐ 55-74 ☐ 75+
16. Are you male ☐ or female ☐

17. What language do you speak most often at home?
☐ English
☐ Other European language
☐ Asian language (such as Hindi, Gujerati, Urdu, Bengali, Chinese)

*Please use this space to add anything further you wish to say about your attendance at the hospital:*
Appendix 4: Consultant and GP questionnaires

Methodology

The views of consultants and GPs involved in booked admissions during the first two years of the evaluation were gained through face to face interviews with staff across the 24 pilots. To supplement this approach we surveyed consultants and GPs in the case studies depending on whether consultants or GPs were involved. The five NHS Trusts included in the survey of consultants were Homerton Hospital NHS Trust, Poole Hospital NHS Trust, Royal Bournemouth and Christchurch Hospitals NHS Trust, Royal United Hospital Bath NHS Trust and West Dorset General Hospital NHS Trust. All consultants in the seven specialties most frequently using booking systems were sent a copy of the questionnaire (gynaecology, general surgery, orthopaedics, ENT, urology, ophthalmology and oral surgery). GPs involved with the booking project at the following trusts were sent a copy of the questionnaire: Royal Bournemouth and Christchurch Hospitals NHS Trust, Royal United Hospital Bath NHS Trust and Pinderfields and Pontefract NHS Trust.

To encourage willingness to respond the participating hospital project managers sent the questionnaires with a cover letter from the medical director or chief executive. To ensure confidentiality all questionnaires were returned to HSMC whose staff have been responsible for analysing the anonymous data. HSMC has had no access to the names of respondents. A reminder was sent to the consultants and GPs who did not respond by the sites and HSMC tracking returns using a consultant or GP and site code.

The questionnaire was piloted with a GP and consultant working in Birmingham. Some small changes to the wording of the form were made.

Questionnaires were sent to 133 consultants and 133 GPs in February 2001. The deadline for all reminders and returns was 4 May 2001. The number of questionnaires sent out and returned by site is shown in Table 75 for the consultants’ survey and Table 76 for the GPs’ survey.
<table>
<thead>
<tr>
<th>Site</th>
<th>Number of Questionnaires Mailed Out</th>
<th>Number of Questionnaires Returned (@ 04/05//01)</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal United Bath</td>
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The consultant questionnaire contained eight questions with closed response tick-box and free text sections (see below). The GP questionnaire contained six questions with closed response tick-box and free text sections (see below).
Consultant Survey

For the purposes of this questionnaire a ‘booked admission’ refers to a patient having choice and certainty about their future admission date for surgery, investigation or other form of treatment at hospital. Please place a tick next to your answer.

1. Approximately how long have you been in post as a consultant?
   - 1 year
   - 2-5 years
   - 6+ years

2. To what extent are your patients booked? (you may tick more than one)
   - None of my day case patients are given booked dates
   - Most of my day case patients are given booked dates
   - All of my day case patients are given booked dates
   - None of my inpatients are given booked dates
   - Some of my inpatients are given booked dates
   - All of my inpatients are given booked dates
   - None of my outpatients are given booked dates
   - Some of my outpatients are given booked dates
   - All of my outpatients are given booked dates

3. How are your patients given booked dates?
   - I book patients myself
   - Members of my own team (nurse or secretary) book patients
   - My patients are booked by a central office or booking co-ordinator
   - None of my patients receive booked dates
   - Other (please specify)…………………………………………………

4. If you had a choice, would you book patients differently from the way it has been established in the Trust?
   - Yes
   - No
   - Not applicable

If Yes, please explain briefly what you would do differently from current practice.
5. How would you describe your own commitment to booked admissions as it is operating in your Trust:

- Enthusiastically involved
- Supportive but not enthusiastic
- Sceptical but feel obliged to conform
- Not convinced of its value at all

Please describe what, if any, are your reservations:


6. In your opinion what, if any, are the greatest challenges to the expansion of booked admissions in your Trust?

- Waiting times
- Capacity (nurses, bed or theatres)
- Information technology
- Competing with other priorities
- Other (please specify)……………………………………………………………..

Please describe these challenges in more detail:


7. How far ahead are you prepared to book patients?

- <3 months
- <6 months
- <9 months
- <12 months
- >12 months

8. Please add any comment you may wish to make about booked admissions:


GP Questionnaire

For the purposes of this questionnaire a ‘booked admission’ refers to a patient having choice and certainty soon about the date for a hospital outpatient appointment, hospital investigation or day surgery, at the time when you decide to refer the patient, or soon afterwards. This questionnaire does not refer to bookings which the hospital may make for day case or inpatient admissions.

Please place a tick next to your answer.

1. Are any of your patients given choice about their hospital outpatient, hospital investigation or hospital admission (if booked directly from primary care) dates?
   - Yes
   - No (If no, please go to question 5)
   - Do not know

2. Who agrees the date with the patient? (you may tick more than one)
   - I do (GP)
   - The practice reception / secretarial staff
   - The practice manager
   - The patients contacts the hospital directly

3. How is the referral to the hospital made for patients who are given immediate a choice of dates for admission? (you may tick more than one)?
   - By connecting to an electronic scheduler
   - By connecting via a web site
   - By e-mailing the referral to the hospital
   - By faxing the referral to the hospital
   - By sending a letter to the hospital

4. How is the patient given the choice of dates? (you may tick more than one)
   - The practice telephones the hospital
   - The patient telephones the hospital
   - The hospital telephones the practice
   - The hospital telephones the patient
   - The practice staff have direct access to dates by connecting to an electronic scheduler
5. In relation to expanding booking patients from general practice for hospital appointments and admissions:

   a) please list the factors which will be most important to increase the bookings.

   

   b) please list the factors which will present the greatest challenges to increase the bookings.

   

6. Reflecting on your experience of booking patients from general practice, please list the lessons which might be useful to other practices and hospitals which are yet to start booking patients.


Thank you for your help. Please return this form to the Health Services Management Centre in the stamped addressed envelope.
Appendix 5: Pre-operative assessment guidance

Pre-Operative Assessment of Day Case patient’s, National Guidance for an Interprofessional Approach.

1. All patients should follow a pre-operative assessment process, to ensure that they are fit for anaesthesia; prepared for surgery and aware of the impact the surgery will have on their social situation. This will facilitate discharge. The process should be locally designed to ensure that all patients are appropriately selected, investigated and prepared for general or local anaesthesia.

2. Patients should be pre-operatively assessed shortly prior to surgery, or if seen in outpatients, a mechanism should be in place for detecting change in medical and social circumstances. (Particularly if ‘one stop’ services are in place)

3. Pre-operative assessment procedures should follow locally agreed guidelines an example of which can be seen in the Appendix (1 – 7). This shows sample medical screening questionnaires and pre-operative investigation guidelines to which professionals may refer to in the pre-operative assessment service.

4. The Pre-operative assessment service should have access to a designated consultant anaesthetist. Should this anaesthetist have reservations about an individual patient’s fitness s/he may refer directly to the anaesthetist who will be giving the anaesthetic

5. The assessor should organise appropriate pre-operative tests*. S/he should be able to identify abnormal results and refer these to the nominated anaesthetist*. Chest x-rays and ECGs should be examined by a clinician. Where an ECG machine with a diagnostic report facility is used, the assessor may screen the report and abnormal ECGs referred to the nominated anaesthetist.

6. Professionals in pre-operative assessment should work to agreed standards and competencies thus ensuring a uniform approach, Trust wide. (A national approach to training is being developed please see section on Training – professional competencies in main text)

7. Pre-operative assessment should take place in a unit/area with appropriate resources.

8. Pre-operative Assessment should be continuously audited. Areas of study should include: -
   a. DNA to the pre-operative assessment service
   b. DNA on day of surgery
   c. Unplanned overnight stay
   d. Organisational satisfaction
   Practice should be modified in the light of adverse data. Audit should include patient satisfaction surveys.

9. Local Guidelines should be established to enable the Assessor to refer a patient back to his/her GP, or to other healthcare services, to optimise the patient’s medical condition.

10. The patient’s medical record should be available in order to make pre-operative assessment efficient and complete.

11. A standardised method of recording information relating to the pre-operative assessment should be agreed. Whilst this may be paper-based at present, the future vision should be IT based.

12. Procedures suitable for day surgery should be agreed between the surgeon, anaesthetist and other health care professionals. Benchmarking lists of procedures have been developed by the Audit Commission (“the basket”) and by the British Association of Day Surgery (“the trolley”) (A short cut to better services – day surgery in England and Wales. Audit Commission 1990)

13. Travelling time and distance should be taken into account, when booking for day surgery.

14. Patients assessed as unsuitable for day surgery should be referred to the surgeon or in-patient admission system. The assessor should communicate the outcome of a pre-operative assessment to facilitate full utilisation of Theatre time.
15. Patients who fail to attend for assessment (DNA) should be offered a further appointment. The date for surgery should be deferred and the surgeon and/or GP advised.

16. Medical trainees should spend time with pre-operative assessment professionals as part of their training. A pre-operative assessment service should offer the opportunity of interprofessional training including Doctors, Nurses and Professions allied to Medicine.

17. The service should be organised by a ‘lead assessor’ working closely with a nominated anaesthetist. S/he would take responsibility for, and facilitate, the patient’s journey through Primary and Secondary care.

18. The ‘lead assessor’ should be a central point of reference for any day surgical patient’s journey.

19. Inter-professional collaboration is essential in the compilation of day surgery operating lists.

20. Surgical investigations should be organised before the patient is added to the waiting list.

21. Patient information should be available from the whole inter-professional team. Written information should be provided to reinforce this. Postoperative support mechanisms should be in place.

22. Patients awaiting pre-operative assessment, in a day unit should be separated from those recovering after surgery.